Gothenburg 16th–18th of June 2015

19th Nordic Congress of General Practice
1. Svenska Mässan (main entrance)
2. Gothia Towers
3. Världskultur museet
4. Näckrosdammen
5. Trädgår'n
6. Lilla Bommen
7. Eriksbergshallen (by boat)
8. Svenska Mässan (entrance 8)
19th Nordic Congress of General Practice

Gothenburg
16th–18th of June 2015

Programme and Abstracts

www.nordicgp2015.se

Call for Symposium & Workshop Proposals
Opens: 3 Jun 2014
Deadline: 25 Sep 2014

Call for Abstracts
Opens: 1 Sep 2014
Deadline: 18 Dec 2014

Registration opens 1 December 2014
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Nordic Federation of General Practice, NFGP, is owned by the five Nordic colleges of general practice, and is responsible for the paper Scandinavian Journal of Primary Health Care and for the coordination of the organization of the Nordic Congresses of General Practice.

THE NORDIC CONGRESSES of general practice are arranged every second year by the national colleges of General Practice, one after the other. Each national college arranges a congress every 10th year, presenting the latest news within research, education, quality improvement and state of the art.

THE FIRST NORDIC CONGRESS of General Practice was arranged in Copenhagen in 1979. Two years ago Finland arranged the 18th congress in Tampere. In 2017 Iceland is going to arrange congress no 20 in Reykjavik.

THIS YEAR, THE 16TH-18TH OF JUNE, we are really looking forward to seeing you all in the lovely city of Gothenburg. We promise interesting lectures and discussions with other Nordic colleagues.

I hope to see you in Gothenburg!

Gisle Roksund
Chair NFGP
Dear Colleagues

On behalf of the Swedish College of General Practice and the Organizing Committee we are delighted to welcome you to the 19th Nordic Congress of General Practice. We hope it will be a valuable and memorable congress in the onset of the first summer days, just before midsummer, for the more than 1300 delegates who have registered!

The theme of the congress is “sustainable healthcare through general practice”. We will address contemporary challenges such as increasing health inequalities, demographic changes, and increased multimorbidity. In a time of escalation of competition between highly specialized biomedical versus holistic approaches we see primary care as the foundation of a sustainable healthcare system, constituting the broad base of the system and supplying requirements for achieving health equality.

In primary care, we have an individual meeting with a majority of the population each year, which gives us possibility of creating person-centered care as well as care in cooperation with social services and other parts of the healthcare system. The cornerstones still are accessibility and continuity, but will the development to form a sustainable primary care supporting health for all include continuity? We must continue to sharpen our diagnostic tools, but will general practice instead of promoting the patient’s own health resources dedicate to over-diagnosis and overtreatment? Can the generalist knowledge of general practice and future organization of primary care help us take the lead in the care of increasing multi-morbidity? How do we ally with patients of today and in the future for retention of a fertilizing patient-doctor communication? And how do we best ally with colleagues and academy for best quality improvement and further education structures? All this and much more will be highlighted, discussed and transferred to higher levels of perception during the conference. We hope that all participants will feel that they are both assigned and can give away new knowledge in an intensive interchange with colleagues from all the Nordic as well as many other countries!

So, we hope you will fully enjoy the congress and have a good summertime in Gothenburg!
Congress organization

Members of the organizing committee

Cecilia Björkelund, GP, Professor Department of Primary Health Care, Institute of Medicine, University of Gothenburg, Chair of the scientific committee
Bernd Sengpiel, GP, Capio vårdcentral Hovås/Billdal. Congress president, Chair of the organization committee
Malin Lagerberg, GP, Närhälsan Torpavallen vårdcentral

Andy Maun, GP, PhD, Närhälsan Biskopsgården vårdcentral
Anna Holst, GP, PhD-Student Närhälsan Backa vårdcentral
Fredrik Molin, GP, Din Klinik vårdcentral
Karolina Sandell, GP, Hönö vårdcentral
Karin Asztély, GP, Närhälsan Krokslätt vårdcentral
Niklas Lehtipalo, GP, Nötkärnan Bergsjön vårdcentral och BVC

Maria Larsson, Co-ordinating Research and Development director, PhD, Region Västra Götaland

Congress secretariat

Linnea Bremborg, Tania Börjesson, MCI Scandinavia

Members of the scientific committee

Olov Rolandsson, Umeå University
Anna Nager, Karolinska Institute, Stockholm
Carl Johan Östgren, Linköping University
Sigmund Mölstad, Lund University
Peter Engfeldt, Örebro University
Per Kristiansson, Uppsala University
Ulfr Lindblad, University of Gothenburg
Stefan Bergman, University of Gothenburg
Andy Maun, University of Gothenburg
Cecilia Björkelund, University of Gothenburg
Karin Asztély, University of Gothenburg
Niklas Lehtipalo, R&D Gothenburg

Thank you to our chairs for oral presentation sessions

Mette Brekke, Oslo
Andy Maun, Göteborg
Jesper Bo Nielsen, Odense
Thurid Ósk Axelsdóttir, Kopavogur
Knut Holtedahl, Tromsø
Jesper Lykkegaard, Odense
Elínborg Bærhardsdóttir, Kopavogur
Franz Boch Waldorff, København
Markku Sumanen, Tampere
Bertil Hagström, Göteborg
Esperanza Díaz, Bergen
Hálfdán Pétursson, Trondheim
Bård Natvig, Oslo
Oddur Steinarsen, Reykjavik
Julie Høgsgaard Andersen, København
Elise Kosunen, Tampere
Stefan Hjørliefon, Bergen
Linn Getz, Trondheim
Sabine Ruths, Bergen
Ófeigur Thorgerisson, Reykjavik
Dorte Gilså Hansen, Odense
Tina Due, København
Stefan Bergman, Göteborg

Thank you to our chairs for poster presentation sessions

Elisabeth Sondergaard, København
Kerstin Rödström, Göteborg
Maria Magnil, Göteborg
Jörgen Månsson, Göteborg
Volkert Dirk Siersma, København
Maria Larsson, Göteborg
Eva Arvidsson, Jönköping
Ulfr Lindblad, Göteborg
Ingnmarie Skoglund, Borås
General information

**Badge**
We ask you to please wear your name badge during the congress. The badge will also work as your ticket to lunch and coffee.

**Information desk**
For information and general assistance please visit the registration and service desk in the congress foyer.

**Lunch and coffee breaks**
All meals will be served in the congress foyer and Hall H. Please wear your badge.

**Speakers lounge**
Speakers are kindly requested to bring their presentation on a USB stick to the speakers lounge located in Hall H.

**Tourist information**
For tourist information about Gothenburg, Sweden, please visit the website www.goteborg.com

**Taxi**
We recommend you to use only the following taxi companies:
- Taxi Göteborg: +46 (0) 31 65 00 00
- Taxi Kurir: +46 (0) 31 27 27 27
- Minitaxi: +46 (0) 31 140 140

**Wifi**
There is complimentary wifi in Svenska Mässan, please use the password below to log in:
- Network: NCGP2015
- Password: NCGP2015%

**Congress Secretariat**
MCI Gothenburg
Kastellgatan 1
SE-413 07 Göteborg
Sweden
Tel: +46 31 780 30 30
confirmation@mci-group.com

Information to presenters and chairs

**Technical information for oral presentations**
All lecture halls are equipped with a data LCD projector, PC with Windows 7 and Power Point. Speakers are kindly requested to bring their presentation on a USB stick to the speakers lounge located in exhibition Hall H.

The speakers lounge is open during business hours as below.

- Tuesday 16th 08.00–16.30
- Wednesday 17th 08.00–16.30

**Leave your power point** presentation to the technicians in the speakers lounge, preferably the day before, or in good time prior to your presentation.

**In session rooms** H2, H1, G1, G2, G3, G4, J1 and J2 there will be dedicated technicians assisting. In the R-rooms there will be a rotating technician, your presentation will be easily found on the computer desktop.

**Poster presentations**
We will arrange ten chaired poster walks which will include presentations by the authors of up to twelve posters. The time frame at each poster will be six minutes, distributed as follows:
- presentation by author (3 minutes)
- discussion (3 minutes)

**Posters will be** on display in the Hall H. Your poster must be displayed for the duration of the conference so we kindly ask that it is not removed before 11.00 on Thursday 18th. Any posters remaining after the congress may be disposed off.

**Information to Chairs**
Chairmen of the sessions of oral presentations are required to arrive in the meeting room 15 minutes before the start. They shall make sure that every speaker is available. Chairmen will briefly introduce each speaker. The chairs are responsible for disposing time.
Partners and exhibition

**PARTNERS**
- Capio
- Närhälsan
- Nötkärnan Bergsjön Vårdcentral
- Region Västra Götaland

**SILVER EXHIBITORS**
- Achima Care
- Försvarsmakten
- Informationscentrum för ovanliga diagnoser
- Internetmedicin
- Kursdoktor
- Medibas
- Läkare för miljön
- NGS Group
- RemoteA AB
- SFAM
- Svensk Läkartjänst LILAB
- Svenska Distriktsläkarföreningen
- Vårdcentralerna Bra Liv

**GOLD EXHIBITORS**
- Försäkringskassan
- Hemocue
- Studentlitteratur

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Exhibition

Entrance 8
Congress foyer
Registration
Tuesday June 16

Morning moving
07.00 – 07.30
Morning run 3-4 km
We meet outside the main entrance of the hotel Gothia Towers. Everybody is welcome and there is no preregistration needed. The run will take you through the central parts of the city as it is waking up.

Culture
08.30–09.00 Congress Hall
Västkustens toner – Sounds of the Swedish west coast with Tove Brandt, Åsmund Solberg och Hannah Shermis.
On the sun-drenched cliffs, along the variegated coastal of the archipelago, tones are echoing across the water. The melody of a melancholy guitar is bobbing on the foamy waves in the dawn. The wind whistles in the minor key, and a lone gull bursts out singing among the rocks.

17.00–18.30 at Svenska Mässan.
City Reception
City Reception kindly sponsored by the City of Gothenburg.

Deputy Lord Mayor
Elisabeth Rothenberg and the President of the Region Council Joakim Larsson welcomes you to the City of Gothenburg.

Food and drinks
Food and drinks will be served.

Ticket
Please ensure you bring your ticket received with your name badge to gain access to the reception. Number of places is limited, for booking onsite please visit the registration desk.

Wednesday June 17

Morning moving
07.00 – 07.30
Thai Chi
We meet outside the main entrance of the hotel Gothia Towers. Everybody is welcome, beginners as well as experienced, and there is no preregistration needed. We walk together a few hundred meters to Näckrosdammen (see map in Programme book and at the registration desk) which is only a few hundred meters away. There is no better way to get your mind and body ready for a challenging Congress day.

Culture
08.30–09.00 Congress Hall
Nia Movement
Debbie and Carlos Rosas, founder of NIA (Neuromuscular Integrated Action) movement explains the revolutionary way of moving as follows: “The energies of Nia, the three remarkable arts that define the multi-personality of Nia. You’ll get to know Martial Arts, where you are powerful, strong, precise, and even noisy. You’ll get to know Dance Arts, where you’ll get to twirl, cha-cha-cha, and even let out the dancer within. And, you’ll get to know the

20.00
Trädgår’n
For those interested in continuing the evening together we recommend the night club Trädgår’n, Nya Allen 11. For a joint walk please meet up at the main entrance of the Hotel Gothia Towers at 20.00. Everybody will get a scarlett pimpernel at the end of the city reception to put on your clothing so we can spot each other during the night.
Healing Arts, where you’ll discover how to gain holistic conditioning and endless energy. You’ll learn to use Nia to self-heal small and big aggravating discomforts, weaknesses and misalignments. Most of all, you’ll do it all while dancing, having fun, and NOT EXERCISING, but by MOVING."

10.30-11.00 H-hallen

Tumult
Not much unlike the tram from their hometown Göteborg, TUMULT will tell their musical story in a cozy spirit which lingers in every possible direction. A melting pot of the timbre of an accordion and the sound of klezmer will purse your heart and make it spin into the midst of a starry night.

18.00-02.00

Banquet Dinner
The Banquet will be held at Eriksbergshallen and we will get there by bus and boat.

Bus trip to Lilla Bommen
At 18.00 the official congress bus will leave from Svenska Mässans gata 8. The bus will take you down to the river of Göta Älv and the harbour of Lilla Bommen. Please ensure to be on time!

Boat trip from Lilla Bommen
Boats from Lilla Bommen will take you on a trip by Gothenburg’s original heart – the port with the shipyards and the ocean liners. Boats depart starting from 18.45.

Banquet at Eriksbergshallen
As you get off the boat at the quay of Eriksberg you will enter the former shipyard building where you will experience an unforgettable full night of entertainment, music, dancing, food and drinks. The event will close at 02.00 and from 24.00 shuttle buses will bring you back to Gothia Towers and Svenska Mässan. It is possible to leave earlier using public transportation; either Älvsnabben boats or bus number 16.

Ticket
Please ensure you bring your ticket received with your name badge with you to gain access at the congress bus.

Thursday June 18

Culture
09.30–10.00, Congress Hall

"Zeyno’s world"
by Nisti Stêrk
Zeyno’s world extends from her washhouse into world politics. Zeyno is a Kurd from Turkey. She escaped to Sweden in 1983 and has since then lived in Tensta, a segregated suburb of Stockholm, where she runs a dry-clean and tailor shop. Zeyno is a warm but determined woman who likes to take up space and gladly teach others how to do it.

Zeyno’s views are strong and clear. She has a large, almost infinite, confidence in her own ability. She acts before she thinks.

Nisti Stêrk came to Sweden 1983 from Diyar- bakir, Turkey, where she was born in 1977. She is an actor, script writer, theatre- and filmproducer. She has been travelling worldwide with her own shows. Amongst her plenty awards and tributes we think that the price for The city of Stockholm’s cultural scholarship in 2014 are especially noteworthy.

We are very excited to present Zeyno’s world in an updated english version for all of you! We hope that you will find it as mindblowing, hilariuos, sad and memorable as those of us who have already enjoyed it once.
KEYNOTE LECTURES
Missed opportunities and too much medicine: discovering ‘lagom’ in primary care.

At a time of growing recognition that strong primary care is associated with better and more equitable health outcomes, general practice is facing unprecedented challenges. Demand from patients and policymakers is rising inexorably while simultaneously general practitioners are being blamed for over-investigation and treating people with ‘too much medicine’. Sustainable health care requires evidence-informed judgments about what constitutes the right amount of medicine in primary care.

**SIMON GRIFFIN** is Professor of General Practice at the University of Cambridge, Group Leader in the Medical Research Council Epidemiology Unit (www.mrc-epid.cam.ac.uk) and CEDAR (the UKCRC Public Health Centre of Excellence for Diet and Activity Research, http://www.cedar.iph.cam.ac.uk/), Honorary Professor of General Medical Practice at Aarhus University Denmark, Honorary Consultant at Cambridge University Hospitals NHS Foundation Trust and NHS England and an assistant General Practitioner at Lensfield Medical Practice. He qualified from the London Hospital Medical College in 1986 and trained in Clinical Epidemiology and Public Health at the University of Southampton and the London School of Hygiene and Tropical Medicine prior to his appointment to the University of Cambridge. He leads a research programme which contributes to efforts aimed at preventing the growing burden of diabetes, obesity and related metabolic disorders by translating epidemiological knowledge into preventive action, and evaluating the effectiveness of a range of preventive approaches in randomised trials.

He has been awarded over £36M in extramural research grants and authored over 230 publications. Away from work Simon plays soccer and surfs.

How to care for the whole person in general practice: a million dollar question with a billion pixel answer?

“All across medicine, it is becoming increasingly fashionable to speak about “the whole person.” In fact, two person-movements are on the rise: The first is Person-Centered Healthcare (PCH), the second Personalized Medicine (PM). Both movements are rooted in what I see as an imminent crisis in evidence-based thought and practice (EBM). What is striking and profoundly challenging, however, is that PCH and PM propose fundamentally different ways forward. PCH is a humanistic and value-based movement, whilst PM is based in hi-tech molecular science. How will the resulting tension affect the role of the GP? I believe the EBM-crisis opens “a dangerous opportunity” for general practice. But surfing the waves is not going to be easy. Hold on to your hat, and get ready for a spin!”

**Linn Getz:** Wednesday June 17, 09.00–09.45, Congress Hall
LINN GETZ (b. 1962) is a Norwegian MD with clinical experience from general practice, psychiatry and occupational medicine in Norway and Iceland. Her Phd titled Sustainable and responsible preventive medicine (2006) deals with ethical dilemmas emerging from implementation of advancing medical technology. Linn has taken active part in development of the ideological base for general practice in the Nordic region. In this context she has devoted considerable time and thought to the rapidly increasing body of evidence which links human existential experience to biological function and disease development. She is involved in projects focusing on multimorbidity, the patient as a person, as well as potentials and pitfalls related to the rapidly increasing interest in systems biology as some sort of a new scientific paradigm in medicine. Linn works as a professor at the Department of Public Health and general Practice at the Norwegian University of Science and Technology (NTNU) in Trondheim.

Quaternary Prevention: Doing More Good than Harm

“First, do no harm’ (Primum non nocere) – is a precept in the Hippocratic Oath. However, any medical intervention runs the risk of doing harm. Preventive medicine is no exception. In primary prevention, we have recently witnessed how a large influenza vaccination campaign injured hundreds of children. For what turned out to be a rather harmless pandemic, these children will now suffer from narcolepsy caused by the vaccine. In secondary prevention, we have seen how healthy individuals have been harmed by false-positive screening results, overdiagnosis, and overtreatment. These harms are not only manifested physically, but also psychologically, socially, and economically. In tertiary prevention, we have unfortunately also seen serious cases where patients have been exposed to more harm than good, for example by hormone replacement therapy to menopausal women.

When the healthcare system or we as GPs initiate preventive procedures, we are directly responsible if these procedures in fact do more good than harm. This is where quaternary prevention comes into play. Quaternary prevention is “Action taken to protect individuals (persons/patients) from medical interventions that are likely to cause more harm than good”. Quaternary prevention reminds us that there is evidence that medicine can also do harm, and that we must always consider non-intervention in order to avoid medicalisation of the individual and society. The principles of quaternary prevention should be included in the core curriculum of medical students, general practice trainees, and in the continuing medical education of GPs, in other words, in the culture of general practice. By doing this, we can transform preventive medicine in primary healthcare into an evidence-based sustainable practice of doing more good than harm.”

JOHN BRODERSEN is MD and general practitioner with over ten years of experience in clinical practice. He has a PhD in public health and psychometrics. He is an associate research professor at the University of Copenhagen, Department of Public Health, Research Unit and
Section of General Practice, where he works primarily within the areas of preventive medicine and medicalisation. Dr. Brodersen’s specific field of research is the development and validation of questionnaires to measure psychosocial consequences of false-positive screening results. He has employed qualitative and quantitative methods in order to objectify these subjective constructs. Dr. Brodersen’s expertise also lies within the areas of diagnostic test-performance, overdiagnosis, informed consent, and consequences that may arise when healthy people are clinically examined and tested. Furthermore, he teaches evidence-based medicine in Denmark and internationally. Dr. Brodersen has published widely in peer-reviewed journals.

**Merete Mazzarella:** Thursday June 18, 11.00–11.45, Congress Hall

**General Practice more important than ever**

“Why is General Practice more important than ever? I will be speaking not only as an academic and writer with a long-standing interest in medical humanities but also much more personally as an ageing woman in an ageing society. I will have something to say about communication between doctor and patient and about the difference between authority and authoritarianism, and I will have a lot to say about the importance of trust. I will also be talking about how doctors and patients should be seen as allies in the battle against economic cuts and structural problems.”

**Merete Mazzarella** is professor emerita in Nordic literature at The University of Helsinki and has written twenty-five books, mostly autobiographical essays. She has taught literature and creative writing to medical students and doctors, she has an honorary doctorate in medicine at Uppsala University and is an honorary member of SFAM.

**Margrét Ólafía Tómasdóttir:** Thursday June 18, 08.45–09.30, Congress Hall

**Multimorbidity and more pressing matters - a young GPs view on the future of general practice:**

“I recently qualified as a specialist in general practice in Iceland. The path has been tortuous, but from where I stand now, our discipline’s future looks bright and challenging. As a part-time researcher, I have chosen to work with questions that are truly pressing for medicine as a whole and relevant for me in every-day clinical practice. My topic is multimorbidity. It has been termed one of the biggest medical challenges of the 21st century, and it is a challenge mainly managed by general practitioners. Its management requires a different approach to the patient, the diseases and the consultation and could widen the gap even further between the work of GPs and other specialities. Furthermore the management of multimorbidity challenges conventional medical thinking with its constantly increasing deconstruction of the body and mind, demanding the GPs holistic view as a cornerstone of medical practice.”
How does this affect the future of general practice? – And even more importantly – what effect could the multimorbidity “epidemic” have on the future of medical theory in general? Has the time come for general practice to finally take the lead?”

MARGRÉT ÓLAFÍA TÓMASDÓTTIR (born 1981) graduated as a medical doctor from the University of Iceland in 2007. She finished her speciality training in general practice in Iceland in July 2014. She is a PhD candidate in General Practice. Her research project is a collaboration between the University of Iceland and the General Practice Research Unit, Department of Public Health and General Practice, Norwegian University of Science and Technology (NTNU), Trondheim. Her scientific topic is Multimorbidity with reference to the concept of allostatic load. She was also the chief resident in general practice training in Iceland from 2010–2014.

Primary care and equitable and sustainable health care delivery: the need for health systems transformation.

“In December 2014, the 4 Flemish professors in Family Medicine and Primary Health Care in Belgium decided to write a book: “Together we change: primary health care now more than ever!”. Why do academics want to be involved in the policy-debate on the future design of the health system?”

The main reason is that actually we face a fundamental transition in health care delivery. Our health systems are facing the following challenges: a demographical and epidemiological transition: with an increase of multi-morbidity. An increasing social gradient in health. A changing position of the patient, becoming a well-informed actor in the health system, multiculturality and globalization. In combination with financial austerity due to the economic crisis, the strengthening of the primary health care system becomes mandatory.

Starting from the principles of relevance, equity (access), quality, cost-effectiveness, person- and people centeredness, sustainability and innovation, the organization of the health system at the nano (provider-person interaction), micro (the primary care team), meso (the region) and macro (a country, Europe,...) level needs a fundamental re-thinking.

The outline of the proposal formulated by the 4 Flemish professors will be documented and debated with the audience.

Prof. Jan De Maeseneer, MD, Ph.D.”

JAN DE MAESENEER (b.1952) is a Belgian family physician, working in the Community Health Center “Botermarkt – Ledeberg” in one of the most deprived and multi-cultural neighborhoods in Gent (Belgium). His main research topics are: epidemiology, multi-morbidity, social inequities in health, health service delivery, health policy, medical education, training of family physicians worldwide. In the field of medical education, he was in charge of a fundamental reform
from a traditional discipline-based medical curriculum towards an integrated contextual medical curriculum at Ghent University. He chairs the Medical Education Committee and is the Vice-Dean for Strategic Planning at the Faculty of Medicine and Health Sciences at Ghent University.

As far as health policy is concerned, Jan De Maeseneer is active at different levels of policy development: he chairs the Local Platform for Health and Welfare at the Community of Ledeberg. Moreover, he is the chairman of the City Health Council at the City of Ghent and chairs the Strategic Advisory Board for Welfare, Health and Family, advising the Flemish minister. He serves at different advisory boards at the Federal level in Belgium. He is actually the chairman of the European Forum for Primary Care (www.euprimarycare.org) and chairs the Expert Panel on Effective Ways of Investing in Health, advising the European Commission (http://ec.europa.eu/health/expert_panel/index_en.htm).

Jan De Maeseneer is the Secretary General of The Network: Towards Unity for Health, the oldest network of innovative training institutions in health (www.the-networktufh.org), an NGO in official relationship with WHO. He is a member of the Global Forum on Innovation of Health Professional Education at the Institute of Medicine in Washington. He is actually the director of the International Center for Primary Health Care and Family Medicine – Ghent University, a WHO Collaborating Centre on PHC. He is active in Latin-America and Africa, supporting the development of training programmes for primary health care professionals (www.primafamed.ugent.be)
Acupuncture for infantile colic: A blinding-validated, randomized controlled multicentre trial in general practice

Holgeir Skjeie, Trygve Skonnord, Arne Fetveit & Mette Brekke
Department of General Practice, Institute of Health and Society, University of Oslo, Norway

Abstract
OBJECTIVE. Infantile colic is a painful condition in the first months of infancy. Acupuncture is used in Scandinavia as a treatment for infantile colic. A randomized controlled trial was carried out with the aim of testing the hypothesis that acupuncture treatment has a clinically relevant effect for this condition.

DESIGN. A prospective, blinding-validated, randomized controlled multicentre trial in general practice. Research assistants and parents were blinded.

SETTING. 13 GPs’ offices in Southern Norway.

INTERVENTION. Three days of bilateral needling of the acupuncture point ST36, with no treatment as control.

SUBJECTS. 113 patients were recruited; 23 patients were excluded, and 90 randomized; 79 diaries and 84 interviews were analysed.

MAIN OUTCOME MEASURES. Difference in changes in crying time during the trial period between the intervention and control group.

RESULTS. The blinding validation questions showed a random distribution with p=0.41 and 0.60, indicating true blinding. We found no statistically significant difference in crying time reduction between acupuncture and control group at any of the measured intervals, nor in the main analysis of differences in changes over time (p=0.26). There was a tendency in favour of the acupuncture group, with a non-significant total baseline-corrected mean of 13 minutes (95% CI -24 to +51) difference in crying time between the groups. This was not considered clinically relevant, according to protocol.

CONCLUSION. This trial of acupuncture treatment for infantile colic showed no statistically significant or clinically relevant effect. With the current evidence, the authors suggest that acupuncture for infantile colic should be restricted to clinical trials.

Key Words: Acupuncture, acupuncture point, general practice, infantile colic, Norway, randomized controlled trial.
Main outcome measures. Outcome measures included experiences and attitudes expressed by the included participants towards medical errors and tolerance of uncertainty, their coping strategies, and factors that may influence (positively or negatively) sources of errors.

Results. In total, 165/244 GPs responded (response rate: 68%). Young GPs expressed significantly more often fear of committing a medical error (70.2% vs. 48.1%, p=0.004) and admitted more often than experienced GPs that they had committed a medical error during the past year (83.5% vs. 68.8%, p=0.026). Young GPs were less prone to apologize to a patient for an error (44.7% vs. 65.0%, p=0.009) and found, more often than their more experienced colleagues, on-site consultations and electronic databases useful for avoiding mistakes.

Conclusion. Experienced GPs seem to better tolerate uncertainty and also seem to fear medical errors less than their young colleagues. Young and more experienced GPs use different coping strategies for dealing with medical errors.

Implications. When GPs become more experienced, they seem to get better at coping with medical errors. Means to support these skills should be studied in future research.

Key Words: Coping, Finland, general practice, GPs, medical error, primary care, uncertainty.
Abbreviations used in the scientific programme

WS = workshop
SY = symposium
OP = oral presentation
PP = poster presentation
Scientific programme

TUESDAY 16 JUNE

⏰ 13.30 –15.00

101-SY Room: H2 (language: scandinavian)
Unnecessary treatment and procedures in primary health care in the Nordic countries
Hans Blomberg, Hálfdán Pétursson, Carl Edward Rudebeck, Göran Sjönell

102-WS Room: H1
Mindfull acceptance and commitment in health care – does it matter?
Eivind Meland, Åsa Kadowaki, Michael deVibea

103-SY Room: G1
Depression treatment in the primary care context – pills, psychology, or other panacea?
Cecilia Björkelund, Dominique Hange, Annette Sofie Davidsen, María Ólafsdóttir, Sigrid Salomonsson, Pekka Mäntyselkä, Kaj Sparle Christensen

104-SY Room: G2
Vitamin D deficiency among immigrants in the Nordic countries
Per E. Wändell, Kirsten Knutsen, Inge Tøtens

105-WS Room: G3
Is it better to replace the old cancer screening technology with new and more sensitive technology or are the consequences more overdiagnosis and overtreatment?
John Brodersen, Bruno Heleno

106-SY Room: J1
Assessing the link between health care utilisation in general practice and morbidity patterns in the elderly in the Nordic countries
Anders Halling, Troels Kristensen, Karin Ranstad, Unto Håkkinen, Ismo Linnosman, Heidi Østergaard, Peder Ahnfelt Mollerup and Organisation of general practice

107-SY Room: J2
Stress-related mental health problems. Challenges and solutions
Ingibjörg Jonsdottir, Kiri Abola, Kristina Glise

108-WS Room: R2
The WONCA World Working Party on Quality and Safety in Family Medicine – Developing the Quality Improvement Interactive PDF
Ulrik Kirk, Tina Eriksson, Eva Arvidsson, Janecke Thesen and The WONCA World Working Party on Quality and Safety in Family Medicine
109-SY Room: R5/R6
Pakkeforløb – the Scandinavian way to reduce waiting times for cancer patients and improve cooperation between primary and hospital care
Gunilla Gunnarsson, Helena Brännström, Staffan Ekedahl, Peter Vedsted, Anne Hafstad

110-WS Room: R22/R23
After-hours, telephone triage, primary care, organisation, quality
Linda Huibers, Gunnar Tschudi Bondevik, Morten Bondo Christensen, Charlotte Pedersen

111-WS Room: R31
The role of the GP in cancer care
Helge Madsen, Berit Lassen, Søren Gottlieb, Atle Klovning, Hans Thulesius

Oral presentations, Session 1: Strategies for Diagnosis and Change of Practice: ROOM R24/R25
Chair: Thury Osk Axelsdóttir

121-OP
Cognitive strategies for primary care diagnosis: Inductive foraging
Stefan Bösner, Anna Maria Sikeler, Judith Seidel, Odette Wegwarth, Markus Feufel, Gerd Gigerenzer, Wolfgang Gaissmaier, Norbert Donner-Banzhoff

122-OP
Cognitive strategies for primary care diagnosis: Hypothesis testing and triggered routines
Stefan Bösner, Judith Seidel, Anna Maria Sikeler, Odette Wegwarth, Markus Feufel, Gerd Gigerenzer, Wolfgang Gaissmaier, Norbert Donner-Banzhoff

123-OP
New evidence and change of practice – a successful(?) implementation process
Ole Olsen, Anja Stehr

124-OP
Decision making may be painful when new evidence challenges previous clinical practice: a linguistic study.
Ole Olsen, Gritt Overbeck

125-OP
Linguistic choices and evidence based practice
Gritt Overbeck, Ole Olsen

Oral presentations, Session 1: Organization, Consultation and Health of the Physician: ROOM R4
Chair: Elínborg Bárðardóttir

126-OP
Addressing multiple problems during general practice consultations – A cross-sectional observational study
Mette Brekke, Elisabeth Bjørland
Consultancy support inspires GPs to improve their organization
Jesper Gerdes, Lone Grønbæk

A new European model to enhance GPs workforce throughout Europe:
be positive and competent
Tuomas Koskela, Bernard Le Floch, Hilde Bastiaens, Jean Yves Le Reste, Heidrun Lingner, Slawomir Czechowski, Agieszka Sowińska, Robert Hoffman, Radost Assenova, Patrice Nabbe, Zalika Klemenc-Ketilj, Claire Lietard, Lieve Peremans

Burnout and alcohol consumption in Danish physicians
Anette Fischer Pedersen, Johanne Sørensen, Niels Henrik Bruun, Bo Christensen, Peter Vedsted

Down-prioritizing of COPD when working under time pressure - a qualitative study in primary care in Sweden
Hanna Sandelowsky, Ingvar Krakau, Sonja Modin, Björn Ställberg, Anna Nager

Oral presentations, Session 1: Holistic: CONGRESS HALL
Chair: Esperanza Diaz

Is patients’ loneliness a matter for general practice? A qualitative study
Thorkil Thorsen, Tina Due, Frans Boch Waldorff

Living with double explanations. A qualitative study on Christian faith and mental illness in one of the world’s most secularized countries
Aina Lilja, Annika Forsén, Arja Lehti, Valerie DeMarinis

A case–control study of self-reported health, quality-of-life and general functioning among recent immigrants and age- and sex-matched Swedish-born controls
Monica Löfvander, Jerzy Leppert

Depression in caregivers of terminally ill patients
Mette Kjaergaard Nielsen, Flemming Bro, Mette Aslóoer Neergaard, Anders Bonde Jensen, Mai-Britt Guldin

Parenting under-aged children when having cancer - challenges and needs
Anette Hauskov Graungaard
Oral presentations, Session 1: Quality Improvement and Patient Safety: **ROOM G4**
Chair: Elise Kosunen

**136-OP**
Perceptions of patient safety culture among general practitioners in the Capital Region of Denmark
Pernille Binder, Torben Hellebek, Ynse de Boer, Solvejg Kristensen

**137-OP**
Data collection in general practice is not easy: experiences from a cluster randomised trial
Signe Flottorp, Eivind Aakhus, Ingeborg Granlund, Andrew D. Oxman

**138-OP**
SESAME: Opening doors to improved digital data collection, enabling large randomised controlled trials in general practice. An inductive software development process
Trygve Skonnord, Finn Steen, Arne Fetelev, Mette Brekke, Holgeir Skjeie, Atle Klovning

**139-OP**
“Quality circles – a Quality campaign in Denmark”
Christina Svanholm

**140-OP**
What makes General Practitioners participate in modern quality-improvement projects in Denmark?
Pia Therkildsen, Anders Munck, Henrik Prinds Rasmussen, Eva Rudjord Therkildsen, Jesper Lykkegaard

**171-OP**
Danish general practitioners a-priori attitudes toward a mandatory nationwide accreditation
Frans Boch Waldorff, Dagny Ros Nicolaisdottir, Marius Brostrom Kousgaard, Susanne Reventlow, Jens Søndergaard, Thorkil Thorson, Merethe Kirstine Kousgaard Andersen, Line Bjørnskov Pedersen, Cecilie Lybeck Hutters, Volkert Dirk Siersma, Flemming Bro

Oral presentations, Session 1: Addictive Drug Use and Self-Reported Health: **ROOM R21**
Chair: Stefan Hjörleifsson

**141-OP**
Is self-rated health a stable and predictive factor for allostatic load in early adulthood?
Findings from the Nord Trøndelag Health Study (HUNT)
Tina Løkke Vie, Hans Johan Breidablik

**142-OP**
Longitudinal trends in good self-rated health: effects of age and birth cohort in a 25-year follow-up study in Sweden
Sven-Erik Johanson, Patrik Midlöv, Jan Sundquist, Kristina Sundquist, Susanna Calling
Reducing Prescriptions of Long-Acting Benzodiazepine Drugs in Denmark: A Descriptive Analysis of Nationwide Prescriptions during a 10-Year Period
Sophie Isabel Eriksen

Successful withdrawal from long-term use of benzodiazepine-type hypnotics is possible in primary care outpatient clinic and improves sleep and quality of life in older people with primary insomnia
Ritva Lähteenmäki, J. Puustinen, T. Vahlberg, P.J. Neuvonen, M. Partinen, J. Räihä, S-L. Kivelä

GPs experiences and attitudes with prescribing potentially addictive medication to elderly patients, and the effects of an educational intervention program. (Based on the Rx-PAD-study)
Anne Cathrine Sundseth

Comparison Between the Montgomery Asberg Depression Rating Scale-Self (MADRS -S) and the Beck Depression Inventory II (BDI-II) in Primary Care
Carl Wikberg, Shabnam Nejati and PRI-SMA

A longitudinal study of diabetes mellitus. With special reference to incidence and prevalence, and to determinants of macrovascular complications and mortality
Stefan Jansson

Reporting of results from clinical drug trials in Norwegian general practice
Anja Maria Brænd, Jørund Straand, Atle Klovning

An electronic pregnancy health record – first step in establishment of a Danish birth cohort in general practice
Ruth Ertmann, Anette Graungaard, John Sahl, Jacob Kragstrup, Lars Bjerrum, Anne-Marie Nybo Andersen, Susanne Reventlow, Janus Laust Thomsen, Maja Poulsen, Berit Lassen, Kirsten Lykke

Method to collect patient assessments
Mia Grodt, Janus Laust Thomsen

Svärt och/eller problem att sova. En kvalitativ primärvårdsstudie
Marius Jebereanu

Swedish thesis of the year: ROOM R26

Postersession 1A: H-Hall
Chair: Elisabeth Søndergaard

Scientific programme Tuesday 13.30 – 15.00
156-P
Empowering patients with multimorbidity through patient involvement in general practice consultations. A qualitative study on effects and challenges of patient involvement in general practice
Alexandra Brandt Ryborg Jønsson

157-P
Heart failure in patients with chronic obstructive pulmonary disease in a Swedish population – a register based study
Elżbieta Kaszuba, Lennart Råstam, Håkan Odeberg, Anders Halling

Poster session 1B: H-HALL
Chair: Kerstin Rödström

160-P
Effects of notifications of GPs on delayed follow-up of abnormal or inadequate test results in the Danish Cervical Cancer Screening Program
Bettina Kjær Kristiansen, Peter Vedsted, Flemming Bro, Berit Andersen

161-P
Data capture helps patients with cardiovascular disease recover
Susanne Larsen, Dines Sønderstrup, Jakob Sønderstrup, Jens Toft

162-P
Post-myocardial infarction anxiety or depressive symptoms and risk of new cardiovascular events or death: a population-based longitudinal study
Karen Kjær Larsen, Bo Christensen, Tine Jepsen Nielsen, Mogens Vestergaard

163-P
Construct validity of the Perceived Stress Scale among adult Danes in the Central Denmark Region
Marie Mortensen, Eva Ørnbøl, Mogens Vestergaard, Per Bech, Finn Breinholt Larsen, Mathias Lagaard, Kaj Sparle Christensen

165-P
Implementation and quality monitoring of e-communication across health care sectors
Anne Nicolaisen, Peter Qvist

166-P
Prophylactic treatment with oral anticoagulants in atrial fibrillation. – are recommendations considered? A survey in primary care in west-Sweden
Johanna Nilsson, Paolina Weidinger, Kristina Bengtsson Boström

167-P
Quality of Primary Care Centers in Region Västra Götaland in Sweden
Shabnam Nejati, Nashmil Ariai, Cecilia Björkelund
201-WS Room: H2
Sadness in general practice – strengthening or undermining patient agency
Stefan Hjørleifsson, Annette Sofie Davidsen, Joanne Reeve, Kristina Iden, Gisle Roksund, Elisabeth Swensen

202-WS Room: H1
Doctor patient relationship when patients have diagnosed themselves by gadgets or by consulting the Internet. Doctor authority versus patient empowerment
Nils Kolstrup, Per Hasvold, Johan Gustav Bellika, Carl Edward Rudebeck, Claus Bosen

203-WS Room: G1
The continuity of care for older medical patients – Collaboration between general practice and other primary care services following hospital discharge
Anders Fournaise, Dorte Ejg Jarbøl, Pia Therkildsen, Pia Cecilie Bing-Jonsson, Gunnar Akner, Sonja Modin, Bente Overgaard Larsen

204-SY Room: G2
Primary care patients with medically unexplained symptoms: Health status, sick leave and work disability
Silje Mæland, Aase Aamland, Erik Lønnmark Werner, Marianne Rosendal

205-WS Room: G3
Improving the Delivery of Primary Care through Risk Stratification
K Kinder, Chad Abrams, Troels Kristensen

206-WS Room: J1
How do you understand that you do not yet understand the patient? Training patient-centred consultation skills in the Nordic countries
Jan-Helge Larsen, Tuomas Koskela, Esperanza Diaz, Thomas Mildestvedt, Mia Hemborg Kristianson, Edvin Schei

207-WS Room: R2
Medical practice and its relation to existential and religious dimensions
Eivind Meland, Helen Brandstorp, Lars Englund, Göran Waller

208-WS Room: R24/R25
Quality Improvement is an Imperative in Modern General Practice – What Should We Measure in Heart Diseases?
Klas Winell, Emil Heinäaho, Per Wandell, Bjørn Gjelsvik

209-SY Room: R5/R6
From Research-based Evidence to Best Practice in Primary Health Care
Terje Johannessen, Ingvar Krakau, Anna Nager, Thomas Bo Drivsholm, Signe Flottorp, Hans Chr. Kjeldsen

210-WS Room: R22/R23
Patient Empowerment in Chronic Condition Patient Self-Management
Ulrik Kirk, Tina Eriksson, Ilkka Kunnamo, Janecke Theisen, Eva Arvidsson and EQuiP
Dissecting the Paper of the Year to get the Anatomy of a Successful Manuscript OR How to get published? The Scandinavian Journal of Primary Health Care Workshop
Peter Vedsted, Helena Liina, Jørgen Nexøe, Guri Rørtei, Emil Sigurdsson, Hans Thulesius and Scandinavian Journal of Primary Health Care Editorial Board

National Research School of General Practice - creating a strong network for future primary care research
Cecilia Björkelund, Lars H. Lindholm, Jørund Straand, Raimo Isoaho, Olov Rolandson, Per Wändell, Elin Olaug Rosvold

Oral presentations, Session 2: Organization and Patient Experience: ROOM J2
Chair: Mette Brekke

Are patient experiences in general practice affected by independent organizational factors?
Torunn Bjerve Eide, Hase Melbye, Jørund Straand, Elin Olaug Rosvold

The extent and effect of socioeconomic factors on the distribution of resources in primary care in the region of Västra Götaland, Sweden
Erik Andersson, Karin Starzmann, Sofia Dalemo

The need for focus on productivity in General Practice in order to secure sustainable health care.
Morten Gunnersen

Towards a sequential model of health care utilization
Wolfram Herrmann, Alexander Haarmann, Uwe Flick, Anders Bærheim

Is it a matter of urgency? – A descriptive survey of patients’ and general practitioners’ assessments of how acutely they estimate the need for help at an emergency primary health care clinic in Oslo
Sven Eirik Rand, Bård Natvig, Per Hjortdahl

Oral presentations, Session 2: Pain, IBS and MUS: ROOM R4
Chair: Bård Natvig

Brief intervention for medication-overuse headache in primary care (the bimoh study) – An open long-term follow-up
Espen Saxhaug Kristoffersen, Jørund Straand, Michael Bjørn Russell, Christofer Lundqvist
228-OP
Irritable Bowel Syndrome and Self-reported Food Intolerance in a Population of Giardia-exposed and Matched Controls
Sverre Littleskare, Knut Arne Wensaas, Kurt Hanevik, Geir Egil Eide, Gudrun Elise Kahrs, Guri Rørtveit

229-OP
Treating Lateral Epicondylitis with Corticosteroid Injections or Non-electrotherapeutical Physiotherapy: a systematic review
Morten Olausen, Øystein Holmedal, Søren Brage, Hiroko Solvang, Morten Lindbæk

230-OP
Adolescents with patellofemoral pain do not always seek medical care – results from a population-based cohort
Michael Rathleff, Camilla Rathleff, Jens Olesen, Ewa Roos, Sten Rasmussen, Martin Bach Jensen

231-OP
Adhesive shoulder capsulitis, treatment with corticosteroid, corticosteroid with distension or wait and see; a randomized controlled trial in primary care
Satya Sharma, Anders Bærheim, Alice Kvåle

232-OP
Symptom load and medically unexplained symptoms in the population and in general practice
Hedda Tschudi-Madsen

Oral presentations, Session 2: Screening and Cancer Diagnostics: CONGRESS HALL
Chair: Linn Getz

233-OP
Quality of tuberculosis screening in HIV out patient departments in Ghana: Results of an ongoing audit project using a Nordic quality development tool
Stephanie Bjerrum, Frank Bonsu, Nii Nortey Hanson-Nortey, Isik Somuncu Johansen, Ase Bengård Andersen, Lars Bjerrum, Dorte Jarboel, Anders Munck

234-OP
Impact of diagnostic invasiveness on the psychosocial consequences of false-positive mammography: cohort study
Bruno Heleno, Volkert Siersma, John Brodersen

235-OP
Cancer suspicion starting with abdominal symptoms in general practice
Professor Knut Holtedahl*, Ranjan Parajuli, Tonje Braaten

236-OP
Symptoms, signs and tests: The general practitioner’s comprehensive approach towards a cancer diagnosis. Retrospective cohort study with prospective registration of cancer in general practice
Benedicte Iversen Scheel*, Professor Knut Holtedahl
237-OP
Could it be colorectal cancer? General Practitioners’ use of Faecal Occult Blood Tests and navigation towards decision on referral - a qualitative study
Cecilia Högberg, Mikael Lilja, Eva Samuelson, Eva Fhärm

238-OP
Psychological consequences of screening for cardiovascular risk factors in an un-selected general population: Results from the Inter99 randomised intervention study
Thomas Løkkegaard, John Sahl Andersen, Rikke Kart Jacobsen, Jens Henrik Badsberg, Torben Jørgensen, Charlotta Pisinger

Oral presentations, Session 2: Mental Health and Addiction: ROOM R26
Chair: Sabine Ruths

239-OP
Care of patients with schizophrenia in Norwegian general practice – are the comorbidities recognised? Register-based study from 2009
Sturla Gjesdal, Øystein Hetlevik

241-OP
Which professional competences make collaborative care work? A study of GPs’, psychiatric nurses’ and psychiatrists’ views
Gritt Overbeck, Annette Sofie Davidsen

242-OP
Smoking status and barriers towards contact to general practice with respiratory alarm symptoms in the general population
Lisa Maria Falk Sele, Kirubakaran Balasubramaniam, Sandra Elnegaard, Jens Søndergaard, Dorte Ejl Jarboe

243-OP
ADAS – On antidepressants effect on return to work in depression, anxiety and stress-related mental illness
Ingmarie Skoglund, Dominique Hange, Cecilia Björkelund

244-OP
The 15-method – To have something more to offer when an alcohol problem is suspected
Sven Wåhlin

Oral presentations, Session 2: COPD, Influenza and Airway Infections: ROOM R21
Chair: Ófeigur Thorgeirsson

245-OP
Chronic obstructive lung disease in Norwegian general practice – a register based study
Øystein Hetlevik, Sturla Gjesdal
246-OP
General practitioners’ home visit tendency and readmissionfree survival after COPD hospita-
talisation: a Danish nationwide cohort study
Jesper Lykkegaard, Pia Veldt Larsen, Maja Skov Paulsen, Jens Søndergaard

247-OP
Chronic obstructive pulmonary disease and prescription of anxiolytic drugs in
Danish general practice
Lise Plovgaard, Trine Neumann Hansen, Anders Munck, Anders Halling, Pia Therkildsen, Jesper Lykkegaard

248-OP
The implementation of a disease management programme for COPD assessed by patients
using EQ-5D and MRC – a randomised trial
Margrethe Smidth

250-OP
Influenza vaccination: a summary of Cochrane Reviews
Sven Frederick Østerhus

Postersession 2A: H-HALL
Chair: Maria Magnil

251-P
Chronic anticoagulation treatment: self-care and frequency of INR testing
Jaana Puhakka, Janne Pitkäniemi, Minna Kaila, Irmeli Suvanto

252-P
Out of hours house calls to nursing home residents: do the visiting GPs get sufficient
patient information?
Ingrid Rolfsjord, Jøund Straand

253-P
Predictive Factors of Weight Loss among Young Adults with psychosocial Problems
and Overweight
Kirsten Schierup Freund, Jørgen Lous

254-P
Clinical practice comparison between GPs in Iceland and Norway: A qualitative study
Hedinn Sigurðsson, Kristjan Guðmundsson, Srunn Geistsdottir, Sigríður Halldordsdottir

255-P
Differences in total and high density lipoprotein cholesterol reduction between healthy
overweight people with and without signs of fatty liver
Vija Silina, Mesfin Kassaye Tesma, Peteris Tretjakovs, Gita Krievina, Ilze Jakobsone, Guntis Babs

256-P
GP staffed community hospital beds in Bergen: An observational study
Kristian Anton Simonsen, Sabine Ruths, Terese Folgerø, Birger N. Larum, Heidi Nilsen,
Geir Egil Eide, Guri Rortveit
257-P
Abdominal fat distribution in clinically healthy persons in GP practice
Ilze Skuja, Gita Krievina, Inga Stukena, Aivars Lejnieks

258-P
Secondary screening for osteoporosis in general practice
Andreas Kakulidis Tofi, Marie Bjerg, Janus Laust Thomsen, Peter Vestergaard, Martin Bach Jensen

Poster session 2B: H-HALL
Chair: Jörgen Månsson

259-P
Characteristics and Relationship of Periodontal Disease with Rheumatoid Arthritis
Surena Vahabi

260-P
The value of including spirometry in health checks - a randomized controlled study in primary health care
Lene Maria Ørts, Anders Løkke, Anne-Louise Smidt Hansen, Helle Terkildsen Maindal, Annelli Sandbæk

261-P
Adequate measurement of menopausal symptoms
MD, PhD student Kamma Lund, Professor, MD, GP, PhD Frans Boch Waldorff, Associate research professor, PhD Volkert Siersma, Associate research professor, MD, GP, PhD John Brodersen

262-P
Medication reviews in elderly primary care patients - the medication review process
Cecilia Lenander, Asa Bondesson, Nina Viberg, Patrik Midlöv

263-P
Inter-observer variation in categorizing lung sounds. A comparison between experts, lung specialists and general practitioners
Juan Carlos Aviles Solis, Peder Halvorsen, Hasse Melbye

264-P
University clinic of general practice in Copenhagen – 10 years of experience
Berit Enggaard Kaæe, Jens Aage Stauning, Anette Hauskov Graungaard, John Sahl Andersen, Gry Munk Petersen

265-P
“It wasn’t as hard as I’d thought” – a focus group study about newly qualified doctors’ learning experiences with end-of-life care
Anette Fose, Sabine Ruths, Kirsti Malterud, Margrethe Schaufel

266-P
Feasibility of implementation of care pathways in Finland at Pirkanmaa health centers
Leena Kuusiisto, Mika Palvanen, Elise Kuisunen, Doris Holmberg-Marttila
**WEDNESDAY 17 JUNE**

**11.00 – 12.30**

**301-SY Room: H2**  
**Family matters – children’s and adolescents’ health and wellbeing in a family perspective**  
Kirsten Lykke, Ole Rikard Haavet, Majbrit Brouer, Philip Wilson, Freydis Guðbróardal  
Nordic Research Network for Children and Adolescents in General Practice

**302-WS Room: H1**  
**The price of increased productivity: does psychiatry work as tool for exclusion of the young?**  
Gisle Roksund, Elisabeth Swensen, Harald Sundby, Morten Laudal, Lotte Hvas, Björn Nilsson

**303-WS Room: G1**  
**Developing Resources to Facilitate the Transition from GP Training into Established General Practice. The Similarities, Differences and Methods in Denmark, Norway, and Finland**  
Ulrik Kirk, Eva Schandorf, Elisabeth Mathilde Stura, Katrina Tibballs, Kalle Saikkonen

**304-SY Room: G2**  
**Risk perception and clinical decision making in primary care**  
Benedicte Lind Barfoed, Peder A. Halvorsen, Line F. Jensen, Katja Schroder, Adrian Edwards and  
Facilitators: Jesper Bo Nielsen, Professor, Research Unit for General Practice, University of Southern  
Denmark Ivar Senbo Kristiansen, Professor, Department of Health Management and  
Health Economics, University of Oslo, Norway

**305-SY Room: G3**  
**Finding individuals with diabetes: Benefits and harms**  
Thomas Drivsholm, Simon Griffin, Merja Laine, Hörður Björnsson, Atle Kløvning, Margareta Hellgren

**306-SY Room: J1**  
**Statins for many. How many?**  
Jan Håkansson, Hans Blomberg, Halfdan Petursson, Peter Nilsson and Nordic Risk Group

**307-SY Room: J2**  
**General practice in undergraduate medical education. How do we assess competency?**  
Margareta Troein Töllborn, Charlotte Hedberg, Annelli Sandbæk, Elin Olaug Rosvold,  
Thomas Mildestvedt, Patrik Midløv

**308-SY Room: R2**  
**Pregnancy-related pelvic pain: Causes, consequences and management**  
Per Kristiansson, Elisabeth Bjelland, Tiina Lahtinen-Suopanki

**309-SY Room: R5/R6**  
**So similar, but so different? Results from the Nordic countries in the framework of the Qualicopc project**  
Elise Kosunen, Cecilia Björkelund, Torunn Eide, Peter Vedsted, Oféigur Thorgeirsson

**310-SY Room: R31**  
**Presenting the Danish national guidelines for GP’s in palliative medicine 2014 in a Nordic perspective**  
Anna Weibull, Thomas Gorlén, May-Lill Johansen, Hans Thulesius
Oral presentations, Session 3: Patient Empowerment:
**CONGRESS HALL**

Chair: Andy Maun

323-OP
Solution-focused approach, tools and supervising help to empower patients in general practice
Outi Seppälä

324-OP
Patient Participation Group in General Practice
Maria Von Würden, Sören Olson, Martin Bach Jensen

Oral presentations, Session 3: Nursing home challenges, Definitions of Multimorbidity and Loneliness Among Elderly Patients: **ROOM R24/R25**

Chair: Jesper Lykkegaard

325-OP
Social relations and loneliness among patients aged 65 years and older consulting their general practitioner
Tina Due, Volkert Siersma, Frans Boch Waldorff

326-OP
The relevance of multimorbidity for patients and general practitioners – the role of diagnoses, risk factors and symptoms in the definition. Results from a systematic review
Tora Grauers Willadsen, Anna Bebe, Rasmus Köster-Rasmussen, Dorte Ejg Jarbøl, Ann Dorrit Guassora, Frans Boch Waldorff, Susanne Reventlow, Niels de Fine Olivarius

327-OP
“The difficulty of being present” – a focus group study on nursing home doctors’ challenges in end-of-life care
Kristian Jansen, Sabine Ruths, Margrethe Aase Schaufel

328-OP
The Norwegian General Practice Nursing Home criteria (NORGEP-NH) for potentially inappropriate medication use. A web based Delphi study
Gunhild Nyborg, Mette Brekke, Jørund Straand, Atle Klovning

329-OP
Do the General Practitioners know their elderly patients’ social relations and perception of loneliness?
Frans Boch Waldorff, Thorkil Thorsen, Volkert Siersma, Tina Druud Due
330-OP
Self-reported confidence, skills and awareness among Danish general practitioners on palliative needs of patients with malignant and non-malignant diseases
Anna Winthereik, Mette A. Neergaard, Peter Vedsted, Anders B. Jensen

Oral presentations, Session 3: Cancer Diagnostics: ROOM G4
Chair: Markku Sumanen

331-OP
Gynecological cancer alarm symptoms and contact to specialist care – A population-based study
Kirubakaran Balasubramaniam, Pernille Ravn, René dePont Christensen, Sandra Elnegard, Jens Søndergaard, Dorte Ejg Jarbøl

332-OP
Understanding healthcare seeking practices in two different social classes; an exploration into social inequality in cancer survival
Camilla Hoffmann Merrild, Rikke Sand Andersen, Mette Bech Risør, Peter Vedsted

333-OP
General practice consultations, diagnostic investigations and prescriptions in the years preceding a lung cancer diagnosis
Louise Mahncke Guldbrandt, Henrik Møller, Peter Vedsted

334-OP
Barriers towards contact to general practice when experiencing alarm symptoms of colorectal cancer in the Danish population
Dorte Ejg Jarbøl, Sanne Rasmussen, Rikke Pilsgaard Svendsen, Maja Petersen, Ahmad Mojib Fallah, Sandra Elnegard

335-OP
Diagnostic performance of blood tests in cancer diagnostics in patients with non-specific cancer symptoms
Esben Næser, Peter Vedsted, Ulrich Fredberg, Henrik Møller

336-OP
The effect of Continuing Medical Education (CME) in early cancer diagnosis on general practitioner's knowledge and attitude
Berit Skjødeberg Tøftegaard, Flemming Bro, Alina Zalounina Falborg, Peter Vedsted

Oral presentations, Session 3: Antibiotic, Infectiuos Diseases, CRP: ROOM R22/R23
Chair: Bertil Hagström

337-OP
Does non-antibiotic treatment of urinary tract infections increase the rate of recurrences and severe complications? Results of a long-term-follow up
Jutta Bleidorn, Guido Schmiemann, Karl Wegscheider, Eva Hummers-Pradier, Ildikó Gágyor
338-OP
Incidence of tick borne diseases in Norwegian general practice - an epidemiological study of consultations for erythema migrans and tick bites at list holding GPs and out of hour services
Knut Eirik Eliassen, Morten Lindbæk, Dag Berild, Harald Reiso, Nils Grude, Karen Sofie Christophersen, Cecilie Finckenhuagen and Norwegian Antibiotic Centre for Primary Care

339-OP
Women with urinary tract infection (UTI) – Who needs antibiotics and who does not?
Ildiko Gagyor, Jutta Bleidorn, Guido Schmiemann, Karl Wegscheider, Eva Hummers-Pradier

340-OP
Do Denmark, Sweden and other countries agree on recommendations for empiric first-choice antibiotic treatment of uncomplicated urinary tract infections?
Josephine M. Haslund, Marianne R. Dinesen, Anni B.S. Nielsen, Carl Llor, Lars Bjerrum

341-OP
Investigating cultural determinants for antibiotic prescribing and consumption in Europe
Siri Jensen, Pia Touboul-Lundgren, Maciek Godycki-Cwirko

342-OP
C-reactive protein rapid test does not predict group A β-haemolytic streptococcal infection in patients with sore throat
Carl Llor, Olga Calvino, Carolina Bayona, Ana Moragas, Silvia Hernandez, Josep Maria Cots

Oral presentations, Session 3: Maternal Health and Child Social Environment: ROOM R4
Chair: Dorte Gilså Hansen

343-OP
Drug use six months prior, during early pregnancy and 1-2 years postpartum. Cohort study from the Childbirth and Health Study in Primary Care
Thury Osk Axelsdottir, Emil L. Sigurdsson, Hildur Kristjansdottir, Johann A. Sigurdsson

344-OP
Symptoms, use and discontinued use of hormone therapy among Norwegian women
Too much or too little?
Bjørn Gjelsvik, Jorudn Straand, Steinar Hunskaar, Ingvild Dalen, Elin O. Rosvold

345-OP
The majority of African and Middle Eastern immigrants in Northern Sweden have vitamin D insufficiency
Lena Granlund, Anna Ramnemark, Christer Anderson, Marie Lindkvist, Eva Fhärn, Margareta Norberg

347-OP
Ethnic Differences in Iron Deficiency and Anaemia in Pregnancy: A Population-Based Cohort Study
Marthe-Lise Ness-Andresen, Jens Petter Berg, Anne Karen Jenum
348-OP
Facing suspected child abuse - what keeps Swedish general practitioners from reporting to child protective services?
Marijke Talisma, Kristina Bengtsson Boström, Anna-Lena Östberg

Poster session 3A: H-HALL
Chair: Volkert Dirk Siersma

351-P
Association between Copeptin and declining glomerular filtration rate in newly diagnosed diabetes patients. The Skaraborg Diabetes Register
Miriam Pikkemaat, Kristina Bengtsson Boström, Olle Melander

352-P
Translating learning into practice – chain messenger training as a driver for change
Riitta Salunen, Doris Holmberg-Marttila, Kari Mattila

353-P
Evaluation of the post-graduate medical education and training in health centers in Finland
Sari Torkkeli, Mika Palvanen, Leena Kausisto, Riitta Koskela, Doris Holmberg-Marttila, Elise Kosunen

354-P
Effect of a pilot course developed with the aim of establishing a permanent competence in general practice in systematic handling of medicine
Thomas Øhlenschlæger, Merete Willemoes Nielsen, Kirstine Mindegaard Gommesen, Palle Mark Christensen

355-P
Body, spirit and age – Health and spirituality in the SHARE cohort
Merethe Andersen, Karen Andersen-Ranberg, Niels Christian Hvidt

356-P
Morbidity burden among paediatric patients in Danish primary health care
Merethe Andersen, Anders Halling, Ruth Kirk Ertmann, Troels Kristensen

357-P
Promoting professional development of general practice tutors in the Arkhangelsk region
Elena Andreeva, Sergey Shchukin, Marina Bakurova, Nadezhda Ryzhkova, Irina Matveeva, Natalia Chervina, Odd Arild Häugen

Poster session 3B: H-HALL
Chair: Maria Larsson

358-P
Psychological distress; experiences and treatment in primary health care
Tina Arvidsdotter
359-P
General practice training at a Glance – The Bornholm Model
Fidelis Asonze, Sylvia Winciorek

360-P
Unnecessary antibiotic prescribing for upper respiratory tract infections in general practice – difference between patient genders?
Kathrine Bagger, Anni Brit Sternhagen Nielsen, Lars Bjerrum, Volkert Dirk Siersma

361-P
Validation of permanent nursing home residency in a nation-wide Danish database
Anna Bebe, Anni Brit Sternhagen Nielsen, Jens Soendergaard, Tora Willadsen, Volkert Siersma, Jakob Kragstrup, Astrid Raahede, Frans Boch Waldorff

362-P
Use of antidepressant drugs and talk therapy in the year before cancer diagnosis
Bodil Hammer Bech, Mogens Vestergaard, Michael Benros, Morten Fenger-Grøn, Jette Ahrensberg, Yuelian Sun, Peter Vedsted

363-P
Patient safety culture in European Out-of-hours services (SAFE-EUR-OOH)
Gunnar Tschudi Bondevik, Marleen Smits, Zalika Klemenc-Ketis, Alberto Vaona, Dag Hofoss, Ellen C. Tveter Deilkås

364-P
Developing systematic electronic health records for preventive child health examinations in general practice through the use of an adapted nominal group technique
Elisabeth Søndergaard, Kirsten Lykke Nielsen, Ruth Kirk Ertmann, Susanne Reventlow

365-P
Problems and challenges in relation to the treatment of patients with multimorbidity: General Practitioners’ views and attitudes
Elisabeth Søndergaard, Tora Grauers Willadsen, Ann Dorrit Guassora, Mogens Vestergaard, Margret Olafia Tomasdottir, Lars Borgquist, Doris Holmberg-Marttila, Niels de Fine Olivarius, Susanne Reventlow
**Wednesday 13.30 -15.00**

**401-WS Room: H2**
Benefits and harms of general health checks - lifelong learning in general practice: how to read and use scientific literature
Ole Olsen, Atle Klowing, Helena Liira, Klaus Witt, Signe Flottorp, Bruno Heleno, Mie Hestbech, Jakob F Rasmussen, Mads Toft Kristensen, Anna Bebe, Tora Willadsen, Rasmus K Rasmussen, Thomas Bo Drivsholm, Christian Hermann, John Brodersen

**402-SY Room: H1**
To prescribe or not prescribe antibiotics - are rapid tests helpful?
Sigvard Mölstad, Morten Lindbaeck, Lars Bjerrum, Carl Llor

**403-SY Room: G1**
Differences on the organisation and provision of general practice in Europe, Australia, Canada and New Zealand: what are the consequences in terms of quality and equity?
Willemijn L.A. Schäfer, Tessa van Loenen, Lise G.M. Hansens, Stephanie Heinemann, Stijn Baert, Wienke G.W. Boerma, Michael van den Berg, Jens D.J. Detollenaere, Stefan Greß, Peter P. Groenewegen, Werner Hofmann, Amelie Van Pottelberge, Peter Spreeuwenberg, Sara Willems

**404-SY Room: G2**
What is there in self-rated health?
Göran Waller, Annika Forsén, Tora Grauers Willadsen, Anni Brit Sternhagen Nielsen, Hans Johan Breidablik, Eivind Meland

**405-SY Room: G3**
Nordic models for securing GP:s learning – what can we learn from each other?
Gösta Eliasson, Roar Maagaard, Johann A Sigurdsson, Robert Tiestestveit, Elise Kosunen, Ida Liseckiene

**406-SY Room: J1**
Person Centred Medicine – a humanistic approach to the clinical foundation of Family Medicine
Annette Sofie Davidsen, Josabeth Hultberg, Lise Dyhr, Lotte Hvas, Bente Prytz Mjølstad, Linn Getz

**407-SY Room: J2**
Equitable care in diabetes: High risk patients: How to spot them and the effect of treating them
Per E. Wändell, Niels de Fine Olivarius, Anh Thi Tranb

**408-WS Room: R2**
Symptom control and medical treatment in end of life care
Anna Weibull, Thomas Gorlén, Hans Thulesius

**409-SY Room: R5/R6**
The role of the GP in Traffic Medicine Issues in the Nordic countries
Lars Englund, Timo Tervo, Henrik L Hansen, Nils Moe

**410-SY Room: R22/R23**
Quality improvement using data from the clinical record – what happens in the Nordic countries?
Malin André, Klas Winell, Nicolas Øyane, Janus Laust Thomsen
Oral presentations, Session 4: Professional Development and Medically Testing, Unexplained Symptoms: ROOM R24/R25
Chair: Knut Holtedahl

421-OP
“So if my tests are negative, what is causing my symptoms?” Towards a rational explanation
Aase Aamland, Chris Burton, Peter Lucassen, Tim Olde Hartman

422-OP
Practice facilitation – the black box
Tina Due, Marius Brostrøm Kousgaard, Frans Boch Waldorff, Thorkil Thorsen

423-OP
How to develop new skills and procedures
Mikkel Granlien

424-OP
Reforming continuous professional development for GPs
Niels Kristian Kjaer

425-OP
Improvement of diabetes care in the Faroe Islands by Means of APO audit
Anders Munck, Annika Olsen, Annelli Sandbæk

Oral presentations, Session 4: Ultrasound, Microbiological Testing, Sore throat and Pelvic Examination: ROOM R4
Chair: Frans Boch Waldorff

426-OP
Near-patient tests and the clinical gaze in Swedish GPs not following current guidelines for sore throat – a qualitative interview study
Annika Brorson, Hedvig Gröndal, Katarina Hedin, Eva Lena Strandberg, Malin André

427-OP
Pelvic examination in general practice. A survey from Western Norway
Stefan Hjørleifsson, Guri Rørtveit, Yngvild Hannestad, Eivind Meland, Gunnar Tschudi Bondevik

428-OP
Investigating the Value of Susceptibility Testing as a Point of Care Test
A Randomized Controlled Trial in General Practice.
Anne Holm, Lars Bjerrum

429-OP
Acute Appendicitis at Te Puna Hauora Clinic- A busy General Practice, Auckland, New Zealand
Hardeep Hundal
The use of point-of-care ultrasound in general practice. A systematic review
Martin Bach Jensen, Jonathan Vela

The use of ultrasound in general practice in different European countries
Troels Mengel-Jørgensen, Niels Bentzen, Martin Bach Jensen

**Oral presentations, Session 4: Cardiovascular: Room G4**
Chair: Cecilia Björkelund

Lifestyle advice and lifestyle change: to what degree does lifestyle advice of healthcare professionals reach the population, focusing on gender, age and education?
Håkan Bergh, Elisabeth Brobeck

Mental Distress and the Prognosis of Myocardial Infarction – Spousal Bereavement as a Natural Experiment
Morten Fenger-Grøn, Erik Parner, Peter de Jonge, Jiong Li, Mogens Vestergaard and MEPRICA

Long-term risk of atrial fibrillation after the death of a spouse: A nationwide population-based case-control study
Morten Fenger-Grøn, Bo Christensen, Henrik Søndergaard Pedersen, Jakob Christensen, Jiong Li, Mogens Vestergaard

Use of exercise tests in primary care: importance for referral decisions and possible bias in the decision process; a prospective observational study
Gunnar Nilsson, Thomas Mooe, Eva Samuelsson, Lars Söderström

Yoga’s impact on blood pressure, quality of life and on stress, depression and anxiety – A randomized controlled trial in primary health care
Moa Wolff, Kristina Sundquist, Björn Erdal, Patrik Midlöv

Epidemiological studies of the importance of cardiovascular fitness for cognitive ability and neuroprotection
Maria Åberg

**Oral presentations, Session 4: Child Health: Room R26**
Chair: Julie Hogsgaard Andersen

Infectious morbidity in 18-month-old children. A prospective study in Iceland
Gudrun Johanna Georgsdottir, Vilhjálmur Ari Arason, Jóhann Agúst Sigurðsson, Sessela Guðmundsdottir
Vitamin D status of Icelandic children and its influence on bone accrual
Haukur Heidar Hauksson, Hannes Hrafnkelsson, Kristjan Thor Magnusson, Erlingur Johannsson, Emil L. Sigurdsson

Children with fever and respiratory infections in out-of-hours services in Norway
Ingrid Keilegavlen Rebnord, Steinar Hunskaar, Hogne Sandvik

Acupuncture for infantile colic: A blinding-validated, randomized controlled multicentre trial in general practice
Holgeir Skjeie, Trygve Skonnord, Arne Fetveit, Mette Brekke

Growth patterns in children aged 0-5 years in a cohort of multi-ethnic preschool children: identifying children at risk of developing overweight and obesity
Ingun Toftemo, Line Sletner, Per Lagerlov, Anne Karen Jenum

Prevalence of resistant bacteria in children in primary care
Mia Tyrstrup

Do the patients perceive that we care? A Swedish version of the CARE measure
Karin Crosta Ahlforn, Walter Osika

Mental health among 30–49 year-olds participating in a preventive health check. A cohort study
Christine Stride Geyti, Helle Tørkliden Maïndal, Kaj Sparle Christensen, Else-Marie Dalgaard, Annelli Sandbæk

The use of a Handheld ECG Monitor to detect atrial fibrillation in General Practice
Brintha Jeyam, Anne Kristensen, Sam Riahi, Martin Bach Jensen

Healthcare contacts after myocardial infarction according to mental health and socioeconomic position
Tine Jepsen Nielsen, Mogens Vestergaard, Morten Fenger-Grøn, Bo Christensen, Karen Kjær Larsen

A cross sectional study how nurses and general practitioner perceives the doctors calendar, a questionnaire study in Swedish primary health care
Frida Nygren, Gun Rembeck
457-P
Use of primary care during the years before first psychiatric diagnosis
Hans Christian Brix Nørgaard, Mogens Vestergaard, Henrik Søndergaard Pedersen, Thomas Munk Laursen, Niels Peter Ole Mors and MEPRICA

458-P
MINI for assessment of depression and anxiety in primary care – is it feasible?
Agneeta Pettersson, Sandra af Winklerfelt, Ingvar Krakau, Rolf Wahlström

Poster session 4B: H-HALL
Chair: Eva Arvidsson

459-P
Randomized comparison of a novel variant of cognitive behavioral therapy and standard psychotherapeutic care among women in primary care
Imri Demisai, Staffan Svensson, Maria Larsson, Kjell Reichenberg

460-P
Management of Female Sexual Dysfunction: Knowledge, Attitude and Clinical Experience of General Practitioners and Resident Doctors in Dalarna, Sweden
Maria Sundberg, Annika K Lindström

461-P
Patient knowledge and perception of antibiotics: A questionnaire survey in primary care
Rikke Vognbjerg Sydenham, Malene Plejdrup Hansen, Gitte Bruun Lauridsen, Mette Sejr Sørensen, Anders Munck, Dorte Eigt Jarbøl

462-P
The role of vitamin D status in chronic low back pain: a cross-sectional case-control study in Swedish primary care
Andreas Thörneby, Lena Nordeman, Else Hellebø Johanson

463-P
Reinforcing partnership between cancer patient, general practitioner and oncologist – a randomised controlled trial
Theis Trabjerg, Lars Henrik Jensen, Jens Søndergaard, Jeffrey Sisler, Dorte Gilså Hansen

464-P
Fibromyalgia patients in Finnish primary health care: clinical picture, management and quality of life
Aleksi Varinen

465-P
Frog perspective: A general practitioner’s experience of the local implementation of national action plans for older medical patients
Pia Therkildsen, Anders Fournaise, Bente Overgaard Larsen

466-P
Efficacy of SSRIs for acute major depression in the elderly
Sven Frederick Østerhus, Annette Sofie Davidsen
**Scientific programme**

**Wednesday 15.30 – 17.00**

**501-WS Room: H2**  
Challenges in research and in clinical practice when dealing with children’s and adolescents’ health and wellbeing in a family perspective  
Kirsten Lykke, Philip Wilson, Ole Richard Haavet and Nordic Research Network for Children and Adolescents in General Practice

**502-SY Room: H1**  
The healthy individual in preventive medicine – a symposium about individuals’ preferences and relevant evidence in screening  
Bruno Heleno, Mie Hestbech, Minna Johanson, Jakob F Rasmussen, Carlos Martins, John Brodersen

**503-WS Room: G1**  
How can we work efficiently in primary care to find those in the population in need of promotive and preventive measures  
Anders Halling, Ann Blomstrand, Elise Kosunen, Lars Bruun Larsen, Maria Waller, Trine Thilsing

**505-SY Room: G3**  
Personalized medicine meets general practice – a SWOT analysis  
Linn Getz, Henrik Vogt, Johann A Sigurdson, Lotte Hvas

**506-WS Room: J1**  
WhatsApp, Doc? An Overview of Current Recommendations about Online Medical Professionalism and How to Tackle Obstacles  
Ulrik Kirk, Elisabeth Mathilde Stura, Katrina Tibballs, Kalle Saikkonen

**507-WS Room: J2**  
New evidence – change of practice? A workshop about patient information, patient values and shared decision making; with place of birth as case  
Ole Olsen, Atle Klovning, Astrid Raahede, Göran Sjönell, Anja Stehr, Stefan Hjørleifson

**508-SY Room: R2**  
Registers from primary care – valuable assets for research? Examples from the Scandinavian Countries  
Kristina Bengtsson Boström, Jan Hasselström, Janus Laust Thomsen, Inger Njølstad, Jörgen Månsson

**509-SY Room: R5/R6**  
How ICPC (International Classification of Primary Care) may support quality improvement in primary care  
Marianne Rosendal, Anders Grimsmo, Mårten Kvist, Preben Larsen

**510-WS Room: R22/R23**  
Teamwork, leadership and decision making in primary care emergency teams  
Magnus Hjørdahl, Helen Brandstorp, Mante Hedman, Peder A. Halvorsen

**511-WS Room: R31**  
First aid consultation kit: five cards and a package  
Jan-Helge Larsen, Charlotte Hedberg
512-SY Room: Congress Hall: NOTE: 16:00–17:15
Creating future Primary Care in Sweden and Nordic countries
Karin Träff Nordström, Gabriel Wikström, Marit Hermansen, Thorarinn Ingolfsson, Lars Geblert Johansen, Pekka Honkanen, Jan De Maeseneer, Ove Andersson

Oral presentations, Session 5: GP Training and Undergraduate Medical Education: ROOM G2
Chair: Jesper Bo Nielsen

521-OP
Meeting real patients: a qualitative study of medical students’ experiences of early patient contact
Anette Graungaard, John Sahl Andersen

522-OP
Teaching consultation skills to medical students using e-learning
Merete Jørgensen

523-OP
Assessment of reflection during specialist training
Gunver Lillevang, Søren Prins, Helle Ibsen, Søren Olsson, Niels Kristian Kjær

524-OP
The new GP training scheme in Denmark - content and the process leading to it
Roar Maagaard, Søren Prins, Marianne Vedsted, Inger Winther, Andrew Lurie, Pernille Jørgensen

525-OP
Assessment methods in GP training
Søren Prins, Marianne Vedsted, Roar Maagaard, Andrew Lurie, Pernille Jørgensen, Inger Winther

526-OP
Development and evaluation of undergraduate medical education – A seventeen year follow-up in Estonia
Alar Sepp

Oral presentations, Session 5: Multimorbidity: ROOM R24/R25
Chair: Hálfdán Pétursson

527-OP
Collaboration between general practice and municipalities on the referral of patients with chronic diseases to patient education and rehabilitation programs in the municipalities
Julie Høggaard Andersen, Thorkil Thorsen, Marius Brostrøm Kousgaard

528-OP
Improving healthcare for multimorbid patients receiving polypharmacy – experiences with the development and delivery of a tailored intervention
Cornelia Jäger, Sarah Kuse, Tobias Freund, Joachim Szecsenyi, Jost Steinhäuser
529-OP
The impact of perceived stress on mortality among persons with multimorbidity: a population-based cohort study
Anders Prior, Morten Fenger-Grøn, Karen Kjær Larsen, Finn Breinholt Larsen, Kirstine Magnengard Robinson, Marie Mortensen, Kaj Sparle Christensen, Stewart Mercer, Mogens Vestergaard and MEPERICA

530-OP
Patient pathways in older people with hip fracture
Sabine Ruths, Vålborg Baste, Stein Aile Lie, Marit Bakken, Lars Engesæter, Siren Haugland

531-OP
Drugs prescribed by general practitioners according to age, gender and socioeconomic status after adjustment for multimorbidity level
Jessica Skoog, Patrik Midlöv, Anders Beckman, Jan Sundquist, Anders Halling

532-OP
Women with wrist fractures: what is their risk for osteoporosis, their co-morbidity and quality of life?
Katharina Verheijen, Robert Eggertsen, Anders Möller, Sigvard Mölstad, Per Hjerpe, Kristina Bengtson-Boström

Oral presentations, Session 5: E-health: ROOM G4
Chair: Oddur Steinarsson

533-OP
Development and evaluation of a comprehensive health care utilization diary
Wolfram Herrmann, Schröder Kevin, Alexander Haarmann

534-OP
Non face-to-face treatment of stress urinary incontinence – Predictors of long-term success
Anna Lindb, Malin Sjöström, Eva Samuelson

535-OP
Patient consents in APO audits using automatic data capture and pop-up questionnaires
Jesper Lykkegaard, Henrik Prinds Rasmussen, Anders Munck

536-OP
Digital prescribing in Europa – overview on the bases of questionnaire filled up by experts in each country
Katrin Martinson, Le Vallikivi

537-OP
The eContinence project
Eva Samuelsson, Malin Sjöström, Ina Asklund, Emma Nyström, Göran Umefjord

538-OP
A Systematic Method to Train in eHealth at Large Scale
Eva Pilsäter Faxner
Oral presentations, Session 5:
Organization of Healthcare: **ROOM R4**
Chair: Tina Due

539-OP
Retention and recruitment challenges in the Norwegian patient list system
Birgit Abelsen, Margrete Gaski, Helen Brandstorp

540-OP
Measuring Care Coordination to Identify Patients at Risk
K Kinder, K. Lemke, C Pollack

541-OP
Is the quality of primary healthcare services influenced by the healthcare centre’s type of ownership? – An observational study of privately and publicly owned primary care centres in Sweden
Andy Maun, Catrin Wessman, Pär-Daniel Sundvall, Jörgen Thorn, Cecilia Björkelund

542-OP
Continuity of primary care is best supported by the availability of a specific doctor appointed for patients: a comparative study of Finnish municipalities in 2011 and 2103
Risto Raivio, Doris Holmberg-Marttila, Kari Mattila

543-OP
The various ways general practitioners refer to hospital. An observational cross-sectional study using principal components analysis
Olav Thorsen, Anders Bærheim

544-OP
Short-term effects of a detailed pay for performance program for diabetes in primary care – an observational study
Helena Ödesjö, Jörgen Thorn, Staffan Björck

Oral presentations, Session 5: Varia: **ROOM R21**
Chair: Stefan Bergman

545-OP
Creating Chronicity – The unsustainable medical making of multi-morbidity
Anna Luise Kirkengen

546-OP
Values-based medicine, EBM and money
Jonas Sjögren

547-OP
Health benefits of moderate alcohol consumption – a myth?
Jonas Sjögren
548-OP
What's the doctor’s part when medicines have played out their role?
– A qualitative study about the GPs’ experience of work at nursing homes in Sweden
Beata Borgström Bolmsjö, Eva Lena Strandberg, Patrik Midlöv, Annika Brorsson

135-OP
Experiences of human suffering and resilience – a GP meets asylum seekers and immigrants at a Refugee Health Clinic in Gothenburg, Sweden
Kristian Svenberg

Poster session 5A: H-HALL
Chair: Kerstin Rödström

551-P
Prescription patterns in the newly diagnosed COPD patients according to severity
Carl Llor, Eulàlia Borrell, Mónica Monteagudo, Pere Simonet, Miriam Barrecheguren, Marc Miravitlles, Cristina Esquinas, Jaume J. Ferrer

552-P
Full journal publication of abstracts presented at the Nordic Congress of General Practice in 2009 and 2011
Frans Boch Waldorff, Kristine Petersen, Siri Vinther, Volkert Siersma, John Sahl Andersen

553-P
Fighting Antibiotic Resistance – The one Health Approach in Human and Veterinary Primary Care to Increase Prudent use of Antibiotics for Urinary Tract Infection (UTI)
Anne Holm, Tina Møller Sørensen, Gloria Cordoba, Lola Kathe Tolstrup Leibhardt, Jens Peter Nielsen, Charlotte Bjørnvad, Lisbeth Rem Jesen, Lars Bjerrum

554-P
General Practitioners’ perceptions and assessments of Self-Care Ability in Patients with Multimorbidity and difficulties in Disease Management
Mads Toft Kristensen, Ann Dorrit Guassora, Bibi Hølge-Hazelton, Frans Boch Waldorff

555-P
COPE – A Cognitive Patient Education trial for Low Back Pain in Primary Care
Erik L. Werner, Ida Løchting, Kjersti Storheim, Margreth Grotle

557-P
Patient Empowerment. Primary care – how to support patient participation as partners?
Britta Berglund, Lillemor Fernström, Christina Fjellstrom, Eva-Maria Dufva, Pelle Johanson, Annika Nyström Karlson and A functioning primary care for individuals with chronic diseases
Postersession 5B: H-HALL
Chair: Ulf Lindblad

558-P
Use of immunochemical faecal occult blood tests in general practice: a study of patients presenting un-characteristic symptoms of colorectal cancer in primary care
Jakob Søgaard Juul, Berit Sanne Andersen, Nete Hornung, Søren Laurberg, Frede Olesen, Peter Vedsted

559-P
New organization for quality development in General practice in the Capital Region of Denmark
Eva Branner, Jesper Lundh

560-P
Practice municipality coordinator in the Capital Region 2010 to 2012
Jesper Lundh

561-P
Recruitment in general practice: Is a standardised approach helpful in the involvement of healthcare professionals to research?
Allan Riis, Cathrine Elgaard Jensen, Helle Terkildsen Maindal, Flemming Bro, Martin Bach Jensen

562-P
Stratifying information and advice in a tailored web-application for patients with low back pain: study protocol of a randomised controlled trial
Allan Riis, Jan Hartvigsen, Anne Marie Kanstrup, Pernille Bertelsen, Henrik Schroll, Martin Bach Jensen

563-P
Atrial fibrillation patients – a quality challenge
Emil Heinäaho, Klas Winell

565-P
Brotspats Boden
Robert Svartholm, Annika Forssen

566-P
ASK – validation of competense
Robert Svartholm and ASK network of SFAM
Unnecessary treatment and procedures in primary health care in the Nordic countries

1Sipoo Health Center, Sipoo, Finland.
2General Practice Research Unit, Department of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim.
3The Research group of General practice, The Institute of Community medicine, The Arctic university of Norway, Tromsø, Norway.
4Kvartersakuten Mörby Centrum, Mörby, Sweden.

Objectives
• To introduce SFAM’s (the Swedish Society of Primary Care) discussion list of “unnecessary” treatments and procedures in general practice.
• To identify and discuss similarities and differences between the Nordic countries regarding unnecessary interventions in general practice.
• To discuss ways to challenge over diagnosis and overtreatment in general practice.

Background
One tendency of modern medicine is a focus on identifying and treating individuals running a risk of disease rather than having true disease. Related phenomena are screening for/exclusion of very rare conditions and making common ailments of everyday life into conditions demanding treatment. Along with the growth of screening for risks, the responsibility for many diagnostic procedures, have been decentralized from hospitals to primary care. This development is the same in all Nordic countries.

In 2013, SFAM appointed a task force to investigate the evidence of the benefit of some widespread treatments and diagnostic procedures that had been challenged by recent research and surveys. In May 2014 the group concluded with a list of seven “unnecessary” treatments and procedures to start a broad discussion in general practice in Sweden.

Content
SFAM’s list of “unnecessary” treatments and procedures will be presented and the workshop will widen the scope to all the Nordic countries. Is there the same trend all over? How can we together challenge this modern trend of over diagnosis and overtreatment?

Method
The panel will start by introducing SFAM’s discussion list of unnecessary interventions. The subject will be discussed in smaller groups with focus on country-specific differences and ways for improvement. Finally, viewpoints from the smaller groups will be summarized and presented in plenum for a general discussion.

Mindfull acceptance and commitment in health care – does it matter?

Eivind Meland1, *Åsa Kadowaki2, *Michael deVibe3
1Dept Global Publ Health and Prim Care, University of Bergen, Bergen, Norway.
2Landstinget i Östergötland, Linköping, Sweden.
3Nasjonalt kunnskapsenter for helsetjenesten, Oslo, Norway.

Objectives
To present and discuss the perspective of the “third generation cognitive treatment”.

Background
General Practitioners and patients may suffer due to a disease focused health care system that seems inappropriate for the “third wave morbidity” in modern societies. Everyday common ailments that are unavoidable in life are redefined with diagnostic labels with treatments that might promote dysfunctional coping and increased sickness experience.
Content
We will present three perspectives in the workshop:
• Bringing mindful attention into the consultation – does it matter?
• Acceptance and commitment in clinical practice – why and how?
• Committed participant instead of victimized recipient – can the welfare state be healed?

We will present the rationale for the method, how it works in the clinical encounter, why and how it is relevant for the provider, and also how such perspectives might be liberating on a societal and public health level.

Method
Short presentations, demonstrations. Small group and plenary discussions.

Other considerations
No preregistration, maximum 40 participants.

103-SY
Depression treatment in the primary care context – pills, psychology, or other panacea?

Cecilia Björkelund1,*Dominique Hange1, Annette Sofie Davidsen2,*Maria Ólafsdóttir3,*Sigrid Salomonsson4,*Pekka Mäntyselkä5,*Kaj Sparle Christensen6

1Primary Health Care, University of Gothenburg, Göteborg, Sweden.
2Institute of Public Health, Faculty Of Health Sciences, Copenhagen, Denmark.
3Primary Health Care, University of Iceland, Reykjavik, Iceland.
5Primary Health Care, University of Eastern Finland, Joensuu, Finland.
6Research training, Institute of Public Health, Aarhus, Denmark.

Objectives
To present studies on depression treatment and depression management performed in the primary care context. To present new evidence-based methods for use in clinical primary care practice.

Background
Despite the fact that most patients with mild or moderate depression are treated in primary health care, only little research on management of depression has been conducted at primary health care settings, also in the Nordic countries. Recommendations on case-finding and treatment have mainly been based on research at psychiatric settings, where a smaller proportion of patients with mild and moderate depression are treated. Consequently, there is need for evaluating new evidence-based methods for use in clinical practice so that patients get the most up-to-date treatment available. In addition, research efforts should focus on new care models suited for patients with depression who attend primary health care.

Is the SSRI the doctor’s preference in depression treatment? Should all depressions undergo psychotherapy? Is internet mediated CBT effective? What are the patients’ views on regular use of self-assessment instrument? Does continuity and accessibility give therapeutic effects?

Content
Dominique Hange: moderator
• Annette Sofie Davidsen: Perspectives on antidepressant therapy.
• Maria Ólafsdóttir: Study on men with depression, and clinical aspects on mental health in primary care
• Sigrid Salomonsson: Depressive symptoms and comorbidity
• Cecilia Björkelund: Treatment as usual: the drug of choice? MADRS-S and ICBT – as effective as TAU?
• Pekka Mäntyselkä: Support for return to work for the individual with depression in primary care
• Kaj Sparle Christensen: Diagnostics and treatment of depression in general practice.

Method
Oral presentations and general discussions
Vitamin D deficiency among immigrants in the Nordic countries

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Objectives
Individuals from non-Western countries are identified as having a risk of vitamin D deficiency when migrating to the Nordic countries with low exposure to the sun during wintertime.

Background
Vitamin D deficiency is recognized as a risk factor for different diseases, including cardiovascular and bone diseases. Some groups in the Nordic countries are especially prone to develop vitamin D deficiency.

Content
Vitamin D levels are low among many immigrant groups of non-Western, in some cases extremely low, and the risk of vitamin D deficiency is very high, especially among women. Data will be presented from a recent literature review on the strength of evidence as well as from recent studies. Data on associations between vitamin D status and different diseases and disorders will also be presented.

Method
Data from both a literature review and original studies will be presented. The literature review was published in 2013, including studies especially from Norway and Denmark, and with single studies from Sweden.

Other considerations
Vitamin D deficiency is very common in immigrants from non-European, non-Western countries. This is a risk factor for developing different diseases. Strategies and ongoing research on how vitamin D deficiency can best be treated and prevented among immigrants will be presented and discussed.

Is it better to replace the old cancer screening technology with new and more sensitive technology or are the consequences more overdiagnosis and overtreatment?

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Content
Medical diagnostic technology has throughout history been improved with increasing diagnostic accuracy as a consequence. Sometimes a new test would have a greater ability to capture those with the target condition (higher sensitivity), other times a new test would have a greater ability to identify those without the target condition (higher specificity) but rarely a new test would have both a greater sensitivity and a greater specificity compared to a previous diagnostic test.

In the traditional period (1750–1880), medicine focused on illness: people who felt sick sought help from doctors who relied exclusively on the history and physical exam to make diagnoses. The birth of modern pathology - with the invention of the microscope and bacteriology - allowed doctors to actually visualise abnormalities and pathology. This visualisation created a new paradigm for understanding disease: the abnormalities and pathology (disease) detected account for the symptoms (illness). The focus of medicine became detecting disease.

The shift from illness to disease has had a profound impact on modern medicine – particularly in the realm of cancer screening. In screening, it is not patients with illness who seek help from the healthcare system; it is asymptomatic healthy individuals who are invited into the healthcare system to be examined for pathology. The underlying assumption of screening is that abnormalities and pathology always progress to the point of serious
troubling symptoms, disability, or death. If this were true it would always make sense to look for disease even when people feel well.

The present workshop will explore if the fundamental assumption that disease invariably leads to illness is valid and if not, what happens to screening test accuracy.

Method

Beside mini-lectures by GG and JB a lot of the time will be used to teach interactively and have one or two periods where people talk two-and-two and/or in small groups.

106-SY

Assessing the link between health care utilisation in general practice and morbidity patterns in the elderly in the Nordic countries

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Objectives

The objective is to describe and analyze the prevalence of comorbidity and multimorbidity among older people with extensive and complex care needs. Next, the main objective is to present and discuss papers on the association between healthcare utilisation in general practice and individual level patient morbidity and socioeconomic characteristics among older people with extensive and complex care needs.

Background

In the Nordic countries municipalities and regions are using a significant amount of resources on care for the elderly. Elderly care is one of the largest and most important areas of healthcare utilisation in general practice in the Nordic countries. In the future, this demand for healthcare services among the elderly is expected to increase.

DEVELOPMENTS IN THE functional level of the elderly mean that we have a growing group of well-functioning elderly. This group can do without or with little care, but at the same time there is a growing group of older people with extensive and complex care needs (e.g., dementia, COPD and diabetes). Today we have limited information on the need for social services and health care services for the elderly in the Nordic countries. There is a need for improved understanding of variation in healthcare utilization and methods to measure the actual need for healthcare services among older patients.

Content

The idea and content of the symposium are:

a) To describe and examine the prevalence of comorbidity and multimorbidity among older people with extensive and complex care needs and related healthcare utilisation within Nordic countries.

b) To address whether healthcare utilisation (e.g. GP visits and home care needs) for elderly with extensive and complex care needs can be explained by patient level morbidity burden measures, socioeconomic measures (e.g. from casemix systems or care indices) and other health measures (e.g. functional level) and background variables.

Method

This symposium will include presentation of papers based on survey and routinely collected register data from quality databases and national administrative databases. The presented papers will be based on relevant descriptive statistical methods, casemix adjustment approaches, multilevel-modelling, quantile regression methods and other relevant methods. The intention is to present methods and results
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with a view to making recommendations concerning research, potential interventions and health policy.

**Other considerations**

**Related themes:** Public Health, Quality Improvement, Health Economics.

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**107-SY**

**Stress-related mental health problems. Challenges and solutions**

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**Objectives**

The aim of this symposium is to present knowledge on stress-related mental health problems from different perspectives. This includes the causes, the consequences as well as several clinical perspectives with regard to symptoms, prognosis, treatment and rehabilitation.

**Background**

Stress-related mental health problems e.g. adjustment disorders, clinical burnout/exhaustion, anxiety and depression are becoming major challenges for the health care system. The workplace has been identified as being an important arena with regard to stress-exposure but the workplace is also an important arena that need to be involved in the rehabilitation process. Research knowledge on how to prevent, treat and understand stress-related problems needs to be mediated and this symposium will hopefully contribute to increased knowledge on stress-related problems.

**Content**

The symposium will start with an overview of stress-related mental health problems with regard to prevalence, course, consequences, and gender aspects. This will be followed by a lecture on the importance of work conditions in regarding stress-related mental health, particularly burnout/exhaustion. Work conditions play a significant role in the development of mental health problems as well as in return to work afterwards. Finally, several clinical perspectives will be presented including symptoms, course of illness, treatment and recovery.

**Method**

The symposium included three overview presentation, followed by discussions.

**Other considerations:**

Relevance: Early identification as well as effective and integrated treatment of mental health problems is beneficial for people, work places, and society in supporting both the work ability and functional ability of the individuals.

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**108-WS**

**The WONCA World Working Party on Quality and Safety in Family Medicine - Developing the Quality Improvement Interactive PDF**

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**Objectives**

The goal is to provide participants with knowledge about different support materials on quality and safety for GPs interested in and/or involved with quality and safety work in the Nordic countries, the various methods by which these can be accessed, and how such support materials can be kept up to date and improved over time to ensure the continued relevance to the needs of quality and safety interested GPs.
**Background**

The WONCA Working Party on Quality and Safety in Family Medicine was charged with the responsibility for developing recommendations on how to achieve and maintain quality and safety in primary care within the World Organization of Family Doctors (WONCA). Under the auspices of the European Society for Quality and Safety in Family Practice (EQuIP), WONCA has in place quality and safety tools, methods and teaching activities as well as EU projects going on across Europe. One core aspect of EQuIP’s work is its interactive PDFs, which can embed multimedia content on quality and safety as well as hyperlink to other online resources.

**Content**

Two brief presentations from Denmark and the network EQuIP will describe the contrasting support materials that are available, the completely different processes by which these materials were developed, and the wholly divergent methods by which they have been kept up to date.

Participants will then be divided into small working groups to discuss content, methods and modalities of developing an interactive PDF containing supporting materials about quality and safety in family medicine in the Nordic countries, and ultimately arrive at an agreement for the content of the creating, developing and maintaining of an ideal interactive PDF on quality and safety.

**Method**

At the beginning of the workshop, participants will in small groups discuss what if any support materials are available to GPs on quality and safety in their respective countries, how these supports could be improved, and if none exists, what supports materials GPs would like to see being available.

At the end of this session participants will have learned what can be done within quality and safety, and have a roadmap for how support materials for GPs can be created. This will enable participants to return to their respective countries and engage with national representative organisations to have such materials put in place or to improve existing support materials, which can be embedded in the interactive PDF.

**Other considerations**

Awareness will be raised of the different types of support materials that can be accessed for GPs interested in and/or involved with quality and safety work across the Nordic countries, and the methods that can be employed to keep such supporting materials up to date.

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### 109-SY

**Pakkeforløb – the Scandinavian way to reduce waiting times for cancer patients and improve cooperation between primary and hospital care**


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**Objectives**

Introducing the Danish model with “pakkeforløb” even in Norway and Sweden is supposed to reduce waiting times, decrease local and regional differences and make cancer patients more satisfied.

One objective for the symposium is to emphasize the important role primary care physicians play in the work with pakkeforløb in Scandinavia. The experiences of the implementation of standardized care processes so far, will be shared. Challenges and opportunities that pakkeforløb bring for primary care will be discussed.
**Background**
Cancer patients in the Nordic countries often wait too long for treatment. In Denmark, Norway and Sweden the waiting times for care are way too long from the patient’s first health care contact until he or she receives a diagnosis and gets treatment.

**IN THE THREE** countries, it has been a government priority to develop cancer care and to reduce waiting times. Denmark introduced as the first country pakkeforløb as a mean to reduce the lead between the physician’s serious suspicion of cancer and the beginning of treatment. Inspired by the Danish example, Norway and Sweden are planning to introduce standardized care processes in several cancer diagnoses in 2015.

**Content**
Even though primary care is organized differently in the three countries, GPs play a key role in the pakkeforløb model. In the symposium, Denmark will share their experiences of the introduction of pakkeforløb, and how these have affected waiting times and results in the Danish cancer care.

Representatives from the initiative to introduce pakkeforløb in Norway and Sweden will describe their circumstances and the challenges and opportunities that standardized care processes will bring for the relationship between hospital and primary care.

**A PANEL DISCUSSION** on what we can learn from each other concludes the symposium. How do primary care physician learn from managing pakkeforløb in their daily work? What do primary caregivers know about pakkeforløb in the three countries? And what about alarm symptoms, are they well known? What competencies are needed to refer patients to a standardized care processes – and do primary care physicians in Denmark, Norway and Sweden have these competencies already?

**Method**
The Danish model with pakkeforløb will soon be used in all the three Scandinavian countries. The symposium presents how this method could be implemented, with similarities and differences, and its impact on cancer care processes in the different countries.

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**110-WS**

**After-hours, telephone triage, primary care, organisation, quality**

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**Objectives**
To discuss strengths and weaknesses of different models for telephone triage, define preconditions for high-quality triage and list potential quality indicators.

**Background**
In the last decades the organisation of out-of-hours primary care has been changed in Europe, mostly towards large-scale organisations. Here, telephone triage plays an important role, managing patient flows safely and efficiently.

European countries have various organisational models for telephone triage, using different professionals and levels of support. The question is if there is one model of best practice, or if preconditions for high-quality triage are more relevant.

**Content**
First, we give a short presentation about out-of-hours care and telephone triage, relevant for the following discussions. We focus on quality of triage (e.g. over- and under-triage) and existing triage models. Using statements, the workshop participants discuss strengths and weaknesses of models in small group, followed by a plenum discussion. Then participants are challenged to discuss preconditions for high-quality triage. At the end, preconditions...
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for high-quality triage will be defined in a plenum discussion.

Method
Presentation: short overview of telephone triage and organisational models in Europe.

Discussion in small groups, using statements:
• Strengths and weaknesses of models.
• Defining preconditions for high-quality triage.

Plenum: list preconditions and link them to possible quality indicators. Summary and conclusion.

Other considerations:
This workshop is organised by members of a European network for research in out-of-hours primary health care (www.euroohnet.eu).

111-WS
The role of the GP in cancer care
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Objectives
We have two objectives: First a presentation of our own methods for maintaining relation with our cancer patients and families, and second to discuss and define possible initiatives for establishing such relations.

Background
The cancer patient is at risk of losing contact to his/her GP during sectorial changes in the treatment. Upon loosening that contact we have experienced that the patient can find it difficult to know where to go with their problems, questions and feelings. Therefore we find it important to maintain the GP-patient relationship in order to support the patient handling those insecurities, and for us as GPs to be able to give the care the patient needs. Therefore in our experience the GP must proactively take action to maintain this contact. In our practice we have implemented initiatives in form of sending a letter to the patient and using automated pop-ups to remind us of the patient’s current status.

Content
Taking point of departure in our proposed solution; a letter to the patient early in the process and using automated pop-ups following the diagnose, the workshop will focus upon sharing of experiences from participants, followed by a discussion of and defining possible initiatives to maintain the GP-patient relationship.

Method
The first part of the workshop will be a presentation on our part.
The second part will take form as facilitated discussions in minor groups. These will be followed by shorts presentations from the groups while we hope for input and inspiration to develop new initiatives.

Other considerations
We hope to be of inspiration to others with similar challenges and to gain new inspiration ourselves.

The cancer patient is at risk of loosing contact to her GP.
Cognitive strategies for primary care diagnosis: Inductive foraging

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Background
While dichotomous tasks and related cognitive strategies have been largely investigated in cognitive psychology there is still little known about how individuals approach ill-defined or polychotomous tasks and how valid or useful their strategies are. Since a wide range of diagnoses may occur in General Practice, this is an example for ill-defined tasks.

Objectives
To illustrate the diagnostic phase called inductive foraging on the basis of empiric data. Our aim was to investigate how GPs use this first part of the diagnostic process for information search and cue generation.

Material/Methods
Data acquisition occurred from 282 unselected patient consultations recruited from 12 GP practices in the vicinity of Marburg. All patients who gave their informed consent were included, independent from their present complaints or previous known illnesses. Consultations were video-taped; in addition all GPs were interviewed directly after the consultation using a semi-structured questionnaire and had to comment on their diagnostic reasoning. All recordings were transcribed and coded by two independent researchers using a code tree based on researched literature on medical reasoning.

Results
134 out of 282 patient consultations contained at least one diagnostic episode; 122 (91%) of these contained an episode of inductive foraging (IF). IF lasted from 6–176 seconds (median 34 seconds) and was opened in 83 (71%) of cases with a general open question. Patients offered between 1–10 cues per episode (median 4.5 cues). IF was ended in 43% of cases by the patient and in 57% by the GP.

Conclusion
Inductive Foraging is an important diagnostic strategy in general practice and constitutes an effective diagnostic pathway at the beginning of the consultation process, especially in situations of high uncertainty.

Points for discussion
1. Listening to the patient – an effective strategy in the busy climate of a GP surgery?
2. How can cues be effectively recognized in the phase of inductive foraging?

Cognitive strategies for primary care diagnosis: Hypothesis testing and triggered routines

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Background
In cognitive psychology dichotomous tasks and related cognitive strategies have been elaborately researched. Established knowledge about how individuals approach ill-defined or polychotomous tasks and how valid and useful their strategies are, is still rare.
IN THE SETTING of general practice there is a wide range of different diagnoses and the GP has to differentiate reliably between frequently encountered and rare diseases.

Objectives
To illustrate the diagnostic phases called hypothesis testing and triggered routines on the basis of empiric data.

Material/Methods
Data acquisition occurred from 282 unselected patient consultations recruited from 12 GP practices in the vicinity of Marburg. All patients who gave their informed consent were included, independent from their present complaints or previous known illnesses. Consultations were video-taped; in addition all GPs were interviewed directly after the consultation using a semi-structured questionnaire and had to comment on their diagnostic reasoning. All recordings were transcribed and coded by two independent researchers using a code tree based on researched literature on medical reasoning.

Results
282 patient consultations contained 163 diagnostic episodes; in 63 of 163 (39%) of these GPs applied the strategy of deductive hypothesis testing. Triggered routines were used in 62 of 163 (38%) diagnostic episodes. Use of triggered routines showed a large variety between different GPs and seemed to correlate with the frequency of consultations addressing respiratory, urogenital or gastrointestinal problems.

Conclusion
Both hypotheses testing and triggered routines are part of the GP’s ‘adaptive toolbox’ when dealing with ill-defined diagnostic problems.

Points for discussion
1. What triggered routines do you use in your daily practice?
2. Do you prefer triggered routines for certain types of consultations?

New evidence and change of practice – a successful(?) implementation process

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Background
Observational studies of increasingly better quality suggest that planned home birth can be as safe as planned hospital birth, with less intervention, fewer complications, and better breast feeding. In Denmark home birth is an option within the public health care system, but very few general practitioners tell their pregnant women about this option.

Objectives
To investigate whether well-informed Danish general practitioners are prepared to inform low risk pregnant women about the possibility of planning a home birth and to explore issues important for their decision making.

Material/Methods
Audio-recorded semi-structured dialogues with a purposive sample of seven (or more) general practitioners in greater Copenhagen. During the dialogues ample time was deliberately kept open for participants to speak about their thoughts while, at first, a condensed but flexible version of the evidence in the updated Cochrane review on home birth was presented; second, the general project plan to invite GPs to hand out the leaflet about home birth from the local hospital or health authority to their pregnant women was presented and the leaflet shown. The involved GPs were not pressed for a decision as to whether they would personally participate in the project. The audio-recorded dialogues lasted 10–50 minutes, were transcribed, and analysed by Systematic Text Condensation inspired by Giorgi’s approach, searching for issues describing themes of importance in the participants’ decision making. The analysis
was conducted as collaborative negotiations between the two presenters. Number of GPs that accepted to hand out the leaflet was counted.

**Results**
Six and a half of the seven GPs were willing to hand out the leaflet and keep a simple log book of the process. The study is on-going. Several issues important in the decision making process have been identified by the first presenter but await the collaborative negotiations with the second presenter before presentation. The results from the analysis will be presented at the conference.

**Conclusion**
Well-informed general practitioners are prepared to inform low risk pregnant women about the evidence and the possibility of planning a home birth. In addition to the stronger evidence ample time for dialogue was needed in order to make a difference in clinical practice.

**Points for discussion**
1. Any comments on the issues brought up by the GPs?
2. How could (and should?) the dissemination and implementation process be speeded up?

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**Objectives**
To explore decision making in real life through its linguistic expressions.

**Material/Methods**
Seven GPs were presented to new evidence, and from three hours of transcribed audiotaped dialogues sections of text were selected where a general practitioner elaborates on her decision making as it progresses. The selected text was transcribed in details using linguistics notation and analysed with interaction analysis.

**Results**
The study is on-going and results will be presented at the conference. Preliminary results show that 1: The decision taker experiments with different degrees of responsibility for the decision to be made. 2: Orients towards what others will think of her decision. 3: Reveals physical discomfort when imagining the decision being made.

**Conclusion**
Not knowing which decision to make can be painful. Decisions can be aided by emotions, in the form of bodily states that are elicited during the deliberation of future consequences. Every significant vital sign - body temperature, heart rate, oxygen consumption, hormone level, brain activity, and so on – are said to alter the moment a decision is made, and this study shows that emotional arousal in real life is reflected in breathing, laughing, odd linguistic choices (e.g. irrealis and dis-preferred design) as well as reflections on self-perception.

**Points for discussion**
1. Do you recognize the presented bodily and linguistic reactions from other clinical decision making experiences?
2. How do you best support patients facing similarly challenging choices?
Linguistic choices and evidence based practice

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Abstract

The discourse of medicine is associated with rationality and disembodied reasoning. However, conflicts between the best available evidence and current clinical practice are not uncommon and it has been recommended to study the process of dissemination of evidence in more detail using qualitative methods. The present analysis is nested in a larger qualitative study of dissemination and implementation of evidence.

Objectives

To explore how clinicians’ linguistic choices reflect their perception of new evidence when this challenges current perceptions and clinical practice.

Material/Methods

A particularly illustrative section of text was selected from 8 hours of transcribed audiotaped verbal exchanges at 20 sessions involving more than one hundred GPs presented to new evidence. The selected text was transcribed using detailed linguistic notation in order to capture sound variations as well as discourse organization. After transcription the text was analyzed using two complementary approaches applicable for spoken language: Systemic Functional Analysis to explore the grammatical choices the speakers make and Conversation Analysis to explore the interactional perspectives of the utterance.

Results

The study is on-going and results will be presented at the conference. Preliminary results show that linguistic choices are particularly prominent with respect to (i) sound, (ii) grammar and words, and (iii) interaction. In relation to sound intonation and speech pace shows how the speaker chose a dramatic discourse style; in relation to grammar the speaker’s choices show how the issue is highly personal for the speaker; on an interactional level, the speaker switches between different discourse identities when formulating the utterances: as a debater on health progress in general, as GP and as a woman giving birth.

Conclusion

Analyses of speech pace, grammatical choices, and interactional identity-work show that presentation of evidence that conflicts with existing perceptions in this case does not only cause professional skepticism but also causes emotional distress.

Points for discussion

1. Given that feeling emotional distress or discomfort towards specific evidence may hinder implementation of evidence, what should be done to overcome this in general practice?
2. Would you inform a pregnant woman about the available evidence?

Addressing multiple problems during general practice consultations – A cross-sectional observational study

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Background

The GP consultation has been called a “black box” because its contents have been little exposed.

Objectives

The aim of the present study was to shed some light into this “black box” in a Norwegian setting. Based upon own experience and literature studies, our hypotheses were that patients more often than not present several, unrelated problems in one single consultation, and that these are handled by the GP. Our secondary
aim was to explore patients’ expectations in front of a consultation with their GP.

**Material/Methods**
We conducted a cross sectional observational study in four general practices in the city of Oslo in 2013. The second author, then a fourth year medical student, collected data during direct observation of 201 unselected consultations with four different GPs, by means of a pre-designed registration scheme. In addition to the registrations, 177 other unselected patients answered a questionnaire before entering a consultation with the same four GPs.

**Results**
Mean number of problems raised in these 201 consultations was 2.6 (range 1 – 16), and when appointments for acute conditions were excluded, mean number was 3.3. In more than one fourth of consultations a mental health issue was presented. Female sex, increasing age and seeing own GP predicted an increasing number of problems presented. The vast majority of problems were dealt with by the GP during the ongoing consultation. “Being able to address all or most of my worries” was rated as highly important by patients when seeing their GP.

**Conclusion**
This is probably the first Scandinavian study exposing GP consultations through direct observations, focusing on the problems presented by patients. We found that the GPs were able to deal with several un-edited problems presented during a brief consultation. Doing this adequately demands a specific type of competence, more comprehensive and different from traditional knowledge about diseases and their treatment. Patients seem to put a high value on being able to address all their worries in the consultation.

**Points for discussion**
How can GPs meet their patients’ needs to address multiple problems in the consultation without burning out? What kind of specific competence does this demand, and how can this be learned?

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**Consultancy support inspires GPs to improve their organization**

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**Background**
General practice in Denmark is facing great challenges with having to assume new types of tasks and collaborators, and good organization in the clinic is therefore becoming increasingly important. The Region of Southern Denmark has developed an offer to support and inspire GPs working with improvement of their organization.

**Objectives**
The aim of the consultancy support is to stimulate to systematic organizational development, adapting the efforts to the individual practice.

Material/Methods: Two consultants, a general practitioner and a management developer visit the practice 3–4 times during a period of 4 to 6 months. The consultancy assignment may involve definition of a common basis of values and visions, planning of work procedures, management optimization, implementation of action plans, teamwork improvement and conflict resolution. The support is free of charge and takes place in the practice between 1 and 5 p.m.

**Results**
A total of 112 of the Region's 378 general practices have received a consultancy visit. At the first visit the clinic makes an action plan with specific targets. The job of the consultants is to assist practice in implementing the plan by facilitating a process, where the doctors in the practice take ownership, reflect on values, structures and development potential and work independently on achieving the goals. Through reflection and independent work the practice creates change and development.
Conclusion
Adapting the efforts to the individual practice is a success. It is imperative that the consultants are confidence-inspiring and competent, so that they are capable of getting the practice to define goals, reflect on own development potential and take ownership of the process. Combining a doctor and an organization consultant in a consultancy team has proved fruitful.

Points for discussion:
Does the method have any negative aspects?
Can other countries/regions use this method?

128-OP

A new European model to enhance GPs workforce throughout Europe: be positive and competent

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Background
General Practice (GP) seems to be perceived as less attractive throughout Europe. Most of the policies on the subject focused on negative factors. An EGPRN (European General Practice Research Network) research team from eight participating countries was created in order to clarify the positive factors involved in appeals and retention in GP throughout Europe.

Objectives
Which positive factors determine the appeals and staying in GP?

Material/Methods
The European team undertook qualitative research with a phenomenological perspective. GPs were selected, using a purposive sampling strategy, until data saturation. Descriptive thematic data analysis was performed. Each participating country did a translation and back translation of the codes. During the Malta and Barcelona EGPRN meetings the team clarified the codes. The final codebook and themes were defined in Antwerp (2014).

Results
Eight European codebooks were pooled in this collaborative research. Positive factors to stay in practice were summarized in the following themes: 1) The GP as a person, 2) Special skills or competencies needed in practice, 3) Supportive factors for work-life balance, 4) Freedom to personalize your work, 5) Characteristics of the GP work content, 6) Elements of work organization, 7) Relationships with other professionals, 8) Specific relations with patients, 9) Perception of the profession by society, 10) Attitudes towards GP, 11) Teaching and learning and 12) Positive experiences.

Conclusion
This study identified themes for a new positive model of European GP. Crucial is the GP as a person, who needs a continuous support and professional development of special competences and wants to have freedom to choose his working environment and organize his practice.

Points for discussion
Who wants to validate these themes in a quantitative study?
Burnout and alcohol consumption in Danish physicians

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Background
Burnout among physicians is increasing and not least among general practitioners. The consequences of burnout for physicians’ health and patient safety are not well-investigated.

Objectives
The objective of this study was to examine the association between burnout and alcohol consumption in Danish physicians.

Material/Methods
The study is based on 1943 anonymous responses (response rate = 49%) of an electronic questionnaire sent out to 4000 members of the Danish Medical Association (DMA). The members were randomly drawn with one third from each of the three DMA subdivisions: PLO (General Practitioners Association), YL (Younger Physicians Association) and FAS (Specialised Physicians Association). Data was collected from April to June 2014. The respondents completed the Alcohol Use Disorders Identification Test (AUDIT) and the Maslach Burnout Inventory Human-Services-Survey (MBI-HSS). AUDIT contains 10 items and a cut-off on 8 was used as indication of problematic alcohol consumption. The MBI-HSS consists of 22 items divided on three subscales: emotional exhaustion (9 items), depersonalization (5 items), and personal accomplishment (8 items). A moderate degree of burnout is defined as a high score on the emotional exhaustion subscale (>26) and/or a high score on the depersonalization subscale (>9). The association between burnout and problematic alcohol consumption was analysed with logistic regression performed separately for members of each subdivision.

Results
The prevalence of moderate burnout differed significantly: 27.3% (PLO), 29.8% (YL) and 19.5% (FAS) (chi2=15.0; p<0.01). The prevalence of problematic alcohol consumption was 16.1% (PLO), 18.4% (YL) and 19.3% (FAS) (p=0.352). Moderate burnout was significantly associated with increased risk of problematic alcohol consumption when adjusting for age, sex and marital status in PLO and FAS-members (PLO: OR=2.3, 95% CI=1.4–3.5; FAS: OR=1.8, 95% CI=1.16–2.9) but not in YL-members (OR=1.0, 95% CI=0.6–1.6).

Conclusion
The results of this study documented an association between moderate burnout and problematic alcohol consumption in PLO and FAS-members. An association between moderate burnout and problematic alcohol consumption was not supported in YL-members in whom the highest prevalence of burnout was observed.

Points for discussion: How can we explain the high prevalence of burnout and its lack of association with alcohol consumption in YL-members? Do burned-out physicians with and without problematic alcohol consumption differ from each other in levels of clinical activities?

Down-prioritizing of COPD when working under time pressure – a qualitative study in primary care in Sweden

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Background
Under-diagnosis and insufficient management of chronic obstructive pulmonary disease (COPD) is common in primary health care.
Abstracts

Objectives
To describe factors that hinder discussions about COPD between primary care physicians (PCPs) and their patients in Sweden.

Material/Methods
Semi-structured individual- and focus group interviews with 59 primary care physicians in Stockholm, Sweden, were conducted during 2012–2014. Data were analysed using Grounded Theory method.

Results
Time pressure, due to many patients or multi-morbidity is the main background factor for 'Prioritizing under time pressure', the core category in a theoretical model describing the core process of 'Down-prioritizing of COPD' by PCPs, at a doctor-patient encounter. The main categories in the model are: 'Not becoming aware of COPD', 'Not becoming concerned due to clinical features', 'Insufficient local routines for COPD care', 'Negative personal attitudes and values about COPD', 'Managing diagnoses one by one' rather than in a holistic way and 'Interpreting patient's motivation as low'.

Conclusion
During a patient-doctor encounter, a PCP is constantly experiencing time constraints leading to down-prioritizing of COPD. Down-prioritizing occurs if COPD is not mentioned in the record or there is a lack of local routines. If the PCP manages the different diagnoses one by one rather than uses a holistic consultation technique, the importance of COPD in patients’ health is not recognized. Even if the patients seem unmotivated, PCPs should use a proactive approach for appropriate information and management of COPD.

Points for discussion
Deeper understanding of the impact of COPD in patients’ lives is needed for improving COPD management. It requires both PCP related (i.e. educational programmes) and policy maker related (i.e. optimizing working conditions) interventions.

Point for discussion: 1) Paying attention to middle-aged patients, smokers, patients with respiratory infections, and by routinely using validated COPD specific questionnaires increases awareness of COPD. 2) Nurse-led COPD appointments at primary health care centres improve COPD care, not least due to increased level of guideline adherence by PCPs. 3) It is important to identify and discuss the PCP’s possible negative attitudes towards COPD and smoking. 4) COPD with its many comorbidities has a multifold impact on both patient and their families. As not only the best current control of the disease but also future risk reduction are goals for optimal COPD care, COPD may be better managed by using a holistic consultation technique. 5) PCPs should not abdicate their role as a medical expert even though the patient might seem unmotivated: Letting the patient's agenda alone determine the terms of the consultation may result in negative long-term consequences.

131-OP

Is patients’ loneliness a matter for general practice? A qualitative study

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Background
Loneliness is linked to morbidity and mortality and use of social and health services resources. Therefore, general practitioners might have an important role to play – or do they? Not much is known about how GPs handle loneliness in their patients, and not much is known about the GPs’ attitude and willingness to take on this task.

Objectives
This study focuses on GPs awareness of the
consequences of loneliness and on their attitudes towards and perception of possibilities to actively address the issue of loneliness during consultations.

Material/Methods
We performed semi-structured interviews with 13 Danish general practitioners partly from an urban area and partly from a rural area. The interviews were transcribed verbatim for thematic analysis.

Results
The interviewed GPs’ spontaneous reaction to our request for an interview focusing on loneliness was that they did not have any lonely patients or at least that they did not know of any. However, when the interviewer turned up a couple of weeks later they all had case stories of lonely patients to tell.

THE INTERVIEWEES HAD slightly different definitions of loneliness, but these differences did not seem to affect their attitudes and behavior regarding lonely patients. Some were hesitant to mention the word loneliness in conversation with the patient and to write it in the record, although they regarded loneliness as a critical factor for disease and recovery. The interviewees all regarded social network and loneliness to be a natural part of anamnesis when relevant, but they did not consider it obvious to investigate feelings of loneliness in patients as an isolated task of theirs. Reasons mentioned for this was that just “diagnosing loneliness” was of limited use — or might be contraindicated — because GPs themselves normally have no tools or options to alleviate this feeling. Knowledge of municipal and other support activities for lonely people that GPs can refer to or recommend was limited.

Conclusion
General practitioners regarded patients’ loneliness as an important factor for disease and health. The dominant feeling of the GPs was that they themselves cannot help the patient get rid of the feeling of loneliness. GPs should have updated information on relevant activities outside general practice in order to guide and refer lonely patients.

Points for discussion
Should general practitioners take an interest in loneliness in their patients? How should they address the topic?

132-OP

Living with double explanations. A qualitative study on Christian faith and mental illness in one of the world’s most secularized countries

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Background
Sweden is one of the world’s most secularized countries. Still, there is a great minority embracing a Christian faith. There is evidence regarding religious engagement being protective in case of mental illness. At the same time research shows that religious patients with mental illness experience inner conflicts in their contacts with secularized health care. Studies exploring and explaining such phenomena in a Scandinavian context are lacking.

Objectives
To create knowledge regarding how people with a personal Christian faith relate to their mental illness, here focusing their understanding of negative mental health.

Material/Methods
A qualitative pilot-study based on thematically structured in-depth interviews with four people with a personal Christian faith and having experienced mental illness. They came from different Christian communities and were recruited through contacts in their church and the snowball method.

The interviews were analyzed according to Qualitative Content analysis.
Results
Four themes were identified; 1. Symptoms. 2. Thoughts about the causes of illness. 3. Consequences. 4. Thoughts about what gives relief and cure.

The participants’ understandings on these themes were similar to those which, according to the literature, are held by people in general. At the same time they revealed understandings that were founded in their Christian belief.

Under the theme “Thoughts about the causes of illness” they described what we came to name “double explanations” to mental illness, where the scientific perspective existed side by side with their belief of spiritual explanations. Under the theme “Thoughts about what gives relief and cure” they tended to turn in a large extent, to their religion to achieve those.

Conclusion
A Christian faith might be an overlooked resource, or risk, for patients with mental illness. Living with “double explanations”, as shown in this group, could bring worries and ambivalences that might be of great importance when these patients seek health care for their negative mental health. More knowledge is needed in the Swedish health care regarding these phenomena. This would most likely make it easier for people with a Christian faith when seeking health care for mental illness, and make it possible to use of their resources.

Points for discussion
Should we talk about religion with our patients? Should the fact that a certain patient has a Christian faith affect our work as General Practitioners when dealing with the patient’s mental illness? What additional knowledge do we need in this field?

A case–control study of self-reported health, quality-of-life and general functioning among recent immigrants and age- and sex-matched Swedish-born controls

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Background
Self-rated health and social well-being are important predictors for morbidity and mortality. Studies of Quality of life (QoL) are thus valuable with regard to organization of health care. Research can be carried out with questionnaires established for worldwide use in multicultural settings. Immigrants as a group seem to be at risk for mental ill health supposed as caused by a mix of pre- and post-migration stress. In Sweden, well-being and QoL have not been investigated among recently arrived immigrants. Very little is known about their global functioning in comparison to the indigenous Swedish population.

Objectives
To examine whether new immigrants had inferior quality of life, well-being and general functioning compared with Swedish age- and sex-matched controls. We hypothesized that the new immigrant group would have significantly inferior health, well-being and social functioning than the SB group at baseline and that this difference in favour of the Swedish born group would be more evident during the following year.

Material/Methods: A prospective case–control study was designed including immigrants
Results

There were 93 pairs (mean age 36 years). Somalis (67%) and Iraq (27%) dominated the PPS group. The differences between the groups were statistically significant for all time points for the Psychological health and Social relationship domains of WHOQOL-BREF, and for the baseline and 6-month follow-up time points of GHQ-12 where the PPS-group had a higher degree of well-being, health and quality of life than the SB. This tendency applied for both sexes in the immigrant group. Instead, the SB persons’ self-ratings of their psychological health and social relations were significantly lower than those of PPS persons.

Conclusion

These new immigrants did not have inferior physical or psychological health, quality of life, well-being or social functioning compared with Swedish born pairs during their first year. Therefore there is reason to focus on new immigrants’ self-assurance regarding good health rather than possible ill-health aspects.

Points for discussion

This study took place under certain time, location and with certain persons. What does that mean for transferrability of results?

134-OP

Depression in caregivers of terminally ill patients

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Background

Family caregivers of terminally ill patients are in a vulnerable position. Former studies show, that they have an increased risk of developing depressive symptoms during the patient’s illness trajectory, but little is known about the association between depression in caregivers and their socio-economic status.

Objectives

The aim was to describe the extent of depressive symptoms in a sample of caregivers of terminally ill patients and to investigate the association between depression and specific socio-economic variables.

Material/Methods

Family caregivers were invited to participate, through letters to eligible patients, who had been granted drug reimbursement for terminal illness in 2012 (n=9,512). In total, 3,637 family caregivers filled in a questionnaire (response rate: 38%). Depressive symptoms were measured using Beck’s Depression Inventory-II (BDI-II) with a sum score based on the 21 items of the scale. The caregivers were divided into two groups: “None-mild depressive symptoms” (BDI-II sum score < 20) and “moderate-severe depressive symptoms” (BDI-II sum score > 20). Associations between depressive symptoms (BDI-II > 20) and socio-economic variables were calculated using logistic regression and were presented as odds ratios.

Results

In total, 17.1% of the caregivers had moderate-severe depressive symptoms; the prevalence of depression in the Danish general population...
is around 4%. Unadjusted analysis showed that the caregivers in the “depressed” group were significantly more likely to be females than males (OR=1.64 (95%CI; 1.32–2.03)), below than above the age of 60 years (OR=1.74 (95%CI; 1.33–2.28), being single than married (OR=1.47 (95% CI; 1.14–1.88)), immigrants than Danes (OR=1.88 (95%CI; 1.15–3.10)), living in a rented house than in an owned house (OR=1.44 (95% CI; 1.19–1.76)). No statistical significance was found regarding the family caregivers’ relation to the patient, educational status, gross income and community size.

Conclusion
Health professionals should be aware of an increased risk of depression among caregivers of terminally ill patients. Depressive symptoms seem to be more frequent in caregivers who are female, young, single, immigrants or living in a rented house. Additional studies are needed to identify other possible predictors of depression in caregivers during a patient’s illness trajectory and to detect caregivers at specifically high risk of developing depressive symptoms.

Points for discussion
What is the significance of the results? What can we do in general practice to support caregivers of terminally ill patients? How do we identify caregivers at risk of developing a depression?

Experiences of human suffering and resilience – a GP meets asylum seekers and immigrants at a Refugee Health Clinic in Gothenburg, Sweden

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Background
Due to war, political conflict, human rights violations and persecution an increasing number of asylum-seekers arrive in Sweden to seek protection. The flight to Sweden is often dangerous and has taken place under extreme conditions. Their countries of origin vary, the majority coming from Syria, Eritrea, Somalia and Afghanistan as well as being stateless.

The Refugee Health Clinic, founded in 2008, has two major goals. 1. To carry out health checks on asylum-seekers. 2. To meet newly arrived refugees with health problems within their first two years in Sweden, referred to the clinic by the State Employment Office.

Objectives
To report experiences – medical as well as psychological - during one year (2014) of encounters with asylum seekers and newly arrived refugees who have been granted political asylum.

Material/Methods
Observational and descriptive data were obtained from encounters with approximately 300 patients analysed from a GP’s point of view.

Results
A majority of asylum-seekers undergoing health checks were found to be physically healthy but suffering from different degrees of mental stress. Those with physical problems suffered results of abuse, bullet injury and other kinds of trauma related to war. Of the referred patients, a majority suffered physically and mentally, especially those having experienced torture, rape and other kinds of severe abuse.

Factors encouraging coping and resilience were: family reunification, proper housing, prospects of work, functional language studies and the quality of the encounter with Swedish Health Care.

Conclusion
Asylum-seekers and newly arrived refugees constitute a heterogenous group of patients. In the medical encounter, an individual approach should be adopted, along with an awareness of the impact of collective experiences of flight and exile. Core values when meeting these patients are quality and continuity of care, respect and curiosity. These are universal values
in Health Care but of special significance in relation to patients with a history of persecution and/or traumatic experiences. Stereotypical explanations and generalisations as to the state of both physical and mental health should be avoided.

Points for discussion:
How to achieve care for asylum-seekers and newly arrived refugees, suffering from physical and mental problems. Professional and societal pitfalls, possibilities and threats.

170-OP

Parenting under-aged children when having cancer – challenges and needs

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Background
Twenty percent of newly diagnosed cancer patients are having under aged children. Cancer is detected progressively earlier than before and cancer treatment is becoming more effective. This creates an even larger group of patients with cancer as a chronic disease, but with a very unpredictable course. Children in a family with a parent affected by cancer are known to be severely affected in psycho-social domains and they may also present many somatic symptoms. Young adults who experienced death by cancer in one of the parents during childhood or adolescents are at increased risk of depression and anxiety in adulthood. Parents affected by cancer face many challenges. They worry about treatment and prognosis, the patient is often dealing with severe side effects from treatment, there may be fear of death, spousal differences in coping with the situation AND worrying about the impact of the disease on their children and how to inform and involve them in the different phases of the disease, treatment and controls.

Objectives
To explore parents’ worries, challenges and needs in parenting young children and how to improve support of the family.

Material/Methods
A qualitative interview study with parents and 8–15 years old children in families where a parent was diagnosed with cancer more than a year ago. The material includes interviews with parents in ten families where a parent has cancer.
A phenomenological approach is adapted and a theoretical frame of mentalization and family dynamic is integrated in the analysis.

Results
The analysis is in progress but initial findings show that parents are often left alone with their doubts and questions about their children’s needs and how to inform them. It is difficult for the parents to evaluate the impact on the disease in their children and teenagers pose a specific challenge. The parents may disagree in their evaluation of the child’s wellbeing and needs. Parents often requested another familiar adult person to talk to the child, but this was very often not the case.

The GP and the nursing staff in the hospital were rarely involved in the children and how to support them, and many parents experienced also some kind of withdrawal from friends and parents of children’s peers.

Conclusion
Parents experience significant parenting stress and uncertainty during the cancer experience and there is a need for family-based interventions as a supplement to the individual support that parents and children are offered. The GP could play a much more pro-active role in families where a cancer patient has under aged children.

Points for discussion
What knowledge and experience are lacking in general practice and how do we improve support to these families?
Perceptions of patient safety culture among general practitioners in the Capital Region of Denmark

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Background
Patient safety culture is a reflection of professional’s shared assumptions, values, beliefs, and practices. Improving patient safety culture has been associated with reductions in specific patient safety problems within the hospital sector, and a culture of safety has been suggested to be a core mechanism of the organizational context underlying safe, effective, and timely patient care. Thus clinical governance activities more and more often include measuring and improving patient safety culture. No previous Danish studies of patient safety culture in general practice have been made.

Objectives
This study aimed to describe patient safety culture among doctors working in general practice in the Capital Region of Denmark, and identify early adaptors in quality improvement.

Material/Methods
A cross-sectional study design was applied using the Medical Office Survey on Patient Safety Culture (MOSOPS). The survey was distributed electronically via mail to 1025 doctors working in general practice.

The Danish version of MOSOPS includes 60 items that measure 14 dimensions of patient safety culture. Respondents also rate their medical office in five areas of health care quality, and provide an overall rating on patient safety. Most answers are given on 5-point Likert scales, and results are expressed as percent positive responses.

Results: In total 502 doctors (49%) responded and 439 surveys were completed. Female doctors amounted to 54%, and 57% were between 36 and 55 years. In total 101 doctors regarded themselves as early adaptors. Positive responses on the dimensions of patient safety culture varied between 47% – 95% with Staff involved in adverse events having the highest percentage (95%) and Time and work pressure the lowest (47%).

Conclusion
The results provide a snapshot of how doctors working in general practices in the Capital Region of Denmark perceive the culture. The results are comparable with international findings. Follow up activities regarding strength and weaknesses are planned to include early adaptors as a starting point.

Points for discussion
Points for discussion are; experiences and results obtained in comparison with other Nordic countries, and ways to motivate general practitioners to engage in quality improvement.

Newly arrived refugees constitute a heterogeneous group of patients.
Data collection in general practice is not easy: experiences from a cluster randomised trial

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**Background**
We need data from general practice to monitor and improve the quality of care, and to conduct research.

We have conducted a pragmatic cluster-randomised trial on tailored interventions to implement guidelines on elderly with depression. We randomised 80 municipalities to intervention or control group. We provided resources to all health-care professionals, but we mainly targeted our interventions at GPs. The GP practice is a core service for most elderly patients, and we measured our primary outcome at the GP level as GPs' adherence to the recommendations. With 80 municipalities, we calculated that 437 GPs should be included.

**Objectives**
To describe our experiences when we collected outcome data for this implementation study.

**Material/Methods**
Outreach visits were offered to all practices in the intervention group from October 2013 to March 2014. We presented recommendation and resources, including determinants of practice, a comprehensive website and a CME course for GPs. All practicing GPs in the included municipalities were eligible for the data collection, which took place June–December 2014. Invitations to participate in data collection were sent by postal services, email and phone calls to practices. We recruited and trained medical students to collect data by structured telephone interviews lasting about 1 hour. We paid the medical students for the interviews, but we were not able to pay the GPs. GPs who responded to the interviews and finished the e-learning course received CME credits.

**Results**
Of 130 practices and 444 general practitioners in 40 municipalities, we visited 88 (68\%) of the practices and 254 (57\%) GPs in 38 (95\%) of the municipalities. Of 900 GPs, only 77 (9\%) consented to participate in an interview and 47 (5\%) responded to a questionnaire, yielding a consent rate for data collection of 14\%. We will present more detailed information regarding our efforts to collect data, details regarding the number and characteristics of GPs who consented to participate in data collection, and consequences regarding the strength of outcome estimates.

**Conclusion**
We were not able to collect data from the expected number of GPs in our study.

**Points for discussion**
We would like to share and discuss our experiences, to get feedback, and to develop ideas on how we might develop appropriate tools and incentives to make it easier for GPs to contribute to data collection. We suggest that better data collection tools, better incentives and a research network in primary care might be helpful.
SESAME: Opening doors to improved digital data collection, enabling large randomised controlled trials in general practice. An inductive software development process

Trygve Skonnord\(^1,2\), *Finn Steen\(^3\), Arne Fetveit\(^1\), Mette Brekke\(^1\), Holgeir Skjeie\(^1\), Atle Klovning\(^1,2\)

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**Background**
A common problem in clinical research in general practice is small sample sizes. Logistics limit the feasibility of conducting large randomised controlled trials (RCTs). Interventions take place in small and busy practices, and researchers often need to organise the study themselves. Funding is often not sufficient to employ research assistants who can do phone interviews or send out reminders.

Electronic questionnaires greatly ease data collection. When planning our RCT – the Acuback trial, we struggled to find existing software that could help automate email distribution. The trial plans to consecutively include 270 patients with acute low back pain, and collect data by electronic questionnaires at 19 defined time-points from before treatment to 1 year after. Consequently, we need to send out separate emails for all questionnaires, totalling 5130 emails, a process that obviously needs to be automated.

**Objectives**
We aimed to develop software that would automate the sending of emails with links to electronic surveys, and thereby improve data collection.

**Material/Methods**
The first version of the software was tested in a pilot study in November 2013. It had limitations, and was unable to deliver multilevel and online access to the software. This was solved in the next version of the program, which now schedules and sends the required emails in the main study that started in March 2014.

The system architecture evolved through an inductive process between the project study leader and the software programmer.

**Results**
We developed an online software application that sends automated emails with links to electronic surveys. We also developed a study monitoring function, detecting missing responses. The software now can send reminders by either email or SMS, thus reducing the incidence of missing data. SESAME is an acronym for “Survey Email Scheduling And Monitoring in eRCTs”.

**Conclusion**
The SESAME software application eases the study logistics by automating and monitoring data collection. This hopefully opens doors to conducting larger RCTs with sufficient sample sizes, enabling researchers to conduct higher quality clinical trials in general practice.

**Points for discussion**
Pitfalls in data collection for RCTs. How to improve the quality of conducting clinical trials in general practice.

“Quality circles – a Quality campaign in Denmark”

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**Background**
Quality cannot be created by sitting alone and filling in forms and pop-ups, there is a need for reflection preferably across generations and sectors. Quality circles or “Peer review groups” are commonly used in primary care in Europe to reflect on and improve the standard practice over time. Controlled studies and reviews have shown positive behavior change for those involved.
**Abstracts**

**Tuesday 13.30 – 15.00**

**IN DENMARK THERE** is a great tradition to perform Quality improvement, but the knowledge sharing on QI across generations is sparse.

**Objectives**
- Establish quality circles across generations of GPs and trainees.
- Involve other sectors in quality improvement in General Practice.
- To use the campaign to reinforce the dissemination of Quality Circles.
- Enhance the sustainability of quality improvement in General practice.

**Material/Methods**
The Danish society of young general practitioners (FYAM) organizes an annual member oriented campaign and in 2014/15 the topic is “Quality circles” across generations and sectors. FYAM has applied and received funding from Quality units in Denmark. This makes it possible to organize Quality circles throughout the country. The Quality circles each consist of 6 trainees, 6 general practitioners and a doctor or healthcare professional, selected based on the topic. The group meets for an after-hour meeting discussing one of 5 pre-selected topics, which are distinguished by being perceived as difficult to deal with in general practice. The discussions are based on cases or data submitted by the participants and address both organizational as well as academic challenges. The discussion begins after a short presentation of the topic by the invited doctor or healthcare professional.

**Results**
The participants will answer a questionnaire before and after the campaign and the answers will be used in an effect study that eventually will be published as an article and presented on WONCA 2016 in Denmark. Results and “take home messages” from the Quality Circles will be shared on FYAMs webpage and on Facebook. In September 2015 there will be an open online Quality Circle on Facebook.

**Conclusion**
The fact that the group-based quality improvement method is a social intervention is believed to be the reason for the increase of reflection and improvement of standard practice over time.

With this Quality campaign FYAM would like to show that the collaboration across generations of practitioners and the cooperation with the secondary sector is important for the sustainability of the quality improvement. Furthermore encourage others to implement quality circles across generations.

**Points for discussion**
Qualitative reports will be available to discuss. Would it be possible to arrange a campaign like this in your country? Are GP’s involving trainees in Quality improvement in your country?

### 140-OP

**What makes General Practitioners participate in modern quality-improvement projects in Denmark?**

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**Background**
Different actions have been performed in order to improve implementation of new evidence in general practice. However, knowledge about GPs’ attitude towards quality development is sparse.

**Objectives**
The aim of this study was to investigate GPs’ attitude towards a specific quality-improvement initiative carried out by Audit Project Odense (APO) targeted at introducing a new national Danish guideline on the treatment of elderly patients in general practice.
**Abstracts**

**Material/Methods**
GPs voluntarily signed on for a 3-months audit. For each patient, above the age of 74 years a computer-based pop-up questionnaire with 10 items regarding health- and social issues was filled in. Questionnaire data were automatically supplemented by data from the patients’ electronic health records. Half way through the audit period the GPs and staff met for a seminar on elderly people. At the seminar and after the audit clinic-specific quality-reports on elderly patients’ health, social conditions, and treatment were handed out to the participating practices. Three months after the registration period, a structured telephone interview with a GP or member of staff in each of 21 participating practices was conducted. Open and closed questions were asked regarding the participants’ opinion about the audit.

**Results**
Telephone interviews were made with six GPs, six nurses, and one secretary. The informants generally agreed that a simple set-up, an individualised approach, and a local anchoring were important reasons for participating in the project. The APO brand, the modern computerised approach, and the interdisciplinary participation were important factors too. Most practices reported that they had gained new information and some that they had changed procedures and/or improved their in-clinic cooperation in the treatment of elderly patients as result of their participation in the audit.

**Conclusion**
The participant evaluation worked well and obtained information valuable to the planning of future audits.

**Points for discussion**
How to obtain a systematic participant evaluation of quality-improving projects in general practice? How do we learn from the participants? How to obtain ownership of learning culture and improvement projects? How to ensure appropriate coordination of learning initiatives?

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**141-OP**

**Is self-rated health a stable and predictive factor for allostatic load in early adulthood? Findings from the Nord Trøndelag Health Study (HUNT)**

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**Background**
Self-rated health (SRH) is a widely used health indicator predicting morbidity and mortality in a wide range of populations. However, little is known about the stability and biological basis of SRH.

**Objectives**
The aim of this study was to map the stability of SRH from adolescence to early adulthood, and to examine the relationships between SRH and biological dysregulation, in terms of allostatic load (AL).

**Material/Methods**
The AL score comprises the eleven biomarkers systolic blood pressure (SBP), diastolic blood pressure (DBP), heart rate (HR), cholesterol, high-density lipoprotein cholesterol (HDL), triglycerides, waist-hip ratio (WHR), diabetes risk profile, glucose, C-reactive protein (CRP) and body mass index (BMI). Eleven years prospective data from the Nord-Trøndelag Health Study (HUNT), Norway, were utilised. Baseline data were gathered from 9141 adolescents (mean age 15.9 years) in the Young-HUNT I survey (1995–1997) and follow-up data were gathered from the adult HUNT3 survey (2006–2008). Altogether, 1906 respondents completed both questionnaires and clinical measurements in both studies.

**Results**
Cross-tables for SRH at baseline and follow-up showed that SRH remained unchanged in 57% of the respondents. Only 3% of the respondents changed their ratings by two steps or more on a four-level scale. Further, linear regression analyses adjusted for age and gender
revealed that SRH in adolescence predicted AL in young adulthood. Similar patterns were found for most of the individual biomarkers.

Conclusion: The consistency found in SRH from adolescence to young adulthood, and its association with AL across time, indicate that routines for dealing with SRH early in life may be a central strategy to prevent morbidity in the adult population.

Points for discussion
The linking of subjective health rating and later objective health related parameters.

Objectives
To describe and analyze Danish GPs’ a-priory attitudes and expectations towards a nationwide mandatory accreditation.

Material/Methods
A nationwide survey among all Danish general practitioners (3403) working in the publicly funded health system in December 2014. The survey was done electronically and we obtained email addresses from the Danish Medical Association.

The questionnaire was developed by healthcare researchers inspired by the current literature. It consisted of items with these themes: Attitudes towards various aspects of accreditation, present organization of tasks, job satisfaction, and organization. For most items, the respondents could fill in free text comments. The questionnaire was pilot tested among 15 GPs for feasibility and understanding. For analysis we used chi square and logistic regression models. Free text comments were categorized into themes.

Results
A total of 1906 (56%) respondents returned the questionnaire. Non-responders and responders did not differ with respect to age, practice organization, sex, or region. A total of 45% of the GPs had negative attitudes towards accreditation versus 23% with positive attitudes. Groups of GPs with more negative attitudes were: GP aged 50 or older (50% vs. 38%), females (51% vs. 39%), GPs from region North Denmark (54%), and GPs from partnership practices (55% vs. 41%).

Conclusion
A large proportion of Danish GPs have a negative a-priory attitude towards a nationwide mandatory accreditation for general practice. Implementation strategies should take these negative attitudes into consideration.

Points for discussion
How can accreditation in primary care be part of quality improvement? How can job satisfaction be affected by accreditation?
Longitudinal trends in good self-rated health: effects of age and birth cohort in a 25-year follow-up study in Sweden

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Background
Although average life expectancy has increased considerably in Sweden, there is less evidence for improved self-rated health (SRH).

Objectives: We analyzed longitudinal trends in SRH between 1980/81 and 2004/05 in age and birth cohort subgroups.

Material/Methods
2728 males and 2770 females, aged 16–71 years, were interviewed every eighth year. Mixed models with random intercepts were used to estimate changes in SRH within different age groups and birth cohorts, adjusting for potential confounders.

Results
During the 25-year follow-up, SRH improved in individuals aged ≥48 years, but became poorer or was unchanged in those aged 16–47 years. All birth cohorts showed poorer SRH with increasing age, with an adjusted odds ratio (95% confidence interval) of 0.94 (0.93–0.95) in males and 0.92 (0.91–0.93) in females.

Conclusion
While SRH in the older age groups improved, SRH became poorer in the youngest. Poorer SRH is deeply worrying for the affected individuals, and may also have a negative impact on the health care system.

Points for discussion
Although mental illness, socioeconomic factors, and lifestyle may be potential mechanisms, future studies are needed to investigate the reasons behind this trend. Further research is needed to determine whether this negative trend continues and whether it also exists in other countries. Interventions in this area should focus on younger adults, especially females.

Reducing Prescriptions of Long-Acting Benzodiazepine Drugs in Denmark: A Descriptive Analysis of Nationwide Prescriptions during a 10-Year Period

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Background
Prolonged consumption of benzodiazepine drugs (BZD) and benzodiazepine receptor agonists (zolpidem, zaleplon, zopiclone; altogether Z drugs) is related to potential physiological and psychological dependence along with other adverse effects.

Objectives
This study aimed to analyse the prescribing of long-acting BZD (half-life >10 hr), compared to short-acting BZD in Denmark during a 10-year period.

Material/Methods
Descriptive analysis of total sales data from the Danish Register of Medicinal Product Statistics, to individuals in the primary healthcare sector, of all BZD and Z drugs in the period of 2003–2013. Prescription data derive from all community and hospital pharmacies in Denmark.

Results: The prescribing of long-acting BZD was reduced from 25.8 defined daily doses (DDD)/1000 inhabitants/day in 2003 to 8.8 DDD/1000 inhabitants/day in 2013, a relative reduction of 66%. The prescribing of short-acting BZD was reduced from 26.1 DDD/1000 inhabitants/day in 2003 to 16.4 DDD/1000 inhabitants/day in 2013, a relative reduction of 37%.
Conclusion
The observed reduction in BZD use was correlated to the introduction of new national guidelines on prescription of addictive drugs, but this study was not designed to detect a causal relationship. The prescribing of long-acting BZD decreased considerably more than the prescribing of short-acting BZD in the 10-year period.

Points for discussion
– Have other Nordic countries seen the same decline in the use of benzodiazepines?
– Is it correlated with the introduction of national guidelines or other interventions?

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Successful withdrawal from long-term use of benzodiazepine-type hypnotics is possible in primary care outpatient clinic and improves sleep and quality of life in older people with primary insomnia

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Background
Primary insomnia is often associated with the chronic use of benzodiazepine-type hypnotics (here BZD). Tolerance and dependence develop easily, and BZDs increase the risk of fractures and dementia.

Objectives
Our aim was to study the effect of withdrawal from the long-term use of BDZs on perceived sleep and quality of life in older outpatients with primary insomnia.

Material/Methods
Double-blind, RCT was performed in a primary care clinic (Pori). 92 men or women (>65 years) with primary insomnia, chronic temazepam, zopiclone or zolpidem use and willingness to withdraw their BZDs received either melatonin (2 mg) or placebo nightly for one month, during which BZDs were aimed to be gradually withdrawn. A primary care physician and nurse gave individual sleep hygiene counselling and psychosocial support. Melatonin did not improve withdrawal results over placebo. Different parameters of sleep and quality of life were studied using a questionnaire at baseline (before withdrawal), and 1 and 6 months later.

Results
89 participants (97%) completed the 6 months follow-up. At month 6, 34 of the participants were total withdrawers (TWs) and 55 continued or only reduced their BZDs (NWs). The sleep onset latency was similar in both groups at baseline but at 6 months it was shorter in TWs than in NWs (P=0.017), and TWs didn’t need additional medicine at nightly awakenings (P<0.0001 compared to baseline; P=0.034 compared to NWs). Also NWs reduced their use of nightly additional medicines, COR 2.70 (1.42-5.15; P=0.0025 vs. baseline). Compared to baseline, fatigue during days alleviated in TWs (P=0.0002) but not in NWs. Quality of life was better in TWs than in NWs (P=0.036) at months 1 and 6, and stress was decreased in TWs more than in NW (P=0.039). In TWs stress was abated already at month 1 compared to the baseline, by COR 2.49 (1.46-4.24) (P=0.0008). Satisfaction with life and self-reported health were recuperated in TWs at month 6.

Conclusion
Chronic BZD-users suffered from sleep disturbances, day-time fatigue, and impaired quality of life, which were reversible within 6 months of successful BZD withdrawal. Withdrawal of chronic use of BZDs as hypnotics is possible also in primary care and improves quality of life in older people with primary insomnia. Psychosocial support should be combined to gradual dose reduction of BZDs, and melatonin or placebo may be of benefit.
Points for discussion
1. Have you seen hypnotic dependent older people in your practice?
2. Have you tried to withdraw chronic BZD-users?

145-OP

GPs experiences and attitudes with prescribing potentially addictive medication to elderly patients, and the effects of an educational intervention program. (Based on the Rx-PAD-study)

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Background
Elderly people’s risk of harmful side effects from use of potentially addictive medication (PAM) is well known. Still, use of z-hypnotics, benzodiazepines and opioids continue to increase among elderly. The majority of the prescriptions are issued by general practitioners (GPs).

Objectives
To assess Norwegian GPs experiences and attitudes with their own prescription practice of PAMs to elderly patients, and to consider the effects of a conducted individual educational intervention on prescribing to elderly (The Prescription Peer Academic Detailing study, the Rx-PAD study).

Material/Methods
Based on literature studies and material from part I of the Rx-PAD-study, an interview guide was prepared. Clinical relevant questions were emphasized to assess GPs prescription patterns, attitudes and possible effects of educational intervention on PAM prescribing to elderly patients. Established GP education groups who had participated in the Rx-PAD-study were invited.

Results
Four focus group interviews, with a total of 23 GPs, were conducted through 2010/2011. The interviews were digitally recorded, transcribed and analyzed through qualitative methods. GPs considered their overview of listed elderly patients receiving potentially addictive medication as good and hypnotic prescriptions as the most challenging area of PAM prescribing. Tending an educational intervention program had increased the GPs awareness to improve the quality of their own PAM prescribing practice to elderly patients.

Conclusion
GPs consider prescribing potentially addictive medication to elderly patients as manageable, but also challenging due to complex and individual conditions related to both prescriber and patients.

Points for discussion
1. In Norway, over 60% of all potentially addictive medication prescriptions to patients 70 years and older, are issued without face-to-face contact between patient and doctor. Do GPs tend to have less restrictive practices on prescribing potentially addictive medication to elderly than to other patient groups?
2. Is potentially addictive medication given as pre-packed daily medicine dosis adding to the problem of increasing use among elderly?
Comparison Between the Montgomery Asberg Depression Rating Scale-Self (MADRS-S) and the Beck Depression Inventory II (BDI-II) in Primary Care

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Background
The Montgomery Asberg Depression Rating Scale-Self (MADRS-S) and the Beck Depression Inventory II (BDI-II) are commonly used self-assessment instruments for screening and diagnosis of depression. The BDI-II has 21 items and MADRS-S has 9 items. These instruments have been tested with psychiatric inpatients but not in outpatient primary care, where most patients with symptoms of depression initially seek treatment.

Objectives
The purpose of this study was to compare these 2 instruments in the primary care setting.

Material/Methods
Data were collected from 2 ongoing randomized controlled trials in Sweden. There were 146 patients (73 patients each from both trials) who had newly diagnosed mild or moderate depression and who had assessment with both MADRS-S and BDI-II at primary care centers. Comparability and reliability of the instruments were estimated by Pearson product moment correlation and Cronbach alpha.

Results
A good correlation was observed between the 2 instruments: 0.66 and 0.62 in the 2 study cohorts. The reliability within the 2 study cohorts was good for both MADRS-S (Cronbach alpha, 0.76 for both cohorts) and BDI-II items (Cronbach alpha, 0.88 and 0.85).

Conclusion
The 2 instruments showed good comparability and reliability for low, middle, and high total depression scores. The MADRS-S may be used as a rapid, easily administered, and inexpensive tool in primary care and has results comparable to BDI-II in all domains.

Points for discussion
How do/should we use self-assessment in Primary Care? How can we enhance the quality of depression treatment in Primary Care?

A longitudinal study of diabetes mellitus With special reference to incidence and prevalence, and to determinants of macrovascular complications and mortality

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Background
Diabetes affects 382 million people worldwide and is increasing in almost all countries. It is associated with excess morbidity and mortality, mostly owing to cardiovascular disease (CVD). Patients may have undetected type 2 diabetes for many years and at clinical diagnosis CVD risk factors and complications are already common. Consequently many organizations recommend screening for type 2 diabetes in high-risk individuals in order to prevent complications.

Objectives
To investigate diabetes prevalence, incidence, mortality trends, the effects of hyperglycaemia and blood pressure, diabetes and hypertension treatment, and the effect of screening detection on total and CVD, myocardial infarction (MI) and stroke incidence.
Material/Methods
Between 1972 and 2001 all patients with diabetes, some detected clinically and some by case-finding procedures (screening), were entered in a diabetes register at Laxå Primary Health Care Center in Sweden. The register included information on medical treatment and laboratory data as well as information on mortality and morbidity from National Registers. The register was supplemented with five non-diabetic subjects, matched to each diabetes patients by age, sex, and year of detection.

Results
During the study period 776 new diabetes cases was found, 36 type 1 diabetes mellitus and 740 type 2 diabetes mellitus. Age standardised incidence and prevalence rates for type 1 and type 2 diabetes did not increase over time. Diabetic patients had 17% higher mortality rate than non-diabetic persons, 22% in women, 13% in men. The corresponding over-mortality in CVD was 33%, 41% in women and 27% in men. CVD mortality decreased across time in non-diabetic subjects and in diabetic men but not in diabetic women. Results regarding coronary heart disease (CHD) were similar. CVD incidence increased with fasting blood glucose (FBG), body mass index (BMI), mean arterial blood pressure (MABP), and decreased with metformin treatment and sulfonylurea. Myocardial infarction incidence increased with FBG, BMI and MABP, and decreased with metformin treatment. Stroke incidence increased with MABP. There was no difference in prognoses between those detected by screening or clinically.

Conclusion
Diabetes prevalence and incidence did not change over time. The over-mortality according to diabetes was moderate. CVD and MI during follow up were negatively affected by hypertension and hyperglycaemia, and positively by pharmacological diabetic treatment. For stroke no pharmacological protective effect was seen. Screening did not improve prognosis.

Points for discussion
What are the best options for treatment of patients with type 2 diabetes? Do we focus too much on glucose control vs other risk factors? Should we screen for diabetes as many organizations recommend?

151-P

Reporting of results from clinical drug trials in Norwegian general practice

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Background
Reporting of results is important to avoid publication bias and unnecessary replication of research. Clinical drug trials in general practice are mainly conducted by the pharmaceutical industry.

Objectives
The aim of this study was to identify clinical drug trials in Norwegian general practice over a 10-year period, and examine this cohort of trials for publications, public registration and methodological characteristics.

Material/Methods
A cohort of drug trials in Norwegian general practice was previously identified from the Norwegian Medicines Agency archive with year of application for approval 1998–2007. Clinicaltrials.gov was searched for public registration of the trials. Systematic literature searches of Medline, Embase and CENTRAL were performed to identify publications originating from each of these trials using characteristics such as test drug, comparator and patient groups as search terms. Author information and methodological characteristics were registered from the publications of the trials. Where no publication was identified, the trial sponsors will be contacted for information of
whether the trial had been carried out or not, if there exist any publications not identified by our literature searches, and reasons for either not carrying out the trial or for not publishing results.

Results
We identified 196 trials in the cohort of trials, of which 189 were industry-initiated. The trials were planned to be completed from 1998 to 2012. Half of the trials were registered at www.clinicaltrials.gov, most of these had application year 2003–2007. For about one third of the trials we did not find any published results. Results with methodological characteristics of the publications and information about the trials provided by the sponsors will be presented at the congress.

Conclusion
For about one third of the drug trials in a cohort of trials in Norwegian general practice no published results were identified, and half of the trials were not registered at clinicaltrials.gov. This may contribute to a deficient medical knowledge base.

Points for discussion
What impact does publication bias have on clinical decision making in general practice? How can we make it easier to conduct clinical drug trials in general practice?

Background
The GP plays a central role in pregnancy care and examines the woman when she is 6–10, 23 and 32 weeks of gestation, as well as 8 weeks postpartum. The focus of these examinations is mainly on spotting complications and high-risk pregnancies. The content of the examinations is described by the National Board of Health. It is not known whether the description is followed. The GP makes notes in the patient file, but this is rarely done systematically and research into the quality of the data is not possible. There is a need for a tool to secure the quality of the examinations and information exchange between the pregnant women, the GP and the midwife. This information would also be useful for research purposes.

Objectives
To improve the quality of pregnancy examinations during systematic registration by an interactive electronic pregnancy health record.
To establish a birth cohort in general practice.

Material/Methods
The project group has designed the electronic pregnancy health record as a quality development project for the GP. Later, when the electronic pregnancy health record is implemented, it will form the basis of data in a national birth cohort.

Results
The pregnant woman fills in parts of the pregnancy health record at home before her consultation. In addition, she can note topics she wants to discuss with the doctor.

The data capture system picks up laboratory data and medication.

The record is designed to send data forward and back from the GP’s health record to the midwife’s health record, and to the pregnant women.

For research purposes it would be possible to store all the answers in the pregnancy health record (not possible in a paper version) in a database, which would allow the creation of a cohort of pregnant women in Denmark. Additional information can be gathered through pop-up questionnaires on the GP’s computer screen e.g. lifestyle/mental health/over-the-counter medicine and the outcome of pregnancy.
**Abstracts**

**Conclusion**
The electronic pregnancy health record has the potential to improve clinical practice and at the same time provide high quality data for new research into pregnancy.

The electronic pregnancy health record offers the pregnant women to have access to a full and updated version of her pregnancy health record and has the potential to improve communications with other parts of the healthcare system.

**Points for discussion**
What could be suggestions for research questions regarding health in pregnancy? Can we get the pregnant women to fill in parts of her pregnancy record at home?

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**153-P**

**Method to collect patient assessments**

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**Background**
Danish Quality Unit of General Practice will from the 1st of January 2015 provide surveys among patients in general practice to examine the patients assessment of their general practitioner. The aim of the surveys is to provide information about the patients experiences as a useful tool to assess and improve the quality in general practice. Patient assessments is also one of the indicators in the accreditation of general practice provided by The Danish Healthcare Quality Programme (DDKM).

**Objectives**
The aim of the study was to examine the method of collecting patients assessment of their general practitioner.

**Material/Methods**
A relatively large clinic in Silkeborg containing three general practitioners participated in the project. Each GP invited 130 patients to participate in the survey by consecutively in the consultation giving the patients a postcard containing internet link to the survey. The survey-period was two months. Subsequent the response rate was studied.

**Results**
The main aim was to study the response rate of the method to invite patients to the survey. The average response rate of the survey was 27.9% varying per doctor from 13.8% to 35.4%.

**Conclusion**
This method of collecting patients assessment is one of the indicators in the accreditation of general practice provided by The Danish Healthcare Quality Programme (DDKM). Further development of the DANPEP-questionnaire may give higher response rates.

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**155-P**

**Svårt och/eller problem att sova. En kvalitativ primärvårdsstudie**

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**Background**
En långtids europeisk medicinsk tradition satsade på sjukdom och mindre på sjuka personen. Nu förtiden medicin är mer teknisk, diagnostisk och kanske därför lättare att missa vid läkarbesök några mänskliga aspekter, varken personliga eller sociala.

**Objectives**

Jag vill hjälpa patienten och sjukvårdspersonalen att förstå bättre sömn, ”svårt att sova” eller sömnproblem.

**Material/Methods**

**DESIGN:** Studien är fenomenologisk.

**STUDIEPERSONER:** Målgruppen är vuxna personer som anger ”svårt att sova” som besöksorsak. Sömnbesvär skall ha förekommit minst tre gånger per vecka i minst en månad. Exklusionskriterier är svår sjukdom, svår smärta och barn <18 år.

**PLATS:** Oxbacken vårdcentral.

**METOD:** Studien görs av förskaren genom reflexiv process intuitivt och kategoriellt där vill man hitta essensen eller kärna i patientens upplevelser.

**Results**

Essentiell hittar man ett behov av kontroll vid insomning och hyperaktiv eller blockerad kiasm (koppling) med fokus på framkommande tankar, företeelser, obehagliga känslor, ottrygghet, meningslöshet. Vid uppvaknandet har man påverkade sociala affekter (ensamhet, mindre tolerans, minskad livlust, irritabilitet). Sömnkvaliteten är viktig oavsett sömnlängden.

**Conclusion**

Studien satsar på personen och trots gemensamma aspekter det finns individuell variation både över tid och i population. Den visar några kognitiva och affektiva komponenter som kan förbättras genom patientens egna förståelse, kognitiv- eller psykoterapi. Behandlingen (t.ex. KBT, psykofarmaka, mm) och uppföljningen bör anpassas individuellt.

**Points for discussion**


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**156-P**

Empowering patients with multimorbidity through patient involvement in general practice consultations. A qualitative study on effects and challenges of patient involvement in general practice

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**Background**

Patients with multimorbidity experience a great burden of diseases hence followed by a great burden of treatment and self-care. In Denmark, the prevalence of multimorbidity is high in social deprived areas and among patients with short educational background and low self-care ability. Involving patients with multimorbidity in decision making is thought to empower and influence these patients self-care for the better. Based on a qualitative study this presentation shows first, the type of patient knowledge that should be included in health decisions in general practice and second, points to how and where this could be implemented in consultations.

**Objectives**

Can patient involvement in general practice consultations empower patients to improve self-care?
Material/Methods
The data is in process and is collected through observations of eight consultations in general practice followed by individual semi-structured interviews with both the patients and their GP. Patients are then followed in an anthropological fieldwork focusing on how decisions made in consultations are transformed into self-care in every day life. Framework analysis will be applied to analyse the material.

Results
Initial results show that despite physicians’ willingness towards involving patients they seem to experience difficulties in the case of patients with multimorbidity and poor ability to self-care. These patients on the other hand, are having troubles expressing preferences and both parties find it hard to establish a good dialogue and prioritize problems during the consultation. Often this leads to misunderstandings and patients’ unbeficial prioritizing of self-care. On the other hand, when a therapeutic alliance is established between patient and physician, patients feel empowered and seem to have better self-care.

Conclusion
Results for the present study support international literature on effects and challenges of patient involvement in general practice. Our findings identifies furthermore a connection between multimorbidity, empowerment and involvement; suggesting that patients with low ability of self-care can be empowered and improve their self-care through involvement. Further research is necessary to back up these findings in order to improve care and quality of life of the growing number of people with multimorbidity.

Points for discussion:
What are the challenges in involving patients with multimorbidity in decisions regarding treatment and care?
Good examples of how and when to involve patients in consultation with multimorbidity. Which methods are well-suited, experiences of decision aids etc?

Heart failure in patients with chronic obstructive pulmonary disease in a Swedish population – a register based study

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Background
Despite that heart failure and chronic obstructive pulmonary disease (COPD) often coexist and have serious economic and clinical implications, both diseases have mostly been studied separately.

Objectives
We aimed to study prevalence of coexisting heart failure and COPD in a Swedish population. Further aims were to describe other comorbidity in these patients and where patients with coexisting heart failure and COPD receive care: primary, secondary health care or both.

Material/Methods
A register-based, cross-sectional study. The study included the total population older than 19 years (313977 inhabitants) living in Östergötland County in Sweden. The data was obtained from the Care Data Warehouse register from the year 2006. The diagnosis-based Adjusted Clinical Groups (ACG) Case-Mix System 7.1 was used to describe comorbidity. Comorbidity was measured when both the diagnoses heart failure and COPD were excluded and is referred to as other comorbidity.

Results
The prevalence of the diagnosis of heart failure in patients with COPD was 18.8% while only 1.6% in patients without COPD. Levels of other comorbidity were significantly higher (p < 0.001) in patients with coexisting heart failure and COPD compared with patients with heart failure or COPD alone. Primary health care delivered care to 20.7% of patients
with coexisting heart failure and COPD and to a further 21.7% together with secondary health care. Among patients with the diagnosis of heart failure alone 36.2% received care in primary health only and 21.5% in both primary and secondary health care. The share of total care between primary and secondary health care varied depending on levels of comorbidity.

**Conclusion**
Patients with coexisting diagnosis of heart failure and COPD are common in a Swedish population. Patients with coexisting heart failure and COPD have higher comorbidity levels than patients with heart failure or COPD alone. Primary health care in Sweden participates to a great extent in care of patients with heart failure and coexisting heart failure and COPD.

**Points for discussion**
Coexisting heart failure and COPD – a challenge for future health care. The usefulness of register based data for epidemiological studies.

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**160-P**

**Effects of notifications of GPs on delayed follow-up of abnormal or inadequate test results in the Danish Cervical Cancer Screening Program**

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**Background**
Denmark has a higher standardised incidence rate of cervical cancer than other Nordic countries, although all Danish women (aged 23–65) are screened regularly to identify possible cervical dysplasia or asymptomatic invasive cancer. Annually, women in Denmark have 40,000 abnormal or inadequate test results with a recommendation for follow-up. The test results are sent to the general practitioners (GPs) who convey the results to the women. However 17% of follow-ups are delayed and this may challenge the effectiveness of the Danish Cervical Cancer Screening Program, as dysplasia can potentially progress into cancer. National initiatives attempt to meet this challenge by implementing automatic GP-notifications when women postpone recommended follow-up, expecting that GPs would contact women and thereby shorten delay.

**Objectives**
The aim of this project was to evaluate if automatic notifications of GPs will shorten delays of women with a recommendation for follow-up.

**Material/Methods**
In a nationwide register-based before-after study all women with a follow-up recommendation after a cervical cytology were identified in the national Danish Pathology Data Bank. The register collects data from all regional pathology departments and private specialists in pathology, so all types of follow-up are registered here i.e. dates of a new cervical cytology or possible histology. A period before (2010–2011) was compared with a period after the implementation of GP-notifications in (2012–2013). It is analysed whether fewer women with a follow-up recommendation were delayed according to different pre-specified timeframes after the implementation of GP-notifications compared with before.

**Results**
All data are collected and currently the analyses are ongoing. Results will be presented at the conference.

**Conclusion**
The findings can guide the future organisation of the Danish Cervical Cancer Screening Program and may also have international interest because of similar follow-up challenges in other countries.

**Points for discussion:**
Will GP notifications change women’s behaviour and lead them to prioritise follow-up?
Data capture helps patients with cardiovascular disease recover

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Background
During recent years, the international and national guidelines have recommended increased reduction of the LDL level for patients suffering from CVD and diabetes. In Denmark it is recommended that the LDL level is less than 2.5 mmol/l for patients with CVD and/or diabetes.

Objectives
Data capture can be used to implement and visualise the need for and effect of cholesterol reducing treatment with statins for patients suffering from cardiovascular disease (CVD).

By means of data capture, we have since 2012 been able to visualise the LDL level in our own patient population compared to the national average of the LDL level for CVD patients.

IN JANUARY 2012 the numbers (figure 1) showed that our CVD patients had a higher percentage of LDL than the national average.

Material/Methods: Through a goal-oriented effort among our CVD patients, we have gradually improved their LDL level as shown in figures 1–5.

Results:

<table>
<thead>
<tr>
<th>CARDIOVASCULAR PATIENTS</th>
<th>Our patient population</th>
<th>National average</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2012</td>
<td>46%&gt; 2.5</td>
<td>42%&gt; 2.5</td>
</tr>
<tr>
<td>August 2012</td>
<td>48%&gt; 2.5</td>
<td>42%&gt; 2.5</td>
</tr>
<tr>
<td>December 2012</td>
<td>39%&gt; 2.5</td>
<td>40%&gt; 2.5</td>
</tr>
<tr>
<td>August 2013</td>
<td>33%&gt; 2.5</td>
<td>40%&gt; 2.5</td>
</tr>
<tr>
<td>August 2014</td>
<td>31%&gt; 2.5</td>
<td>40%&gt; 2.5</td>
</tr>
</tbody>
</table>

Conclusion
Data capture is an efficient way of working with quality development in primary health care. It is noticable that the LDL level was improved for all CVD patients in 2013, which may be coinciding with the fact that Zarator lost their patent, and thus atorvastatin became cheap and available for more patients.

Points for discussion
The use of data capture to implement new knowledge.

Post-myocardial infarction anxiety or depressive symptoms and risk of new cardiovascular events or death: a population-based longitudinal study

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Background
Post-MI anxiety symptoms have been associated with a composite outcome of new cardiovascular events or death, but previous studies have not fully adjusted for potential confounders. It remains unclear whether anxiety symptoms are independently associated with both new cardiovascular events and death.

Objectives
To examine the association between anxiety symptoms 3 months after myocardial infarction (MI) and/or new cardiovascular events and death, taking into account established risk factors, and to compare the results with those of the impact of depressive symptoms.

Material/Methods
A population-based cohort study of 896 persons (70% of eligible) with first-time MI between 1 January 2009 and 31 December 2009, completing the Hospital Anxiety and
Depression Scale, were followed up until 31 July 2012.

**Results**
A total of 239 new cardiovascular events and 94 deaths occurred during 1975 person-years of follow-up. Cox proportional hazards models showed that anxiety symptoms were associated with both new cardiovascular events and death in analysis adjusted for age only. The estimates decreased when adjusted for dyspnea score, physical activity, and depressive symptoms, and anxiety symptoms were no longer associated with new cardiovascular events (hazard ratio [HR] = 1.02, 95% confidence interval [CI] = 0.98–1.07) or with death (HR = 0.94, 95% CI = 0.88–1.01). In fully adjusted models, depressive symptoms remained associated with death (HR = 1.13, 95% CI = 1.05–1.21), but not with new cardiovascular events (HR = 1.02, 95% CI = 0.99–1.06).

**Conclusion**
Post-MI anxiety symptoms were not an independent prognostic risk factor for new cardiovascular events or for death, whereas depressive symptoms were associated with an increased risk of mortality.

**Points for discussion**
What is the role of the GP in according to patients with a chronical physical disease and concommitant mental disease? Why is post-MI depression and not post-MI anxiety related to mortality? Do MI-patients with anxiety differ from those with depression?

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**Construct validity of the Perceived Stress Scale among adult Danes in the Central Denmark Region**

**Marie Mortensen**¹ on behalf of MEPRICA, **Eva Ørnbøl**², **Mogens Vestergaard**³ on behalf of MEPRICA, **Per Bech**⁴, **Finn Breinholt Larsen**⁵, **Mathias Lasgaard**⁶, **Kaj Sparle Christensen**⁷ on behalf of MEPRICA

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³Research Unit for General Practice and Section for General Medical Practice, Institute of Public Health, Aarhus University, Aarhus.
⁴Clinimetrics Centre for Mental Health (CCMH), Mental Health Centre North Zealand, Hillerød.
⁵Public Health and Quality Improvement, Central Denmark Region, Aarhus, Denmark.

**Background**
Psychological distress has considerably impacts on the quality of life worldwide, and stress is a known risk factor for mental and physical disorders. Originally the Perceived Stress Scale (PSS) was argued to be a single construct with six negatively and four positively worded items (item 4, 5, 7 and 8) which are reversely scored. Subsequent studies indicated that a two-factor structure was more dominant. The PSS has previously been studied by methods from classical test theory.

**Objectives**
In the present study, we aimed to explore the construct validity of the PSS using methods from modern test theory.

**Material/Methods**
The study population consists of 30,000 citizens in the Central Denmark Region, who completed the PSS in the Danish National Health Survey in 2010. We examined if data fitted the Rasch model for a unidimensional model and for the suggested two dimensions. We investigated fit to the model with ordering of response categories and collapsed response categories. Additionally
we tested fit of data to the model in subgroups based on age and gender and by subsequently deleting items with the largest misfits.

**Results**
The analysis showed floor effect in the responses. The data did not fit the Rasch model for all ten items and the five response categories. Item 4 had the largest misfit in most performed analyses. Response categories were collapsed for two items, 4 and 7 but it did not improve the fit of data. The assumption of unidimensionality was not fulfilled and data did not fit the model for the suggested two dimensions. The collapsed response categories for two of the ten items did not improve the model fit. Data did not fit the model for subgroups of age and gender.

**Conclusion**
The results suggest that we face scalability challenges with the current version of the PSS scale.

**Points for discussion**
For future research using PSS we suggest revision of the scale to improve fit of data to the Rasch model. We need to assess the content validity of the scale, especially regarding the positive formulated items.

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**165-P**

**Implementation and quality monitoring of e-communication across health care sectors**

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**Background**
There has been an increased focus on how to improve the quality of care for patients that receives services from more than one sector in the health care system. Continuity in and coordination of patient pathways in the health care system are included in accreditation standards both for general practice and hospitals. An important factor for patient-perceived quality of care is the cooperation between the health care sectors that provides services for the patient. In 2009 the Region of Southern Denmark launched a collaboration agreement called Sam:Bo between general practice, hospitals and municipalities. The Sam:Bo agreement comprises guidelines for clinical pathways that involves more than one of the participating stakeholders and specified quality standards for the content and timeliness of information exchange across sectors. Part of the Sam:Bo agreement is the implementation of quality monitoring of specified quality standards.

**Objectives**
To monitor the quality of the Sam:Bo e-communication.

**Material/Methods**
An explicit audit performed in all local municipalities and at selected hospital departments from all hospital units in the Region of Southern Denmark. The audit was conducted in January–March 2015. Data will be analysed at the regional Centre for Quality. Results from each hospital and local municipalities will be presented at local audit meetings, in which challenges to address and subsequent initiatives are discussed.

**Results**
The audit is ongoing and results will be presented at the conference. Preliminary results show that the assessed general quality of hospital admissions reports was good (37%), reasonable (35%) or inferior (29%): For correspondence messages the assessed general quality was good (65%), reasonable (25%) or inferior (9%).

**Conclusion**
Results from this audit will identify challenges in e-communication across health care sectors and provide knowledge of the implementation and quality of the Sam:Bo e-communication.

**Points for discussion**
How to improve quality of care using e-communication in general practice in the handover of patients and how to measure it? What are the general practitioners responsibilities?
**166-P**

**Prophylactic treatment with oral anticoagulants in atrial fibrillation – are recommendations considered? A survey in primary care in west-Sweden**

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²R&D Center Skaraborg, Närhälsan R&D Primary Care, Skövde.
³Department of Molecular and Clinical Medicine, The Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden.

**Background**
Atrial fibrillation is the most common cardiac arrhythmia among adults (2.9% in Sweden). For patients with this condition, the risk of having thromboembolic stroke is increased. Prophylactic treatment with anticoagulants, warfarin or new oral anticoagulants (NOAC) is recommended. This significantly reduces the risk. Former treatment with acetylsalicylic acid is no longer recommended. The adoption of the new recommendations in primary care is of interest.

**Objectives**
To study the treatment with anticoagulants among patients with atrial fibrillation at a primary health care center in west-Sweden.

**Material/Methods**
In a retrospective observational study, all patients diagnosed with atrial fibrillation during 2011–2013 were identified (n = 235). Patients who switched health care center or deceased during the study period were excluded (n = 83). For 152 patients, information on prescribed anticoagulants, existing comorbid conditions and parameters for risk assessment according to CHA2DS2-VASc (score for atrial fibrillation stroke risk), were extracted from the medical records, as also reasons for not treating according to recommendations.

**Results**
The prevalence of atrial fibrillation was 1.6% (n = 152). Among 144 patients, clinically predicted as high-risk-patients by CHA2DS2-VASc, 72% (n = 103) were treated according to recommendations with warfarin (68%; n = 98) or NOAC (3%; n = 5). For 41 patients (28%) acetylsalicylic acid was prescribed as mono-therapy or treatment were lacking completely. Among 63% of these patients, a reason for not treating according to recommendations could be found, most commonly former bleeding or that the patient denied treatment.

**Conclusion**
This study indicates underdiagnosis, since the prevalence of atrial fibrillation was lower than expected. Seventytwo percent of patients with atrial fibrillation in need of anticoagulants were treated according to recommendations which are higher than the 45% reported from the region in 2009. Still undertreatment exists. Improvement could be achieved among the patients lacking medication or prescribed acetylsalicylic acid, especially since new treatment options now are available.

**Points for discussion**
How to increase the detection and prophylactic treatment in atrial fibrillation.

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**167-P**

**Quality of Primary Care Centers in Region Västra Götaland in Sweden**

Shabnam Nejati¹,* Nashmil Ariai¹, Cecilia Björkelund¹
¹Department of Primary Healthcare, University of Gothenburg, Sweden

**Background**
QUALICOPC (Quality and Costs of Primary care in Europe) is a multi-country study, started in 2010 until 2013. Data was collected in 31 European countries and in Australia, Israel and New Zealand. The aim of QUALICOPC was to analyze primary care structure and health care system performance in a European context, to get knowledge about the profes-
sional conduct of GPS and expectations and actions of their patients.

**Objectives**
To present data collected in the Swedish/Västra Götaland region to gain knowledge about continuity, availability, practice type, coordination and integration of services and reception of Swedish Primary Care Centers (PCCs). The study was approved by the medical ethics board.

**Material/Methods**
Data were collected from 43 primary care centers in region Västra Götaland in Sweden in 28 public PCCs and 15 private. Invitation to and information about the study was sent by email to 112 Primary care managers; 43 responded positively (38%). Ten patients from each PCC, and their doctor were surveyed during a normal working day by the field worker. The survey of patients consisted of two QUALICOPC questionnaires: one about patients’ experiences (to 9 out of 10 patients) and one about patients’ values (to 1 out of 10 patients). A third questionnaire was distributed to the GP.

**Results**
591 adult patients and 43 GPs were asked to fill in questionnaire about their appointment, 425 (72%) of the patients [155 (37%) male and 267 (63%) female] and 43 GPs (51% female, 49% male GPs) answered the questionnaires. Of the patients, 43 were selected to answer the “values in primary care” questionnaire and 382 answered the “experience” questionnaires.

Of the 425 patients, 57% stated having a personal GP at the health center. 52% had chronic illness, of them 71% had a personal GP. Of the 382 patients who answered the experience questionnaires, 43% said that the doctor listened carefully to them, 43% that “the doctor took sufficient time”, 72% that they did not wait too long when contacting the PCC by telephone, 74% confirmed knowledge how to get services at evening, night and weekend, 63% that the opening hours were not too restricted, and 57% that it was easy to get the appointment for a doctor’s visit.

**Conclusion**
Most of the patients were satisfied with the visit to own doctor and they felt that their doctor had a good continuity and it was easy to get a visit to the GP. Patients with chronic disease had their own doctor in higher frequency than patients without. Most of the GPs spent most of their working time on direct patient care and face to face visits.
FROM THE CORE
Changes and Challenges in Primary Care

20th Nordic Congress of General Practice
June 14-16th 2017, Reykjavik Iceland

Welcome to the 20th Nordic Congress of General Practice in Reykjavik, Iceland, June 14-16th 2017.

The programme will feature plenary lectures, clinical symposia, workshops, and posters representing the essence of General Practice in the Nordic countries. We are proud to introduce Harpa, Reykjavik’s new Concert Hall and Conference Centre, the winner of the 2013 European Union Prize for Contemporary Architecture. Come and enjoy Europe’s northernmost capital, exciting travel opportunities, and social and professional agendas.

The Icelandic College of Family Physicians
The Department of Family Medicine, University of Iceland

www.nordicgp2017.is
Sadness in general practice – strengthening or undermining patient agency


1University of Bergen, Bergen, Norway, 2University of Copenhagen, Copenhagen, Denmark, 3University of Liverpool, Liverpool, United Kingdom, 4Klosterhagen legesenter, Skien, 5Seljord Helsesenter, Seljord, Norway

Objectives
To increase general practitioners’ ability to empower patients dealing with mental problems through refining their awareness of the disempowering consequences of over- and underdiagnosis. To sharpen practitioners’ diagnostic acumen in distinguishing meaningful sadness from counterproductive depression. To enable practitioners to provide support without medicalizing social causes of suffering and turning people into lifelong clients. To encourage practitioners to promote agency in spite of declining health and loss of function as well as social status.

Background
General practitioners meet sad patients risking a diagnosis of depression in situations where distress can be readily understood in the context of disruptive life events. Sensitivity to the context of the patient and the long-term relationship between the doctor and the patient are key features of general practice. Various psychiatry-derived rating scales have been promoted to improve diagnostic efficacy in general practice in the face of an alleged increase in mental disease. However, such approaches decontextualize sadness and a diagnosis of depression can further undermine the ability to engage with an oppressive or disheartening situation.

Content
The participants will learn from a facilitated critical consideration of their own practice, informed from the writing of scholars including Christopher Dowrick and the expertise of the workshop organizers. The organizers will bring experience from the management of sadness in nursing homes (Hjørleifsson, Iden), psychiatric labelling as a facilitator of disability (Roksund, Swensen), the difference between specialist and generalist views on depression (Davidsen), a community project to demedicalise mental health care (Reeve), as well as patient centered clinical method and discussion learning methods for professional peer groups.

Method
The participants will engage with case studies in groups and role-playing sessions. The point of departure will be paradigmatic cases including the impatient mother of Lisa (14) who “just needs a quick referral to psychotherapy – the school nurse already has determined it’s perfect for my daughter”, Peter (25) who is applying for a disability scheme, and Anne (86) who is a few months from dying when her son exclaims “Please doctor, I can’t bear to see mummy being so depressed. Can’t you give her an antidepressant?” Group discussions will identify general practitioners’ resources relevant to the management of these cases. These resources will be developed with theoretical input and by engaging with more complex cases supplied by the participants themselves.

Other considerations
Participants should bring relevant stories from their own clinical experience.

Sensitivity to the context of the patient...
Abstracts
Tuesday 15.30 – 17.00

202-WS

Doctor patient relationship when patients have diagnosed themselves by gadgets or by consulting the Internet. Doctor authority versus patient empowerment

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²Kalmar county, Västerås, Sweden.
³Digitalt Liv, University of Århus, Århus, Denmark.

Objectives
Initiate a discussion on how GPs are prepared for the future patient who have consulted the internet, already know what is wrong, and only see GPs as hindrance to “proper” doctors.

Background
The internet and “gadgets” are likely to transform the balance between the knowledge of doctors and patients. The patients empower themselves and this empowerment will unquestionably present with massive challenges to GPs in their role as advisers and gatekeepers. There is a surprising lack of discussion of the consequence of this very profound change in the balance of authority between patients and GPs.

Content
We will initially discuss what we know about the very recent development in new technology and in the way, this technology will change the patients knowledge, expectations and ability to self-diagnose and expectations of immediate responses from GPs. We will also discuss the challenge of patient ownership to their health information and access to that information without the “filter” that health care professionals provide today.

Method
The presenters all work at the Norwegian Centre for Integrated Care and Telemedicine. We will present the newest information on what is presently happening in the field of telemedicine. Two technologists (PH and JGB) will present the absolute forefront in technology and try to predict the consequences of these developments. The GP (NK) will relate these developments to daily practice and point out the challenges facing general practice in the very near future.

Other considerations
It is our hope that the workshop will result in a fruitful discussion between the panellists and the audience.

203-WS

The continuity of care for older medical patients – Collaboration between general practice and other primary care services following hospital discharge


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³Health, Cooperation and Quality, The Region of Southern Denmark, Vejle, Denmark.
⁴Møllegade Medical Practice, Sønderborg.
⁵The Quality Improvement Committee for General Practice, The Region of Southern Denmark, Vejle, Denmark.
⁶Section of Clinical Geriatrics, Karolinska Institutet, Stockholm.
⁷School of Health and Medical Sciences, Örebro University, Örebro.
⁸Advisory board, The Swedish College of General Practice.
⁹Centre for Family Medicine, Karolinska Institutet, Stockholm, Sweden.
¹⁰Department of Primary Care, The Region of Southern Denmark, Vejle, Denmark.

Objectives
In this workshop we synthesize the experiences and practical knowledge on how general practice (GP) is or could be enabled to manage and collaborate with other primary care services on older medical patients following a hospital discharge.
PARTICIPANTS WILL ACQUIRE and share knowledge from Nordic frameworks and initiatives improving the continuity of care for older medical patients – and be inspired to develop or facilitate collaboration between GP and other primary care services in own local settings.

**Background**
The combination of an ageing society, a focus on efficient short-term hospital admissions and increasing ambulant care, calls for a closer collaboration between GP and primary care services. Despite of frameworks and initiatives implemented to ensure cross-sectorial collaboration it remains a challenge in everyday practice.

**Content**
1. An overview of the evidence on how to manage the treatment of older medical patients in the primary care sector.
2. How is evidence implemented in existing Nordic frameworks and initiatives?
   - “The Older Medical Patient” – A Danish plan of action with a special focus on follow-up visits and coordination after hospital admission.
   - Case based group work on how an older medical patient would be managed in the Nordic countries at present.
3. Cooperation and communication between GP and other primary care services.
   - Competences of home care personnel in relation to managing older medical patients and their communication with GP.
   - The perceived impact of a well functioning collaboration and communication in the primary care sector regarding treatment and rehabilitation of older medical patients.
   - “World café” on challenges and barriers in communicating and cooperating in the primary care sector.
4. Future needs and development
   - Summarizing key points of the workshop.

**Method**
We aim at a high level of participant involvement. The workshop will consist of oral presentations, dialogue and reflection in smaller groups and plenum.

**Other considerations**
Participants will be invited to sign up for a writing group with the purpose of reviewing and publishing a peer-reviewed article on well functioning collaboration and initiatives aimed at high quality continuity of care for older medical patients in the Nordic countries.

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**204-SY**

**Primary care patients with medically unexplained symptoms: Health status, sick leave and work disability**

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²Uni Research Health, Bergen, Norway.
³Research Unit for General Practice, Uni Research Health, Bergen.
⁴Department of General Practice, University of Oslo, Oslo, Norway.
⁵Research Unit for General Practice, Department of Public Health, Aarhus University, Aarhus, Denmark.

**Objectives**
The aim of this symposium is to present results from studies using different methods but each focusing on health status and functioning in patients with medically unexplained symptoms. In the symposium, we will discuss consequences of sick leave and work disability and the potential for prevention of marginalization from a patient, doctor and societal perspective.

**Background**
Medically unexplained symptoms are highly prevalent in primary care. While many of these symptoms are self-limiting and resolve, others are persistent and disabling. Medically unexplained symptoms have been suggested to be a leading cause for sick leave. However, knowledge on sick leave and work disability, course and consequences in patients with medically unexplained symptoms remain scarce.
**Content**
The symposium will be a mix of presentations of current research findings and researchers’ reflections, followed by interactive discussions with the audience. The audience will be encouraged to contribute with own experiences and reflections on sick leave and work disability in patients with medically unexplained symptoms.

**The Themes will be**
4. General practitioners’ sick leave decisions for patients with medically unexplained symptoms (SM).
5. Patients’ experiences of medically unexplained symptoms and long-term sick leave (AA).

**Method**
The presenters will share and discuss their study results on the subject in matter based on both quantitative and qualitative methods.

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**205-WS**

**Improving the Delivery of Primary Care through Risk Stratification**

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2Bloomberg School of Public Health, Johns Hopkins University, Baltimore, Maryland, United States.
3Syddansk University, Odense, Denmark.

**Objectives**
The aim of this workshop is to provide an insight into how information gained through applications of risk stratification in the primary health care sector, from integrated care networks to primary care clinics and finally at the individual clinician level can improve the delivery of primary care.

**Background**
As has been demonstrated in both public and private healthcare systems around the globe, risk stratification contributes to improved clinical management of populations. This includes the ability to:
- Predict high-risk individuals for inclusion in population health management, pharmacy management, and disease management programs.
- Identify individuals at risk of hospitalization and re-hospitalization.
- Identify patients whose pharmacy expenditures are greater than what is predicted based upon their morbidity profile alone.
- Identify those at risk of uncoordinated care.

**Content**
The workshop will open with an introductory presentation on the numerous applications of risk stratification within the integrated and primary care sectors. The workshop will then focus on individual sessions based on three applications:
- Case Management.
- Improving Coordination.
- Pharmaceutical Management.

**Method**
Each session will be comprised of presentations illustrating real world case-mix applications. The workshop would conclude with a plenary session which would summarize the take home messages of the three sessions.

**Other considerations**
The participants will experience first-hand how to apply risk stratification methods to clinical management decisions.

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**Prevention of marginalization from a patient, doctor and societal perspective. **
How do you understand that you do not yet understand the patient? Training patient-centred consultation skills in the Nordic countries


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²University of Tampere, Tampere, Finland.
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⁴Department of general practice, University of Bergen, Bergen, Norway.
⁵Department of general practice, University of Lund, Lund, Sweden.

Objectives
The symposium will present and discuss Nordic approaches to the teaching of patient-centred consultation techniques. What do we want to achieve with our teaching? Which texts, models and methods are we using – and do they work?

Background
It is widely acknowledged that GPs need to work patient- or person-centred. Yet to do this in real-life consultations is difficult. Early interruptions by the doctor, often in the way of questions, may hinder good doctor-patient communication. What are the causes of this persistent difficulty? Why is it so easy to be blind to the patient’s perspective? How is this topic addressed in teaching the consultation skills in the Nordic countries?

Content
A variety of teaching methods from the Nordic countries will be demonstrated and discussed. Two textbooks contain some of the methods and will be mentioned. The audience should be prepared for active involvement in the workshop.

Method
Workshop.

Other considerations

Medical practice and its relation to existential and religious dimensions

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¹Dept Global Publ Health and Prim Care, University of Bergen, Bergen.
²UiT Arctic University of Norway, Tromsø, Norway.
³Swedish Transport Agency, Falun.
⁴Umeå University, Umeå, Sweden.

Objectives
To discuss and share experiences of existential and religious dimensions in relation to health in order to promote partnership and attachment with our patients in primary care.

Background
There is a close connection between religious practices, conceptions of health and practices of healing as the history of religion demonstrates. To our knowledge, no society or major outlook of life fail to incorporate health-beliefs and healing practices in its sphere, modern western philosophy and science being no exception. However, awareness of religious and existential dimensions is sparsely reflected in current medical practice, where our present, historically situated beliefs formed mainly by natural and psychological sciences predominate.

Nevertheless, experiences of the “Holy” as a sense of “tremendum et fascinosum” (awe and fear) are common according to research in the field. These experiences are profoundly human as is the connection to health and healing. Can these insights be transformed and utilised promoting partnership with our patients in primary care?
Content
Firstly, we will discuss overdiagnosis and overtreatment in relation to medical history and the increasing existential neglect in modern medicine. Secondly, an outline of the “history of health” will be given starting in the 18th century to present ideas of health. The evolution of the concept of health will give rise to considerations if modern technology and modern concepts of health are able to give existential security and confidence. Thirdly we will illustrate our common belonging to nature and the obligation of “care for mother earth” illustrated with sami spirituality. Finally and mainly, the workshop will discuss the relevance of existential and religious dimensions in medical practice and if health can be promoted more sustainably if we accept a common human need for existential and religious confidence.

Method
The workshop will be interactive with room for discussion throughout the entire program. Case vignettes will be presented and discussed.

Quality Improvement is an Imperative in Modern General Practice – What Should We Measure in Heart Diseases?

Klas Winell1, *Emil Heinäaho1, 2, Per Wandell3, Bjørn Gjelsvik4
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Objectives:
To make recommendations, which ones should be the key indicators to measure the quality of care of patients with heart diseases in primary health care (PHC).

Background
Several heart diseases make a significant work load in PHC. Diseases like coronary heart disease, heart failure and atrial fibrillation cause major handicap in quality of life and they are a major risk of early death if not treated adequately.

Outcome indicators are difficult in PHC to measure because most of them, e.g. fatal outcomes are scarce in a single practice. Often, however, surrogate outcomes or process indicators can be used to measure the quality. Different indicators have been proposed to be used in PHC. Some of these have been tested and a few are in systematic use.

Content
There will be three 10 minute presentations during the workshop. These make the basis for discussion in small groups. Small groups will make suggestions on common indicators to follow up the care of heart diseases in PHC in the Nordic countries.

Method
Short presentation followed by structured group discussions. The session ends with pulling together Nordic recommendations.

Atrial fibrillation cause major handicap in quality of life
From Research-based Evidence to Best Practice in Primary Health Care

Terje Johannessen¹, "Ingvar Krakau", *Anna Nager³, "Thomas Bo Drivsholm⁴, "Signe Flottorp⁵, "Hans Chr. Kjeldsen⁶, *

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³Centre for Family Medicine, Karolinska Institutet, Stockholm, Sweden.
⁴Department of Public Health Faculty of Health Sciences, University of Copenhagen, Copenhagen, Denmark.
⁵The Norwegian Knowledge Centre for the Health Services, The Norwegian Directorate of Health, Oslo, Norway.
⁶Department of Public Health, Aarhus University, Aarhus, Denmark.

Objectives

Describe efforts performed by the health authorities to improve the quality of general practice and how such guidelines can be implemented through clinical tools like NEL, Medibas (both are commercial products) and Lægehåndbogen.

Background

There is an enormous global production of medical science and scientific papers. It is impossible for the individual clinician on his or her own to keep updated. In order to alleviate this situation and to ensure more equal treatments and services to the patients, national health authorities in the Nordic countries annually develop guidelines for the management of defined diseases and disorders. But how do the authorities perform this task, which methods and how are the guidelines implemented?

Content

In this symposium representatives from the health authorities will describe the process behind the selection of topics, identifying and scrutinizing relevant articles, synthesizing, making recommendations, publishing and implementation.

A REPRESENTATIVE FROM the commercial products NEL, Medibas and Lægehåndbogen (not commercial) presents how they integrate and present the guidelines, while a member of one of the Nordic societies for General Practice will comment on the GPs challenges with regards to the practice of evidence-based medicine.

At the end of the symposium there will be a free discussion with the audience.

Method

In the symposium representatives from Nordic health authorities and NEL/Medibas/Lægehåndbogen will present their approach through lectures followed by a general discussion.

Patient Empowerment in Chronic Condition Patient Self-Management

Ulrik Kirk¹, ², ³,*Tina Eriksson², Ilkka Kunnamo⁴, *Janecke Thesen⁵, Eva Arvidsson⁶, and EQuiP

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Objectives

The aim of this workshop is to share information among participants from different Nordic countrys on concepts of patient empowerment in management of chronic conditions. Furthermore, an e-learning module in English on Patient Empowerment in Chronic Conditions will be presented to the participants.

Background

Patient Empowerment is a concept that means different things to different people – patients, doctors and other health professionals. In 2011, patient empowerment was adopted as the 12th characteristic of general practice in a revision of the European Definition of general practice / family medicine. General practice /
family medicine is ideally placed to develop and incorporate patient empowerment into medical care. We need to explore the definitions and concepts of patient empowerment in general practice in the context of patient self-management of their chronic conditions. What is patient empowerment? What definition is useful in Europe in terms of culture and language? Is patient empowerment a state of awareness of knowledge, skills or attitudes to assume responsibilities for effective management of health related decisions? Is it about participation in a self-designed health plan? Is empowerment about helping patients to be in a position to make decisions and to set their own goals?

**Content**
The workshop will outline and report on the EQuiP project on Patient Empowerment in Chronic Conditions: Work Package 1a (systematic review), Work package 1b (online repository), Work Package 2 (e-learning module on patient empowerment), and Work package 3 (piloting of the e-learning module).

Then Ilkka Kunnamo will demonstrate the e-learning module to all the workshop participants.

**Method**
This interactive workshop will activate participants in small group work.

**Other considerations**
We hope that the output of this workshop will contribute to the dissemination and knowledge sharing of the EQuiP project on Patient Empowerment in Chronic Conditions for Nordic General Practice.

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**Dissecting the Paper of the Year to get the Anatomy of a Successful Manuscript OR. How to get published? The Scandinavian Journal of Primary Health Care Workshop**


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³Research Unit for General Practice, University of Southern Denmark, Odense, Denmark.
⁴Department of Public Health and Primary Health Care, University of Bergen, Bergen, Norway.
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**Objectives**
To present the essence of getting published by knowing the structure of a scientific manuscript, specific standards for writing manuscripts for specific study types, the writing process, and the editorial process.

**Background**
The Editorial Board of the Scandinavian Journal of Primary Health Care has many years of experience in writing, assessing and promoting scientific writing within family medicine.

For academic family medicine it is very important to succeed in scientific publishing at a high international level. Thus, a researcher has to write a readable, well-structured and scientifically sound manuscript, and to submit it in a way that enhances the possibility for publication.

**Content**
The workshop will include a presentation of how to structure a manuscript for both quantitative and qualitative research. There will be an introduction to specific standards for writing...
manuscripts for specific study types. There will be a session about how to interact with co-authors and about the editorial process. A specific part of the session will include advice on how to prepare your manuscript and your letter to the editor to increase the chances of attracting the Editorial Board’s interest.

This workshop is important for every congress participant engaged in scientific publishing. People who are considering preparing a manuscript for the first time will indeed gain valuable output.

Method
The workshop will include short presentations combined with discussions among participants. It will be possible for participants to present specific issues they would like the Board to comment on.

Other considerations
No pre-registration is necessary. Please note that some preparatory reading is useful.

Objectives
To highlight the following questions: Are research schools in general practice effective in improving research activity and research quality in general practice and primary care? What are the options for future primary care research?

Background
National research councils in Sweden and Norway support the creation of National Research Schools in General Practice with the aim of increasing the number and quality of doctoral theses in General Practice. Also regional institutes can choose to develop a research school to support clinical primary care research.

Content
Teachers and students will discuss: Are research schools in general practice effective in improving research activity and research quality in general practice and primary care? Which are the success factors in developing a research school? Which are the pitfalls that should be avoided? How should research schools in General Practice increase quality and body of clinical primary care research in the future?

HOW CAN NORDIC research schools increase international and Nordic research networking and internationalization? What are the most important factors for participating doctorands? For alumni?

Method
Presentations from existing national and regional General Practice research schools in Norway and Sweden—teachers and students. Audience discussions.

Other considerations
Are patient experiences in general practice affected by independent organizational factors?

Torunn Bjerve Eide¹, *Hasse Melbye², Jørund Straand¹, Elin Olaug Rosvold¹

¹Department of General Practice, Institute for Health and Society, University of Oslo, Oslo.
²General Practice Research Unit, University of Tromsø, Tromsø, Norway.

Background
A consultation between a general practitioner (GP) and a patient is to a certain extent a predetermined situation with a given framework. However, there are considerable differences as to how GPs organize their practices. Scarce literature exists concerning the impact of these external factors on patients’ experience of a visit to the GP.

In Norway, the coordination reform for the health services was launched in 2012. This also entails a discussion about how general practice should be organized to ensure high quality services to all inhabitants. More knowledge of the consequences of organisational differences is needed to provide a basis for good decisions.

Objectives
The aim of this study is to assess the impact of independent characteristics of GPs and their practices on the patient’s experience of communication with the doctors. Our hypothesis is that the patient’s experience may be influenced by the size of the GP’s patient list, the geographical location of the GP’s practice, the duration of the consultation, whether the doctor is self-employed or on regular salaries and the doctor’s sex and age.

Material/Methods
This study is based on the data from the Norwegian branch of the international multi-center study Quality and Costs of Primary Care in Europe. The Norwegian material includes 198 doctors and 1707 patients, who answered questionnaires concerning practice organization, patient experiences and patient values. We identified seven dependent variables that provide information on how the patients perceived their visit at the doctor’s office and the communication with the doctor. We used multilevel analysis to identify significant associations between independent characteristics of the GPs and the experience of the patients.

Results
The patients indicated overall positive experiences with their visits. Patients who attended doctors with both short and long patient lists had more negative experiences compared to those who attended doctors with medium sized lists. The experience was affected by the geographical location of the practice, but it was not affected by the duration of the consult, the doctor’s sex or age, whether the GP was the patient’s regular doctor or whether the doctor was self-employed or not.

Conclusion
The patient experience is to a certain extent affected by external factors characterizing the GP and his or her practice. This will be presented in more detail at the conference.

Points for discussion
Should we aim for a standardized organization of general practice? Could it be a good thing that variation exists?

The extent and effect of socioeconomic factors on the distribution of resources in primary care in the region of Västra Götaland, Sweden

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²Dept of Public Health and Community Medicine/Primary Health Care, Institute of Medicine, Sahlgrenska Academy at the University of Gothenburg, Göteborg, Sweden
Abstracts
Tuesday 15.30 – 17.00

Background
Earlier studies have shown that low socioeconomic status increases the risk of disease and premature death, leading to high costs for society. The Care Need Index (CNI) is a socioeconomic tool for measuring health care needs. However, many regions in Sweden use the diagnosis-based Adjusted Clinical Groups (ACG) model to allocate resources in primary care. In October 2009, the primary care service in the Västra Götaland region in Sweden introduced a new reimbursement system, based mainly on ACG and capitation. The ACG model has not previously been studied when used for resource allocation. Furthermore, it is not known whether there is any correlation between the ACG and the CNI.

Objectives
The objective is to explore whether socioeconomic factors, measured by the CNI, correlate with the ACG, as a measure of the primary care burden in Västra Götaland.

Material/Methods
This study is an observational cross-sectional study of official primary care data from Västra Götaland, with 1.6 million inhabitants and a spending plan of € 550 million. CNI and ACG data for all health centres (n=204) in the region were retrieved three times (11/2009, 06/2010 and 06/2014) from the central registry and analysed for statistically significant correlations.

Results
We found no statistically significant correlation between the CNI and the ACG (p=0.71). The spread in ACG between health care centres decreased over time and approached the mean. In contrast, the differences in the CNI increased over time. Metropolitan areas have slightly lower ACG averages compared with urban (p=0.016) and rural (p <0.001) areas, but there were no statistically significant differences for the CNI (p> 0.1) or between public and private health centres (p> 0.1).

Conclusion
In contrast to what could be expected, health care centres in areas with low socioeconomic status, measured as high CNI, made no simultaneous high demands on health resources, measured as the ACG score. Furthermore, the difference in ACG between health care centres decreased over time, while the CNI increased.

Points for discussion
The ACG system is based on patient diagnoses and can easily be influenced by physicians. Could this contribute to the decreasing ACG differences between health centres, despite the increase in the CNI? Could more of the resources be allocated through the CNI, which cannot be influenced by health centre staff?

The need for focus on productivity in General Practice in order to secure sustainable health care

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Background
In order to fulfill the demand for health care, the annual agreement between the State and the regions in Denmark has for more than a decade focused on the rise in productivity amongst the hospital. The same focus has so far not been on either the primary health care in general or on general practice in particular even though the general practitioners (GP) role as gate-keeper.

Objectives
The presentation shows the development in productivity for The Region of Southern Denmark (RSD) in general practice from 2008 to 2014. There will also be a use case to illustrate it is possible to rise the production level to the benefit of the community. Finally the presentation will show the differences between the top providers of health care compared with the providers with least value.

Material/Methods
Data was downloaded from The Danish National Health Insurance Service Registry on a
annual basis and consist of all patients in RSD in contact with a GP. Data is limited to the period of the 1st of January 2008 to the 31th of December 2014.

The analysis is based on the methods use by the Ministry of Finance and Ministry of Health in Denmark to calculate the value of the service in the hospital sector. To estimate the value of service, the study uses the payment for services to GP’s. In stead of using annual costs for providing health in general practice, the study uses the numbers of GP’s who have a contract with RSD for providing health care.

Results
The analysis shows a limited increase in production amongst the GP’s in RSD. Compared to the increase in numbers of GP’s, the production per doctor seems to decrease. Compared to requirement for productivity towards the hospitals, the production level for GP’s is ca. 10% lower.

The analysis shows that the top 10 providers perform 4–5 times better than the lowest 10 providers and there delivers much more health care service.

Conclusion
The health care sector is supply induced and therefore the GP’s have a huge influence on planning when and how much they want to work.

The challenge of increasing health inequalities and demographic changes is evident. The analysis shows that there is a great potential for meeting the challenges if GP’s with relative low production get motivated to deliver more health care services in order to cope with multi-morbidity, quicker hospital discharges, nutrition counseling etc.

Points for discussion
How can we encourage GP’s with relative low production to generate more medical service?

What are the long-term medical consequences going to be if we do not succeed to encourage those GP’s?

Towards a sequential model of health care utilization

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Background
There are substantial differences in health care utilization between different countries. Classic models of health care utilization such as Andersen’s Behavioral Model set up factors and their influence on rates of health care utilization. However, these models cannot explain differences in health care utilization between different countries.

Objectives
To develop a new model of health care utilization more adequate to explain such differences.

Material/Methods
A qualitative study. We conducted 40 episodic interviews with patients in Germany and Norway and conducted participant observations in eight primary care practices. The German participants were matched with the Norwegian participants, urban and rural areas were covered. In addition, we conducted a context analysis of the health care systems. Data was analyzed by thematic coding in the framework of grounded theory.

Results
From our empirical findings, we could deduce two theoretical aspects for model building:

A single event of health care utilization can be seen as the result of a complex process which was initiated by some problem experienced by the patient. The occurrence of problems is influenced by factors, such as age and sex. Likewise, the process of assessing these problems and deciding whether to utilize health
care is influenced by factors such as the social network and prior experiences. However, during participant observation we could observe that most encounters are not due to a single problem which led to this encounter. Instead, they were often realizations of a longer sequence of encounters. Most consultations are not comprehensible in their own, but can only be seen in the context of this sequence. Hence, an important part of health care utilization is not due to one problem each, but applies to a blending of problems and follow-ups.

**THUS, WE DEVELOPED** a sequential model of health care utilization to describe these sequences. In this temporal model, singularities of health care utilization are nodes, connected by the flow of information as edges. By this model, the health care utilization patterns of individual patients can be visualized and analyzed qualitatively and quantitatively.

**Conclusion**
This sequential model of health care utilization highlights aspects which have been so far neglected in health care utilization research such as the frequency of follow-up visits and the blending of reasons for encounter. Thus, we hope this new model can explain differences in health care utilization between countries. It could be used to model prediction of health care utilization in relation to structural aspects of health care.

**Points for discussion**
Does this new model give advantages for research and practice?
Do we have evidence for the frequency of follow-up visits in chronically ill patients?

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**225-OP**

**Is it a matter of urgency? – A descriptive survey of patients’ and general practitioners’ assessments of how acutely they estimate the need for help at an emergency primary health care clinic in Oslo**

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**Background**
Emergency room (ER) usage is increasing in several countries. At the same time several studies report that 20–40% of ER patients present with non-urgent problems that could have been handled appropriately by regular general practitioners (RGP). Non-urgent emergency claims are considered to be an inappropriate and inefficient use of the health care system because it may lead to higher expenses, crowding and treatment delays. It has been reported that immigrants tend to use emergency rooms and out-of-hours services for non-urgent purposes.

**Objectives**
The primary aim of this study is to explore whether there are any differences in assessment of how acutely the patients’ and physicians’ estimate the need for help in a population of walk-in patients visiting an emergency primary health care clinic. The second aim is to evaluate whether there are any differences in assessment between native Norwegians, immigrants and subgroups of immigrant based on country of origin. Finally, we want to explore whether there is a correlation between the physicians’ and the patients’ experience of urgency of the health care enquiry, and whether there are any associations between patients’ assessment of urgency and consultation-outcomes.
Material/Methods
A multilingual anonymous questionnaire/registration survey was administered to all walk-in patients at an emergency primary health care clinic in Oslo during two weeks in September 2009. 1.850 patients were included in the analysis where the proportion of immigrants and Norwegian-born to immigrant parents constituted 42%. Both patients’ and general practitioners’ assessment related to how acutely they estimated the need for help was noted. Immigration status, country of origin and demographic data were collected.

Results
Preliminary analyses have indicated a huge discrepancy between patients’ and GPs’ assessments of how acutely they define the need for help. Patients estimate the urgency to a higher extent than GP’s and immigrants estimate the health enquiry more urgent than native Norwegians. Further detailed analysis according to study aims will be explored in future analysis.

Conclusion
Inappropriate use of emergency health care services is inexpedient and involves a burden to the emergency health care system. Patients lose the continuity of health care provided by a RGP. Our study will contribute to further knowledge about emergency health care utilization and health seeking behaviour.

Points for discussion
Patients present emergency services with non-urgent problems that could have been handled appropriately by RGP’s. Cultural differences according to health understanding and poor knowledge about the health care system and not being assigned to a RGP may contribute to increased use of emergency services by immigrants.

Brief intervention for medication-overuse headache in primary care (the bimoh study) – an open long-term follow-up

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Background
Medication-overuse headache (MOH) is a common health problem associated with non-constructive use of pain medication. Most MOH patients overuse simple analgesics and are managed in primary care. Withdrawal of the overused medication is the treatment of choice in MOH. Brief Intervention (BI) has been used as a motivational technique for patients with alcohol overuse, and may have a role in the treatment of MOH.

Objectives
To evaluate the long-term effectiveness of BI for MOH in primary care.

Material/Methods
This was a double-blind pragmatic cluster randomised parallel controlled trial in primary care in Norway. Fifty GPs were randomised to receive BI training or to continue their business as usual (BAU). 25–486 patients aged 18–50 years from the GPs lists were screened for MOH by a questionnaire. Patients were cluster randomised and received treatment by their GP. GPs practising BI assessed their MOH patients using the Severity of Dependence Scale (SDS). Based on this, the patients received feedback about the risk of MOH, and recommendations for reducing intake of headache medication.

In the blinded part of the study, patients were followed-up after three months with a clinical interview and examination. A new telephone interview was conducted after six months.
months. After the six months follow-up, GPs in the BAU group were taught BI and most of the patients in the BAU group also received BI. Thus, the last part of the follow-up was an open study and outcomes were assessed after 12 months.

Results
Responder rate after two reminders was 42% for the screening questionnaire.
A random selection of up to three patients with MOH from each GP were invited (104 patients), 75 patients were randomised and 60 patients included into the study at baseline. 57 patients were followed-up after one year. Analyses of the outcomes showed that BI was better than BAU with significant improvements only in the BI group at three months which persisted up to 12 months.

More results are currently being analysed and will be presented at the meeting.

Conclusion
BI intervention for MOH conducted in primary care has significant effects lasting over twelve months.

Points for discussion
BI for MOH lasting effects over 12 months? Relapse rate? Predictors of successful detoxification after BI for MOH? BI for MOH a feasible strategy in general practice?

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228-OP

Irritable Bowel Syndrome and Self-reported Food Intolerance in a Population of Giardia-exposed and Matched Controls

Sverre Lilleskare1, *Knut Arne Wensaas1, 2, Kurt Hanevik3, 4, Geir Egil Eide5, Gudrun Elise Kahrs6, Guri Rørtveit1, 2

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Background
In 2004 there was an outbreak of giardiasis in Bergen, Norway. 1252 people had laboratory confirmed infection with the parasite Giardia lamblia. Three years later the group that suffered from giardiasis during the outbreak had an increased relative risk of irritable bowel syndrome (IBS) and chronic fatigue compared to a control group. The mechanisms for IBS are largely unknown, and several factors seem to be involved. The role of diet and reactions to foods has previously been investigated, with non-consistent results. A new and promising concept regarding diet is FODMAP, a group of carbohydrates found to aggravate symptoms in IBS-patients.

Objectives
Are there differences between the Giardia exposed and the control group with regard to self-reported reactions to foods? Do such differences vary according to IBS status in the two groups of participants? Are there any differences between the groups regarding FODMAP-content of the reported foods?

Material/Methods
Mailed questionnaire to 1252 giardia-exposed individuals and 3598 matched controls three years after the Giardia-outbreak. The outcomes were IBS according to Rome III criteria and self reported food intolerance.

Results
Analyses are currently on-going. Patients who had giardiasis report more food intolerances than the controls. There are also statistically significant differences in subjective food intolerance between people with IBS and healthy individuals for many of the food-categories investigated. The association between food intolerance and FODMAP content is less obvious, but there is a trend towards more reported reactions to foods high in FODMAP.

Conclusion
Patients who have had giardiasis and patients with IBS report more subjective food intolerance than their controls. The relation to FODMAP content needs further investigations before a conclusion can be made.
Treating Lateral Epicondylitis with Corticosteroid Injections or Non-electrotherapeutical Physiotherapy: a systematic review

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Background
Lateral epicondylitis of the elbow is a frequent complaint in general practice. Often resolving in 6–12 months regardless of treatment, complaints may last up to 2 years. There is no consensus of which of many treatments to recommend. Previous reviews have found few studies on physiotherapy and conflicting results on the long-term effect of corticosteroid injection.

Objectives
To evaluate the current evidence for the efficacy of corticosteroid injection and non-electrotherapeutic physiotherapy compared with control for treating lateral epicondylitis.

Material/Methods
We performed a systematic review by searching five databases in September 2012 for randomised controlled studies with a minimum quality rating investigating treatments with corticosteroid injection or non-electrotherapeutic physiotherapy. Outcome measures were relative risk (RR) or standardised mean difference (SMD) for overall improvement, pain and grip strength at 4–12, 26 and 52 weeks of follow-up.

Results: Of 640 studies retrieved in the searches, 11 were included, representing 1161 patients of both sexes and all ages. Corticosteroid injection gave a short-term reduction in pain versus no intervention or non-steroidal anti-inflammatory drugs (SMD −1.43, 95% CI −1.64 to −1.23). At intermediate follow-up, we found an increase in pain (SMD 0.32, 95% CI 0.13 to 0.51), reduction in grip strength (SMD −0.48, 95% CI −0.73 to −0.24) and negative effect on the overall improvement effect (RR 0.66 (0.53 to 0.81)). For corticosteroid injection versus lidocaine injection, the evidence was conflicting. At long-term follow-up, there was no difference on overall improvement and grip strength, with conflicting evidence for pain. Manipulation and exercise versus no intervention showed beneficial effect at short-term follow-up (overall improvement RR 2.75, 95% CI 1.30 to 5.82), but no significant difference at intermediate or long-term follow-up. We found moderate evidence for short-term and long-term effects of eccentric exercise and stretching versus no intervention. For exercise versus no intervention and eccentric or concentric exercise and stretching versus stretching alone, we found moderate evidence of no short-term effect.

Conclusion
Corticosteroid injections have a short-term beneficial effect on lateral epicondylitis, but a negative effect in the intermediate term. Evidence on the long-term effect is conflicting. Manipulation and exercise and exercise and stretching have a short-term effect, with the latter also having a long-term effect.

Points for discussion
Is lateral epicondylitis usually treated by general practitioners in the Scandinavian countries? What are the main treatment challenges? To what extent are corticosteroid injections used? Is there a difference between acute and chronic lateral epicondylitis?
Adolescents with patellofemoral pain do not always seek medical care – results from a population-based cohort

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2Orthopaedic Surgery Research Unit.  
3Department of Rheumatology, Aalborg University Hospital, Aalborg.  
4Institute of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense.  
5Research Unit for General Practice in the North Denmark Region and Department of Clinical Medicine, Aalborg University, Aalborg, Denmark.

Background  
Between 19 and 31% of adolescents report knee pain with patellofemoral pain (PFP) being one of the most common knee conditions among adolescents with a prevalence of 6–7%. A large proportion of adolescents with PFP do not receive treatment. It is unclear if this is because they do not seek medical care or if they are not offered treatment after seeking medical care. The purpose of this study was to investigate the care-seeking behaviour among adolescents with PFP identified from a population-based cohort.

Objectives  
To investigate the care-seeking behaviour among adolescents with PFP.

Material/Methods  
A retrospective investigation of the care-seeking behaviour among 121 adolescents with PFP enrolled in a randomized controlled trial was conducted. A questionnaire was sent to each adolescent's general practitioner (GP). The questionnaire included questions on the dates for consultations regarding knee pain, potential diagnoses, if treatment was initiated and if the adolescent was referred for further investigations.

Results  
60/95 of the adolescents from whom data was available had consulted their GP about their knee pain and the median number of contacts was 1.5 (range 1–7). The GPs initiated treatment in 48 out of the 60 adolescents who consulted their GP. The most common treatment used by the GP was information and advice (36/48) followed by pain medication (6/48). 26/60 of the adolescents who consulted their GP were at some stage referred, most commonly to physiotherapy followed by the departments of rheumatology and orthopaedics.

Conclusion  
60/95 of adolescents from a population-based cohort diagnosed with PFP had previously consulted their GP because of knee pain. There were large heterogeneity among the treatments initiated by the GP, the most common being general advice and information.

Points for discussion  
Less than 2/3 of the adolescents with PFP consulted their GP because of their knee pain. Among adolescents who consulted their GP, the GP initiated treatment in 48/60, while 26/60 at some point were referred to primary or secondary care. These findings demonstrate the need to discuss initiatives that address both the adolescents and the GPs to ensure early and evidence based treatment of adolescent PFP.

The most common treatment used by the GP was information and advice.
Adhesive shoulder capsulitis, treatment with corticosteroid, corticosteroid with distension or wait and see; a randomized controlled trial in primary care

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Background
Shoulder adhesive capsulitis, also called frozen shoulder, is a painful chronic condition causing reduced movement at gleno-humeral joint in several planes. Inspite of various conservative treatments available there is still lack of evidence of efficacy of conservative treatment regimes.

Objectives
To find out whether treating adhesive shoulder capsulitis (frozen shoulder) by corticosteroid and distension is more effective than treating with corticosteroids alone or wait and see in a primary care setting.

Material/Methods
This is a prospective intention to treat study between 2010 and 2013. All 105 recruited patients were randomized to one of three groups by block randomization, Group 1 received intra-articular corticosteroid injection, group 2 received sodium chloride as distension of varying volume from 8 ml to 20 ml. The third group was control group. Thirty five patients in group 1 and 34 patients in group 2 received 4 injections each within the time frame of 8 weeks. All patients assessed on 1st visit, at 4th week and 8th week with Shoulder pain and Disability score (SPADI), numerical pain rating scale (NPRS) and range of motion (ROM). Postal assessment was repeated at 1 year for SPADI.

Results: Out of the 216 patients referred, 146 met the inclusion criteria, 40 patients declined to participate. There is no statistical significant difference between the groups in SPADI, NPRS and ROM at baseline. There is statistically significant difference between group 1 & 3 and groups 2 and 3 at 4 and 8 weeks for SPADI (p<0.001) & NPRS (p<0.01) and ROM (p<0.01 to 0.05). Six patients were lost to follow at 1 year follow up. There is no statistical significant difference between the groups at one year for SPADI.

Conclusion
Intervention by corticosteroid injection is better than “wait and see” policy in adhesive shoulder capsulitis at short term.

Points for discussion
– Is it worth while troubling patients with injections when it only is effective at short term.
– Is treating frozen shoulder with intra-articular injection better than other conservative modalities as NSAIDs, Oral corticosteroids and physiotherapy.

Symptom load and medically unexplained symptoms in the population and in general practice

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Background
Self-reported symptom load is associated with future functional ability and disability pensioning. Paradoxically, symptom load is rarely focused upon in the medical curriculum and research.

Objectives
The main objective of the thesis was to describe symptom load experienced in a population and in general practice. Further aims were to assess the way in which GPs’ evaluate symptoms as medically unexplained, and patients’ attribution of symptoms to “unexplained” conditions.
Material/Methods
The thesis is based on 2004 data from the Ullensaker population study, and a general practice study linking patient and GP questionnaires. In the Ullensaker study, the relationship between two symptom categories (the number of pains sites and the number of other common symptoms) were explored. In the general practice study, two scales were compared, representing GPs’ evaluation of symptoms as unexplained (MUS-scale) and/or multiple (Multi-scale). Patients recorded the number of symptoms experienced, negative life events and whether they considered that they suffer from unexplained conditions.

Results
One third of patients and one sixth of respondents in the population reported at least ten symptoms. Women reported significantly more symptoms than men.

In the population, there was a strong and almost linear relationship between symptom load in the two symptom categories. The number and type of symptoms provided comparable information.

GPs used the whole Multi- and MUS-scales in evaluating patients, and the scales showed substantial agreement.

Nearly 40% of the patients had considered that they suffered from at least one unexplained condition. The proportion increased linearly with symptom load and the number of life stressors.

Conclusion
In both the population and in general practice setting, a high self-reported symptom load is common and is an important health indicator. Regardless of symptom type, internal associations may be found between symptom categories, if they are looked for.

MUS has been found to be a concept which is hard to operationalise in research. Symptom load seems to be an acceptable proxy for MUS. It is best operationalised as a continuous variable.

Points for discussion:
In general practice, most patients with multiple symptoms do not meet the criteria for existing syndrome diagnoses. A descriptive term to capture patients’ symptom load is needed, as most existing diagnoses capture single symptoms only.

Clinical work calls for a pragmatic dichotomisation of health and disease. However, in symptom research, and other research exploring unresolved fields, the use of continuous outcome measures is a fruitful approach.

Quality of tuberculosis screening in HIV out patient departments in Ghana: results of an ongoing audit project using a nordic quality development tool

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Background
Audit and feedback are well-described methods to improve quality of clinical practice and performance, especially in settings where baseline adherence to recommended guidelines is low. Guidelines for regular screening for tuberculosis (TB) among HIV positive individuals are available to promote early TB diagnosis and reduced mortality, but implementation is challenging. In collaboration with the National TB Control Programme in Ghana, we used Audit Project Odense (APO) methodology innovatively to evaluate TB screening practices at HIV out-patient clinics in Ghana.

Objectives
Audit and feedback are well-described methods to improve quality of clinical practice and performance, especially in settings where baseline adherence to recommended guidelines is low. Guidelines for regular screening for tuberculosis (TB) among HIV positive individuals are available to promote early TB diagnosis and reduced mortality, but implementation is challenging. In collaboration with the National TB Control Programme in Ghana, we used Audit Project Odense (APO) methodology innovatively to evaluate TB screening practices at HIV out-patient clinics in Ghana.

To assess TB screening practices among clinicians providing care for HIV positive individuals and evaluate effectiveness of clinical audit and feedback in improving quality of performance.
Material/Methods
Medical doctors and nurses from 10 purposively selected HIV out-patient clinics in Ghana were invited to participate in the study. Participants registered their consultations with HIV positive clients over a 2-week period before and after a multifaceted feedback and training intervention. A second round of registration was completed in December 2014, but data is yet to be analysed. To determine impact on quality, selected indicators will be compared between the two registrations.

Results
The APO methodology was feasible and easily adopted by the clinicians. A total of 19 doctors and nurses registered 1,368 patient consultations during the first registration. TB was suspected in 172 patients (12.6%, 95% CI: 10.9–14.4). Nurses suspected TB more often than doctors (15.5% vs. 9.5%, p=0.0008). The proportions of TB suspects reported amongst patients meeting the WHO and National criteria for being a TB suspect were 37.3% and 59.1% respectively. Routine TB diagnostic investigations like chest x-ray and sputum smear microscopy was requested for respectively 74.4% and 58.7% of patients registered as TB suspects.

Conclusion
A simple audit and feedback method was successfully introduced in an African setting to evaluate clinical performance of TB screening among HIV out-patients. The suspicion of TB was significantly lower among doctors than nurses and compliance to TB screening guidelines was suboptimal, representing a missed opportunity for TB case detection.

Points for discussion
TB is globally the leading cause of morbidity and mortality in people living with HIV. Autopsy studies in Africa have found TB present in as many as 32%–67% of HIV related deaths, often undiagnosed by current standard of care. This calls for strict adherence to evidence based TB screening guidelines.
consequences of women managed invasively and non-invasively were similar during the 36 months of follow-up. In 60 comparisons (12 scales and 5 time-points) the differences between the groups were never statistically significant (P<0.01) and the point estimates for the differences were always close to zero.

Conclusion
There was no evidence that increased invasiveness of diagnostics was associated with worse psychosocial consequences.

Points for discussion
It is reasonable to pool subgroups of women with false-positive in a single analysis. The invasiveness of subsequent diagnostic procedures does not help to identify women at higher risk of adverse psychosocial consequences of false-positive mammography.

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Cancer suspicion starting with abdominal symptoms in general practice

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Background
Early diagnosis of cancer is an important challenge in general practice. Persistent digestive problem is one of several common symptoms known to be alarm symptoms for cancer, and abdominal cancers are among the most frequent forms of cancer.

Objectives
A more detailed examination of abdominal and general symptoms and the degree of cancer suspicion they raise in general practice, and to what extent such suspicion of cancer in general practice is correct.

Material/Methods
Retrospective cohort study with prospective registration of cancer. The study recruited 493 general practitioners (GPs) from six European countries (Norway, Sweden, Denmark, Belgium, Netherland and Scotland), organised through The Cancer and Primary Care Research International Network (Ca-PRI). In 2011, the GPs registered 70,358 consecutive patient consultations during ten working days, using one-sheet closed ended questionnaires. Sex and birth date were recorded for all patients, as well as symptoms if presented. If one or more abdominal symptoms were present, the GP was asked to answer all remaining questions for that particular patient. Whether the GP suspected cancer was answered for three dimensions: Based on symptoms, on clinical findings, on intuition. Cancer suspicion was graded for each dimension on a four-point scale: not at all, slightly, medium, strongly. All GPs were further asked to supply anonymous information about patients diagnosed with cancer during the follow-up period, whether or not they presented with symptoms in the initial survey. Around 75% of GPs took part in the second phase and reported from zero to seven patients with cancer.

Results
Between consultation and follow-up, 759 patients were diagnosed with cancer. At least one abdominal symptom was presented in 6,579 (10%) consultations, and at least one general symptom in 1,684 (26%) of those with abdominal symptoms during the consultations. For consultations with abdominal symptom(s), cancer suspicion from zero to strongly was noted in 94% of patients representing 6,225 consultations. Of these, 2,103 had a positive suspicion of cancer and zero suspicion was noted in 4,122 consultations. Of these, 2,103 had a positive suspicion of cancer and zero suspicion was noted in 4,122 consultations. Of all cancer patients, there was a positive suspicion in 114 (15%) patients. Where zero suspicion was reported, 87 (12%) got cancer. A positive cancer suspicion was correct in 7% of consultations where a suspicion was reported, while lack of cancer suspicion was erroneous in 2% of cases.
Conclusion
A correct cancer suspicion was 3.5 times more frequent than an erroneous lack of suspicion. A more detailed analysis of cancer suspicion across the three dimensions and its strength, for any symptom and for single symptoms, will be presented at the Congress.

Points for discussion: Apart from symptoms, what makes the thought of cancer appear in the head of a GP?

Symptoms, signs and tests: The general practitioner's comprehensive approach towards a cancer diagnosis. Retrospective cohort study with prospective registration of cancer in general practice

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Background
Early diagnosis of cancer is an important challenge in general practice. Some common symptoms are known to be alarm symptoms for cancer, but information from further clinical work is necessary to strengthen or weaken a suspicion about cancer.

Objectives
To study the relative importance of different tools a GP can use during the diagnostic process towards cancer detection.

Material/Methods
Retrospective cohort study with prospective registration of cancer in general practice. During ten consecutive days, 157 Norwegian GPs registered all patient consultations and recorded any presence of seven focal symptoms and three general symptoms, commonly considered as warning signs of cancer (WSC). Follow-up was done 6 to 11 months later. For each patient with new or recurrent cancer, the GP completed a questionnaire with medical record-based information about the diagnostic procedure.

Results
In 78% of 263 cancer cases, symptoms, signs or tests helped diagnose cancer. In 90 cases there were 131 consultation-recorded WSC that seemed related to the cancer. Another 74 cases had additional symptoms before diagnosis, 74 WSC and 33 lower risk symptoms. Different clinical signs were noted in 41 patients, 16 of whom had no previous recording of symptom. Supplementary tests added information in 59 cases, in 25 of these there were no recordings of symptoms or signs. Sensitivity of any cancer relevant symptom or clinical finding ranged from 100% for patients with uterine body cancer to 57% for patients with renal cancer.

Conclusion
WSC had a major role as initiator of a cancer diagnostic procedure. Low-risk-but-not-no-risk symptoms also played an important role, and in seven percent of patients they were the only symptoms. Clinical findings and/or supplementary procedures were sometimes decisive for rapid referral.

Points for discussion
From your point of view as a GP, what are the most important elements in a diagnostic process/pathway towards the cancer?

Could it be colorectal cancer? General Practitioners’ use of Faecal Occult Blood Tests and navigation towards decision on referral – a qualitative study

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**Background**
Abdominal complaints are common reasons to contact General Practitioners (GPs), and mostly caused by benign conditions. It can be a challenge to sort out the patients with suspected colorectal cancer (CRC) needing investigation in secondary care. A diagnostic aid frequently used in Sweden and other countries is Faecal Occult Blood Test (FOBT). There are however no guidelines for the use of FOBTs, and it is uncertain how test results are interpreted in everyday clinical practice. Studies have shown that negative tests are associated with a risk of delayed diagnosis, and that many patients with positive tests are not investigated further. The reasons for this are unclear.

**Objectives**
To explore what makes GPs suspect CRC and their practice concerning investigation and referral.

**Material/Methods**
Semi-structured individual interviews were made with strategically selected GPs in the county of Jämtland, Sweden, and analysed with qualitative content analysis. All interviews were performed, audiotaped, and transcribed verbatim by CH. CH and at least one other author separately coded each interview. Consensus on saturation, codes, categories, and further analysis was reached through group discussions.

**Results**
Eleven GPs were interviewed. The analysis resulted in five categories:

1. Careful listening to the patient’s history required: Listening attentively was emphasized as essential, but with a risk of being misled by the patient’s own explanations.
2. Tests can be of help – FOBTs can help or complicate: Anaemia was generally considered an important factor. FOBTs were used by all the interviewed, but in varying degrees, and interpretation and consequences of the results varied.
3. To refer or not to refer – safety margins necessary: Uncertainty was described as often present in everyday work. Common vague symptoms could be CRC and justified referral with safety margins.
4. Growing more confident – yet humble: With increasing experience the GPs described becoming more confident in decisions but also more humble and less prestigious.
5. The patient’s advocate: The GPs adapted to a constantly changing reality, striving to keep the patient’s best in focus.

**Conclusion**
In deciding which patients to refer careful listening to the patient’s history is found essential, and FOBTs are frequently used as support. There is an awareness of the limitations of FOBTs but a considerable variation in ways to handle the test results. The diagnostic process can be described as navigating uncertain waters with safety margins.

**Points for discussion**
Transferability to other settings? Experiences from other countries? Further research in this area?

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**238-OP**

Psychological consequences of screening for cardiovascular risk factors in an un-selected general population: Results from the Inter99 randomised intervention study

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**Background**
Concerns that general health checks, including screening for risk factors to ischemic heart disease (IHD), have negative psychological consequences seem widely unfounded. However, previous studies were based on self-reports from participants only.
Objectives
To investigate if risk factor screening in healthy adults leads to mental distress in the study population, independent of participation.

Material/Methods: The Inter99 study (1999–2006) is a randomised intervention in the general population, aimed to prevent IHD by healthier lifestyle. We included the whole study population, independent of participation (n=60,915). We merged data with information on use of psychotropic medication and/or hospitalisation due to psychiatric diagnosis, retrieved from national registers, four years before and five years after study start. Analyses were conducted by generalized estimating equations.

Results
There was no significant difference between intervention and control group in use of antipsychotics, hypnotics/sedatives, antidepressants or anxiolytics. As regards admission to hospital with mental disorders no significant difference was seen. These findings were both on a yearly basis, and when investigating a short-term and a long-term effect of the intervention. There was no interaction with socioeconomic status. Of the 918 persons with a psychiatric diagnosis before study start 303 (33%) were re-admitted in the intervention period. Pre-screen psychological status did not influence the psychological impact of screening.

Conclusion
This large randomised intervention study supports that screening for risk factors to IHD does not increase mental distress, not even in the mentally or socioeconomically most vulnerable persons. This study included the whole study population, not only the participants.

Points for discussion
1. How do we measure mental distress?
2. Does screening affect psychological well-being?
3. Does qualitative and quantitative research show the same results?
4. What do we know about mental health and socio-economic status of non-attenders in screening trials?
16.1% more than 5 consultations. During 2009 GPs participated in multidisciplinary meetings for 25.7% of their patients with schizophrenia. The use of diagnostic tests like HbA1c, spirometry and ECG was more frequent among patients with schizophrenia and comorbid somatic conditions, than among similar patients without a SMD. Thus, among patient with schizophrenia, co-morbid DM increased the FFS with NOK 1400, comorbid obstructive lung disease with NOK 1699 and cardiovascular disease with NOK 863. Belonging to a GP with a high proportion of mental health related consultations in his/her practice, increased the FFS for patients with schizophrenia (NOK 115 per percent point increase). Patients with schizophrenia living in municipalities with < 10,000 inhabitants had at average increase in FFS of NOK 1048 compared to patients living in municipalities with >50,000 inhabitants.

Conclusion
The study indicate that most patients diagnosed with schizophrenia in Norway have regular contact with their GPs, providing opportunities for the GP to care for both mental and somatic health problems among these patients.

Points for discussion
However, the use of appropriate tests to monitor serious somatic illness is still too low among patients with SMD, and gives no reason for complacency. Awareness among GPs on the comorbidities should be increased.

241-OP
Which professional competences make collaborative care work? A study of GPs’, psychiatric nurses’ and psychiatrists’ views

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Background:
Patients with depression and anxiety disorders are treated mainly in primary care. Studies from the US and the UK have shown that collaborative care - a close collaboration between primary and secondary care, normally with psychiatric care managers working in primary care - has a greater effect than routine care. From 2014–2017 a collaborative care study for patients with anxiety and depression will be carried out in four regions in Denmark. The study will include 80 GPs and approximately 2,000 patients. Literature suggests that the actors’ propensity to buy-in is crucial for making the model work. And that buying-in, especially for the GPs, is dependent on their conviction that care managers have adequate skills.

Objectives:
To investigate which professional competences GPs, psychiatrists and psychiatric nurses regard as central for making a collaborative care model work in practice.

Material/Methods
GPs, psychiatrists, and psychiatric nurses employed as care managers are interviewed with a focus on their perceptions prior to the intervention. The data is analyzed using the framework of Normalization Process Theory (NPT), a theoretical framework for analyzing complex interventions in health care.

Results
Data collection is still in progress. Preliminary results show that the actors regard two types of professional competences as central for making the model work: 1) knowledge of disease and therapeutic skills and 2) Collaboration competences. However, the three groups seem to have slightly different perceptions of what the relevant knowledge and therapeutic skills are and quite different perspectives on what collaboration really consists of in this model, and how it should be pursued. GPs are ambivalent about collaboration expressing concerns that working with a care manager will be time consuming but they are enthusiastic about the possibility of getting supervision from a psychiatrist. Psychiatrists solely focus on how GPs’ enhanced access to psychiatric supervision will relieve GPs in their daily work. Neither psychiatrists nor GP’s express that care managers can be
helpful for the GP. In contrast, care managers demonstrate great interest in investigating how they can support the GP and especially how they can meet the GPs’ different needs.

**Conclusion**

GPs, psychiatrists and care managers have different expectations especially to the content and degree of collaboration in the collaborative care model that is being studied in Denmark.

**Points for discussion:**

How can GPs’ ambivalence towards the model be understood?; Which preconceptions determine that collaboration with care managers is viewed as time consuming and supervision from psychiatrists as a benefit?

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**Material/Methods**

A nationwide population-based cohort study. A total of 100 000 adults older than 20 years randomly selected from the Danish Civil Registration System were invited to participate in a web-based questionnaire. Items regarding RAS (prolonged coughing, shortness of breath, coughing up blood and prolonged hoarseness) experienced within the preceding four weeks, contact to the GP barriers towards GP contact and smoking status were included in the questionnaire. The four barriers were ‘I would be too embarrassed’, ‘I would be worried about wasting the doctor’s time’, I would be worried about what the doctor might find’, and ‘I would be too busy to make time to visit the doctor’.

**Results**

Overall 49 706 subjects completed the questionnaire. Some 16.0% (7870) reported at least one respiratory alarm symptom. The proportion not having contacted the GP with RAS was highest for prolonged hoarseness (72.5%) and lowest for shortness of breath (50.3%). Of those who did not contact the GP with at least one respiratory alarm symptom 38.3% were current smokers, 28.6% were former smokers and 33.2% were never smokers.

In general ‘being too busy’ (18.9%) and ‘being worried about wasting the doctor’s time’ (18.2%) were the most frequent barriers towards GP contact with RAS. Current smokers, who had not contacted the GP with at least one respiratory alarm symptom, were more likely to report ‘it would be embarrassing’ (OR 1.5 95% CI 1.1–2.2) and ‘being worried about what the doctor might find’ (OR 2.6 95% CI 2.1–3.2) compared to never smokers.

**Conclusion**

‘Being worried about wasting the doctor’s time’ and ‘being too busy’ were the most frequent barriers towards GP contact with respiratory alarm symptoms. Smoking status was significantly associated with ‘it would be embarrassing’ and ‘being worried about what the doctor might find’.

**Points for discussion**

How does smoking status influence the relationship between patients and GPs?
ADAS – On antidepressants effect on return to work in depression, anxiety and stress-related mental illness

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Background
A Swedish register-based study suggests that pharmacological treatment of depression, anxiety and stress-related disorders entail longer sick leave and higher frequency of non-temporary sickness benefits than other therapies. These findings need to be clinically verified to be able to distinguish between different diagnostic groups, severity of symptoms, and the state with co morbidity. In the region Västra Götaland (VG), unlike most regions in Sweden, the availability of psychological therapies in primary care is enough to make psychological therapy a real alternative to pharmacological. Therefore, it is likely that psychological and pharmacological therapies largely are divided along the current guidelines in collaboration with the patient. The study will have ample opportunity to answer the question whether people sick signed with the diagnoses that are in focus and who during any part of the period of illness are treated with medicines (for depression and anxiety) returns later to work and increasingly receives indefinite sick leave than people treated with psychological therapy (CBT, or otherwise) or other therapy.

Objectives
This application is a prospective clinical observational study of approximately 180 individuals in 2013–2014 with sick leave due to anxiety and depression diagnoses including stress-related disorders in VG region.

Material/Methods
The individuals who declare their willingness to participate in the study undergo an initial diagnostic procedure for the enforcement of diagnosis, symptoms depth and seriousness, and assessment of potential co morbidity and ongoing medication and / or therapy. During the study repeated evaluations will be made of inconvenience depth and severity. Details of medication, therapy, and sick leave data will be continuously collected.

Results
The study is now running at 25 health care centres. About 130 patients are included; the responses at three months is 59 and at six months 37.

Conclusion
The study will make it possible to evaluate if the group treated with the antidepressant pharmacological therapy is different from the group not treated with pharmacologic therapy.

Points for discussion
If patients treated with pharmacological treatment towards diagnoses in focus would entail longer sick leave and higher frequency of non-temporary sickness benefits than other therapies - what could the causes be?

The 15-method – To have something more to offer when an alcohol problem is suspected

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Background
Alcohol dependence is a common disease with prevalence similar to diabetes. The vast majority have mild or moderate alcohol dependence. The majority is not attracted to, or helped by the treatments offered from the alcohol clinics, or social services.

Objectives
The purpose of “The 15-method” is to offer a evidence based treatment modality fitted to moderate and mild alcohol dependent patients.
The method is adapted to fit in primary care or occupational health care. “The 15-method” is a hands-on manual based steped care method characterized by person centredness, a health perspective and stigma reduction.

Material/Methods
A manual-based method in three steps: 1) a possible alcohol problem is identified. Short advice is given or a more elaborate “alcohol health test” is offered. 2) The “alcohol health test” consists of a test battery that the patient completes at home before next visit, and biological markers. At a second visit feedback is given on the situation. If the patient desires, treatment is offered. 3) Treatment could include drugs, self help material or 3–4 manual-based CBT sessions with homework (eg. goal setting, handling risk situations, action plans). Each treatment session should take 15 minutes.

Results
Usefulness of "The 15-method" in primary care is now being evaluated in the TAP study (Treatment of Alcohol Dependence in Primary Care) where 300 patients randomized to treatment at the addiction Centre (Riddargatan 1) or in primary care. http://riddargatan1.se/TAP

Conclusion
4.5% of our patients are alcohol dependent. There are many GPs who find it difficult to deal with this. The 15 method provides an evidence-based tools for general medical practices. The advantages are stigma reduction, objective assessment of alcohol situation, health perspective and the offering of a menu of treatment alternatives.

Points for discussion
Stigmatisation of alcohol care. Patient centeredness.

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Chronic obstructive lung disease in Norwegian general practice - a register based study

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Background
Among adults, surveys indicate a prevalence of chronic obstructive lung disease (COPD) of 5–10%. According to the coordination reform, introduced by the Norwegian Parliament in 2010, primary care is required to take more responsibility for these patients. To strengthen primary care, new services are introduced however partly without the GPs. National guidelines for COPD from 2012 recommend a yearly control including spirometry.

Objectives
To study the current role of Norwegian GPs in the care for patients with COPD at the start of the coordination reform, as a basis for future quality assessment.

Material/Methods
Cross-sectional study based on the national GP claims’ database and the national GP database. In the Norwegian list patient system GPs are partly paid by fee-for-service. For each patient contact an invoice is sent, including the patient’s personal number, the main diagnosis, type of contact and information on medical procedures performed. Diagnoses from all GP claims for patients≥40 years in 2009–2011 were used to identify patients with COPD. Claims from all contacts with COPD patients in 2011 were used to assess the GP services utilised by this patient group and a selection of co-morbid conditions. Logistic regression analysis was used to identify predictors for annual use of spirometry at the GPs own office.

Results
During 2011, 2.8% of the Norwegian population ≥40 years, (N= 70 321) had at least one GP contact with COPD as the main diagnosis.
According to the GPs’ diagnoses, 13% of the COPD patients also had depression and 7% anxiety during 2011. 32% had hypertension, 19% cardiovascular disease and 12% diabetes mellitus. 46% of the COPD patients had > 5 consultations in 2011 and 27% had a spirometry taken by a GP. Annual use of spirometry was associated with having a male GP (p<0.001), a GP approved specialist in general practice (p<0.001), belonging to a larger patient list (p<0.001), or a GP working in a larger municipality (p<0.001).

Conclusion
Norwegian GPs seem to keep close contact with patients diagnosed with COPD. Spirometry in the GPs’ own offices to monitor the disease is used less then recommended, especially among female GPs, GPs with few patients and GPs working in smaller municipalities.

Points for discussion
Routinely collected claims data probably underestimate the frequency of most medical conditions since only the main diagnosis is recorded.

Different attitudes to guideline recommendations and economical explanations of variation should be further clarified to improve quality of care.

246-OP
General practitioners’ home visit tendency and readmission-free survival after COPD hospitalisation: a Danish nationwide cohort study
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Background
The tendency of general practitioners (GPs) to conduct home visits is considered an important aspect of practices’ accessibility and quality of care.

Objectives
To investigate whether GPs’ tendency to conduct home visits affects 30-day readmission or death after hospitalisation with chronic obstructive pulmonary disease.

Material/Methods
All Danish patients first-time hospitalised with COPD during the years 2006–2008 were identified. The association between the GP’s tendency to conduct home visits and the time from hospital discharge until death or all-cause readmission was analysed by means of Cox regression adjusted for multiple patient and practice characteristics.

Results
The study included 14,425 patients listed with 1,389 general practices. Approximately 31% of the patients received a home visit during the year preceding their first COPD hospitalisation, and within 30 days after discharge 19% had been readmitted and 1.6% had died without readmission. A U-shaped dose–response relationship was found between GP home visit tendency and readmission-free survival. The lowest adjusted risk of readmission or death was recorded among patients who were listed with a general practice in which >20–30% of other listed first-time COPD-hospitalised patients had received a home visit. The risk was higher if either 0% (hazard rate ratio 1.18 (1.01–1.37)) or 460% (hazard rate ratio 1.23 (1.04–1.44)) of the patients had been visited.

Conclusion
A moderate GP tendency to conduct home visits is associated with the lowest 30-day risk of COPD readmission or death. A GP’s tendency to conduct home visits should not be used as a unidirectional indicator of the ability to prevent COPD hospital readmissions.

Points for discussion
For elderly patients, easy access to GP home visits has been believed to prevent unnecessary hospitalisations. This study indicates that the opposite may more often be the case.
**247-OP**

**Chronic obstructive pulmonary disease and prescription of anxiolytic drugs in Danish general practice**

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**Abstract**

Prolonged use of anxiolytic drugs should generally be avoided, especially in the elderly.

**Objectives**

The aim of this study was to analyse the association between prescription of anxiolytics and a diagnosis of chronic obstructive pulmonary disease (COPD) for elderly patients in general practice.

**Material/Methods**

All GP clinics in Southern Denmark were invited to a quality improvement initiative targeted at elderly patients in general practice. A 10-items computer-based pop-up questionnaire on health and social conditions was filled in for each patient above 74 years of age who attended the clinics during a 15 weeks period from the 20th January 2014. Each patient’s drug prescriptions, dates of consultations, home-visits, and diagnosis codes were recorded automatically from the GPs’ computer systems. A multivariable logistic regression was applied.

**Results**

Twenty-one clinics recorded data on 2,213 patients. A total of 19.2% of the patients was prescribed with an anxiolytic drug in the year before the study. Adjusted for gender and age, the study found an association between having a COPD diagnosis and being prescribed with an anxiolytic drug (OR: 1.46, CI 1.01–2.10). Furthermore, prescription of an anxiolytic drug was closely associated with female gender, feeling lonely, and having had a high number of other prescribed drugs. The association with COPD was neutralised when adjusting for the patients’ number of different drug prescriptions in the past year.

**Conclusion**

Opposed to guideline recommendations Danish GPs prescribe anxiolytics to a high proportion of elderly patients. The study indicates an association between COPD and prescription with anxiolytics.

**Points for discussion**

Should elderly patients and patients with COPD in particular be prescribed with anxiolytic drugs? When do GPs prescribe anxiolytic drugs to elderly patients?

**248-OP**

**The implementation of a disease management programme for COPD assessed by patients using EQ-5D and MRC – a randomised trial**

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**Abstract**

The Danish Structural Reform in 2007 delegated the responsibility for prevention and rehabilitation to the municipalities. This demanded a new structure which needed to be multidisciplinary and coordinated between the sectors to create transparent treatment through the whole healthcare system.

In a large study we examined how structures were created with an extra effort from the Ringkøbing-Skjern municipality, the Central Denmark Region and with general practice as coordinator for the care for patients with COPD.

**Objectives**

The overall objective for this effort was to secure high quality care, to stop progression of the disease and minimise complications as well as gain knowledge of the care for COPD.
this present study the patients’ Health Related Quality of Life (HRQOL) was investigated.

Material/Methods: The British Research Council’s model for developing complex interventions was used for a multifaceted implementation strategy for a disease management program for COPD. Based on principles from the Chronic Care Model, the Breakthrough Series, academic detailing, continued medical education and identification of the patients were used. The active implementation model was tried in a randomised controlled trial.

Patients scored their HRQOL with the generic instrument EQ-5D as one measure of health status. Furthermore did the patients score the MRC dyspnoea score – which is regularly used in general practice to assess HRQOL.

Results
In this study there was no change for the patients in any of the groups or when comparing the difference between groups in the EQ-5D index score before and after the intervention. In the intervention group, the MRC score decreased from 2.11 to 2.08 (difference=-0.03 [95%CI: -0.13;0.08]), while an increase of 0.14 [95% CI: 0.02;0.25] was seen in the control group. The effect of the intervention was a decrease in the MRC score of -0.16 [95%CI: -0.32;-0.01], (p=0.043).

Conclusion
Our results show that while an active implementation of a disease management programme for the chronic disease COPD was associated with improvements in the disease-specific health status measured with the MRC dyspnoea score; this was not reflected in the generic health status measured with EQ-5D. This indicates that the active implementation of a disease management programme had the intended effect in raising the health status of patients concerning their COPD.

THE GAINED KNOWLEDGE of how the delivery of comprehensive care with general practice as the coordinator for COPD care increased the patients’ health status can be used to implement disease management programs for other chronic diseases.

**Points for discussion**

1. Use of disease specific measures.
2. HRQOL in the clinic.

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**Influenza vaccination: a summary of Cochrane Reviews**

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**Background**


In developed countries, influenza vaccination is either recommended to the whole population or to certain subgroups at risk of developing severe complications. To assess the scientific evidence for this practice, the Cochrane Collaboration has published several meta-analyses on the subject.

**Objectives**

To present a summary of reviews on influenza vaccination undertaken by the Cochrane Collaboration, and discuss their implications.

**Material/Methods**

The Cochrane Library was systematically searched for reviews regarding influenza vaccination. The results and conclusions were stratified and synthesized according to predefined criteria.

**Results**

Twelve reviews were found investigating the effect of influenza vaccination on healthy children, healthy adults, the elderly, healthcare workers working with the institutionalised elderly, COPD, asthma, cystic fibrosis, bronchiectasis, children being treated with chemotherapy for cancer, immunosuppressed individuals with cancer, persons with haematological malignancies and people with coronary heart disease.

A positive effect in reducing the number
of cases of influenza, influenza-like illness or complications to influenza was found in some reviews, but generally the risk of bias was high, several studies lacked hard clinical endpoints, and data on side effects were scarce.

**Conclusion**

Except for a possible benefit in people with COPD or haematological malignancies or in immunosuppressed adults with cancer, all Cochrane Reviews concluded that the general recommendations for influenza vaccination are not supported by current evidence. This conclusion has been challenged by other non-Cochrane reviews, despite obtaining similar results. More randomised controlled trials are warranted to assess the health benefits of influenza vaccination.

**Points for discussion**

How can different types of prophylactic measures for influenza best be conducted in general practice?

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### 251-P

**Chronic anticoagulation treatment: self-care and frequency of INR testing**

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**Background**

The self-care and e-services of the anticoagulation project is carried out as part of the activities of the City of Helsinki Department of Social Services and Health Care. This organization is serving a population of approximately 596,000, and operating 25 health stations, with 329 physicians and 583 nurses. In 2012, there were 10,000 patients on warfarin treatment and 140,000 INR-tests were taken. The aim of the project was to implement self-care and resulting improvement of the patient care.

The number of patients on requiring treatment with warfarin has increased in recent years because of ageing of the population and wider indications for anticoagulation treatment. We estimated that 65% of the INR test results are at target range (2.0 – 3.0). Relaying on the patients themselves in the interpretation of the INR results and dosing takes more time and results in waste of time of the patient, and nurse as well as the physician. The frequency of INR testing for patients annually has been higher than expected when compared with number of INR results with therapeutic range.

**Objectives**

Three different patient groups with warfarin treatment were established: physician instruction, nurse instruction and patient self-care. Allocation to the groups is based on risk assessment by physician, patient willingness and capability.

- The intervention consisted of 1) information of self-care and of new methods of receiving dosing instructions (patients and professionals) 2) education and post testing knowledge (patients and professionals) 3) testing materials and tools for project. This is pragmatic development project was carried out in real-life setting with before and after measurements of change in average INR.

**Material/Methods**

The frequency with which the patients visited the laboratory was calculated to ensure that patients were not overusing the laboratory when self-assigning the control interval.

The study consisted of 2006 patients who received their INR values via a text message and were part of the self-care group. The time period studied ranged from January 2008 to June 2013. The values measured were the number of INR tests per quarter year, per the number of unique patients tested for INR during that time.

**Results**

No significant measurable increase in the frequency of laboratory tests was found. Standard deviation of mean INR tests per patient 3.64 (3.65 ; 3.63 CI 95%).
Conclusion
Patients were not overusing the laboratory when self assigning the control interval.

Points for discussion
Self-care for patients with chronic warfarin treatment can save resources and costs.

252-P
Out of hours house calls to nursing home residents: do the visiting GPs get sufficient patient information?

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Background
In Oslo, out of hours medical emergency services for nursing home residents are provided by visiting general practitioners (GPs) from Oslo Emergency Outpatient Clinic (OEOC). Typically, nursing home residents (NHRs) are demented, frail, and multimorbid elderly with limited life expectancies and impaired ability to communicate. To make good medical decisions, a GP called for to see a NHR during nighttime therefore has to rely on information from other sources. However, the extent to which appropriate information from patient’s electronic medical record (EMR) or from nursing home staff are made available for out of hours visiting GPs is not known.

Objectives
To describe the quantity and quality of patient information provided during medical out of hours visits to NHRs. A particular focus was on information about decisions previously made for treatment intensity and how this corresponded with treatment initiated by the visiting physician.

Material/Methods
Prospective observational study. During three months we recorded all house calls to NHR made by OEOC physicians. A questionnaire was filled out by the visiting doctor during each visit. Issues included were availability and quality of EMR, the patient knowledge by the nursing staff on duty, the hospitalization rates and the intensities of treatment.

Results
Altogether 362 medical visits in nursing homes were recorded. Three out of four NHR visited were ≥ 80 years, one third ≥ 90 years, 70% were diagnosed with moderate or severe dementia. In 33% of the visits, the physicians were not provided access to the patient’s EMR. The probability for being presented the EMR was significantly lower for patients ≥80 years, and also if the nursing staff on duty had limited knowledge themselves about the patient in question.

In most cases (79%), no information was available regarding whether or not cardiopulmonary resuscitation (CPR) should be undertaken.

Conclusion
Patient information including the patients’ general physical and mental condition, CPR status, and which level of treatment intensity that is to be followed in case of acute illness, was not made available for the visiting doctor in more than half of the visits. There were no significant differences regarding hospitalization rates or treatment intensities between patients with and without available medical information provided by the nursing staff or the EMR.

Points for discussion
Availability of EMRs for NHRs for visiting out of hours physicians? Explicit decisions regarding treatment intensity (e.g. CPR) in severely demented NHRs with limited life expectancies – a need for quality improvement?

253-P
Predictive Factors of Weight Loss among Young Adults with psychosocial Problems and Overweight

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Abstracts

Tuesday 15.30 – 17.00

**Background**
In a randomized controlled trial 27 general practitioners screened 2073 patients 20–45 years old in order to offer those with most psychosocial problems a preventive health consultations with respect to the patients agenda in order to support self-efficacy. Positive results after one year on SF-12 have been published earlier.

**Objectives**
To identify predictive factors for weight loss after one year among young adults with psychosocial problems and overweight (BMI 25–30) or obesity (BMI >30 kg/m²).

**Material/Methods**
28 general practitioners (GPs) included patients aged 20–45 years to participate when coming to the surgery. The quartile with most psychosocial problems or lack of resources was invited after completing a 23-pages baseline questionnaire on e.g. resources, life situation, life style and goal setting for a better life. Intervention was a one-hour preventive health consultation with their GP focused on life coaching within self-chosen goals for a better life and three month’s follow-up. Among the 218 patients with a body mass index (BMI) of 25 kg/m² or more, goal of weight loss were analysed.

**Results**
Before intervention 46 (21%) considered quick weight loss (within 30 days). After intervention twenty-seven (12%) had weight loss as prioritized goal and 191 had not. At one year questionnaire follow-up the 22 responders had a weight loss of 4.7 kilo compared with 1.6 kilo in those without this goal.

Predictors of weight loss after one year were: weight loss as the first priority in the health consultation (OR=4.63), pre-interventional consideration of a quick weight loss (OR=3.43), being female (OR= 2.01), having many psychosocial problems (OR=1.96). The extent of weight loss could be explained in a linear regression model for about 9%. Being obese could explain (3%), consideration of a quick weight loss (3%), living as single (2%), and randomized to intervention (1%).

**Conclusion**
In our models important predictors for weight loss and the extent of this one year after the preventive health consultation could be explained by “Pre-interventional consideration of a weight loss within 30 days”, “Having weight loss as first priority” “Having many psychosocial problems”, “Being obese”, “Living as single”, and “Randomized to the health consultation”.

**Points for discussion**
To support change in life style behaviour especially among those with many psychosocial problems it is important to offer patient-centred structured consultation and respect both time-setting and specific goal. This seems to be a proxy for readiness and motivation to change and important base for supporting specific self-efficacy. In this way general practitioners might contribute to minimize inequality in health.

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**254-P**

**Clinical practice comparison between GPs in Iceland and Norway: A qualitative study**

**Hedinn Sigurdsson¹, Kristjan Gudmundsson², Sunna Gestsdottir³, Sigridur Halldorsdottir⁴**

¹Glaesibaer Primary Health Care Centre, Reykjavik, Iceland, ²Reykjalundur Rehabilitation Centre, Reykjavik, Iceland. ³Centre of Sport and Health Sciences, School of Education, University of Iceland, Reykjavik. ⁴School of Health Sciences, University of Akureyri, Akureyri, Iceland.

**Background**
According to GPs there is a need for paradigm shift in the Icelandic primary health care system.

**Objectives**
The purpose was to explore the experience of Icelandic GPs who have worked in Norway and Iceland. We compared different work environments, efficiency, and organization of the different primary health care systems in these two neighbouring countries.
**Material/Methods**
Semi-structured interviews were conducted with 16 Icelandic GPs who had previously worked in Norway for at least one year. A qualitative research approach was adopted, using the methodology of the “Vancouver school of doing phenomenology”, which seeks to increase the understanding of human phenomena.

**Results**
Analysis of interviews elicited four main themes. 1) The mixed public-private health care system; 2) Tug of war between doctors and nurses; 3) Specialists working as GPs; 4) Out-of-hours service overconsumption. What characterizes the Icelandic health care system outside of hospitals is the high patient access to the specialists’ service without referrals from GPs and an incomplete patient registration system, compared to the gatekeeping list system in Norway. Most of the Icelandic GPs are public employees on fixed salaries, unlike their Norwegian colleagues who work in privately owned practices. Factors such as quality of care, service efficiency, continuity, and the sense of patients’ security, seem to relate to active control systems in the health care service.

**Conclusion**
When structural changes are performed in the Icelandic health care service it is important to look at other nations’ experience concerning major structural changes in the professional environment of GPs.

**Points for discussion**
A lack of efficiency was found in the Icelandic primary health care system compared to the Norwegian primary health care system. Control of cost containment is more effective when GPs are on salary, but is likely to decrease access and service and lead to overconsumption of secondary care. With more emphasis on private practice and fees for service, it is possible to recruit more new GPs into the profession and decrease the pressure on the out-of-hours service and hospital emergency wards.

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**255-P**

**Differences in total and high density lipoprotein cholesterol reduction between healthy overweight people with and without signs of fatty liver**

**Vija Silina**, **Mesfin Kassaye Tessma**, **Peteris Tretjakovs**, **Gita Krievina**, **Ilze Jakobsone**, **Guntis Bāhs**

**Background**
Motivating clinically healthy overweight and obese individuals to bring lifestyle behavioural changes prior to an apparent disease is still a challenge in primary care. Finding out and discussing any cardiovascular diseases risk associated changes, e.g., fatty liver can be used as an argument to start lifestyle changes to improve serum lipid level spectrum.

**Objectives**
To find out, if there are any total cholesterol (TC), high density lipoprotein cholesterol (HDLC) and TC/HDLC ratio changes within a year after consulting healthy overweight people with and without signs of fatty liver.

**Material/Methods**
A prospective observational study in Riga, Latvia included 118 clinically healthy individuals having body mass index ≥25 m2/kg and below 40 m2/kg and in age group 30–45 that visited primary care physician. Individuals were tested and consulted for fatty liver and were advised to start lifestyle changes to improve lipid levels and to decrease weight and waist circumference by at least 5% within one year. Using a paired t test, we estimated TC, HDLC and TC/HDLC ratio differences in all individuals and between
two groups: those with fatty liver (n=44) and without fatty liver (n=74).

**Results**
A statistically significant paired mean difference was observed regarding TC/HDLC ratio reduction in the whole group (0.19, 95% CI 0.07, 0.31; p=0.003), as well as, in the group where fatty liver was found (0.27, 95% CI 0.37, 0.50; p=0.024).

We found that in the whole group TC levels decreased (ME=0.92; SE=0.064) and HDLC levels increased (ME=0.09; SE=0.51), however the difference was not statistically significant, and the same we found by dividing individuals into subgroups regarding presence of fatty liver.

**Conclusion**
Our study showed there are positive changes in TC, HDLC and statistically significant changes in TC/HDLC ratio levels after one year in clinically healthy overweight and obese individuals residing in Riga, Latvia, especially in those who are aware of having fatty liver.

**Points for discussion**
Further research is required to set indicators, when behavioural changes should be definitely started, and to understand what could be the best motivation for behavioural changes in clinically healthy overweight and obese individuals.

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**256-P**

**GP staffed community hospital beds in Bergen: An observational study**

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5Department of Global Public Health and Primary Care, University of Bergen, Research Group for lifestyle epidemiology.  
6Centre of Clinical Research, Haukeland University Hospital, Bergen, Norway.

**Background**
A key objective of the Coordination Reform in Norway is to improve patient care and to provide health care services closer to where the patient lives. All municipalities in Norway are obliged to provide GP staffed community hospital beds by 2016. The intention is to reduce acute hospital admissions, and the presumption is that community hospital beds will be equal to or better than hospitalization for some patients. Although already politically decided, the scientific literature is scarce. This study aims to identify the number of patients who may be candidates for a community hospital stay and their medical and care needs.

**Objectives**
This study aims to describe clinical characteristics and demographics in patients presenting to a primary care doctor who are eligible for admission to a community hospital bed as an alternative to acute hospital admission.

**Material/Methods**
All primary care doctors working in general practice, out-of-hours services and nursing homes in the municipality of Bergen will be invited to participate in the study. Eligible cases are patients >18 years of age where the doctor’s assessment after the consultation is that i) admission to community hospital would have been desirable if it existed today, ii) the patient is acutely referred to hospital, or iii) a reinforcement of community care services or an application for an intermediate stay in nursing home is needed. Patients will be enrolled for a period of one week, scheduled in the first quarter of 2015.

**Results**
Results will be presented at the congress.

**Conclusion**
Conclusion will be presented at the congress.

**Points for discussion**
Points for discussion will be presented at the congress.
**257-P**

**Abdominal fat distribution in clinically healthy persons in GP practice**

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**Background**

Obesity is one of the most frequent and faster growing problem in the world. Obesity is associated with an increased risk of developing cardiovascular diseases (CVD) and diabetes mellitus type 2 (DMT2). Intra-abdominal adipose tissue is more closely associated with CVD and DMT2 development. It is important to consider early detection and type of the obesity, as well as capabilities to reduce obesity. There is a need for cheap and non-invasive methodology for the determination of obesity in GP practice.

**Objectives**

Determine which of the anthropometric or plasma biochemical parameters best describes the relative size of intra-abdominal fat in relatively healthy adults.

Material/Methods: 60 relatively healthy persons (30 women); age 37.4 ± 4.1 years. Anthropometric measurements as waist circumference (WC) and body mass index (BMI), blood tests-total cholesterol, HDL-cholesterol, LDL-cholesterol and triglycerides (TG) were taken from all patients. Every patient had abdominal computed tomography in which we examined fat distribution (total abdominal fat (TAF), sub-cutaneous fat (SCF) and intra-abdominal fat (IAF) in TH10-L2 level. The abdominal fat segment volumes were compared with anthropometric and biochemical parameters.

**Results**

The distribution of TAF in Th10-L2 level for women- 72% are SCF and only 28% IAF. While for men only 45% of the TAF are SCF and 55% – IAF. WC statistically (p<0.005) correlated with SCF (rw=0.89), IAF (rw=0.85) and TAF (rw=0.92) in women group, while in men WC statistically correlated with the SCF (rm=0.82), IAF (rm=0.82) and TAF (rm=0.85). BMI statistically correlated in both (women and men) with SCF (rw=0.91; rm=0.78), IAF (rw=0.75; rm=0.80) and TAF (rw=0.90; rm=0.83). From biochemical parameters only TG had statistically significant correlation with the IAF (rw=0.57; rm=0.69) and TAF (rw=0.42; rm=0.65), both men and women, but there was no significant correlation with the SCF in both groups.

**Conclusion**

Total abdominal fat level for men and women do not differ significantly, however, there was a significant difference in fat distribution. The level of the IAF for both, women and men, best describes the TG serum concentrations. Overweight and obese patients should always measure TG levels in GP practice to indicate a greater risk to develop CVD and DMT2.

**Points for discussion**

If patients feel well, but are overweight or obese they need to be monitored.

**258-P**

**Secondary screening for osteoporosis in general practice**

Andreas Kakulidis Toft1,* Marie Bjerg1, Janus Laust Thomsen2, Peter Vestergaard3, Martin Bach Jensen1

1 Research Unit for General Practice in the North Denmark Region and Department of Clinical Medicine, Aalborg University, Aalborg. 
2 Research Unit of General Practice and DAK-E, Odense C. 
3 Endocrinology, Department of Clinical Medicine, The Faculty of Medicine, Aalborg University Hospital, Aalborg, Denmark.

**Background**

Osteoporosis is common and osteoporotic fractures are a major cause of suffering, increased mortality, and are very costly. Patients at increased risk of osteoporosis may be identified by using routinely gathered information in
the electronic medical record e.g. those with a diagnosis of smoking, chronic obstructive pulmonary disease (COPD), underweight, hyperthyroidism, etc. Risk patients may then be advised about fall and osteoporosis prevention and offered a DXA-scan to establish whether they have osteoporosis, osteopenia or normal bone mineral density (BMD). In case of osteoporosis, patients should be offered further evaluation and treatment.

**Objectives**
To evaluate a screening and prevention program where patients identified as having an increased risk of osteoporosis were invited to come for a further osteoporosis and fall risk assessment, prevention advice, and referral to a DXA-scan.

**Material/Methods**
Two general practices in Aalborg, Denmark, with 9208 listed patients participated. January 2014 patients with an osteoporosis risk factor were identified. Excluded were patients with osteoporosis, < 25 years, DXA-scan ≤ 3 years and/or other cause contradicting participation. Eligible patients were invited, informed about the study, got at questionnaire regarding risk factors, and were invited to a preventive consultation. During this consultation risk factors were discussed and advice was given regarding fall prophylaxis, diet, vitamin D, etc. The patients’ medication was also evaluated. All patients were the offered referral to a DXA-scan.

**Results**
In all 367 patients were identified as having one or more risk factors for osteoporosis. Eighty-five patients were excluded, 282 patients were invited to participate, 87 (31% of invited) had a fall and osteoporosis preventive consultation, and 74 patients have been scanned (13 pending). Out of 74 patients scanned, 16 had osteoporosis (22%), 36 had osteopenia (48%) and 22 (30%) had normal BMD. Of the 16 patients with osteoporosis, 10 (63%) had the risk factor COPD. The patient related costs were estimated to be approximately € 17,000. The main cost was DXA-scans (€ 160 per scan). Participating patients and health care professionals gave the study very positive evaluations.

**Conclusion**
A program for identification of patients at increased risk of osteoporosis was positively evaluated by patients and health care professionals. Approximately 1/3 of invited patients came for a preventive consultation and of those scanned 22% had osteoporosis. The price of giving preventive advice was low.

**Points for discussion**
Should we implement a program for identification of patients at increased risk of osteoporosis?

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**Characteristics and Relationship of Periodontal Disease with Rheumatoid Arthritis**

**Surena Vahabi**

**Background**
Rheumatoid arthritis is the most prevalent chronic inflammatory disease of the joints. It is correlated with periodontal disease due to similar factors that exist in both diseases.

**Objectives**
This study assessed the relationship of periodontal disease with rheumatoid (RA).

**Material/Methods**
In this case-control study, 30 RA and 30 JIA patients along with their matched controls were selected. Periodontal parameters including pocket depth (PD), clinical attachment level (CAL), Plaque index (PI) and bleeding on probing (BOP) were determined in cases and controls. ESR, number of painful/inflamed joints and arthritis severity were evaluated. Relationships of periodontal parameters with RA findings were statistically assessed by Mann Whitney U, Student t-test and Spearman and Pearson’s correlation coefficients with an alpha error less than 0.05.
Results
PD (4.17mm vs. 3.6mm), CAL (4.89mm vs. 4.18mm), percentage of sites with PD>4mm (58.83% vs. 44.33%), percentage of sites with CAL>3mm (74.13% vs. 64.4%), percentage of sites with bleeding on probing (9.67% vs. 6.87%) and PI index (85.73% vs. 80.63%) were significantly higher in RA patients than controls. In this group, significant direct correlations were found between serologic findings, disease severity and number of painful/inflamed joints with periodontal factors.

Conclusion
Severity of periodontal disease increases in patients with rheumatoid arthritis. Thus, periodontal disease can be more severe in RA.

Points for discussion
The present study is one of the few studies which evaluate the periodontal condition in both RA and JIA patients and as far as we know is the only one in Iran evaluating this relation in JIA patients.

260-P

The value of including spirometry in health checks – a randomized controlled study in primary health care

Lene Maria Ørts1,*Anders Løkke2, Anne-Louise Smidt Hansen1, Helle Terkildsen Maindal1, Anneli Sandbæk1

1Department of Public Health, Section for General Practice, Aarhus University.
2Department of Respiratory Diseases, Aarhus University Hospital.
3Department of Public Health, Section of Health promotion and Health Services, Aarhus, Denmark.

Background
Lung diseases are among the most frequent and most serious ailments in Denmark. Preventive health checks including spirometry can be used to detect lung diseases earlier. Over time the attendance at preventive health checks has decreased and at present the response rate is approximately 50%. Little is known about initiatives that can influence the attendance rate.

Objectives
To examine whether focused information on spirometry in the invitation material will influence the attendance in preventive health checks.

Material/Methods
Design: A randomized controlled study on information on spirometry embedded in “Check your health Prevention Program, CHPP” from 2015–16. CHPP is a house-hold cluster randomized controlled trial offering a preventive health check to 30–49 year olds in a Danish municipality during the years 2012 through to 2017 (n= 26,216), carried out in collaboration between Central Denmark Region, general practitioners in Randers and the Department of Public Health, University of Aarhus. The health checks are performed at a local health care center with a subsequent health interview at the participants own general practitioner.

Intervention: During 2015–16, 5,200 citizens aged 30–49 years will be randomized into two groups: The intervention group receives an invitation which highlights the value of spirometry as part of a health check and information about lung diseases. The control group will receive a standard invitation.

Primary outcome measure is effect on attendance. The characteristics of the 2 groups will be described according to sex, age, smoking history, spirometry values and lung symptoms.

Results
This is a presentation of the method, therefore we do not have any results yet.

Conclusion
The results from the present study are expected to contribute with important knowledge about the value of information on spirometry in invitations to health checks measured at different levels of attendance – as described above.

Points for discussion
The study is part of a Ph.D. project evaluating the use of spirometry as an element in preventive health checks. Further studies in the Ph.D. project will evaluate whether early spi-
rometry measurements can be used to predict future lung disease and describe the follow up of patients with abnormal spirometry measurements at their general practitioner.

Objectives
To develop a questionnaire with high content validity measuring menopausal symptoms and validate this questionnaire using Rasch analysis.

Material/Methods
A literature search was conducted in order to identify existing questionnaire encompassing menopausal symptoms. From those questionnaires, the meaningful content of relevant items was extracted and assessed for redundancy. The content matter of these items was translated into Danish. The content relevance and content coverage (content validity) of these unique items will be tested in single- and focus group interviews with women suffering from menopausal symptoms. Items not relevant will be deleted. If there is lack of content coverage new items will be generated from the interviews. Thereby a new draft version of a Danish questionnaire measuring menopausal symptoms will be developed. This draft version will be psychometrically validated using data collected cross-sectional. Rasch analysis will be used at the primary psychometric analysis, but also classical test theory will be used.

Results
Preliminary results: 15 questionnaires were identified, including 356 items in total, of which 129 items encompassed unique meaning content covering 5 domains. After the first focus group 68 items were endorsed, 18 new items were generated and 61 items needed further testing. A second focus group is planned and interviews will continue until Data saturation occurs.

Conclusion
More interviews are needed before the draft version can be tested cross-sectional and the psychometric analyses can be done.

Points for discussion
The unique items, the domains and the results from interviews and psychometric analyses will be presented at the conference.
Medication reviews in elderly primary care patients – the medication review process

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Background
The elderly population is increasing worldwide and many of these seniors have multiple diseases. Drug use in the elderly population is extensive and use of potential inappropriate medications (PIMs) is common, increasing the risk for drug-related problems (DRPs). Medication review is a method to improve drug therapy by identifying, preventing and solving DRPs.

Objectives
To examine the process of multi-professional medication reviews performed on elderly living either in nursing homes or in ordinary homes with home care in Skåne.

Material/Methods
A descriptive retrospective analysis was carried out for patients receiving medication reviews during 2011–2012. Included patients were aged ≥75 years. Documented DRPs were described in aspects of identification, pharmacists’ recommendation to physician, physicians’ acceptance and intervention follow-up. Usage of ≥3 psychotropics and PIMs at baseline and after medication review is also analysed.

Results
A total of 2,143 medication reviews was performed. Mean age of the patients was 87.6 years (SD 5.8), 72% was women and 89% was living in nursing homes. The participants used on average 11.3 drugs/patient (SD 4.6) and 84% had at least 1 DRP, giving a mean of 2.7 DRPs/patient. The most common DRPs were unnecessary drug therapy (39%), dosage too high (20%) and wrong drug (20%). Patients with ≥1 PIM was significantly reduced from 20.2% before medication review to 10.5% after (p<0.001). A significant reduction in patients with ≥3 psychotropics was also seen, from 23.2% to 17.6% (p<0.001). More patients living at home with home care used ≥3 psychotropics (24%) than did patients in nursing homes (13%) (p<0.001).

Conclusion
Potential inappropriate medications are common in elderly both at nursing homes and in home care. Medication reviews is a possible way to affect this.

Points for discussion
Medication reviews in primary care
– For all patients?
– Certain groups?
– How often?
– Ways to improve medication reviews?

Inter-observer variation in categorizing lung sounds.
A comparison between experts, lung specialists and general practitioners

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Background
The lung auscultation has been an important clinical skill in the everyday practice and the stethoscope itself is a widely recognized symbol of a doctor. Nevertheless, the auscultation and its prognostic value for the diagnosis of lung diseases has been challenged in recent times by new technology that offers information that is considered to be more precise. At present time, some clinicians look at lung auscultation as an unnecessary routine.
THE NEW TECHNOLOGY is expensive and requires specialized personnel; this limits the availability in developing and underdeveloped countries. Stethoscopes on the contrary, are cheap instruments and widely available in the world. The proper use of the stethoscope backed up with good evidence-based information could help to the early detection of lung diseases.

The high variability among observers has been one of the reasons that rest diagnostic value to lung auscultation. The cause for the high variation relies partly in the differences in the classification and terminology used by different doctors.

Objectives
To measure the variability in the categorization of lung sounds between different observers
Measure the variability between observers in different professional circumstances.

Material/Methods
A sample of 20 patients with high probability for presence of abnormal lung sounds was investigated and recordings from 6 different places on the thorax were obtained. These recordings were sent to general practitioners, pulmonologists, and researchers in the field of lung sounds from Canada and several European countries. These professionals categorized each sound according to a survey designed at our research unit. The results were processed for the analysis of interobserver variability using the value of the Intraclass Correlation Coefficient (ICC).

Results
18 individuals have so far responded the survey. Preliminary analysis shows that the interobserver agreement in the recording of lung sounds vary between groups of doctors. Best agreement has so far been found for Wheezes in a group of experts with ICC = .712 (95% CI .634 to .779; P =.000) and crackles in a group of General practitioners with ICC = .636 (95% CI .556 to .711; P =.000). The complete analysis will be presented at the congress.

Conclusion
Understanding the variation could help us finding ways to improve it, so the reliability of lung auscultation can improve. In this study, we will attempt to characterize it and understand it.

Points for discussion
To determine if the variation comes from experience or professional differences could help us to design interventions that improve the reliability of this ancient technique.

University clinic of general practice in Copenhagen – 10 years of experience

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Background
10 years ago the University clinic of general practice Copenhagen was established with the purpose of acting as a connection between the teaching and research units at the University of Copenhagen and the daily clinical work. This was, at the time, a new and unique construction in Denmark.

Objectives
To describe the development in the first 10 years of the University Clinic of Copenhagen.

Material/Methods
A quantitative and qualitative retrospective of the results of The University Clinic of Copenhagen.

Results:
The clinic has grown from 3 to 5 GPs working part time in the clinic and part time in teaching and research. Patient list has increased from 2600 to 7300 patients. We have inspired and facilitated two PhD projects and recently a new PhD-student was engaged as
part time GP. We have participated in numerous research projects during the years as data collectors or participants in pilot-projects. We participate in data sampling in RCT-studies, deliver data to several international, clinical studies, conduct videos and participate in qualitative interviews as well as in several television programs. The clinic has had more than 200 medical students at different levels of their studies. Approximately 20 trainee doctors have been employed in the clinic during the years. We have a strong connection to researchers and clinical teachers at The University of Copenhagen and to other GPs and clinics. We have had broad international contact with delegations from more than 10 countries. The clinic is driven on the same terms and conditions as any other in Denmark and is purely self financed. There are some economical challenges though due to the close connection to the University, with the teaching taking time from the clinical work and due to the part time positions held by all GPs employed in the clinic.

Conclusion
The University Clinic of Copenhagen has been a fast growing clinic with a close connection to the Department and Research Unit of General Practice with substantial participation in research and education. Apart from conducting high quality clinical work future challenges will be to conduct research projects and quality improvement grounded in our clinic and to develop medical education methods.

Points for discussion
Should the clinic reinforce research in General Practice by initiating and performing research of its own? Should the clinic strengthen its qualitative improvement work? Should the clinic be a closer participant in developing pedagogical methods together with the University?

“...Powerlessness...”

--265-P--

“It wasn’t as hard as I’d thought” – a focus group study about newly qualified doctors’ learning experiences with end-of-life care

Anette Fosse1,* Sabine Ruths1, Kirsti Malterud1, Margrethe Schaufel2

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Background
In Norway, 48% of deaths take place in nursing homes. Health care professionals often find dialogues about death difficult. Newly qualified medical doctors serve as house officers in nursing homes during internship. We need knowledge about how nursing homes can become useful sites for learning about end-of-life care.

Objectives
We aimed at exploring house officers’ learning experiences with end-of-life care in nursing homes, with a special focus on dialogues about death.

Material/Methods
House officers in nursing homes (n=X) participated in three focus group interviews. The participants were invited to share experiences with end-of-life care in nursing homes, to tell about preparatory dialogues with patients and relatives, and how their experiences made an impact on their thoughts about death and their role as a doctor. The interviews were audi-taped and transcribed verbatim. Data were analyzed with systematic text condensation. We used Lave & Wenger’s theory about situated learning to support our interpretations, focusing how the newly qualified doctors experienced end-of-life care through participation in the nursing home’s community of practice.

Results
Analysis after two focus group interviews revealed two preliminary themes. The house officers in nursing homes expressed both powerlessness and coping when handling end-of-life care and
dialogues about death. The learning community in nursing homes contributed to the development of professional identity.

**Conclusion**
The results from all three focus group interviews and our conclusions will be presented at the Nordic Congress 2015.

**Points for discussion**
– Transferability to other medical contexts and other countries.
– Implications of the results for nursing homes as learning facilities for medical doctors.

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**Material/Methods**
The study took the form of a questionnaire which was sent to the health centers. Subsequently, the medical director and expert nurse from the Centre of General Practice visited them. During the visits the questionnaire answers were discussed with medical directors, head nurses and clinicians. Every health center returned one completed questionnaire, representing the consensus opinion of the participants of the meeting. In total, 27 completed questionnaires were received between August 2013 and January 2014.

**Results**
The study revealed that the main implementation method of care pathways is the provision of information, but there is no agreed process for handling the care pathways together. It is left to the discretion of each professional to familiarize himself/herself with and utilize a care pathway. Professionals have a positive attitude to the patient centered care. They consider patient segmentation as a solution to the effective allocation of services and as a way to ensure that there will be sufficient resources in the future. While there are lots of services available, they are utilized arbitrarily. There is a need for tools to ensure patient segmentation. Professionals are focused on the activities of their own units, not on the patient’s entire care process. Proactive practices have been developed, but professionals are not utilizing them enough.

**Conclusion**
The questionnaire produced comparison data to support management, development and collaboration efforts. The audit itself also constituted an intervention. The results of the questionnaire and the suggested actions were considered together with the health centers during feedback visits in autumn 2014. The questionnaire will be repeated in autumn 2015.

**Points for discussion**
Implementation of care pathways, patient centered care, health impact.

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**Feasibility of implementation of care pathways in Finland at Pirkanmaa health centers**

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¹Centre of General Practice, Pirkanmaa Hospital District.
²School of Medicine, University of Tampere, Tampere, Finland

**Background**
The role of the Centre of General Practice in the Pirkanmaa Hospital District is to support implementation of regional care pathways. The focus of the implementation has been on care pathways that aim to change practice of professionals and patients, such as care pathways of patients with multimorbidity or sudden heart disease. The development object with respect to the first pathway has been health impact (Chronic Care Model) and the object for the second pathway patient centered care.

**Objectives**
The aim of this study was to assess the implementation of the care pathways at Pirkanmaa health centers concentrating to the above mentioned care pathways, and to assess the knowledge and the utilization of the new patterns of work developed for the patient centered care and health impact.
THE COMMONWEALTH FUND invites promising mid-career professionals—government policymakers, academic researchers, clinical leaders, hospital and insurance managers, and journalists—from Norway and Sweden—to apply for a unique opportunity to spend up to 12 months in the United States as a Harkness Fellow in Health Care Policy and Practice. Established by The Commonwealth Fund in 1925, the Harkness Fellowships were modeled after the Rhodes Scholarships and aim to produce the next generation of health policy leaders in participating countries.

Fellows are placed with mentors who are leading U.S. experts at organizations such as Harvard University, Stanford University, Kaiser Permanente, and the Institute for Healthcare Improvement to study issues relevant to The Commonwealth Fund’s mission to support a high performing health care system—insurance coverage, access, and affordability; health care delivery system reforms (e.g., bundled payments, accountable care organizations, innovative approaches to care for high-need/high-cost patients); cost containment; and other critical issues on the health policy agenda in both the U.S. and their home countries. A peer-reviewed journal article or policy report for Health Ministers and other high-level policy audiences is the anticipated product of the fellowship. Harkness Fellows have published their findings in top-tier journals, including: *BMJ, Health Affairs*, and *New England Journal of Medicine*.

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Each fellowship will provide up to U.S. $130,000 in support, which covers roundtrip airfare to the U.S., living allowance, project-related travel, travel to fellowship seminars, health insurance, and U.S. federal and state taxes. A family supplement (i.e., approximately $60,000 for a partner and two children up to age 18) is also provided to cover airfare, living allowance, and health insurance.

**Call for Applications**

**November 16, 2015**

Deadline for receipt of applications from Norway and Sweden

**VISIT**

www.commonwealthfund.org/fellowships for more details and to apply.

**CONTACT**

Robin Osborn, vice president and director, International Program in Health Policy and Practice Innovations, at ro@cmwf.org to inquire about the program, eligibility, and proposed projects.

The Commonwealth Fund is a private foundation, established in 1918 and based in New York, which aims to promote a high performing health care system that achieves better access, improved quality, and greater efficiency, particularly for society’s most vulnerable.

"I know of no comparable experience to widen someone’s professional horizons in health care, combined with their ability to meet those new expectations. Harkness Fellows have unparalleled access to thinkers and doers at the highest levels across American health care and health policy. Crucially they also have the time and flexibility to explore their own direction, priorities, and views. More generally, living and working in the United States is a fascinating contrast to life at home."

James Mountford
(2005–06 Fellow)
Director of Clinical Quality and Value
UCL Partners
ABSTRACTS

Wednesday, June 17, 2015

11.00 – 12.30
**301-SY**

**Family matters – children’s and adolescents’ health and wellbeing in a family perspective**


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**Objectives**
The aim of this symposium is to present current research on and knowledge about the impact of family health, social conditions and the emotional environment on children’s health, wellbeing and long-term economic and social outcomes. Challenges in general practice in identifying and supporting these families and their children will be presented.

**Background**
International research and a growing body of Nordic research on children demonstrate that family health, social conditions and emotional environment have great impact on children’s health, wellbeing and long-term economic and social outcomes. At the same time is it a challenge to identify and support these families and their children in general practice.

**Content**
The themes of the presentations will address the following areas of child health:

- Introduction to the symposium. Ole Rikard Haavet (N).
- Co-parenting - an update on family dynamics. Knowledge from basic research in psychology. Majbritt Brouer (DK).
- Children as next of kin to parents with severe mental or somatic disease or substance abuse. Froydis Gullbrå (N).

**Method**
The symposium will content four short oral presentations and leave substantial time for discussion.

**Other considerations**
The symposium will be followed by the workshop 501-WS: Challenges in clinical practice and in research when dealing with children’s and adolescents’ health and wellbeing in a family perspective.

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**302-WS**

**The price of increased productivity: does psychiatry work as tool for exclusion of the young?**


¹Klosterhagen legesenter, Skien.  
²Seljord helesenter, Seljord.  
³Kalvskinnet legesenter, Trondheim.  
⁴Brevik legesenter, Son, Norway.  
⁵Almenmedicinsk Forskningsenhed, København, Denmark.  
⁶Sweden.

**Objectives**
To increase the awareness among general practitioners of our role in helping young adults faced with difficulties getting or keeping work or dropping out of education. By using examples from Norway and other nordic countries, we want to stimulate reflections and debate regarding over- and underdiagnosis in this particularly vulnerable group of young people whose future can be substantially influenced by the way the doctor interprets his/her problems.

**Background**
Norway is one of the world’s richest countries,
developed within a strong socialdemocratic political frame with public health care for all. We have observed an increase in psychiatric diagnoses in children and young adults. Many young people with disability pension have a main psychiatric diagnosis. Norway is ranked among the top nations regarding quality of life and among the top consumers of antidepressive medication. Our concern is the double betrayal: not only are these young adults excluded from contributing to society and to sustain themselves through work, they are also burdened with dubious diagnoses. We will use experiences from Norway as an example of an international challenge of overdiagnosis.

Content
The aim of the workshop is to
1) Address how GPs meet and deal with these problems.
2) Identify driving forces behind this diagnostic culture. We should not “blame the victim” when disability pensions are discussed as a problem, but discuss the different dilemmas that occur. The initiative behind this workshop is based on a strong belief in public health care and economic support of those who cannot sustain themselves. But every person also has a right and duty to contribute to society according to their abilities.

Method
Questions to be addressed in the discussion
Do we believe that the increase of psychiatric diagnoses among young people represent a true increase in the prevalence of psychiatric illness? Or is it a consequence of an individualized answer to an increasing demand of productivity in the working life?

Other considerations
We will present some thoughts, make a role-play, and make generous time for discussion.

Our concern is the double betrayal.
their respective countries, how these supports could be improved, and if none exist, what supports they would like to see being available to Establishing GPs.

**Method**

Two brief presentations from Denmark and Norway will describe the contrasting support “handbooks” that are available, the completely different processes by which these materials were developed, and the wholly divergent methods by which they have been kept up to date.

Participants will then be divided into small working groups to discuss methods and modalities of developing a supporting “handbook” for Establishing GPs, and ultimately arrive at an agreed process for creating, developing and maintaining an ideal “support manual” for Establishing GPs.

**Other considerations**

At the end of this session participants will have learned what can be done, and have a roadmap for how support materials for Establishing GPs can be created. This will enable participants to return to their respective countries and engage with existing National representative organisations to have such materials put in place or to improve existing support materials.

**Objectives**

We aim to present new knowledge about different perspectives of health care professionals’ risk perceptions and clinical decision making. Furthermore, we intend to discuss differences between professional and personal risk perceptions and the impact on decisions in terms of both short and long-term outcomes.

**Background**

Insight into healthcare professionals’ perception of risk is a cornerstone for understanding their strategies for practising preventive care. The way people perceive risk can be seen as part of a general personality trait influenced by a mixture of individual considerations, social conditions and the specific context. Most research has been focused on understanding of the concepts of risk. However healthcare professionals’ risk perception and personal attitudes also affect their clinical decision-making and risk communication. The differences between health care professionals’ personal and professional risk perceptions and attitudes and the subsequent impact on patients’ decision making have not previously been discussed.

**Content**

1) **Professor, MD, Peder Halvorsen:** Making good decisions: Intuition or deliberation? *Psychology of medical and other decisions.*

2) **PhD-fellow, MD, Benedicte Lind Barfoed:** Cardiovascular risk in general practice. *Results from a large questionnaire and register based study of Danish GPs’ professional and personal approach to cardiovascular risk and their patients’ adherence with statins.*

3) **PhD-fellow, MPH, Line F. Jensen:** Association between GPs’ attitudes towards breast cancer screening and women’s screening participation. *Results from a survey of GPs and register data on their patients with focus on the association between GPs’ attitudes and their patients’ decision.*

4) **PhD-fellow, Midwife, MPH, Katja Schroder:** When a traumatic event makes you wonder … or makes you doubt. *Results from a mixed methods study on doctors’ and midwives’ experiences with traumatic births and how it impacts their personal and professional life.*
5) Professor, MD, Adrian Edwards: Implementing shared decision making. Results from a qualitative study on healthcare professionals’ perspectives on shared decision making implementation (including use of patient decision aids) with focus on ways to develop change.

Methods
The objectives will be approached both with qualitative interviews, questionnaires, register based and mixed methods.

Other considerations: The authors declare no conflict of interests.

Finding individuals with diabetes: Benefits and harms

1Department of Public Health, Section of General Practice, University of Copenhagen, Copenhagen, Denmark.
2Institute of Public Health, University of Cambridge, Cambridge, United Kingdom.
3Dept of General Practice and Primary Health Care, University of Helsinki, Helsinki, Finland.
4University of Iceland, University of Iceland, Reykjavik, Iceland.
5Department of General Practice, University of Oslo, Oslo, Norway.
6University of Gothenburg, University of Gothenburg, Gothenburg, Sweden.

Objectives
To clarify and discuss differences in diagnostic strategies of finding individuals with diabetes in each of 5 Nordic Countries.

Background
After the introduction of new diagnostic criteria of diabetes by WHO in 2011 diagnostic strategies of finding individuals with diabetes have diverged between the 5 Nordic Countries. Consequently, increasingly different diabetic populations will emerge.

Content
– Introduction (5 minutes) – by Thomas Drivsholm.
– The diagnostic strategy of finding individuals with diabetes in each of 5 Nordic Countries (5 x 5 minutes).
– The representative from each of the 5 Nordic Countries will present their national diagnostic strategy of finding individuals with diabetes.
– Comments by a non-Nordic expert (30 minutes).
– Simon Griffin will comment on the diagnostic strategy in the 5 Nordic Countries: Benefits and harms?
– Plenary session (30 minutes): Questions from the audience to Simon Griffin and the representatives from each of the 5 Nordic Countries.

Method
– Introduction
– Diagnostic strategy in the Nordic Countries from 5 representatives.
– Comments / lecture by Simon Griffin.
– Plenary session involving questions from the audience.

Statins for many. How many?

1Krokoms HC, Krokom, Sweden.
2Sibbo health center, Sibbo, Finland.
3Institutt for samfunnsmedisin, Norges Teknis-Naturvitenskapelige Universitet, Trondheim, Norway.
4Institutionen för kliniska vetenskaper; VO internmedicin, Malmö, Sweden.

Objectives
To scrutinize new guidelines for statin treatment and their consequences for people at risk for cardiovascular disease. Potential changes in primary health care work.
Background
Evidence for beneficial effects of statins to prevent cardiovascular disease have emerged the last decades. Recently updated guidelines broaden indications for statin treatment, particularly for primary prevention. These guidelines have large consequences for healthy people at risk for cardiovascular disease and for primary health care and are lively debated.

Content
– The epidemiological context according to earlier and actual guidelines.
– International outlook. Similarities and differences in some updated influential guidelines.
– Pros and cons with expanded statin treatment.
– Changes in risk classifications and how these can be communicated in a comprehensible way.
– Shared decision making between the medical profession, the individual and society.
– Allocation of medical resources for cardiovascular disease prevention and other public health problems.

Method:
Lectures and discussion.

Objectives
To inspire GPs working with undergraduate medical education with Nordic examples of how general practice contributes to fulfillment of the requirements on the future physician.

Background
General practice has nowadays an important role in most Nordic medical curricula. The rationale for this is for example the allocation of patients with chronic diseases and unselected problems and the patient-centred method.

The examination of competencies in general practice reveals the teachers views of what is most important to assess. We know that students tend to concentrate on competencies that are examined. Examinations require explicit learning objectives and ideally constructive alignment, i.e. alignment between objectives, teaching and assessment, whether formative or summative.

Content
Six teachers from Nordic universities give examples of assessment in general practice.

Method
Six presentations and a general discussion.

General practice in undergraduate medical education. How do we assess competency?

Margareta Troein Töllborn¹, *Charlotte Hedberg², Anneli Sandbæk³, Elin Olaug Rosvold¹, Thomas Mildestvedt⁴, Patrik Midlöv⁵
¹Dept Clin Sciences, Lund University, Malmö.
²Center for Family Medicine, Karolinska Institutet, Stockholm, Sweden.
³Aarhus university, Aarhus, Denmark.
⁴University of Oslo, Oslo, 5IGS, University of Bergen, Norway.

Objectives
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Content
Six teachers from Nordic universities give examples of assessment in general practice.

Method
Six presentations and a general discussion.

Pregnancy-related pelvic pain: Causes, consequences and management

Per Kristiansson¹, *Elisabeth Bjelland², *Tiina Lahtinen-Suopanki³,*
¹Public Health and Caring Sciences, Uppsala University, Uppsala, Sweden.
²Health Services Research Unit, Akershus University Hospital, Oslo, Norway.
³Rehabilitation Center Orton, Helsinki, Finland.

Objectives
The main aim of this symposium is to identify consensus and disagreements about causes, consequences, prevention and management of pregnancy-related pelvic pain. We will start the work to establish a consensus report regarding
preventive and treatment measures based on reliable evidence. Also, we aim to identify neglected research areas in the field and to plan future inter-Nordic research.

**Background**
Functionally disabling pregnancy-related pelvic pain affects one in five pregnant women and is a major cause of sick-leave in pregnancy. Most women that report pelvic pain during pregnancy experience regression of the pain postpartum. However, 2–3% of all women still have severe pain one year later. In these women, the pain and disability likely have unfavorable consequences on somatic and mental health, and lifestyle. In addition, the pain may influence drug use, such as analgesics and antidepressants. Hence, it is an important women’s health issue.

During the past two decades, an increasing number of research reports about pregnancy-related pelvic pain have been published, many of these from Nordic researchers. Despite the recent research and the fact that the condition may have large individual and socio-economic costs, the etiology and pathogenesis of pelvic pain remain unknown. Also, few studies on the long-term prognosis after childbirth are available, and there is a lack of well documented preventive and treatment measures.

**Content**
Examples of questions that will be discussed during the symposium: 1. The definition of pregnancy-related pelvic pain. 2. How prevalent is pelvic pain during pregnancy and how many women suffer from pelvic pain one year after childbirth? 3. What are the causal mechanisms? 4. Which factors influence the transitional process from sub-acute to chronic pelvic pain after childbirth? 5. Can we prevent pelvic pain from occurring in pregnancy? 6. Which management measures are the most effective during and after pregnancy? 7. Do clinicians in the Nordic countries follow existing guidelines?

**Method**
We plan to gather researchers and clinicians from different health professions from all of the Nordic countries in the field of pregnancy-related pelvic pain for discussions, to review the status of knowledge and to plan future research and collaboration.

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**309-SY**

So similar, but so different? Results from the Nordic countries in the framework of the Qualicopc project


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2Dpt. of Primary Health Care, Gothenburg University, Gothenburg, Sweden.
3Dpt. of General Practice, University of Oslo, Oslo, Norway.
4Dpt. of Public Health, Aarhus University, Aarhus, Denmark.
5Capital Area Primary Care, Reykhafn, Reykjavik, Iceland.

**Objectives**
The purpose of the symposium is to present comparative results on primary care in Nordic countries and to increase mutual understanding of primary health care systems in our countries.

**Background**
The Quality and Cost of Primary Care in Europe (QUALICOPC) study was designed to compare primary care between multiple countries. The project was funded by the European Commision Framework 7 Programme and coordinated by the Netherlands Institute for Health Care Services Research (NIVEL). Data were collected from 31 European countries and 3 countries outside Europe. National characteristics of the organization of primary care vary widely.
care were derived from existing statistics and database. Moreover, data on were collected by means of surveys among general practitioners (GPs) and their patients. The process was organized by national coordinators in each country, and fieldworkers visited GP practices to recruit patients, and assist them, if needed, with filling patient questionnaires.

**STUDY QUESTIONNAIRES WERE** developed and tested during a long process and then translated from English to national languages and back. GPs’ questionnaires included questions on the type and organization of the practice, involvement in curative and preventive tasks and aspects of workload and use of time. Patients were asked about access to the practice, time for the patient, experiences with the services etc.

**Content**
This symposium will present descriptive analyses from the Nordic countries. Representatives of each country will present their results, with the main focus on primary care quality indicators like accessibility and continuity of care. In addition, each country can present results which are currently important in their national setting.

**Method**
Oral presentations and general discussion.

**Other considerations**
The symposium is linked to another QUALICOPC symposium (Schäfer et al).

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310-SY

**Presenting the Danish national guidelines for GP’s in palliative medicine 2014 in a Nordic perspective**

Anna Weibull1, *Thomas Gorlén2, May-Lill Johansen3, Hans Thulesius 4

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3The Arctic University of Tromso, The Arctic University of Tromsø, Tromsø, Norway.
4Unit for Research and Development, Kronoberg County Council, Department of Clinical Sciences, Malmö, Family Medicine, Växjö/Lund, Sweden.

**Objectives**
Presenting the Danish national guidelines for GP’s in palliative medicine 2014 and discussing guidelines about Palliation existing in other Nordic countries.

**Background**
In 2014 a new national guideline was published by DSAM (Dansk Selskab for Almen Medicin). The target group are the General Practitioners in Denmark but also other doctors and health personnel handling patients with lifethreatening disease and end of life care. The aim of the guideline is to enhance quality improvement in the primary health care sector and at the basal level of palliative care in other parts of the health system.

**Content**
In this symposium we will focus on
– presentation of DSAM’s guideline 'Palliation’ 2014
– presenting guidelines in palliative care used by GP’s in Sweden and Norway
– the new WHO definition of palliative medicine and what is the impact in primary health care
– which patients are in need of palliative care and how we identify them
– how to implement palliative care tools in the treatment of patients with life-threatening non-malignant disease
– organisation of palliative care in general practice

“So similar but so different.”
Method

Other considerations
Reference: DSAM’s vejledning 'Palliation’ 2014. http://viewer.zmags.com/publication/e492f56e#/e492f56e/1

Solution-focused approach, tools and supervising help to empower patients in general practice

Outi Seppälä1, *
1 Kallio health station, Helsinki Health Care Centre, Helsinki, Finland.

Background
Empowering patients to take more responsibility of behavioural change related to smoking, excessive drinking, drug abuse, obesity, diabetes and high blood pressure is nowadays essential in modern general practice. Also in psychological problems such as depression, panic disorder and anxiety it has turned out to be important to support the patients’ own resources to solve their problems. Solution-focused brief therapy approach, tools and supervising offer GPs a number of useful tools that can help them to become better with handling patients with psychological, psychosomatic and somatic problems. These tools can also help to build a stronger physician - patient relationships, which in turn helps to improve treatment results and compliance.

Objectives
To demonstrate how physicians in general practice can benefit from solution-focused brief therapy approach, tools and supervising in empowering their patients.

Material/Methods
The session has three parts: 1. lecture describing the key solution-focused practice and supervision methods with case examples; 2. practice for trying out the presented methods in small groups; and 3. discussion for sharing thoughts and reflections. Pre-registration is not required and there is no upper limit to the number of participants. Participants will work for a brief period of time in small discussion groups (4–5 persons) and therefore a room with movable chairs is preferred. No preparation or advance reading is required. The facilitator has presented some part of the workshop ideas previously at the 2009 annual congress of European Brief Therapy Association (EBTA) and 18th Nordic Congress of General Practice in Tampere 2013.

Results
Providing praise and positive feedback, building on patients’ past successes, resources and competences, and using simple tools such as reframing and scales improves outcome with a large variety of GP patients including those presenting symptoms of depression, anxiety, insomnia, obesity, diabetes and substance abuse. Solution focused individual or group supervision can help GPs especially with multi-problem cases.

Conclusion
Modern general practice and solution-focused brief therapy are both patient-centred and future-oriented, they encourage independence and autonomy, aim for solutions and deliberately avoid unnecessary pathologization.

Points for discussion
The oral presentation provides a lot of general practice case examples, which are discussed in order to show how the solution focused approach and tools can be applied to the work in primary care.
Patient Participation Group in General Practice

Maria Von Würden1, *Søren Olsson1, Martin Bach Jensen2

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2Research Unit for General Practice in North Denmark Region and Department of Clinical Medicine, Aalborg University, Aalborg, Denmark.

Background
In England over 50% of practices have a patient participation group (PPG) whereas in Denmark only few clinics use this kind of patient involvement. It may be a valuable resource for the practice and enables that the practice develop in accordance with patient needs. It may also be one of several ways to meet the general demand in society for user involvement.

We wanted to have a transparent patient involvement as part of our practice. Our intentions were to join employees and patients in order that new goals and visions could arise and be dealt in a mutual way.

Due to increased specialization in overall health care, there is a growing need to be coordinator for all our patients. This role as coordinator for the patient can be fulfilled by involving doctors as well as nurses, distributing this obligation to others than the GP alone, as long as the patient needs are met.

Objectives
To describe our experiences with establishing a PPG and how the clinic has profited from this.

Material/Methods: It was important for us to establish a mutual understanding of purpose and role and ensure that the patients’ in the PPG felt a supportive relationship.

Participants, 6–8 patients, for the PPG were chosen among the patient at the clinic each one informally representing different groups – for example the patient with chronic diseases, elderly, small children's family and ethnic minorities. One member was elected to be the chairman. Among his task was to be contact person between the clinic and the other patients in the council. It was anticipated that the council offered advice on how to improve service at the clinic and offered advice on how we approached each patient in an individualized manner.

Results
The PPG was established by April 2013. Meetings have been held every 3–4 months where different issues have been discussed. Patients as well as staff brought up issues, in that way ideas developed in a mutual understanding of a proper development of the clinic for the benefit of the patient as well as the employees E.g. accessibility facilitating visitation into the clinic information in the waiting room, home page, work routines and projects in the clinic have been discussed. Positive effects of the PPG have been an increased awareness of patients’ needs and practical suggestions from the PPG to improve work routines in the clinic that has led to increased productivity in the clinic.

Conclusion
The PPG has led to an increased emphasis on user perspective and inspired us to change several routines in the clinic that have improved productivity.

Points for discussion
Should the establishment of PPGs be encouraged and if so, how should this be done?
Social relations and loneliness among patients aged 65 years and older consulting their general practitioner

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Background
Social relations are important for people and may affect their quality of life, morbidity and even mortality. This is especially important among elderly people. The GP is in a unique position to address both social relations and perception of loneliness among their elderly patients; however no GP population based studies have surveyed elderly primary care patients’ statements regarding social relations and loneliness.

Objectives
To describe and analyse social relations and loneliness among patients aged 65 years and older consulting their general practitioner.

Material/Methods
A survey among 12 general practices with 20 GPs in the Capital Region of Denmark. During a 3 week period each practice consecutively asked their patients aged 65 and above to fill out a questionnaire regarding health, social relations and loneliness. Data was collected from February to September 2014.

Social participation was measured by three questions: how often they received visitors at home, how often they visited others and how often they participated in social activities. Loneliness was measured by the question “Does it ever happen that you feel lonely”.

Results
Of the 767 eligible patients 474 were included in the study. The main reason for exclusion was patients refusing to participate. 461 patients filled out at least one item relating social participation and loneliness. Based on our social participation definition 36% could be characterized as having high social participation, 46% having medium and 18% having low social participation. Further, 18% of the patients “often” or “sometimes” felt lonely. There were a significant correlation between social participation and perception of loneliness (p<0.0001), with higher social participation correlated to less perception of loneliness. However, 25% of patients feeling lonely had a high social participation. Among patients that answered that they “often” or “sometimes” felt lonely, only 15% had discussed it with their general practitioner.

Conclusion
Patients aged 65 years and older consulting their general practitioner in general have many social relations, however a large proportion report that they are lonely from time to time. Further, patients rarely discuss their perception of loneliness with their general practitioner. General practitioners should be aware that information regarding social participation may not transfer to patient perception of loneliness.

Points for discussion
What is the connection or difference between social participation and perception of loneliness?
In what way is it relevant for the GP to address the patient’s social participation and perception of loneliness?
The relevance of multimorbidity for patients and general practitioners – the role of diagnoses, risk factors and symptoms in the definition. Results from a systematic review

Tora Grauers Willadsen1, *Anna Bebe1, Rasmus Køster-Rasmussen1.
Dorte Ejg Jarbøl2, Ann Dorrit Guassora1, Frans Boch Waldorff1, 2, Susanne Reventlow1, Niels de Fine Olivarius1

1The Research Unit for General Practice, University of Copenhagen, Department of Public Health, Copenhagen. 2The Research Unit for General Practice, University of Southern Denmark, Odense, Denmark.

Background
The number of people living with several coexisting conditions, multimorbidity, is rising. Multimorbidity has major implications for the individual with increased mortality and low quality of life. In primary care the majority of consultations include patients having multimorbidity. Multimorbidity, however, is not well defined and we do not know if those patients with the heaviest illness burden are captured by the definition. Symptoms are often the reason for patients consulting their doctor and can be viewed as an aspect of the burden they experience. Risk factors, on the other hand, are an awareness of a future, rather than a present, burden.

Objectives
This presentation presents the results of a systematic literature review on the definitions of multimorbidity with focus on the role of diagnoses, risk factors and symptoms in the definition.

Material/Methods
The databases PubMed, Embase and Cochrane were searched for multimorbidity with different linguistic variations, limited to original articles, English language and research in humans. 943 titles and abstracts were screened and 163 articles were included in the study.

Results
Overall, the definitions fall in two categories: 1) Distinct definitions (n=115), where cut-offs of 2, 3, 4 or more conditions selected from diagnoses or symptoms need to be present, or 2) Index definitions (n=27), where the degree of multimorbidity is graded with a scoring system. Diabetes, stroke and cancer were the most prevalent diagnoses in the existing distinct definitions. Risk factors were included in 85% of the definitions with hypertension, osteoporosis and hypercholesterolemia as the most prevalent. Symptoms were less frequently included with a great diversity in included symptoms occurring in 62% of the definitions. Back pain, visual impairment and urinary incontinence were the most prevalent symptoms.

Conclusion
The concept of multimorbidity mainly includes diagnoses. Risk factors have an important role in the definition but symptoms are less frequently included. Based on the results it is unlikely that these definitions of multimorbidity entirely reflect the burden of living with several chronic conditions. It is important to consider definitions more meaningful to the patient and for general practice.

Points for discussion
How can multimorbidity be more patient-oriented and less diagnose-focused? Is it meaningful to include risk factors in the definition of multimorbidity?

Among other variables information on diagnoses, symptoms and risk factors were collected. The review was conducted according to PRISMA guidelines.

It is important to consider definitions more meaningful...
"The difficulty of being present" – a focus group study on nursing home doctors' challenges in end-of-life care

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Background
High quality end-of-life care involves a complex assessment of the patients' physical, cognitive and emotional symptoms, as well as spiritual needs and quality of life. Dealing with patients' and families' thoughts and expectations regarding end-of-life care demand good communication and consensus between staff, as well as with the patient and her family.

Objectives
To explore nursing home physicians' challenging experiences in end-of-life care.

Material/Methods
We conducted a qualitative study based on three focus group interviews with purposive samples of nursing home doctors (n=17, age span 33–65). The interview guide had the following question as a starting point for discussion: “Could you please tell us about an episode treating seriously ill or dying nursing home patients that made a profound impression on you?” The interviews were taped and transcribed verbatim. Data from the focus groups were analysed following Systematic Text Condensation.

Results
Participants described the need for skill and consideration in dialogue with patients and next-of-kin, each in their different place in the process of accepting the inevitable end of life. Physicians felt helpless in the failure of treatment, palliation or comforting of the dying and bereaved. Profound meetings with the dying, and reverence for the beauty of life in death, provided strength to endure work.

Conclusion
Training for nursing home doctors should encourage awareness of personal involvement and coping in working with the dying, and instruct the advance care dialogue process with patient and next-of-kin.

Points for discussion
1. Transferability of the results may be discussed, as the study is limited to doctors from relatively urban nursing homes on the west coast of Norway. 2. In Norway, almost half of all deaths occur in nursing homes. 3. As a qualitative study it does not describe distribution of views, but may provide insight into how nursing home doctors think in their work, and which skills they find useful.

The Norwegian General Practice Nursing Home criteria (NOR-GEP-NH) for potentially inappropriate medication use. A web based Delphi study

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Background:
Residents of nursing homes are often very frail, often with multiple comorbidities and some degree of organ dysfunction. Medication use in this population thus needs to be carefully balanced between the need for treatment and the increased risk of negative side-effects and interactions from drugs.

Objectives
To develop a set of explicit criteria for pharmacologically inappropriate medication use in nursing homes.
**Material/Methods**

In an expert panel, a three-round modified Delphi consensus process was conducted in Norway via online survey software. Altogether 80 specialists in geriatrics or clinical pharmacology, doctors in nursing homes, and five experienced pharmacists, agreed to participate in the survey. Of these, 65 completed the first round, and 49 panelists completed all three rounds (75.4% of those entering the survey). The authors developed a list of 27 criteria based on the Norwegian General Practice (NORGEP) criteria, literature and clinical experience. Main outcome measure was the panelists’ evaluation of the clinical relevance of each suggested criterion on a digital Likert scale from 1 (no clinical relevance) to 10. In the first round panelists could also suggest new criteria to be included into the process.

**Results**

Degree of consensus increased with each round. No criterion was voted out. Suggestions from the panel led to the inclusion of seven additional criteria in round two.

**Conclusion**

A validated list of 34 explicit criteria for potentially inappropriate medication use in nursing homes was developed through a three-round Web-based Delphi consensus process.

**Points for discussion:**

1. The need for increased knowledge concerning medication use in the very old and frail and its consequences.
2. The use of explicit criteria as tools for assessing inappropriate medication use in clinical practice.
3. The Delphi technique as a means of acquiring consensus in panel surveys.

**Consensus**

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**329-OP**

**Do the General Practitioners know their elderly patients' social relations and perception of loneliness?**

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**Background**

Social relations and perception of loneliness affects elderly patients’ quality of life, morbidity and even mortality. General practice provides person centered, continuing, comprehensive and coordinated person health care to individuals and families in their communities. The often long term relationships build mutual knowledge, understanding, and trust. Therefore we found it of interest to evaluate the correlation between GP perception of elderly patients’ social relations and loneliness as compared to their patients’ statements.

**Objectives**

- To describe and analyze the correlation between elderly patients’ social relations and perception of loneliness with the general practitioners impression.

**Material/Methods**

Survey among 12 general practices with 20 GPs in the Capital Region. During a 3 week period each practice consecutively asked their elderly patients to fill out a questionnaire regarding health, social relations and perception of loneliness. The GPs completed a corresponding questionnaire stating their impression of social relations and loneliness. Data was collected during February to September 2014.

**Results**

A total of 767 patients were eligible and 293 were excluded mainly due to patients refusing
to participate. Thus, a total of 474 patients were included and 461 patients completed the relevant items and 449 GP corresponding questionnaires were collected. In general, the correlation between patient statements and the GP statements were low (kappa between 0.10–0.26). The GPs overestimated the patients’ social relations and underestimated their loneliness.

**Conclusion**

Even though social relations and loneliness affects the elderly patients’ quality of life, morbidity and mortality the GPs impression do not correlate with patient statements.

**Points for discussion**

How come the correlation between GPs impression and patient statements regarding social relations and loneliness is poor? Is it relevant for GPs to explore into patients loneliness?

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**330-OP**

**Self-reported confidence, skills and awareness among Danish general practitioners on palliative needs of patients with malignant and non-malignant diseases**

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**Background**

Palliative care has traditionally been provided merely to patients suffering from malignant disease. However, research has shown a palliative care approach is beneficial for patients suffering from life-threatening non-malignant diseases. General practitioners (GPs) have a pivotal role in basic palliative care, but the question is whether GPs feel confident about their role: Do they feel they possess sufficient palliative skills? Do they provide palliative care for patients suffering from conditions other than malignancies?

**Objectives**

To explore GPs’ confidence in providing palliative care, their palliative skills and their awareness of the palliative needs among patients suffering from malignant or non-malignant diseases.

**Material/Methods**

A postal questionnaire study among GPs in the Central Denmark Region in the spring of 2014. The pilot-tested questionnaire was based on previously used questions together with ad hoc questions based on existing literature.

Results: 570 GPs (68%) answered the questionnaire. 76.3% (95%CI:72.8;79.8%) of the GPs felt very comfortable/confident when treating pain, 67.9% (95%CI:64.0;71.7%) when treating dyspnoea and 55.2% (95%CI:51.0;59.3%) when administering subcutaneous medicine. 81.4% (95%CI:78.2;84.7%) felt very confident/confident about meeting the patient’s psychological needs, while the proportion was 63.6% (95%CI:59.6;67.6%) for meeting the social needs. 85% (95%CI:81.7;87.7%) stated that they always/often offered palliative care to patients suffering from cancer. For patients suffering from heart failure or chronic obstructive pulmonary disease (COPD), the corresponding proportions were only 34.4% (95%CI:30.4;38.3%) and 40.4% (95%CI:36.3;44.5%), respectively. Analyses are ongoing and further results will be presented.

**Conclusion**

The findings so far suggest that a disparity does exist as most GPs state they more often offer palliative care to patients suffering from cancer than to patients suffering from COPD or heart failure. The study indicates that there is room for improving the awareness among GPs about the palliative needs in patients with non-malignant diseases.

**Points for discussion**

How can awareness of palliative care be optimised so that it depends on the patient’s needs rather than the specific diagnosis?
Gynecological cancer alarm symptoms and contact to specialist care – A population-based study

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Background
Cancer-related mortality in Denmark is among the highest in the developed countries. This includes gynecological malignancies. Furthermore, Danish cancer patients are often diagnosed with late stage cancer diseases, which can contribute to the high mortality rates. To counter this, clinical guidelines based on so-called cancer alarm symptoms have been implemented. These guidelines suggest that general practitioners (GPs) promptly refer patients experiencing gynecological cancer alarm symptoms for investigation. What influence the course from symptom experience to contact to specialist care is, however, less known.

Objectives
To determine how often gynecological cancer alarm symptoms lead to a contact to specialist care. Furthermore to analyze how the course from symptom experience to contact to specialist investigation is associated with socioeconomic status (SES).

Material/Methods
A nationwide population-based prospective cohort study based on a random sample of the Danish population. A total of 51,090 women aged 20 and above were invited to participate in an internet-based questionnaire. The questionnaire contained items regarding the presence of gynecological cancer alarm symptoms and contacts to GP. Information about SES and contacts to specialist care was collected by data linkage to national registers.

Results
A total of 25,818 non-pregnant women participated in the study. Some 523 (2.0%) reported experiencing at least one gynecological cancer alarm symptom for less than six months. Of these 147 (28.1%) reported having contacted their GP. The proportion of patients with a contact to specialist care and how this was associated with SES will be presented at the conference.

Conclusion
Our results provide knowledge on what may influence contacts to specialist care among patients experiencing gynecological cancer alarm symptoms. Any association with SES will be described, and this may contribute to understanding and assessing current management strategies for this particular patient group.

Points for discussion
How can our results be implemented in everyday practice in order to improve healthcare?

Understanding healthcare seeking practices in two different social classes; an exploration into social inequality in cancer survival

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Background
Social inequality in cancer survival is well established. Research has suggested that this may partly be caused by differences in healthcare seeking, caused by differences in knowledge and symptom awareness. Accordingly, the significance of social class in relation with the way that people practice health, illness and their bodies differently has largely been left unexplored.
**Objectives**
The aim of this study is to understand how health care seeking is practiced in two diverse social classes in opposite ends of the social spectrum.

**Material/Methods**
We carried out one year of ethnographic fieldwork, among two different social classes in Denmark. We followed 12 key informants in the lower working class and the higher middle class respectively, using the methods of participant observation, symptom diaries and repeated semi-structured interviews.

**Results**
Among the higher middle class we encountered practices of healthcare seeking resembling notions of ‘health consumerism’, leading to engagements with a healthcare system in which such practices and rationales are sanctioned and encouraged. Yet, perhaps somewhat predictably, we also found that the adverse social conditions shaping life among the lower social classes framed the healthcare seeking practices in this group. As a consequence, health care seeking practices were informed by experiences of social suffering, where health concerns often were made meaningful in relation with the broader social context.

Overall, we illustrate how these different health care seeking practices correspond diversely with current forms of medical thinking, materialized in pro-active discourses of early diagnosis and in the organization of medical practice, as exemplified in Danish general practice.

**Conclusion**
The sometimes diffuse and complex forms of social suffering of lower social classes, are difficult to accommodate within the health care system, whereas the direct and specific forms of health care seeking manifested in higher social classes are encouraged.

**Points for discussion**
How can General Practice accommodate different forms of health care seeking practices?

How do current values of patient empowerment and patient involvement play into health care seeking practices in different social groups?

What role does General Practice play in reducing social inequalities in cancer survival?

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**General practice consultations, diagnostic investigations and prescriptions in the years preceding a lung cancer diagnosis**

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**Background**
Lung cancer is the most common course of cancer death in the industrialised world. Lung cancer patients in Denmark have inferior cancer survival rates compared to patients from other comparable European countries. This may be explained by later diagnosis of lung cancer in Denmark. It is possible that the survival deficit in Denmark may relate to processes of cancer awareness and diagnostic activity at the level of primary care. Most lung cancer patients present with symptoms to the general practitioner (GP) in the months before diagnosis. These symptoms and signs can mimic common lung diseases such as COPD. In this phase, when the patient is seen by the GP, it is thought to be an opportunity for earlier diagnosis of lung cancer, but little is known about the clinical trajectory and specific diagnostic patterns for these patients in primary care.

**Objectives**
The aim of this project is to describe the prediagnostic activities of lung cancer patients in the year prior to diagnosis by investigating the numbers and timing of consultations, lung function tests, X-rays and medicines (COPD medicine, steroids and antibiotics) among lung cancer patients and a comparison group.

**Material/Methods**
The study includes all patients diagnosed with incident lung cancer (ICD 10 C34) in a recent 10-year period 2004–2013 (approximately 40,000 cases) from the Danish Cancer Registry and the Danish Lung Cancer Register. Ten sex and age-matched controls are selected.
among persons who were patients in the same practice as the case. We will make use of valid Danish registers for outcomes such as consultation and lung function test, X-rays and medicines.

**Results**
The results are not yet available, but will be presented at the conference.

**Conclusion**
This study will provide new knowledge about patterns in the use of primary health care services preceding a lung cancer diagnosis. These patterns can help optimising the diagnostic investigations for lung cancer in general practice and subsequently lead to earlier diagnosis and better prognosis.

**Points for discussion**
How will the diagnostic activity influence early diagnosis of cancer in primary care and what are the methodological challenges in how to measure activity in primary care?

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**Objectives**
To analyse associations between the experience of alarm symptom of colorectal cancer and four different barriers towards GP contact.

**Material/Methods**
A nationwide web-based cohort survey including 100,000 individuals aged 20+ years, randomly selected from the Danish Civil Registration System. Items regarding experience of four predefined alarm symptoms indicative of colorectal cancer (abdominal pain, change in stool texture, change in stool frequency and rectal bleeding) and barriers towards GP contact were included. Barriers towards GP contact explored were ‘I would be too embarrassed’, ‘I would be worried about wasting the doctor’s time’, ‘I would be worried about what the doctor might find’, and ‘I would be too busy to make time to go to the doctor’.

**Results**
A total of 49,706 subjects completed the questionnaire. The proportion of subjects with no contact to the GP with alarm symptoms varied between 65.1% and 83.4% for rectal bleeding and change in stool texture, respectively. Some 25.5% reported being too busy to contact the GP with rectal bleeding, and 21.0% were worried about what the doctor might find. The most widely endorsed barriers towards GP contacts were being worried about wasting the doctor’s time and being too busy to make time to visit the doctor. In three out of the four symptoms women significantly more often than men reported being worried about wasting the doctor’s time. Opposite, men significantly more often reported being too busy to contact the GP. The proportion of people reporting barriers towards GP contacts was significantly higher among people in the youngest age group for three of the barriers. This was not the case for ‘Being worried about what the doctor might find’, where people with higher ages were more likely to report the barrier.

**Conclusion**
Barriers towards contact to the GP were frequent when experiencing alarm symptoms of colorectal cancer. Reporting the different barriers was significantly associated with gender and age.
Points for discussion
How can this knowledge of the barriers towards help-seeking be used in future health planning programmes?

335-OP
Diagnostic performance of blood tests in cancer diagnostics in patients with non-specific cancer symptoms

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Background
More than 25% of cancer patients present with unspecific symptoms. Thus, the general practitioner (GP) often relies on further paraclinical testing when a cancer is suspected. In the Danish cancer patient pathway for patients with serious non-specific symptoms and signs of cancer (NSSC-CPP) a standardised set of blood tests are requested by the GP in all referred patients. Little is known about the diagnostic value of these blood test in patients with non-specific symptoms of cancer.

Objectives
The aim of the project is to analyze the diagnostic performance of blood tests used in cancer diagnostics in the NSSC-CPP.

Material/Methods
A prospective cohort study was performed including all patients referred from general practitioners to the NSSC-CPP during a 3-year period. Data were retrieved from the laboratory information system at the Silkeborg Regional Hospital, the Danish Cancer Registry and the National Patient Registry. The standardized blood test included inflammatory markers, hematological parameters, tumor markers and a comprehensive panel of metabolic tests. Contingency tables were used to calculate sensitivity, specificity and predictive values for individual blood tests in relation to the outcome of malignant disease. Receiver operation characteristic curves were constructed in order to examine cut-off levels for each specific paraclinical test result and the area under the curves were compared.

Results
1552 patients were included in the study. 225 (12.4%) patients were diagnosed with cancer within 6 months from the date of referral to NSSC-CPP. The detailed results will be available at the time of the conference.

Conclusion
Knowledge of rational diagnostics in patients with non-specific cancer symptoms may lead to earlier diagnostics and optimization of the NSSC-CPP.

Points for discussion
The general value of the use of blood tests in cancer diagnostics will be discussed.

336-OP
The effect of Continuing Medical Education (CME) in early cancer diagnosis on general practitioner’s knowledge and attitude

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Background
Urgent referral for suspected cancer was introduced in Denmark in 2009. The effect of such an initiative depends on how the general practitioners (GPs) interpret symptoms and
refer the right patients timely. Recent research provided insight on symptoms’ positive predictive values (PPV) for specific cancer types and identified cancer diagnostic pitfalls.

The latest Danish cancer plan included a continuing medical education (CME) based on this new knowledge.

**Objectives**
To measure the effect of CME in early cancer diagnosis on GP knowledge on cancer symptoms’ PPVs for specific cancer types, and GP attitude towards their own role in cancer diagnostics.

**Material/Methods**
All GPs in Central Denmark Region were invited to the CME. The CME was a multifaceted three-hour course. 751 GPs were asked to complete an online questionnaire one month before (baseline) and again seven months after the CME (follow-up).

The effect of the CME was assessed by a before-after comparison between three groups: 1) Reference GP (n: 89) who did not participate, 2) Participating GP (n: 81) and 3) GP with a participating colleague (n: 32).

**Results:**
202 GPs (27%) completed both the before and after questionnaires. The GPs participating in the CME significantly improved their responses from baseline to follow-up in three out of six knowledge items and in one out of nine attitude items. These changes were statistically significant compared to the changes in the reference GPs.

Examples are that the CME participating GPs increased their proportion of correct responses from 6.2% to 28.4% (p<0.001) when asked “what is the likelihood of a patient aged 40 and above having colorectal cancer the first time the patient presents unintended weight loss and new onset constipation in your practice?”. The increase was significantly higher compared to the change for the reference GPs (p=0.010).

Also, responding to the statement; “The more patients of those I refer to a cancer fast-track pathway are diagnosed with cancer, the better a doctor I am”, the proportion of the CME participating GPs who answered strongly disagree or disagree rose from 59.3% to 79.0% (p<0.001), which was also a statistically significantly larger change compared to the reference GPs (p=0.014).

**Conclusion**
A before-after analysis showed that the CME participating GPs significantly changed their knowledge on symptoms’ PPVs for specific cancer. Additionally, they changed attitude towards a rational PPV of cancer among referred patients.

**Points for discussion**
1. Is it likely that a change in knowledge as found above is sustainable? 2. Could it have an impact on the GPs referral to cancer investigation?

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**337-OP**
Does non-antibiotic treatment of urinary tract infections increase the rate of recurrences and severe complications? Results of a long-term-follow up

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4Department of General Practice, University Medical Center Göttingen, Göttingen, Germany.

**Background**
Urinary tract infections are common in general practice and usually treated with antibiotics as recommended by guidelines, though UTI are known to be harmless and often self-limited. With the trial ICUTI (Immediate vs. conditional antibiotic treatment for UTI) we assessed whether antibiotic prescriptions can be reduced by initial symptomatic treatment (antibiotics only if needed), without negative effects on symptom course and complications.
Objectives
To assess whether symptomatic treatment of UTI increases recurrence rate and complications in the long-term follow up.

Material/Methods
With the double-blind randomised controlled UTI trial ICUTI, we compared a) initial treatment with ibuprofen and antibiotics only if needed with b) immediate antibiotic treatment with fosfomycin. From February 2012 until February 2014, 494 women were included. Follow up calls were conducted to assess symptoms, recurrences and complications (pyelonephritis, urosepsis) during the first week and after four weeks, six and twelve months after trial participation. Data were analysed by group comparison.

Results
Preliminary results show that after four weeks 5.8% (Ibuprofen) versus 11.1% (Fosfomycin) of patients reported recurrent UTI, whereas pyelonephritis occurred more frequently in the Ibuprofen-group (n=5 vs. n=1, not significant). In the 6-month-follow-up data from 386/494 women could be collected. Full analysis of these data will take place until 4/2015 after follow up will be completed.

Conclusion
If the rate of recurrences in the long-term follow up of ICUTI is comparable between symptomatic and antibiotic treatment of the index UTI, results will form a basis to discuss symptomatic treatment of UTI with affected women.

Points for discussion
Is there a considerable health risk when treating UTI symptomatically?

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Incidence of tick borne diseases in Norwegian general practice – an epidemiological study of consultations for erythema migrans and tick bites at list holding GPs and out of hour services

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Background
There are several tick borne diseases in the Nordic countries, but Lyme disease caused by the Borrelia bacterium is the most common. In Norway, systemic borreliosis is notifiable to the health authorities, but it is not known how common early, non-systemic Lyme disease is. This comprises the typical skin rash erythema migrans (EM). Neither is it known how many consultations concern mere tick bites without sign of disease.

Objectives
To map the incidence of consultations in Norwegian primary care for tick bites and EM. To map whether the increasing incidence of systemic Lyme disease, is matched in general practice.

Material/Methods
All list holding general practitioners (GPs) and out of hour services in Norway’s four most Borrelia exposed counties were asked to participate. As EM has no unique diagnosis code in ICPC-2, a text search for Lyme disease and tick relevant terms were performed in their electronic patient records for the five year period 2005–2010.

...guidelines...
Age and gender of the patients and any antibiotic prescribed were registered. From the consultation notes we found whether this was a tick bite and/or an EM, whether serology testing was performed and if the patient got referred to specialist care.

**Results**
The exact results are still in progress but will be presented at the conference.

We got data from 214 (52.5%) list holding GPs and from 14 (72%) of the out of hour services. We found a yearly incidence of EM in the four counties. The national incidence for systemic Lyme was 6.5/100,000 in the same period, and increasing through the period. This pattern of increased incidence was somewhat matched for the EM consultations. Both EM and tick bite consultations showed a male dominance for the younger, and a female dominance for the older patients. Prescription data for EM and tick bite consultations will be presented, also the prescription variation in age groups. Rate of serology testing and referral to specialist care is presented as well.

**Conclusion**
We found the incidence of EM and tick bite consultations in four Norwegian counties and figures for antibiotic prescription, referral and testing routine. We could also estimate the yearly incidence of EM in Norway.

**Points for discussion**
How can the figures from four counties give an estimate for the whole country? Are the figures comparable to other (Nordic) countries? Are guidelines being followed when it comes to antibiotic treatment? Do the GPs perform too many microbiological tests?

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**Women with urinary tract infection (UTI) – Who needs antibiotics and who does not?**

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**Background**
Though potential self-limiting, urinary tract infections are usually treated with antibiotics. In a randomised-controlled trial ICUTI – (Immediate versus conditional treatment for UTI) we showed that an initial symptomatic treatment of UTI with ibuprofen (antibiotics only if needed) can reduce the number of antibiotic courses without harm. We hypothesized that women recovering without antibiotics have different characteristics than women who needed an antibiotic treatment.

**Objectives**
The aim of this study was to identify determinants for a self-limiting course of UTI, i.e. for recovering without antibiotic treatment by analysing the ibuprofen group of the ICUTI trial.

**Material/Methods**
In ICUTI, 494 women presenting with symptoms of uncomplicated UTI were randomised to receive either ibuprofen 3x 400mg for three days and antibiotics only if needed or immediate antibiotic treatment with fosfomycin-trometamol 1x3 g. To assess symptom relief and antibiotic prescriptions, follow-up calls were conducted on day 1, 3, 5, 7 and 28. To determine factors associated with recovering without antibiotics, baseline data of women in the ibuprofen group with and without secondary antibiotic treatment will be analy-
Abstracts

Wednesday 11.00 – 12.30

In this study, we compared national recommendations from European countries including Denmark and Sweden, and to examine recommendations for first-choice AB therapy of uUTI.

**Material/Methods**

Recommendations from GP in 6 European regions were examined: North (Denmark, Sweden), West (Scotland), Central (Germany), South (Spain), and East (Croatia). Searches were done on PubMed, the Cochrane Library databases, Google, and Google Scholar.

**Results**

The 6 countries recommended 7 different ABs. 5 countries incl. Denmark and Sweden, recommended over one AB as first-choice treatment. Denmark and Sweden both recommended pivmecillinam as first-choice, and Sweden nitrofurantoin too. Denmark was the only country recommending sulphamethizole, and Spain the only recommending fluoroquinolone and amoxicillin/clavulanic acid. 3 countries recommended ABs with a high rate (>10–20%) of resistant E. coli. All countries recommended minimum one AB with a low (< 5%) resistance rate.

**Conclusion**

Considerable differences in recommendations for empiric first-choice AB treatment of uUTI was found. The differences in first-choice...
treatment of uUTI, could not be explained by differences in local bacterial aetiology or by different patterns of antimicrobial resistance. Despite resistance rates >10–20%, sulphamethizole, trimethoprim or fluoroquinolones were recommended in 3 of 6 countries.

**Points for discussion**
How can we reduce and control the increasing antimicrobial resistance? What do GPs need in order to reduce inappropriate AB prescribing for uUTIs in the Nordic countries?

**341-OP**

**Investigating cultural determinants for antibiotic prescribing and consumption in Europe**

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**Background**
Antibiotic resistance is a growing problem worldwide. Research shows a clear connection between a high consumption of antibiotics and the development of resistance. There are great variations between the European countries when it comes to consumption. In spite of several interventions, the variations seem to be constant. Cultural differences are often cited as an explanation for these variations.

In Norway 60% of all antibiotics prescribed in Primary Care are prescribed for Respiratory Tract Infections (RTIs). Many of these are unnecessary because most RTIs are due to viruses which cannot be treated with antibiotics. Several studies show that the labeling of illness is an important factor when it comes to seeing the GP and asking for antibiotics. In a study by Deschepper et al [i] on Cross-cultural differences in lay attitudes and utilization of antibiotics in a Belgian and Dutch city, Dutch participants labelled most URDT episodes as “common cold” or “flu”. The Flemish participants labelled most of their URDT episodes as “bronchitis” and used more antibiotics.

Certain symptoms are also a contributing factor for seeing the GP, together with the length of the symptom. Having a cough is one of those symptoms. While patients in some countries see their doctor after three days of coughing, patients in other countries waits for twelve days.[ii].

**Objectives**
To identify cultural determinants for patient preconceptions and expectations of respiratory tract infections and antibiotic treatment and health seeking behaviour.

**Material/Methods**
Semi structured in-depth interviews with adult patients in Norway, France and Poland seeing their GP with a respiratory tract infection. The patients are interviewed before and after consultation. The interviews are recorded. Each country will conduct the interviews in their own language. The interviews will be recorded and later translated into English before analysis. In order to secure the translation back translation will also be carried out.

**Results**
Preliminary results will be presented.

**Conclusion**
Hopefully we will be able to identify certain cultural determinants for antibiotic prescribing and consumption.

**Points for discussion**
Are there any cultural determinants that are more dominant in the Nordic countries than in the European? Is it possible to change people’s attitude towards the use of antibiotics, and if so, how?

“Cultural determinants for patient preconceptions and expectations...”
C-reactive protein rapid test does not predict group A β-haemolytic streptococcal infection in patients with sore throat

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Background
Several studies have found that C-reactive protein (CRP) testing significantly reduces antibiotic prescribing in patients with respiratory tract infections, since elevated CRP levels are associated with bacterial aetiology. Among patients with sore throat only those cases caused by group A β-haemolytic streptococcus (GABHS) are supposed to be treated with antibiotics. In some countries GPs rely on the determination of CRP to guide antibiotic treatment in sore throat.

Objectives
To know the relationship between the aetiology of sore throat and CRP levels.

Material/Methods
An observational study was undertaken in an urban health centre between 2010 and 2012. Adults aged 18 years or more with acute pharyngitis and the presence of the four Centor criteria – history of fever, presence of tonsillar exudates or hypertrophy, presence of tender cervical glands, and absence of cough – were consecutively recruited. All the patients underwent a pharyngotonsillar swab for microbiological culture and underwent a CRP rapid test in the consultation.

Results
A total of 149 patients were enrolled. The most frequent aetiology was GABHS, present in 83 cases (55.7%). No germs were identified in 29 patients (19.5%). The highest level of CRP was observed among patients with group C β-haemolytic streptococcus infection (56.3 mg/L; 95%CI 25.7–86.9), followed by GABHS (34.4 mg/L; 95%CI 25.6–43.3). However, patients in whom no germs were identified had a mean CRP concentration of 27.9 mg/L (95%CI 11.0–44.9).

Conclusion
This study has several limitations. Only patients with the four Centor criteria were recruited, outcomes were not collected and neither was the evolution of symptoms measured, but we consider these limitations as not important since our goal was to identify the association of CRP levels with the aetiology of sore throat. The microbiological study did not take the study of anaerobes into account, and some of the patients with no germs identified could have been infected with anaerobes. This study shows that CRP is not useful for distinguishing patients with GABHS infection from other aetiologies that do not require antibiotic therapy.

Points for discussion
1. Do you consider that a CRPitis does actually exist in the Nordic countries?
2. On the basis of these results, do you consider that other causes of sore throat should also be treated with antibiotics?

Drug use six months prior, during early pregnancy and 1–2 years postpartum. Cohort study from the Childbirth and Health Study in Primary Care

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4Directorate of Health.
**Background**

The Childbirth and Health (C&H) study, in Iceland 2009, showed that self-reported drug use during early pregnancy was reduced by 18% compared to six months prior.

**Objectives**

The aim of this current study is to describe drug use six months prior to pregnancy, during 11–16 weeks of pregnancy (phase I) and 12–21 months postpartum (phase III).

**Material/Methods**

In phase I of C&H, a total of 1111 women participated by filling out a postal questionnaire concerning social situation, birth history and drug use, both current and six months prior. A follow-up questionnaire was filled in at phase III. Drug categories screened for in phase I and III, were psychotropics (antidepressants, relaxants and sleep medication), analgesics, hormones, nicotine, vitamins/minerals and homeopathic medicine. In phase I and III, replies regarding drug use were categorized into seldom, every week and daily.

**Results**

Most of the women, 66%, are 25–34 years old, 93% were married or cohabiting, 62% had higher/university education and 69% lived in the capital area. In phase III, response rates had dropped to 657 women or 59% and 69% had higher/university education. The cohort was representative for Iceland’s birth cohort but a trend towards higher education level was seen.

Drug use from all categories was 92%:89% in phase I: phase III. Vitamins/minerals were used by 88%:76% in phase I: phase III, thereof 63%:41% on a daily basis. With the exclusion of vitamins/minerals/homeopathic medicine, 77% of women use drugs six months prior to pregnancy, 49%:53% in phase I: phase III. Analgesic use is most common; 63% six months prior to pregnancy, 46%: 58% phase I: phase III. Psychotropic use was 12% prior to pregnancy, 6%: 11% phase I: phase III.

**Conclusion**

Overall drug use is increased during early pregnancy, due to increase in vitamin/mineral use. With the exclusion of vitamins/minerals/homeopathic medicine, a reduction in drug use is seen during early pregnancy and an expected increase postpartum. This is in accordance to previous studies that have shown that women reduce prescribed drug use during pregnancy. However, postpartum drug use is significantly lower than six months prior to pregnancy. This could be explained by lower response rates in phase III.

**Points for discussion**

1) Drug use before, during pregnancy and postpartum.
2) Clinical implications.

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**Symptoms, use and discontinued use of hormone therapy among Norwegian women. Too much or too little?**

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**Background**

The use of hormone therapy (HT) during and after menopause decreased dramatically after the publishing of the Women’s Health Initiative (WHI) study and other studies around 2002. Later reassessment of the WHI data indicate that the risk of HT use within the first 5–10 years after menopause (the 50–59 year group) are small, and for estrogen only may be beneficial with respect to breast cancer.

**Objectives**

This work aims to study the use of hormone therapy (HT) in a representative cohort of
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Norwegian women during the menopausal transition, to identify predictors of HT use, the relation to vasomotor symptoms, and to describe the reappearance of symptoms in former HT users.

Material/Methods
In 1997, 2,229 women in Hordaland County, aged 40 to 44 years, were selected randomly from a national health survey and followed up with seven postal questionnaires in 1999–2010. Data from 2,002 women (90%) were eligible for analysis. Summary statistics and multiple logistic regression analysis were used. Symptoms and use of HT during the observation period were analyzed. We also studied the reappearance of symptoms after HT discontinuation using a subcohort based on their propensity scores for HT use.

Results
The 2-year incidence of new HT users dropped from 8.2% (95% CI, 7.0–9.5) in 2002 to 4.3% (95% CI, 3.4–5.2) in 2004 and remained stable for the next 6 years despite an increasing prevalence of symptoms in the cohort. Self-rated health was stable during the period. The mean duration of HT use was 4.5 years (95% CI, 4.0–5.0). The odds of HT use were higher among women with daily hot flushes than among those who never or rarely experienced them (odds ratio, 3.2; 95% CI, 2.3–4.4). After HT cessation, hot flushes returned and corresponded to those in untreated controls.

Conclusion: The 2-year incidence of HT users decreased almost 50% after 2002, despite increasing symptoms in the cohort. Increasing symptoms and decreasing incidence of HT use did not influence self-rated health. Hot flushes were the strongest predictor of HT use. Symptoms reappeared in most women after HT cessation.

Points for discussion
Do these findings imply that women are under-treated during the menopausal transition? Do GP’s (and/or their symptomatic menopausal patients) assess the benefits and risks of HT properly? Do we need instruments to discuss these topics with the patients?

The majority of African and Middle Eastern immigrants in Northern Sweden have vitamin D insufficiency

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Background
Vitamin D is an important factor for regulation of the balance between calcium and phosphate in the human body. Vitamin D deficiency is related to osteomalacia and rickets in children and with osteoporosis among elderly in institutions. Vitamin D also has a critical role for muscle function, even moderate vitamin D deficiency can cause proximal myopathy with muscle weakness, pain and fatigue. Since more than 90% of the vitamin D supply is produced in the skin under exposure to UVB, lack of sunlight exposure is the most common cause of vitamin D deficiency. North of latitude 37˚N, corresponding to the Spanish Costa del Sol, there is little of any vitamin D3 produced in the skin in winter. Vitamin D deficiency has been shown to occur globally with high prevalence in some ethnic groups.

Objectives
To evaluate vitamin D status and determinants of vitamin D deficiency in immigrants from Africa and the Middle East living in Umeå, at latitude 63˚N.

Material/Methods
Cross-sectional population-based study. Immigrants aged 25–65 years from nine countries in Africa or the Middle East (N=1,306) were invited. A total 111 men and 106 women
(16.5%) completed the study. S-25-hydroxyvitamin D was measured with HPLC. Anthropometry, medical, socioeconomic and lifestyle data were registered.

Results
Vitamin D status was insufficient or deficient in 73% of the participants. Specifically, 12% had vitamin D deficiency (25(OH)D<25 nmol/L), and only 3.7% had optimal vitamin D status (25(OH)D 75–125 nmol/L). Mean 25(OH)D was 41.0 nmol/L, with no difference between sexes. 25(OH)D was lower and vitamin D deficiency twice as common in immigrants from Africa compared to those from the Middle East. In the multiple regression analysis, vitamin D deficiency remained significantly associated with low fatty fish intake, not travelling abroad, and wearing long-sleeved clothes in summer.

Conclusion
The majority of immigrants from Africa and the Middle East who live in northern Sweden have vitamin D deficiency or insufficiency. Our results are consistent with lifestyle factors being crucial for vitamin D status irrespective of the latitude of residence; they support that sun exposure and a diet with high intake of fatty fish are most important to avoid vitamin D deficiency.

Points for discussion
A direction for further research is to examine to what extent the low 25(OH)D levels in the immigrant population are correlated to health.

Background
WHO estimates that most pregnant women in low- and middle income countries and 30–40% of pregnant women in high income countries are iron deficient. Global prevalence of anaemia in pregnant women is 38%, the highest occurrence is in South Asia (52%) and Central and West Africa (56%).

Iron deficiency and anaemia are associated with adverse health outcomes for mother and child, and WHO has set a target to reduce the anaemia rate by 50%, to 15% in 2025. The prevalence of iron deficiency anaemia among fertile women in Norway is reduced the last 5 decades, while the prevalence of iron deficiency remains high.

Objectives
To explore ethnical differences in iron deficiency and anaemia in pregnant women.

Material/Methods
A multi-ethnic cohort of healthy pregnant women attending primary antenatal care at three public Child Health Clinics, in Oslo, Norway. Primary outcome measures are serum ferritin and haemoglobin; we have additional data on iron status and are planning to analyse sTfR from the Biobank. 823 women (74% of invited) were included in the study, of which 59% were of ethnic minority origin. Mean gestational week of inclusion was 14 ±2 and 804 (98%) had valid ferritin and haemoglobin concentrations measured. Iron deficiency was defined as ferritin <15 mcg/L and anaemia as Hb <11 g/dL. Ethnic origin was defined by the participant’s mother’s country of birth.

Results
Preliminary analyses revealed that the median value of ferritin in early pregnancy was twice as high among Western European women compared to ethnic minority women, and the prevalence of iron deficiency was three times higher among minority women. The mean value of haemoglobin was 0.4 g/dl lower among ethnic minority women, and the prevalence of anaemia was about three times higher among ethnic minority women compared to western women. The highest prevalence of both iron deficiency and anaemia was found among wo-
men from South Asia (50%/16%) and Africa (53%/19%). More results will be presented at The Nordic Congress of General Practice.

Conclusion
We found large ethnic differences in the prevalence of iron deficiency and anaemia in Norway, with groups from South Asia and Africa at highest risk.

Points for discussion
There is no consensus in Europe as to whether iron status including ferritin, should be examined in early pregnancy, or whether iron supplementation should be routinely recommended. National guidelines differ and very few seem to reflect today’s multi-ethnic context in Europe. This study contributes information about iron status in a multi-ethnic group of pregnant women which may help to form new guidelines and to identify groups with particularly high prevalence of “at-risk” women.

Facing suspected child abuse – what keeps Swedish general practitioners from reporting to child protective services?

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Background
The reporting of child abuse by Swedish general practitioners (GPs) at health care centres has so far not been investigated.

Objectives
The aim of this study was to examine the reporting of suspected child abuse among Swedish general practitioners (GPs), and to investigate factors influencing them in their decision whether or not to report to child protective services (CPS).

Material/Methods
A cross-sectional questionnaire study among 177 GPs and GP trainees at primary health care centres in western Sweden. Main outcome measures: demographic and educational background, education about child abuse, attitudes to reporting and CPS, previous experience of reporting suspected child abuse and need of support.

Results
Despite mandatory reporting, 20% of all physicians had at some point suspected but not reported child abuse. Main reasons for non-reporting were uncertainty about the suspicion and use of alternative strategies; for instance, referral to other health care providers or follow-up of the family by the treating physician. Only 30% of all physicians trusted CPS’ methods of investigating and acting in cases of suspected child abuse, and 44% of all physicians would have wanted access to expert consultation. There were no differences in the failure to report suspected child abuse that could be attributed to GP characteristics. However, GPs educated abroad reported less frequently to CPS than GPs educated in Sweden.

Conclusion
This study showed that GPs see a need for support from experts and that the communication and cooperation between GPs and CPS needs to be improved. The low frequency of reporting indicates a need for continued education of GPs and for updated guidelines including practical advice on how to manage child abuse.

Points for discussion
The low response rate resulted in small numbers in some subgroups; hence, true statistically significant differences may not be found. Self-reporting entails a risk of memory bias and social desirability. The GPs’ ability to recognise and report child abuse might differ between countries, depending on education, possibilities of multidisciplinary cooperation and expert consultants. GPs’ cultural and religious
background may influence the assessment of suspected child abuse. We need to further explore which factors cause the child abuse suspicion to arise. None of the most experienced GPs in our study had reported suspected child abuse to CPS during the past year. Our data indicate that experienced GPs participated less frequently in continued education on child abuse. Peer support might facilitate the discussion and awareness of child abuse. Better communication and collaboration with CPS and possibilities of consultation may lower the threshold for reporting.

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**Association between Copeptin and declining glomerular filtration rate in newly diagnosed diabetes patients. The Skaraborg Diabetes Register**

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**Background**

Chronic kidney disease (CKD) is a common complication to diabetes. Which individuals have the highest risk to be affected is not known. Early detection could help avoiding complications. Copeptin concentrations have shown association with development of CKD in patients with diabetes although there is limited knowledge of the association in newly diagnosed patients.

**Objectives**

The objective of the project was to study copeptin concentrations and the development of the estimated glomerular filtration rate (eGFR) in newly diagnosed patients with diabetes.

**Material/Methods**

The study is a longitudinal study (1996 to 2010) of newly diagnosed patients with type 2 diabetes using data from a reinvestigation and from national registers. Copeptin was determined in individuals with newly diagnosed type 2 diabetes (n=382) from Skaraborg Diabetes Register (SDR). Data on cardiovascular complications were extracted from a national register. Creatinine and cystatin C was used for determination of eGFR at base-line and after 12 years in 161 patients with complete data. Data was analyzed with logistic regression.

**Results**

From base-line to follow up eGFR decreased with 33 ml. Twenty-nine individuals (18.1%) developed CKD stage 3. There was a significant association between elevated copeptin concentrations and development of CKD stage 3 (HR = 1.78, 95% CI = 1.01–3.16). When adjusting for GFR at baseline the association between copeptin and GFR decline was borderline significant (HR = 1.79, 95% CI = 0.99 – 3.25, p = 0.055).

**Conclusion**

The use of copeptin concentration could help identify patients with high risk for CKD early. To prevent complications these patients should be treated aggressively with renal protective agents.

**Points for discussion**

Previous studies have shown an association between Copeptin and a decrease in eGFR, though none of the studies consisted of newly diagnosed patients with diabetes which is a strength of our study. The findings are especially interesting because the AVP system of which copeptin is a part is potentially modifiable through both pharmacological and non-pharmacological interventions. Further research would be of interest using copeptin as a riskmarker in intervention studies. At the same time we know that multifactorial intensive treatment of high blood pressure, lipids and blood glucose in these patients is beneficial to prevent diabetic nephropathy and to save lives but has to be individualized as it is known that intensive blood glucose lowering therapy in
patients with type 2 diabetes does not always reduce mortality and can even increase mortality. Therefore it is beneficial to know which group of patients is at special risk and could profit of a more intensive treatment.

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Translating learning into practice – chain messenger training as a driver for change

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Background:
Chain messenger project is a continuous education and cooperation model developed and used by Pirkanmaa hospital district and community health centres in its catchment area in Finland. Health workers from community health centres, i.e. the chain messengers, spend a week working in specialist health care following a pre-planned programme.

Objectives
The study here sought to establish whether matters learnt during the chain messenger week had been discussed in their own health centres after the period and whether chain messengers had changed their work practices as a result of the training week.

Material/Methods
Survey questionnaires were sent to all those who had participated in the chain messenger period during the years 2006–2011 (n = 177). Among answerers there were 52 public health nurses, 49 nurses, 21 doctors, 14 physiotherapists, 10 dentists and 31 other professionals. The data were analysed using frequencies, cross-tabulations, logistic regression analysis and data-based groupings under themes.

Results
The majority of the chain messengers thought that learned matters or the cooperation questions which had risen were dealt with their own work community or in organization. From the doctors and dentists 70% had that opinion, while 86% of the other professionals answered so. The difference was significant statistically (\( p = 0.031 \)). The handling of learned matters together was mainly occasional. The chain messengers changed their own work practices. Most of the changes concerned directing of the patient and the ways of caring. The matters that were changed after the chain messenger period were best explained by the profession of the chain messenger. More than the other professionals the doctors and dentists specified sending indications, improved the contents of referrals, brought into use an electric referral and changed medical treatment. Less than other they changed ways of action which applied to teamwork, use of time, appreciation of the own work and general attitude. The translation of learned matters was promoted by especially the chain messenger’s own desire and activity for the developing and positive attitude. With most of them hurry, the resources shortage and lack of time and changing of the staff were mentioned as factors which had prevented the translation of learned matters.

Conclusion
The chain messenger model is a good way to learn new and to develop the care. In addition to developing the individual’s skills, the chain messenger model could be utilized more effectively than is currently done in the development of the workplace community and the entire organization. This poses a challenge in managing health centres.

Points for discussion
Chain messenger model, learning, change.

The chain messenger model is a good way to learn.
Evaluation of the post-graduate medical education and training in health centers in Finland

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Background
To become a good GP, a physician has to work in a good team in primary health care. In Finland, both further training in primary health care (EU competence) and GP specialist education include 9 months of training in a health center (HC). It is a task of a regional organization (the Center of General Practice) to support health centers in supervising trainees. This can happen by creating structures for education and by training GP supervisors.

Objectives
Our aim was to evaluate and develop post-graduate medical education and training in health centers in Pirkanmaa Hospital District and within the special responsibility area of Tampere University Hospital.

Material/Methods
We collected two kinds of questionnaire data: data of young doctors in training in 2009–2014 and data of health center organizations in 2012–2013. In the questionnaire there were claims about education in scale 1≤ totally agree to 4= totally disagree, general judgement of the training environment in school grades (4–10) and open questions. Doctors in training completed the questionnaire after every working episode (392 episodes). We analyzed their responses in two periods: 1.1.2009–31.12.2011 (n=211) and 1.1.2012–31.1.2014 (n=181). Medical directors and GP supervisors (n=30) completed the questionnaire on behalf of HCs.

Results
Both doctors in training and HCOs considered health center as a good learning environment (means 8.3 and 8.5, respectively). Both groups responded that conditions for clinical work are good. Arrangements for supervision had improved during follow-up. Trainees have a personal supervisor addressed more often than before (the change during follow-up from 78% to 89%) and working schedule contains more often time for tutoring (62–78%). However, there is room for improvement regarding the contents and planning of supervision. Log book was seldom used as a tool of supervision. One third of the doctors in training felt that they didn’t get enough feedback of their work. The experience has not changed during follow-up. HCOs think that feedback has been given for 90% of trainees. Overall, HCOs have more positive view of the implementation of medical training than trainees.

Conclusion
Structures for supervising doctors in training have become better. In future we have to concentrate more in the utilization of logbook when we train tutors. Also we have pay attention to the assessment and feedback. Results of the questionnaire are dealt with heath centers and we are going to continue the evaluation.

Points for discussion
Evaluation of the further training in primary health care, assessment and feedback, utilization of logbook.

Effect of a pilot course developed with the aim of establishing a permanent competence in general practice in systematic handling of medicine

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Background
Projects on medication reviews have proved that there is a significant need to ensure quality in the use of medicine, especially among patients treated with several medical drugs (polypharmacy), elderly patients or patients treated with high risk medicines.

Objectives
The main objective was to establish a permanent competence in the handling of medicine in selected primary care settings by educating and delegating the tasks to a staff member. The competence should be established through a series of courses.

Material/Methods
Five primary care settings were recruited throughout the Region of Southern Denmark. Each primary care setting was represented by a member of the staff (the course participant) and a general practitioner (GP) (the supervisor). The course participants were educated as GP secretary (2), midwife (1), nurse (1) and pharmaconomist (1).

We planned 6 courses each of 3 hours length to be carried out over approximately 8 months. We focused on the working procedures in the handling of medicine, and the participants were inspired to several methods to systematize the area and support the GP in renewing prescriptions and conducting medical reviews. Between the sessions of the course, the participants worked with small tasks which they had formulated themselves.

Each course was evaluated by the participants by a paper-and-pencil questionnaire with open-ended questions. The pilot course was also undertaken external evaluation by an independent evaluator. Furthermore, we have visited the clinics of the participants and evaluated whether the course has increased the use of systematically methods in handling medicines.

Results
By December 2014, four of the six courses have been conducted. So far the evaluations from the participants as well as the external evaluator were overall positive. The questionnaires filled and reports conducted by the course participants showed improved skills in the handling of medicine. Most participants expressed, that the course had changed the working procedures in some areas in their clinic and also increased attention to the area of handling medicines. The participants were content with having a supervisor in their clinic and some of them would like to have the role of the supervisor enhanced.

Conclusion
Focused education of the staff in primary care settings is a valuable tool for improving systematic working procedures in handling medicines. So far, the focused education also showed that it is possible to delegate part of the work to other staff groups in the primary care setting.

The full overview, effect and evaluation of the pilot course will be given at the conference.

Points for discussion
Has the quality been improved and how do we assess it?

Body, spirit and age
– Health and spirituality in
– SHARE cohort

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Background
A multidisciplinary and substantial body of research indicates a positive correlation between Spirituality/Religiosity (SpR) and health and longevity. One possible theory for such findings could be that people with high SpR may have lower BMI than people with low SpR. In fact, religious notions as the body as temple of the Spirit or similar religious emphases on the link between body and spirit may advance attention to both bodily and mental...
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healthy behavior and religion has indeed been found associated with lower BMI and healthy behavior.

Objectives
The objectives of the present proposed study is to compare associations between SpR, BMI, health and longevity in an internationally comparable aging population in order to investigate whether there is an association between SpR and health and what role BMI might play in such association.

Material/Methods
The Survey on Health, Ageing and Retirement in Europe (SHARE) constitutes an internationally acclaimed aging cohort that will be employed in this study. It is a cross-disciplinary longitudinal study on 50+ year old Europeans covering 19 countries, which uses a harmonized questionnaire, which is administrated by a face-to-face Computer Assisted Personal Interview (CAPI). The participants are revisited bi-annually. The questionnaire addresses the participants’ SpR, health, health behavior, anthropometric measurements, social network, financial situation, employment status, living conditions and many other things. (www.share-project.org). The first SHARE wave was launched in 2004, the second in 2006 and so forth. Currently wave 6 is being carried through.

Results
Preliminary analyses show that some measurements on religiosity; i.e. prayer and meditation, are associated with poorer health, whilst self reported church going shows the opposite association. Associations on SpR and BMI and aging are to be analyzed.

Conclusion
Health seems to be associated with certain religious practices. However, the associations are equivocal, suggesting that poor health calls for prayer, whereas church going may indicate an intrinsically motivated social, mental and lifestyle behavior associated with good health. More research is needed to gain insight into the complex relations between SpR and health.

Points for discussion
Do you work actively with your knowledge about the patients’ SpR? Which possibilities do you see in active working with SpR? In which way do you think, that health is influenced by SpR?

Morbidity burden among paediatric patients in Danish primary health care

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Background
Few studies have explored the prevalence and level of paediatric multimorbidity level among children and adolescents. In Denmark the GP is the primary doctor for all children and acts as gatekeeper. Only children with specific conditions and diseases are referred for specialist care. The GP is also responsible for a mandatory primary prevention programme for children. Through the recent development of a nationwide Danish primary care database (DAMD) it has become possible to study the prevalence of registered reasons for encounter, morbidity and the overall morbidity in a large paediatric population.

Objectives
To describe the prevalence of paediatric morbidity and to analyse the level of paediatric multimorbidity in primary care.

Material/Methods
We use a population-based approach with a comprehensive selection of diseases and International Classification of Primary Care codes (ICPC-2) to study the prevalence of morbidity and multimorbidity. A population of 69 232 children between 0–18 years, resident in Region Zealand in 2013 and affiliated with
general practice clinics coding more than 70% of face-to-face encounters, were included. The prevalence of reasons for encounters was presented according to ICPC-2 groups and age groups. Multimorbidity levels were measured through Resource Utilization Bands (RUB) based on the Johns Hopkins Adjusted Clinical Groups (ACG).

**Results**

Out of 69,232 children 71.2% were assigned at least one ICPC code. The most prevalent ICPC group was Respiratory R (26.5%), Skin S (26.1%) and Musculoskeletal L (14.7%). Approximately one third of the children were non-users (RUB0). The most prevalent RUB group was RUB2 (36%). About 10% of all children were categorised into RUB3-RUB5, corresponding to moderate to very high morbidity, indicating presence of one or more chronic diseases.

**Conclusion**

We found that 10% of children had moderate to very high morbidity in terms of Resource Utilization Bands, indicating the presence of one or more chronic diseases. The most prevalent diagnosis concerned respiratory and skin body systems. Systematic collection and analyses of ICPC codes from primary health care provide invaluable knowledge about reasons for encounters, disease patterns and multimorbidity in primary health care.

**Points for discussion**

What experiences do the participants have with multimorbidity among their paediatric patients? How do we identify children with multimorbidity? What is our role, and what can we offer in general practice?

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**357-P**

**Promoting professional development of general practice tutors in the Arkhangelsk region**

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**Background**

Tutorship plays an important role in the increasing professional competence of general practitioners (GPs). Our tutor group of GPs has been functioning as a part of the Russian-Norwegian project “Reform of the Arkhangelsk Region (AR) Health Care System with the emphasis on primary healthcare” between the Directorate of Health (Norway) and the Ministry of Health and Development of the AR (Russia) since 2008.

**Objectives**

Our objective is to develop a tutor group of GPs in order to help healthcare providers who recently began working in the field of general practice in their professional development. The main idea of tutorship is to share professional knowledge and practice new skills through interactive learning instead of lectures.

**Material/Methods**

Different methods such as role play, brainstorm and a group work (that include a patient, a doctor or a nurse and an observer) have been used in our regular meetings of GPs and nurses in the three rural districts of the AR. The principles of motivational interviewing were integrated into the prevention activities...
with risk factors of non-communicable diseases (NSDs). Teamwork was the foundation of all instructional sessions. Our tutor group was supported by the Family Medicine Department of the Northern State Medical University.

Results
Our tutor group was established by the most experienced GPs in 2008. Thematic instructional meetings have been taking place two or three times per year in one of the rural districts. We started with traditional lectures and a few years later we began introducing interactive methods into our regular meetings of GPs and nurses. Several meetings were dedicated to the comprehensive topic of dependency (including alcohol, suicidal attempts, old-age problems and depression). Another important aspect of our work was prevention of major risk factors (physical inactivity, unhealthy nutrition, and smoking) and main NSDs (cardio-vascular, cancer, diabetes and chronic obstructive pulmonary disease) based on the elements of motivational interviewing.

Conclusion
Tutorship can be one of the basic elements of GPs’ professional development and it can become an important part of the professional GP Association.

Points for discussion
1) How to make all participants interested in active learning? 2) How to convince head physicians on the necessity of tutorship?

358-P

Psychological distress; experiences and treatment in primary health care

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Background
Psychological distress is a major public health problem both in Sweden and internationally. Primary care provides the first level and often the only mental health care for psychological distress, yet its detection, diagnosis and treatment are inadequate in primary care settings. More knowledge is needed about the condition and its treatment.

Objectives
The overall objective of this thesis was to explore what it means to live with psychological distress and to evaluate and compare three 8-week interventions: integrative treatment (IT) compared to therapeutic acupuncture (TA) and conventional treatment (CT) in a pragmatic randomized controlled trial (RCT).

Material/Methods
Study participants consisted of outpatients 20–55 years who sought care for psychological distress such as anxiety, depression, sleep disturbances, fatigue, headache or somatic pain. The interviews (n=12) were analyzed with phenomenological hermeneutical method (I) and the treatments were evaluated in a RCT comprising 120 participants, using standardized self-reported questionnaires at baseline, after 4 and 8 weeks of treatment (II-III), as well as at follow-up 6 months later (IV). Primary outcome variables were anxiety and depression measured with the Hospital Anxiety and Depression Scale (HADS). Secondary variables were quality of life (QoL) measured with the Short Form-36 and sense of coherence (SOC).

Results
The comprehensive interpretation of the experiences of living with psychological distress was that an imbalance (incongruence) exists between the self and the ideal self which slowly breaks down a person’s self-esteem. This imbalance is described in three dimensions: Struggling to cope with everyday life, Feeling inferior to others and Losing one’s grip on life. The three dimensions seem to lead to dissatisfaction, suffering, poor self-esteem and lack of control, which in turn may precede mental, physical and emotional exhaustion (I). In the RCT study, there were no significant differences on any variable at baseline (II-IV). Already after 4 weeks of treatment anxiety and depression improved significantly both statistically and
clinically in IT and TA (II). At 8 weeks, IT and TA showed improvements on all variables (anxiety, depression, QoL and SOC) from baseline and in comparison with CT (II and III). At 6 months follow-up, improvements seen at 8 weeks in IT and TA remained, while CT showed a marginal improvement in anxiety (IV).

**Conclusion**
This thesis has shown that psychologically distressed individuals have considerable difficulties in coping with daily life, yet usual care provided at primary care centers appears to be less effective in relieving symptoms of depression and anxiety and in improving QoL and SOC than a less conventional treatment combining therapeutic acupuncture with a person-centered approach with structured salutogenic dialogue.

**Points for discussion**
More research is needed to confirm the results.

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**359-P**

**General practice training at a Glance – The Bornholm Model**

_Fidelis Asonze, *Sylwia Winciorek*

1GP-Trainee, Ronne, Denmark.

**Background**
Preamble: Bornholm is a Danish Island situated in the southern baltic sea, located about 40KM southeast of Skane (Sweden) and abot 170KM from Copenhagen, the Danish capital. The population of Bornholm as of 1. October 2014 was about 39,880. There is only one hospital, the general hospital Bornholm, located at Roenne, the capital of Bornholm. This hospital have only 2 departments, namely the surgical department and internal medicine department. It has among other things emergency functions and have a diagnostic unit. Furthermore, there are about 30 general practitioners, a dermatologist and paeditrician, 2 eye specialist and ear-nose and throat. There is a little psychiatric center without an emergency functions.

**Objectives**
Based on the above, we intend to compare the general practice training programme in Bornholm with the rest of Denmark. Are there any differences in the way the general practitioners are trained in Denmark?

**Material/Methods**
We examine the national general practice training programme as stipulated by the Danish health board, the Danish college of general practitioners, the secretariat for the training of doctors in Denmark and compare them with our programme in Bornholm which is administered by the committee for doctors training at Bornholm.

**Results**
Doctors specialisation in Denmark takes 5 years after a 12 months housemanship. It usually starts with an introduction to the specialisation and takes 12 months. Can take 3 months in general medicine if a doctor have had 6 months of housemanship in general practice. The GP training in Denmark is divided between general practitioner and the hospital, 30 months each. During the hospital part, the GP trainee have a rotation: 6 months surgery, 6 months gynecology, 6 months internal medicine, 6 months paediatric and 6 months psychiatry. We found that GP trainees in Bornholm have 9 months internal medicine and a 3 months paediatric rotation at a private clinic.

**Conclusion**
Our findings shows that apart from the hospital part where the rotation of internal medicine is 9 months and paediatric 3 months at a private clinic in Bornholm, there are no significant differences.

**Points for discussion:**
How do decision makers ensure that the quality of GP specialisation in Bornholm meets the same standard else where in Denmark? How can recruitment problems to rural areas be solve? What of job opportunities to GP trainee partners?
Unnecessary antibiotic prescribing for upper respiratory tract infections in general practice – difference between patient genders?

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Background
Inappropriate prescribing of antibiotics is a major public health problem causing the development of antibiotic resistant bacteria. General practitioners (GPs) prescribe the majority of antibiotics, often for upper respiratory tract infections (URTIs), and have in general been shown to prescribe antibiotics more often to women than men. No studies have examined the influence of patient gender on inappropriate antibiotic prescribing.

Objectives
To study a possible gender difference in inappropriate antibiotic prescriptions for URTIs in general practice; to assess whether a possible difference is explained by patient demand for antibiotics.

Material/Methods
A cross-sectional study including 15,022 patients with URTI (acute rhinitis, acute otitis media, acute sinusitis, acute pharyngotonsillitis) from Denmark, Sweden, Lithuania, Russia, Spain and Argentina (HAPPY AUDIT Project). We analysed the association between gender and inappropriate antibiotic prescriptions, unadjusted and adjusted for treatment demand, using logistic regression models.

Results: A total of 25% of patients with URTI received antibiotics; in 45% of the cases antibiotics were inappropriate. Sweden and Denmark had the lowest rates of inappropriate antibiotic prescribing. Overall, we found no gender differences for inappropriate prescribing of antibiotics for URTIs. Women with acute otitis media received an inappropriate recipe of antibiotic twice as often as men (14.4% vs. 7.1%). In Danish patients with acute pharyngotonsillitis, there was a gender difference in inappropriate prescriptions for antibiotics (women 29.1% vs. men 48.6%). Some 14% of patients receiving inappropriate antibiotics demonstrated a demand for antibiotics, but we found no gender difference in this group.

Conclusion
This study indicated a high rate of inappropriate antibiotic prescribing for URTIs in general practice, but overall found no gender differences with regard to receiving inappropriate antibiotic prescriptions.

Points for discussion
How can we decrease inappropriate use of antibiotics for URTI?
Why are the rate of inappropriate antibiotics twice as high for women than men suffering from acute otitis media?
Why are the rate of inappropriate antibiotics higher for men than women suffering from pharyngotonsillitis in Denmark and not in other countries?
How can we refuse demands for antibiotics without losing a good patient-doctor relation?

Validation of permanent nursing home residency in a nation-wide Danish database

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There is a growing demand for long term care as the world population keeps ageing and by the year of 2050 it is expected that a third of the population will be over the age of 60. Permanent nursing home placement predicts health outcomes in the elderly, and therefore may represent an important health related proxy. Currently, there is no nation-wide validated method to identify Danish individuals in a permanent nursing home facility.

Objectives
The aim of the present study is to validate the nursing home algorithm of SD.

Material/Methods
Ten municipalities were randomly selected stratified by region and reporting status to. Data included individuals living in a nursing home facility on 1st January 2013 (Gold Standard). We were able to retrieve all individuals living in nursing homes on 1st January 2013. Sensitivity and positive predictive value will be calculated based on these two data sets.

Results
At present, nine out of ten municipalities have agreed to participate in the project and data has been received from eight municipalities. The final municipality has notified us that they currently have higher-ranking priorities than providing us with data. Therefore, a new municipality will be randomly selected. Each municipality consists of approximately 500 individuals. Thus, this project will involve approximately 5000 individuals.

Once the data is received from all participating municipalities it will be compared with SD’s data. In addition to comparing social security number, we will look at sex, marital and socioeconomic status and age. Furthermore, we will include size, location and the socioeconomic status of the participating municipalities.

Conclusion
The main hypothesis of this study is that SD’s algorithm will be most accurate in rural municipalities. Mainly, since there are less addresses housing several people, compared to urban living, which contain a higher percentage of high-rise buildings.

Points for discussion
Potential pit falls in using nursing home as a health related outcome? What could we do to prevent that non-validated variables are used in research?

Use of antidepressant drugs and talk therapy in the year before cancer diagnosis

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Background
Studies have found that the incidence of cancer is high during the first months after a hospital diagnosis of a mental disease; however, the underlying mechanism remains unclear. Unspecific cancer symptoms may sometimes be misinterpreted as symptoms of a mental disease and mental disorders may give rise to frequent health care seeking, facilitating cancer diagnosis. Previous studies have mainly focused on people treated for mental disease.

Objectives
In a matched comparative study, we aim at studying the use of antidepressant drugs and talk therapy in primary care prior to cancer diagnosis.

Material/Methods
We identified all incident adult cancer patients (excluding non-melanoma skin cancer patients) diagnosed in the period 2002 through 2011 in the Danish Cancer Registry. As reference, 10 persons per case were matched on gender, birth year and general practitioner. Information on
redemption of antidepressants was retrieved from the Register of Medicinal Product Statistics and information on talk therapy from the Danish National Health Service Register. Utilization of antidepressants and talk therapy in the year prior to a cancer diagnosis (and index date) is quoted as monthly rates and incidence rate ratio using the negative binomial regression model.

**Results**
A total number of 257,128 cancer patients and 2,571,280 reference patients were identified. In the 12 month before the index date 2.82 % of cancer patients and 1.85 % of reference patients had at least one session of talk therapy at their general practitioner. The monthly rate for talk therapy was higher among cancer patients from 4 months prior the index date to index date compared with the reference patients.

**Conclusion**
At the Nordic Congress of General Practice we will present cancer-type specific results on use of talk therapy as well as for antidepressant. Data on antidepressant redemption will be available primo 2015. According to www.medstat.dk almost 12% of the adult Danish population redeemed at least one prescription of antidepressants in 2006.

**Points for discussion**
Can difference in use of talk therapy or antidepressants prior to a cancer diagnosis be due to misinterpretation of unspecific cancer symptoms?

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**Patient safety culture in European Out-of-hours services (SAFE-EUR-OOH)**

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7The Norwegian Directorate of Health, Oslo.
8Health Services Research Unit, Akershus University Hospital, Lørenskog, Norway.

**Background**
Over the last years, there has been an increasing focus on medical errors and patient safety, also in primary care. Patient safety culture is how leader and staff interaction, attitudes, routines and practices protect patients from adverse events in healthcare. The Safety Attitudes Questionnaire (SAQ) is a common instrument to measure safety attitudes of health care providers, and includes six major patient safety factors: Teamwork climate, Safety climate, Job satisfaction, Perceptions of management, Working conditions and Stress recognition. SAQ scores have been shown to correlate with patient outcome in care giving units. The instrument may identify possible weaknesses in a clinical setting and motivate quality improvement interventions and reductions in medical errors.

**Objectives**
The aim of the SAFE-EUR-OOH study is to develop national tools for measuring patient safety culture in Out-of-hours (OOH) primary care clinics in the Netherlands, Slovenia, Italy and Norway - by validating translations of the SAQ. We will study patient safety attitudes amongst health care providers, and whether patterns are related to professional background,
gender, age and clinic. Findings across the participating countries will be compared.

Material/Methods
We will include at least 300 OOH health professionals from each participating country. The SAQ questionnaire has been translated and adapted to the national OOH primary care settings, and will be distributed electronically. Statistical analyses include confirmatory factor analysis and multiple linear regression.

Results
Data collection starts in January 2015, preliminary results will be presented at the conference.

Conclusion
In addition to developing national tools for measuring patient safety culture, the participating OOH clinics will receive summaries with their own results. Based on these results, the health care providers are encouraged to discuss strategies for quality improvement in their clinic.

Points for discussion
What characterizes patient safety culture in European out-of-hours primary care?

Developing systematic electronic health records for preventive child health examinations in general practice through the use of an adapted nominal group technique

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Background
In Denmark, the preventive healthcare program includes seven child health examinations from age 0–5 years carried out in general practice. The Danish National Board of Health provides general practitioners (GPs) with comprehensive guidelines. However, there is not a structured and systematic practice for which of the recommendations the child consultations, as a minimum, ought to entail. That makes it difficult for GPs to assure that they have in fact examined the child for the most important health conditions. The development of a systematic health record seems advantageous.

Objectives
To explore if the Nominal Group Technique (NGT) can be used to establish consensus in a complex field influenced by professionals’ know-how and ‘gut-feeling’ as well as national guidelines.

Material/Methods
A selected expert panel of six experienced general practitioners used the NGT – a structured, multistep facilitated group meeting technique – to generated consensus around key themes to include in systematic electronic health records for the first three out of seven preventive child health examinations. Besides the work carried out during the meetings two of the participating GPs continuously worked with the structure and format of the health records in the time between each meeting. The material consists of recommendations from the National Board of Health, documents from the three meetings, and field notes made during the last meeting.

Results
Using the NGT as a working tool among an expert panel consisting of skilled practitioners proved to be an advantageous approach. The project resulted in applicable, practice-near suggestions for systematic electronic health records to be used during child examinations. Our findings identified the following main benefits: 1) keeping focus and facilitating equal speaking time; 2) serial meetings provided time for continued reflections on results and check-ups; 3) transfer of previously collected data; 4) produces a concrete take home product; 5) flexibility of the NGT model; discussions and thematic classification in pairs.
Conclusion
The process of front-line health care professionals’ using the nominal group technique to establish systematic structures to improve the quality of clinical practice is recommendable.

Points for discussion
– Known experiences with developing consensus about systematic approaches to complex interventions?
– Which other areas within general practice could benefit from applying NGT as a working tool to reach consensus?
– What could be suggestions for better ways of developing the content for the electronic health records?

Background
The number of people living with multiple chronic diseases, multimorbidity, is high and rising, also in the Nordic countries. Although care of patients with multimorbidity has been a fundamental task in general practice for many years, more research is needed to facilitate and guide the quality development. The possible topics of this research were explored at a workshop at the Nordic Congress of General Practice in Tampere in 2013. With this presentation we wish to present the results of the workshop.

Objectives
To explore workshop participants’ views and attitudes toward problems and challenges related to treatment of patients with multimorbidity in general practice.

Material/Methods
The data consists of 76 completed questionnaires collected during the workshop, recorded and transcribed plenary discussions among the 180 participants, and notes taken by rapporteurs during the discussions. A framework analysis has been applied to analyse the material.

Results
Complex care pathways and clinical guidelines developed for single diseases were identified as very challenging when handling patients with multimorbidity. Insufficient cooperation between the professionals involved in the care of multimorbidity patients underlined the GPs’ impression of a fragmented health care system. Furthermore, GPs found it challenging to establish a good dialogue and prioritize problems with patients within the timeframe of a normal consultation. Finally, the future role of the GP was discussed and current payment systems, in some of the Nordic countries, criticized for not matching the treatment patterns of patients with multimorbidity.
**Conclusion**

The workshop’s Nordic participants supported the development of a future research strategy to improve the treatment of patients with multimorbidity. Our findings identified four main areas: 1) complex care and clinical guidelines; 2) insufficient cooperation and fragmented health care; 3) difficulties with patient dialogue and prioritization in the consultation; and 4) the role of the GP and unadapted payment systems, all of which need to be investigated further to improve care for this steadily growing patient group.

**Points for discussion**

What could be suggestions for better ways of sharing the task of managing multimorbidity among professionals? What educational and communications skills are needed to improve the handling of patients with multimorbidity in general practice?
BERGSJÖN VÅRDCENTRAL

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ABSTRACTS

Wednesday, June 17, 2015
13.30 – 15.00
Benefits and harms of general health checks – lifelong learning in general practice: how to read and use scientific literature

Ole Olsen¹, *Atle Klovning², Helena Liira³, Klaus Witt⁴, Signe Flottorp⁵, Bruno Heleno⁶, Mie Hestbech⁶, Jakob F Rasmussen¹, Mads Toft Kristensen¹, Anna Bebe¹, Tora Willadsen¹, Rasmus K Rasmussen¹, Thomas Bo Drivsholm¹, Christian Hermann¹, John Brodersen¹

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⁴Prevention, health promotion and organisation unit, Norwegian Knowledge Centre for the Health Services, Oslo, Norway.

Objectives
After this workshop the participants will know the basics of how to read a systematic literature review, interpret a meta-analysis and be able to:
– Assess if the research valid.
– Summarise the study results.
– Decide if the results can be applied to their own practice.

Clinical implication
What are the benefits and harms of general health checks? This workshop will invite participants to read and critically appraise the corresponding Cochrane review.

Background
GPs often experience difficulties in keeping up-to-date, and at times feel they reach the outer boundaries of their knowledge. Evidence based medicine combines the best current research, clinical expertise, and combines the patient’s needs and preferences. To achieve this, the busy physician must find, assess, and implement scientific evidence about diagnosis and treatment. By learning and practising the principles of evidence-based medicine, GPs will have a tool to assist life-long learning in practice. This is best achieved by using questions that arise in GPs’ daily practice: learn by doing.

Content
The workshop is mostly based on small group activities with eight participants and two tutors in each group. The participants will be sent two scientific papers: the BMJ-version of the Cochrane review about general health checks and a paper about how to read a systematic review. Participants will also be provided with a check list to guide critical appraisal of the paper. Participants will be expected to have read 2 papers in advance before the workshop begins.

Method
• Lecture: Welcome and how to work in small groups – 15 minutes (plenary room)
• Small groups: critical assessment of the empirical paper – 60 minutes (smaller rooms)
• Plenary: Summary and final discussion – 15 minutes (plenary room).

Other considerations
– Pre-registration will be required. Participants should send an e-mail to the course organisers at ebm.ws.Gothenburg.2015@gmail.com
– The 2 papers and reading check-list will be sent by e-mail will receive by e-mail 2 weeks before the workshop date.
– Minimum of 8 participants, up to 48 participants (Maximum number will depend on the number of rooms available for the workshop).

A tool to assist lifelong learning. “
**402-SY**

**To prescribe or not prescribe antibiotics – are rapid tests helpful?**

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³Public Health, General Practice, University of Copenhagen, Copenhagen, Denmark.  
⁴Primary healthcare centre Jaume I, Tarragona, Spain.

**Objectives**
To improve use of diagnostic rapid tests (POC) and antibiotic prescribing in Primary Care.

**Background**
Multidrug resistant bacteria are a major threat to public health. Antibiotic use and resistance are closely linked. Rapid diagnostic tests to detect Streptococcus Group A or C-reactive protein and other tests have been introduced in Primary Care to increase diagnostic accuracy and reduce unnecessary antibiotic prescribing.

**Content**
Current antibiotic use and resistance in different European countries will be discussed. Does prescribing in Primary Care have an impact on resistance in the community? Do we have data on resistance in the community or only reports from Microbiological laboratories? Is resistance reversible if antibiotic prescribing is reduced, or will only patients suffer from prolonged illnesses and more complications?

The symposium will focus on rapid diagnostic tests, such as streptococcal antigen tests and C-reactive protein. These tests are not recommended in some European countries, but widely used in the Nordic countries and included in many guidelines. We will discuss the pros and cons of rapid tests. Do they improve quality of care? Are these tests really helpful to improve treatment of our patients or just a waste of time and money.

**Method**
The authors will show current level of resistance, use of antibiotics and of rapid tests in the different countries. We will discuss similarities and differences in use of rapid tests in relation to current evidence in the literature and hopefully agree on when rapid diagnostic tests are useful and may improve care of our patients.

**Other considerations**
There are many other rapid tests on the market and more are coming. Many can be bought by patients in the store, pharmacy or internet. All rapid tests have one thing in common, they have not been evaluated in the Primary Care setting. We should join in such studies before tests are widely used.

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**403-SY**

**Differences on the organisation and provision of general practice in Europe, Australia, Canada and New Zealand: what are the consequences in terms of quality and equity?**

Willemijn L.A. Schäfer¹, *Tessa van Loenen²*, *Lise G.M. Hanssens³*, *Stephanie Heinemann⁴*, *Stijn Baert⁵*, Wienke G.W. Boerma¹, Michael van den Berg², Jens D.J. Detollenaere³, Stefan Greß⁴, Peter P. Groenewegen¹, Werner Hofmann⁴, Amelie Van Pottelberge⁶, Peter Spreeuwenberg¹, Sara Willems⁵

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⁴Department of Nursing and Health Sciences, University of Applied Sciences Fulda, Fulda, Germany.  
⁵Department of Social Economics.  
⁶Department of Sociology, Ghent University, Ghent, Belgium.

**Objectives**
To show how the variation in characteristics of organisation on delivery of general practice in 34 countries relates to quality and equity.
**Background**

European countries, Australia, Canada and New Zealand are characterised by a variety of models of organisation and provision of general practice. This rich diversity makes this setting a laboratory for comparative research. It allows us to study the relationship between these various models of organisation and outcomes in terms of quality and equity.

**Content**

This symposium entails a combination of presentations. Specific attention will be paid to the relevance of results for Nordic countries. The first presentation will focus on the workload of GPs: how does this vary between and within countries and how does this affect the quality as perceived by patients? This currently an important issue in many countries due to an increasing complexity of patient care. The second presentation goes into avoidable hospitalisation for chronic ambulatory care sensitive conditions (ACSC), which are often used as quality indicators of primary care. Which aspects of the process in general practice (accessibility, continuity, comprehensiveness and coordination) are associated with the rates of avoidable hospitalisation for ACSCs? The third presentation goes into an important equity issue: social differences in patient perceived discrimination. Research studying perceived discrimination has, up until now, focused mainly on the outcomes of discrimination. This presentation provides insight in the differences between social groups regarding perceived discrimination in general practice. Finally, an overarching presentation will provide insight in models of organisation which could be identified in the 34 countries. How do these different models relate to outcomes of quality (e.g. waiting times for an appointment) and equity (e.g. the postponement of a needed GP visit)?

**Method**

A cross-sectional survey was held among around 7,000 GPs and 70,000 patients in European countries - including the Nordic countries, Australia, Canada and New Zealand in the framework of the QUALICOPC study. The study entails a multilevel design in which the information of patients can be linked to the information collected among the GPs they visited.

**Other considerations**

This symposium is linked to another QUALICOPC symposium (by Kosunen et al) which goes into specific issues for the Nordic countries.

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**What is there in self-rated health?**

Göran Waller¹, Annika Forssén¹, Tora Grauers Willadsen², *Anni Brit Sternhagen Nielsen², Hans Johan Breidablik³, Eivind Meland⁴,* on behalf of moderator

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**Objectives**

To discuss the use of self-rated health (SRH) in General Practice.

**Background**

General Practitioners’ and patients’ evaluation of the patient’s health may differ. The patients’ own health perception, measured by a single question, known as SRH, has shown to predict future morbidity, use of health services, and mortality. Those with poor ratings were worse off than those with good ratings. How can the patient’s subjective assessment outdo both clinical assessments and biochemical measurements? What is there in self-rated health?

**Content:**

Based on our own studies and the literature we will present findings of SRH as a prognostic marker; SRH’s role in diabetes care; SRH as predictive of the bodily burden of stressors; SRH in consultations in General Practice. Finally we will together with the participants in the seminar discuss:

– Do the patients have a personal knowledge of some resources/predisposing “factors” that
we as GPs not always recognize?

– Why do patients rate their health as they do? Does knowledge about the patients’ reason for their measure provide information about what may increase their health?

– Are there interventions that can strengthen SRH?

– How come that SRH is so predictive of mortality and morbidity?

– How to use SRH in General Practice?

**Method**
Seminar method. Short presentations. Small group discussions.

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**405-SY**

**Nordic models for securing GP:s learning – what can we learn from each other?**

**Gösta Eliasson¹, *Roar Maagaard²**, Johann A Sigurdsson³, Robert Tunestveit⁴, Elise Kosunen⁵, Ida Liseckiene⁶

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**Objectives**
To discuss pros and cons as well as lessons learnt from systems used to secure GPs continuing professional development (CPD).

**Background**
The design of CME/CPD systems varies considerably between different countries and knowledge about pros and cons of other countries’ learning systems is quite sparse.

The EU Parliament has recently amended the Directive of recognition of professional qualifications, emphasizing the responsibility of EU countries to facilitate continuing professional development (CPD) among professionals.

**Content**
During this symposium, educationalists from Denmark, Norway, Finland, Island, Lithuania and Sweden will give a brief outline on how CME/CPD for general practitioners/family physicians is organized, secured and regulated in Nordic countries.

Then, by highlighting perceived strengths and weaknesses of each system, they will reflect on how to support innovation and development of learning structures in order to achieve a more robust system. At this stage, the audience will be invited to join the discussion.

This event will end up with a presentation of the lessons learnt from the symposium, which might be of help for those who want to get guidance in developing existing national systems.

**Method**
Presentation followed by discussion with participation of audience.

**Other considerations**
Participating countries: Sweden, Denmark, Island, Norway, Finland and Lithuania.

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**406-SY**

**Person Centred Medicine – a humanistic approach to the clinical foundation of Family Medicine**

**Annette Sofie Davidsen¹, *Josabeth Hultberg²*, *Lise Dyhr³*, *Lotte Hvas³*, *Bente Prytz Mjølstad⁴, *Linn Getz⁵**

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⁵Department of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim, Norway.
**Objectives**
To gain a better understanding of the concept of Person Centred Medicine (PCM) in the clinical context of general practice and to discuss how PCM is a useful way of meeting some of the challenges in “the changing world” of healthcare.

**Background**
The ability to understand the patient and what the patient tries to communicate is essential for practicing medicine. We need a theory for this process of understanding in the clinical reality in order to make the best possible use of (the ever increasing) biomedical knowledge.

Clinical biomedicine only covers parts of the GP’s work. The biomedical thinking must be put into a context with a focus on understanding patients in their narrative and biographical situation and in a relationship with the health care professional.

**During the last** decade the concept of PCM has gained footing, in a clinical as well as in an academic context, to meet the challenges of the changing conditions of primary care. The concept has been used in a humanistic sense, but also to signify an individualized biomedical approach. In addition, the concept of PCM overlaps with related concepts such as patient-centredness (PC).

Narrative medicine is considered to capture the dimension of understanding, but also adds other aspects. Mentalization is a newer concept, developed in psychology during the last decades, to describe the understanding in professional relationships. Mentalization takes its point of departure in a narrative context and in this way links can be formed to narrative medicine.

**In order to** discuss the dimension of understanding patients in our clinical work we must formulate a theoretical approach and define relevant concepts. Our professional identity needs to incorporate both the biomedical, and the dimensions of understanding and relating to patients as persons. If we cannot formulate this important aspect and discuss it theoretically as well as in the clinical setting we miss one of the core values of Family Medicine.

**Content**
We will explore the concept of PCM and related concepts and approaches as a core value of Family Medicine and subsequently discuss how these concepts apply to the understanding of patients in the daily clinical work in general practice.

**Method**
Four different presentations with a point of departure in the above mentioned concepts and subsequent discussion of related concepts to come to a common understanding that is useful in general practice. Each of the above mentioned concepts including clinical examples will be presented and followed by discussion.

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**407-SY**
**Equitable care in diabetes: High risk patients: How to spot them and the effect of treating them**

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¹Karolinska Institutet, Huddinge, Sweden.
²University of Copenhagen, Copenhagen, Denmark.
³University of Oslo, Oslo, Norway.

**Objectives**
To present results from the treatment of subgroups of the population who are at increased risk of acquiring type 2 diabetes, and who are at increased risk of diabetic complications and death after the diagnosis of diabetes.

**Background**
Subjects with low socio-economic status, psychiatric comorbidity, cancer comorbidity, multimorbidity, and male sex as well as immigrants from non-Western/non-European countries, are at increased risk of both diabetes and increased risk of complications after diagnosis. Can the general practitioner spot these patients and increase the quality of their care?
Abstracts

Wednesday 13.30 – 15.00

Content
Diabetes educational programs for non-Western immigrants as well as campaigns in the society to increase knowledge about diabetes in these populations will be discussed. Structured treatment programs in primary care for dealing with patients with type 2 diabetes will be presented and discussed. Focus will be on groups at high risk of diabetic complications and the effect of increasing the quality of the treatment of these patients: Patients with psychiatric disease, cancer, multimorbidity, male sex and multiple outcomes. The general practitioners’ existing knowledge of patients’ life circumstances, motivation and effort in diabetes management should be included in treatment strategies to prevent diabetic complications.

Method
We will present data from clinical and registry-based studies from primary care.

Other considerations
In the daily clinical work in general practice it is important to identify subjects at high risk of type 2 diabetes as well as patients at high risk of diabetic complications and early death. It is equally important to focus on improving the treatment quality for these high-risk groups.

Symptom control and medical treatment in end of life care

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3Unit for Research and Development, Kronoberg County Council, Department of Clinical Sciences, Malmö, Family Medicine, Växjö/Lund, Sweden.

Objectives
Presenting the Danish national guidelines for GP’s in palliative medicine 2014 with focus on symptom control and medical treatment in end of life care.

Background
New national guidelines in palliative medicine for GP’s were published in spring 2014 by DSAM (Dansk Selskab for Almen Medicin). The guidelines focus on the three basal elements in Palliative medicine, organisation, communication and symptom control. In this workshop we will focus on symptom control, treatment, tools and skills that can improve the treatment in end of life care in a primary health care setting.

Other considerations

The role of the GP in Traffic Medicine Issues in the Nordic countries

Lars Englund1, *Timo Tervo*, *Henrik L Hansen*, *Nils Moe*,*

1Road and Rail Department, Swedish Transport Agency, Borlänge, Sweden.
2Professor of Traffic Medicine, Helsinki University Eye Hospital and Uusimaa traffic accident inspection board, Helsinki University, Helsinki, Finland.
3Department of Danish Health and Medicines Authority, Copenhagen, Denmark, 4Norwegian Directorate of Health, Oslo, Norway.

Objectives
What does practice among GPs in the Nordic countries look like when it comes to finding medically unfit car drivers? What is working well and what difficulties do the rules and regulations in the different countries give GPs? What role do the GPs play in rehabilitation and medical controls after a conviction of drunk driving?
**Background:**
Traffic medicine could be defined as the contribution that the medical profession can give to traffic safety. It contains considerations pre crash, at crash and post crash, involving both the vehicle and the road, but most of all the driver.

The percentage of all holders of a drivers license that are older than 65 is increasing in all Western countries. As persons in this age also have been car drivers for all their life they will continue to drive which also means that a higher percentage of elderly persons are active drivers. Especially the percentage of older female drivers will rise steeply.

Many of the older drivers are very fit but we will see an increasing number of persons with age-related diseases that can affect their fitness to drive. Thus there is a need to ensure that persons with diseases that make them dangerous in traffic will be sorted out. In this process society needs the help of doctors and in many cases this doctor will be the local GP. The role of the GP differs in the Nordic countries where some has an obligation for the GP to report to the authorities when a patient is unfit to drive while in other countries there are periodic medical examinations or obligations for the drivers themselves to report.

The diseases that are most prominent in elderly persons are the ones that affect cognitive functioning as in dementia and with sequelae after a stroke. The dangers in traffic makes these persons at increased risk in accidents in complicated traffic at intersections and when not yielding for traffic on a road with more heavy traffic. Problems with visual field defects after a stroke could also affect the ability to notice a pedestrian or bicyclist in time.

Apart from this there is also the role of the GP when it comes to persons (of all ages) with a diagnosis of dependency or abuse of alcohol. In most Nordic countries a person who had his license revoked after a drunk driving conviction has to prove that he is sober enough to get his license back by giving blood samples and by meeting the GP over a period of time. Alcohol interlock is used in some countries.

**Other considerations:**

**Points for discussion:** What are the advantages and draw-backs of the different systems as far as the GP is concerned? What can GPs from each country learn from the other countries?

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**410-SY**

**Quality improvement using data from the clinical record – what happens in the Nordic countries?**

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2Conmedic, Helsinki, Finland, 3SKIL, Oslo, Norway.
4DAK-E, Odense, Denmark.

**Objectives**
To give an up-date how clinical data is collected and used for quality improvement (QI) in primary care in the Nordic countries.

**Background**
There is a need for clinical data in quality improvement and for research in general practice.

**Content**
In Denmark data capture has been in use since 2006. Voluntary project at start but since april 2013 it has become mandatory to use Sentinel Data-capture module for specific chronic diseases. There is an on-going debate in Denmark concerning use of data collected for quality improvement for other purposes.

In Finland samples of clinical data have been used for twenty years in QI of chronic diseases. Now data are partly collected with data capture. Systematic reviewing and process development are keys to improvement. In Norway capture of data from primary care has been limited to projects. An OECD review of Health Care Quality in 2014 points to the need for the development of better quality indicators in primary care, for improvement use on the local level. A National Quality Register is currently in preparation by the Directorate
of Health. The Norwegian medical association has established a free standing organisation (SKIL – Senter for kvalitet i legekontor) which will use quality data extraction with existing software and aim for the establishment of an organisational database for primary care.

Today about 100 disease specific quality registers exist in Sweden but few data are captured from primary care. Now the preparations for a National Quality Register are coming to its final phase.

**Method**
Presentations from each lecturer and concluding collective discussion.

**Other considerations**
Possibilities and barriers for data from the clinical record to contribute to QI in primary care.

Updated information about the current situation as well as plans for the future will be presented from Denmark, Finland, Norway and Sweden.

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**411-WS**

**Physician, heal thyself! – the doctor as a patient**

**Helena Galina Nielsen1, *Bodil Marie Nielsen2, Elin Olaug Rosvold3, *Dorte Kjeldmand4,**

1Research Unit for General Practice Copenhagen, University Copenhagen, Copenhagen.
2Research Unit for General Practice, University Aarhus, Aarhus, Denmark.
3Department of General Practice, Institute of Health and Society, Oslo, Norway.
4Dep of Public Health and Caring Science, Health Services Research, Uppsala University, Uppsala, Sweden.

**Objectives**
The aim of the workshop is to raise the awareness of how we as doctors take care for ourselves and address our own health and fragilities in professional life.

**Background**
In recent years more focus has been addressed to the dilemma of doctors’ self care and help seeking behaviour. Doctors lack training in how to access appropriate self-care and how to treat their peers. While a doctor–patient often expect to be treated like a ‘normal’ patient, yet the treating doctor often fail to satisfy this expectation.

**Content**
Taking departure from our research projects and own experiences as doctor-patients we will discuss and reflect on our dilemmas as helping professionals to raise the awareness about self care as a part to professional development.

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**421-OP**

**“So if my tests are negative, what is causing my symptoms?” Towards a rational explanation**

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1Research Unit for General Practice, Uni Research Health, Bergen, Norway.
2Division of Applied Health Sciences, University of Aberdeen, Aberdeen, United Kingdom.
3Department of Primary & Community Care, Radboud University Nijmegen Medical Center, Nijmegen, Netherlands

**Background**
Medically unexplained symptoms (MUS) are highly prevalent in primary care. Sustained reassurance does not automatically follow from negative diagnostic tests, and patients who continue to consult their general practitioner (GP) are likely to receive further, possibly unnecessary tests, and treatments.

**Objectives**
To present our newly published essay: “Explaining symptoms after negative tests: towards a rational explanation”(1).

**Material/Methods**
We argue that clinicians can provide acceptable explanations for symptoms, which persist after ruling out known physical disease and that this is a necessary counterweight to the power of diagnostic testing. We examine explanations from the perspectives of patients and clinicians.
and consider the different ways of explaining symptoms following negative tests.

**Results**

Building on earlier research, we propose these six characteristics of a rational explanation: (1) it is plausible (to both doctor and patient); (2) it does not imply weakness or fault on the part of the patient; (3) it promotes therapeutic partnership or action; (4) it applies a descriptive label (which need not be a specific diagnosis); (5) it addresses causation, although this may be through perpetuating mechanisms rather than root cause; and, finally, (6) it is created through dialogue between doctor and patient.

**Conclusion**

GPs need to become more skilled in suggesting explanations for persistent MUS after negative diagnostic tests. Our proposed rational explanation can be used as a guide with whom GPs can help their patients find meaningful explanations. There is a need for more research into effective explanations for MUS.

**Points for discussion**


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**Practice facilitation – the black box**

**Tina Due1, Marius Brostrøm Kousgaard1, Frans Boch Waldorff2, Thorkil Thorsen1**

1The Research Unit for General Practice and Section of General Practice, Department of Public Health, University of Copenhagen, Copenhagen.

2Research Unit of General Practice, Department of Public Health, University of Southern Denmark, Copenhagen, Odense, Denmark.

**Background**

Practice facilitation is widely used internationally in guideline implementation and practice development in primary care. It involves an external person visiting the practice and supporting a process of change. However, there is limited conceptual clarity and lacking knowledge of the enactment of facilitation.

**Objectives**

The purpose of this case study was to explore how the act of facilitation is practiced among peer facilitators in general practice, to further the understanding of the concept and provide areas of attention for future intervention design and reporting.

**Material/Methods**

The case is a facilitator project from Capital Region of Denmark. The project purpose was to support implementation of disease management programmes in general practice. Practices were offered three one-hour visits by a GP facilitator. The facilitator was to be a sparring partner and colleague rather than an expert.

An explorative approach was chosen in both data collection and analysis. Project initiators and managers were interviewed. 28 facilitator visits were observed in 13 practices. The 10 facilitators from the observed visits were interviewed and focus groups were made with all facilitators. A thematic analysis was performed using an inductive approach.
Results
In this case of peer GP facilitation diverse facilitation modes were present. The facilitators passed on inspiration and enthusiasm towards practice change and implementation of new systems, provided experienced based and factual knowledge through presentations and hands-on approaches and became a deadline rather than enabling reflection and internal discussion at the visits. Despite elements of a practice driven approach there were also several examples of facilitator driven elements. Several variations appeared in the enactment of facilitation, regarding choice of topic, structure of the visits, facilitation mode and degree of practice versus facilitator driven aspects. Variations seemed influenced by both variations between practices and variations between facilitators due to differences in their translation of the concept of facilitation.

Conclusion
Facilitation is a complex concept in both perception and enactment. Diversity in facilitation modes, practice versus facilitator driven processes and practice versus facilitator dependent variations highlight a need for caution when comparing studies and a need for further discussions of the concept of facilitation.

Points for discussion
What is the preferred balance between different facilitation modes, does it make sense to combine them in one concept and is it meaningful to talk of facilitation as a continuum of approaches? What are the challenges of facilitators being peers?

How to develop new skills and procedures

Mikkel Granlien1,*
Praktiserende lege Mikkel Granlien, Allerød, Danmark, Allerød, Denmark

Background
In the daily work, we know quite well, when to refer a patient to hospital or to a specialist. Strong traditions are taught to us from the early study days, as a hospital employee and continues during our general practice throughout life. Referrals and procedures are to a high degree carried out based on traditions and on untold consensus, which rules the profession.

The aim is to describe how you can pick up examinations, treatments and skills, which for the moment isn’t a part of your regular repertoire or which might be considered as items that should be referred to a specialist.

Objectives
As an example I will describe how I picked up the field of examination and treatment of skin cancer. I describe the steps that led from referring all suspected skin cancer cases to the present status, where diagnosis is carried out in my surgery and a substantial part of the patients are treated instead of being referred to dermatologist or hospital.

Material/Methods
10 steps that led to the present condition, where skin cancer and patients demand for a skin cancer check are handled in my surgery instead of being referred to a dermatologist or hospital.

Results
For the last 10 years I have diagnosed 156 cases of skin cancer (10 melanomas, 138 basalcell cancers, 6 planocellulare cancers and 2 others). All melanomas have been referred to further examination (sentinel node diagnosis) and eventual re-excision.

Most off the basalcell cancers have been treated in the surgery; some has been referred to plastic surgery or other treatment. All of

Skin cancer can be diagnosed and treated in general practice. “
planocellulare cancers have been referred to irradiation or for further surgery.

**Conclusion**
Skin cancer can be diagnosed and treated in general practice as well as by dermatologists.

**Points for discussion**
It is always challenging when you as a generalist decide to handle a topic, that traditional are handled by specialists. What are the benefits and might there be any disadvantages? Is there a need to prove your competence? Does it result in a conflict with the specialists? What is the outcome for your patients, the clinic, the specialist and yourself as a general practice doctor?

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### 424-OP

**Reforming continuous professional development for GPs**

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**Background**
Denmark has a voluntary individually planned CPD programme based on approved and funded CPD activities and Danish GPs are participating in broad range of CPD activities. An international discussion of the feasibility and effectiveness of CPD has reached Denmark, and the GPs and the Public Health Contractors have agreed to reform the CDP programme. The voluntary and individual planned CPD is to be supplemented with a systematic centrally planned programme. In this process we explored the GPs’ preferences for future CPD followed by a multidimensional learning need analysis. This abstract will present the GPs’ preferences and initial data from the learning need analysis.

**Objectives**
To design an effective and feasible CPD programme for GPs.

**Material/Methods**
A questionnaire enrolling 1/3 of all Danish GP were performed. The questionnaire included a discrete choice experiment. A multidimensional learning need analysis was performed. 15 practice-based small learning groups and a group appointed by the Public Health Care Contractors were asked to identify learning needs. Followed by a validation process to be performed by GP researchers and a special appointed GP group, which will focus on narrative person centred medicine. The Danish family medicine curriculum are used as reference in all the analysis.

**Results**
Questionnaire response rate was 686/1,079 (63%). GPs had following preferences for a future CPD programme: Option to exchange experience with colleagues. Focus on implementation of new knowledge into practice. Ensure 10 days of CPD activities per year. CPD programmes where 50% are planned by a central organisation and 50% are planned by the individual GP Teachers with a profound insight and knowledge about general practice. There was neither an overall request for appraisal, nor for more CPD activities based on interactive learning strategies. There was however variability in GPs’ preferences.

The data analyse of the learning needs are still in progress, the initial result will be presented at the presentation.

**Conclusion**
Danish GPs are open towards combing individual planned voluntary CPD activities with a central planned programme based on a multidimensional mutual learning need analysis. But it has to focus on how to implement knowledge in practice, allow exchange of experience and be based on the profound understanding of the context of general practice.

**Points for discussion**
Do a multidimensional need analysis approach make sense for trained GPs? How can we maintain and stimulate professional commitment/ working joy if we have make part of the CPD programme mandatory? How can we ensure CPD activities will have an impact on the following clinical performance?
425-OP

Improvement of diabetes care in the Faroe Islands by Means of APO audit

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²General Practice, General Practice, Thorshavn, Faroe Islands.
³Department of General Practice, Aarhus University, Aarhus, Denmark.

Background
The most important steps in the treatment of diabetes are lifestyle changes, diet, physical activity and smoking cessation, which in addition to adequate treatment/management of hypertension and hypercholesterolemia plus lowering of blood sugar reduce the risk of long-term complications in diabetes. Diabetes care in general practice should focus on these and other items important for reducing complications and mortality from the disease.

Objectives
To improve general practitioners’ diabetes care in the Faroe Islands.

Material/Methods
Based on the APO method 14 GPs in the Faroe Islands performed a prospective registration of all their consultations with persons with diabetes within three months during the winter 2011/2012 and repeated the registration in a similar period in the winter 2013/2014. Between the two registrations educational activities took place.

At each consultation clinical examinations, laboratory tests, risk factors, specific treatment for diabetes plus other pharmacological treatment and information about the consultation were registered.

Results
In the winter 2011/2012 322 cases were registered, in 2013/2014 the number was 600. From the first to the second registration there was a significant increase (p < 0.05) in the frequency of planned consultations and examinations for micro albuminuria. Examinations by ophthalmologists and chiropodists as well as treatment by oral antidiabetics and statins increased significantly. However, the mean level of HbA1c remained unchanged.

Conclusion
The audit resulted in a desired increase in several important process indicators for good diabetes care. However, the overall regulation judged by the mean HbA1c level in the population registered remained unchanged.

Points for discussion
What should general practice focus mostly on in order to provide better diabetes care? Why did we not succeed in changing the HbA1c level? What should be done in collaboration between the community and general practice in diabetes care?

426-OP

Near-patient tests and the clinical gaze in Swedish GPs not following current guidelines for sore throat – a qualitative interview study

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Background
Excessive antibiotics use increases the risk of resistance. Previous studies have shown that the Centor score combined with RADT for GAS can reduce unnecessary antibiotic prescribing in patients with sore throat. According to the former Swedish guidelines RADT was recommended with 2–4 Centor criteria present and antibiotics were recommended if the test was
positive. CRP was not recommended for sore throats. Inappropriate use of RADT and CRP has been reported in several studies.

**Objectives**
To deepen the understanding of GPs’ use of near-patient test in patients with sore throat

**Material/Methods:** From a larger project 16 GPs who stated management of sore throats not according to the guidelines were identified. Half-hour long semi-structured interviews were conducted. The topics were the management of sore throats and the use of near patient tests. Qualitative content analysis was used.

**Results**
The use of the near-patient test interplayed with the clinical gaze and the perception that all infections caused by bacteria should be treated with antibiotics. The GPs expressed a belief that the clinical gaze was sufficient for diagnosis in typical cases. RADT was not trusted since it detects only one bacterium, while CRP was considered as a reliable numerical measure of bacterial infection.

**Conclusion**
Inappropriate use of near-patient test can partly be understood as remnants of outdated knowledge. When new guidelines are introduced the differences between them and the former need to be discussed more explicitly.

**Points for discussion:**
How could the implementation of new guidelines be improved?

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**Background**
Little is known about how and when pelvic examination (PE) is done in general practice, including frequency of PE, indications for PE, and how it is performed technically. Norway has a registered list system with general practitioners (GPs) as gate keepers to secondary care.

**Objectives**
This study was conducted to investigate:
- the number of PE performed by GPs over a defined time period.
- how GPs assess indications for PE.
- procedures for PE in general practice.
- attitudes towards referral to gynecologist on a woman’s request without medical indication.
- reasons for not doing a PE in general practice when there is a medical indication.

**Material/Methods**
The study is conducted as a limited survey of GPs in Western Norway. Final year medical students at the University of Bergen have 4 weeks workplace practice in primary care. In the period of January-March 2015, 70 medical students will distribute a questionnaire regarding PE to all GPs (n=200–250) in the practices. The data will be analyzed with standard statistical methods. The study has been placed before the Medical Ethics Board.

**Results**
The data will be analyzed after completed data collection in March 2015. The results will be presented at the conference.

**Conclusion**
The study will investigate variability in how and on which indication GPs perform PE.

**Points for discussion**
What could be possible reasons for not doing a PE in general practice although the procedure is medically indicated?

How common is referral to gynecologist on women’s request without medical indication?

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**Pelvic examination in general practice. A survey from Western Norway**

**Stefan Hjørleifsson**, *Guri Rørtveit*, Yngvild Hannestad, Eivind Meland, Gunnar Tschudi Bondevik

*Research Group for General Practice, University of Bergen. Research Unit for General Practice, Uni Research Health, Bergen, Norway.*
428-OP

Investigating the Value of Susceptibility Testing as a Point of Care Test. A Randomized Controlled Trial in General Practice

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Background
Antibiotic resistance is one of the most important threats to human health. Primary health care in Denmark prescribes 90% of all redeemed prescriptions of antibiotics and it is known that a high outpatient consumption of antibiotics leads to high levels of resistance. In 2008, 1.8% of all patients consulting their general practitioner (GP) in 2008 were diagnosed with a urinary tract infection (UTI) and resistance levels in E. Coli in urine samples is now the same in primary care as in the hospital sector in Denmark. With increasing resistance, the need for precise microbiological diagnosis will increase. Earlier studies have shown divergent results with regards to the value of point of care susceptibility testing (POCST). Since, new media have been introduced for POCST, and results of validation studies are promising. This study investigates the value of POCST in primary care.

Objectives
The aim of this study is to investigate whether point of care susceptibility testing and targeted antibiotic treatment of patients with uncomplicated urinary tract infection in general practice will improve correct choice of antibiotic, clinical remission and bacteriological cure rate compared to urine culture without susceptibility testing and empiric treatment.

Material/Methods
750 patients with symptoms of uncomplicated urinary tract infection, consecutively contacting their GP, randomized to either urine culture and empirical treatment or urine culture and susceptibility testing and targeted treatment. Culture and susceptibility testing is performed as point of care tests. All patients fill out a symptom-diary and have control urine sent to the microbiological department on day 1 and 14.

Results
So far 17 GP clinics with 32 GPs have been recruited. They are receiving training in POCST and are completing an online test. The pilot study will run in December 2014 and January 2015. Inclusion of patients will begin in March 2015.

Conclusion
There is an increasing need for precise microbiological diagnosis in primary care and POCST could be a way to be guided towards a good choice of antibiotic.

Points for discussion
How much better should the intervention group perform to justify susceptibility testing for uncomplicated urinary tract infection?
We have chosen to delay treatment for one day until the test result is ready. How acceptable would this be in other countries?

429-OP

Acute Appendicitis at Te Puna Hauora Clinic- A busy General Practice, Auckland, New Zealand

Hardeep Hundal1,*

1GP, TE PUNA Hauora, AUCKALND, New Zealand.

Background
Appendicitis is a very common acute surgical emergency. This condition is extremely difficult to diagnose at early stages. There are many differential diagnosis that mimic acute appendicitis. It also remains a burden to the Acute Surgical Team as they may be facing many referrals by primary health care providers what is actually not acute appendicitis. To aggravate the situation further, the cost of operating and discovering a normal appendix is high.

At the General Practice it is extremely challenging to refer or not to refer to the General...
Surgical team at the hospital. Differential diagnosis includes mesenteric adenitis, ovarian rupture, gastroenteritis, other Gastrointestinal and Gynaecological diseases.

Most common Symptoms of acute appendicitis are migratory RIF Pain, nausea and vomiting and anorexia. Most common SIGNS of appendicitis include right iliac fossa tenderness- McBurney’s tenderness, fever and rebound tenderness on the left iliac fossae. Lab investigations include leucocytosis and neutrophilic shift to the left.

Most common investigation at the GP setting is a urine dipstick test. This will rule out Urinary tract infections if there is a positive leucocyte. Other investigations included a blood test for a Full Blood count and a CRP.

Alvarado scoring system is a 10 point system used to diagnose acute appendicitis. It is often used by surgical and emergency medicine residents to diagnose acute appendicitis. This scoring system is safe and can be used in the General Practice setting.

**Objectives**
To test if the Alvarado SCORING System is effective in the primary setting for patients with Right iliac fossa pain.

**Material/Methods**
From August 2013 to August 2014, 58 patients with Right Iliac fossa were evaluated using the Alvarado scoring system. Patients scoring 6 or >6, were immediately referred to the Acute General Surgical Registrar. Almost all 100% patients were accepted by the General Surgery Department for further investigations + appendicectomy. Patients scoring less than 6 were advised to be monitored, watch and wait and referred to have their blood tested to check for Full Blood Count and CRPs. All 58 patients had to undergo a routine urine dipstick test.

**Results**
Alvarado Scoring system was a good scoring system when used in adults and paediatrics setting. 13 patients scored more or equivalent Alvarado score of six and were subsequently referred to hospital directly to the General Surgery/Paediatric General Surgery Department. 9 were males and 4 were females. All had their appendix removed and only 2 females had normal appendix.

45 patients scored an Alvarado score less than six. Only 9 patients were subsequently referred to hospital after two or three days.

**Conclusion:**
Alvarado Scoring is a sensitive and specific scoring system for appendicitis.

**Points for discussion:**
Any scoring system should be adaptive to the local setting and scoring systems are very useful.

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**430-OP**

The use of point-of-care ultrasound in general practice. A systematic review

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**Background**
The use of point-of-care ultrasound (US) is increasing in medical undergraduate training and in most clinical specialties including general practice (GP). Yet, we have found no review of the literature describing the use of US in GP.

**Objectives**
To evaluate the literature regarding the use of point-of-care US in a GP setting and the training of general practitioners using point-of-care US. In addition to the clinical aspects, we aimed to include information regarding the patients’ perspective and economical aspects.

**Material/Methods**
A review protocol was composed specifying search strategy, inclusion/exclusion criteria, and data extraction. By May 2014 we searched the databases Pubmed and Embase using search terms related to ultrasonography (US) and general practice (GP). We evaluated: 1. What was point-of-care US used for by general practitioners? 2. What training had the general prac-
titioners received prior to using point-of-care US? 3. How often were scans done by general practitioners indicated? 4. How much extra time was used on point-of-care US done by general practitioners? 5. What was the quality of the scans performed by a general practitioner? 6. What was the patients’ perspective on scans done by general practitioners? 7. What are the economical aspects of point-of-care US done by general practitioners.

Results
There is large heterogeneity in the reported training and use of point-of-care US by general practitioners, but active general practitioners who used US for a broad area of clinical application reported scanning 2–3 times a day. Generally the described quality of the scans was satisfactory and the time it took to do a point-of-care US examination was reasonable (often ≤10 minutes). That the general practitioner performs point-of-care US scan is in agreement with patients’ preferences. Furthermore, it is probably cost-effective. However, the risk of bias of the reported studies were rated as high as there were no randomized studies evaluating the use of point-of-care US by general practitioners and most studies had few participants who may not be representative for the majority of general practitioners.

Conclusion
Generally, the use of point-of-care US in GP is reported as being advantageous. However, we need high quality studies that further describe the quality of the scans in broader groups of general practitioners, further explore how general practitioners should be trained to acquire and retain sufficient competence in point-of-care US, and evaluate the clinical course of patients exposed to scanning general practitioners.

Points for discussion
What should we use point-of-care US for in GP and what training in point-of-care US should general practitioners have?

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The use of ultrasound in general practice in different European countries

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Background
The use of point-of-care ultrasound increases rapidly in general practice. We were involved in developing guidelines for teaching point-of-care ultrasound for general practitioners in Denmark and we were curious about how it was done in other countries.

Objectives
To collect information about the use and organizational aspects of point-of-care ultrasound in general practice in different European countries.

Material/Methods
We conducted a cross-sectional survey among key persons with knowledge about the use of ultrasound in general practice in Austria, Catalonia, Denmark, Finland, Germany, Greenland, Iceland, the Netherlands, Norway, Scotland, Sweden and Switzerland.

The participants received a link to a web-based questionnaire with questions about organizational structure and the educational aspects regarding point of care ultrasound, clinical indications/applications and use, economical aspects, ethical questions, research, and main barriers for using ultrasound in general practice.

Results
In eight out of 12 countries/regions there was a national society for the use of ultrasound in general practice, but the organizational structure differed. The respondents from three countries reported that the use of ultrasound was integrated in the undergraduate education. In nine of the countries/regions there were formalized education for general practice for general
practitioners, but only three reported it to be part of the specialization to become a general practitioner. In seven out of 12 countries general practitioners received payment for doing ultrasound scans. However, the payment differed between countries and so did the requirements (certification) for reimbursement.

“Economical aspects” was reported to be a “very important/important” barrier in 80% of the countries/regions, “lack of time” by 2/3, and “lack of education” by 60%.

**Conclusion**

There were significant differences regarding the use and organizational aspects of point-of-care ultrasound in general practice across the participating countries. Economy was generally the most important barrier to general practitioners use of point-of-care ultrasound.

**Points for discussion**

How should ultrasound be integrated into the future educational curriculum and daily work of general practitioners? How can this be achieved?

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**432-OP**

Lifestyle advice and lifestyle change: to what degree does lifestyle advice of healthcare professionals reach the population, focusing on gender, age and education?

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**Background**

Health promotion practice in health care has a high priority in the endeavour to achieve equal opportunities for health and diversity in health among the population.

Objectives: The purpose of the study was to investigate whether there is any connection between the lifestyle advice given by healthcare professionals and the lifestyle change of the population, focusing on age, gender and education level.

**Material/Methods**

The study is based on the data from a national population survey in Sweden in which 52,595 patients who had attended health care were interviewed by phone. The participants were asked whether healthcare professionals had raised the subject of lifestyle during the visit and whether the advice they gave had contributed to lifestyle change.

**Results**

The results indicated that lifestyle issues were raised with 32.2% of those who attended health care, particularly among men, younger patients and those with a high education level. When lifestyle issues were raised, the advice contributed to 39.2% of patients making a lifestyle change, to a higher extent among men, older patients and those with a low education level. The study shows that lifestyle advice given by healthcare professionals, during both emergency and outpatient healthcare visits, is an important contributor to patients’ lifestyle change.

**Conclusion**

The study demonstrated that raising lifestyle issues could be effective, both in emergency and in outpatient visits. Such issues, however, were only raised in a third of healthcare professionals’ encounters with patients but lifestyle advice given by healthcare professionals can contribute to patients lifestyle change.

**Points for discussion**

Healthcare professionals need to become more aware of the importance of the impact that their lifestyle advice has on their patients’ lifestyle change and about the importance of discussing lifestyle change with all patients.
Mental Distress and the Prognosis of Myocardial Infarction – Spousal Bereavement as a Natural Experiment

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Background
Mental distress is common after myocardial infarction (MI) and associated with a 2–3 fold higher mortality, but it remains unclear, whether it is a causal factor or merely a marker of MI severity. Spousal bereavement is a major life event causing numerous mental reactions and can be assumed independent of MI severity. Thus, it may resemble a natural experiment, well suited to study the causal effect of mental distress on MI prognosis.

Objectives
To investigate, whether spousal bereavement shortly after an MI affects the prognosis.

Material/Methods
Using Danish nationwide registers, we identified all incident MI events from 1980 through 2009 excluding patients with a history of valve disease or ischemic heart disease as well as patients dying on the day of their first MI. The cohort was followed for up to 4 years ending December 2013, and members were linked to spouses’ death dates. Mortality was analysed using Cox regression with time after MI as the scale and bereavement as a time dependent exposure. Results were adjusted for calendar period, sex, age, cohabitation status and Charlson indexed diseases before the MI date.

Results
247,273 incident MI patients were identified. 40,095 died within 30 days, additionally 23,065 within 1 year, and 34,619 within the next 3 years. 261 lost a spouse within 30 days, additionally 1,802 within 1 year, and 4,819 during remaining follow-up. MI patients experiencing spousal bereavement had a 17% higher adjusted mortality rate (MRR and 95%CI:1.17 [1.11–1.23]). The MRR was considerably higher the first 30 days after bereavement (1.45 [1.23–1.71]), for men (1.28 [1.20–1.37]) and possibly for patients above 80 years (1.31 [0.97–1.77]). The MRR increased markedly over the study period, reaching 1.51 [1.38–1.65] the last ten years.

Conclusion
Spousal bereavement after MI was associated with a significantly increased mortality, particularly on short-term and among males. The effect of bereavement increased during the study period, thus partly counterbalancing the general improvement of MI prognosis. Non-compliance to modern rehabilitation may play a causal role.

Points for discussion
Is psychosocial focus during rehabilitation sufficient? What is the role of general practice?

Long-term risk of atrial fibrillation after the death of a spouse: A nationwide population-based case-control study

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Background
The impact of psychological stress on the risk of atrial fibrillation [AF] remains unclear.
Objectives
We examined whether one of the most stressful life events, the death of a spouse, was associated with an increased risk of AF.

Material/Methods
We conducted a population-based case-control study by using nationwide health registers in Denmark. From 1995 through 2013, we identified 113,003 cases with a hospital diagnosis of AF and 1,130,030 age and sex matched controls based on risk-set sampling. We used conditional logistic regression to calculate odds ratios [ORs] with a 95% confidence interval [95% CI].

Results
Spousal bereavement was experienced by 33,411 cases and 323,849 controls and was associated with a transiently higher risk for AF; the risk was the highest 8–14 days after the loss of a spouse (1.99; 95% CI 1.48–2.67), thereafter it gradually declined to a level close to that for the non-bereaved one year after the loss. Overall, the OR of AF within 30-days of the bereavement was 1.37 (95% CI 1.17–1.60), but it tended to be higher among persons younger than 60 years (2.38; 95% CI 1.19–4.77), or whose spouse had a low expected mortality i.e. age-adjusted Charlson comorbidity index one months before death (1.69; 95% CI 1.30–2.19).

Conclusion
Spousal bereavement was followed by a transiently increased risk of AF lasting for one year. The increase was especially high if the loss of the spouse was unexpected.

Points for discussion
In a large population-based case-control study, we examined the association between spousal bereavement and the risk of new onset AF taking time since bereavement and confounders such as age, sex, comorbidity and medication into account.

Use of exercise tests in primary care: importance for referral decisions and possible bias in the decision process; a prospective observational study

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Background
Medical decisions are usually based on estimates of pre-test probability, which may be affected by irrelevant conditions, resulting in biased decisions that may be problematic for patients and providers of health care.

Objectives
We evaluated the results of exercise tests for selection of patients to cardiologic care, and if referral decisions were biased by sex, socioeconomicity or age.

Material/Methods
We designed a prospective observational study of 438 men and 427 women from 28 Swedish primary-care clinics who were examined with exercise testing for suspected coronary disease. All participants were followed-up with respect to cardiologist referrals and cardiovascular events (hospitalisation for unstable angina, myocardial infarction, and cardiovascular death) within six months and revascularisation within 250 days. Variables associated with referral were identified by multivariable logistic regression. Socioeconomic status was determined by educational level and employment.

Results: Positive/inconclusive exercise tests and exertional chest pain predicted referral in men and women. Of 865 participants, patients with positive, inconclusive, or negative exercise tests were referred to cardiologists in 67.3%, 26.1%, and 3.5% of cases, respectively. Overall, there was no significant difference in re-
ferral rates related to gender or socioeconomic level. Self-employed women were referred more frequently compared to other women (odds ratio (OR) 3.62, 95% confidence interval (CI) 1.19–10.99). Among non-manual employees, women were referred to cardiologic examination less frequently than men (OR 0.40, 95% CI 0.16–1.00; p = 0.049; ORs adjusted for age, exertional chest pain, and exercise test result). In patients with positive exercise tests, the referral rate decreased continuously with age (OR 0.48, 95% CI 0.23–0.97; adjusted for cardiovascular co-morbidity). Cardiovascular events occurred in 22.2% (4/18) of non-referred patients with positive exercise tests; 56% (10/18) of these patients were not considered for cardiologic care, with continuity problems in primary care as one possible contributing cause.

Conclusion
Exercise tests are important for selecting patients for referral to cardiologic care. Interactions between gender and socioeconomic status affected referral rates. In patients with positive exercise tests, referral rates decreased with age. Patients with a positive stress test are at high risk for cardiovascular events, and reasons for non-referral should be appropriately documented.

Points for discussion
An increased awareness of possible biases regarding age, gender, and socioeconomic status, which may influence medical decisions, is necessary.

Background
The YHIP study, which examined yoga as a treatment for primary care patients with hypertension, showed that a short home-based program of yoga had a blood pressure-lowering effect and a positive effect on self-rated quality of life. In view of this, we wanted to make a new and larger randomized study to confirm/further evaluate the effect of yoga on blood pressure. We also wanted to examine if the change in quality of life is related to stress, depression and anxiety.

Objectives
This study aims to evaluate yoga’s impact on blood pressure and on stress, depression and anxiety in primary health care patients with hypertension.

Material/Methods
Adult hypertensive patients (30–80 years) from three primary health care centers in southern Sweden, whose blood pressure when most recently checked at their primary health care center was 130–160/85–100 mmHg, were invited to participate in the study. The baseline assessment took place at the patient’s regular health care center. Blood pressure was measured in a standardized way, in a sitting position after 5–10 minutes of rest with validated electronic blood pressure devices. The patients also completed questionnaires on self-rated quality of life (WHOQOL-BREF), stress (PSS) and depression/anxiety (HADS). After the baseline assessment, the patients were randomized to either yoga or control group.

The patients randomized to yoga received, during a single 30 minutes GP consultation, information and instructions concerning two yoga exercises to perform 15 minutes two times per day during the intervention period. They also received a CD and a manual to facilitate their home exercises and a yoga diary in which to record details of when they had done yoga training. No changes were made for the control group, which received “treatment as usual.”

All patients were asked not to change their medication during the study.

After 12 weeks of intervention, all participants were reassessed for BP and questionnaires.
Results
Of the 1020 patients invited, 326 chose to participate and 312 turned up at the baseline assessment. Of these, 123 patients (39%) did not meet the inclusion criteria regarding blood pressure. The remaining participants (n=189) were randomized to either yoga (n=94) or control group (n=95).

Conclusion
Data from the study are currently being analyzed.

Points for discussion
– The effect of yoga on blood pressure, quality of life, stress, depression and anxiety
– Feasability of yoga as a treatment for high blood pressure in primary care.

Material/Methods
We performed a population-based, cohort study of over 1.1 million Swedish male conscripts who were followed for up to 42 years. Data on cardiovascular fitness and cognitive performance were collected during conscription exams and linked with the Swedish Twin Register, national databases for information on school achievement, socioeconomic status and hospital registers to calculate later risk of mental illness, epilepsy, stroke and early-onset dementia using Cox proportional hazards models controlling for several confounders.

Results
We have shown in twin models that physical fitness and cognitive ability at 18 years of age are positively correlated and that the association is not determined by genetic factors (Åberg et al., 2009). Our data also demonstrate that poorer physical fitness at 18 years of age leads to an increased risk of depression, suicide, epilepsy, stroke and dementia later in life (Åberg et al., 2012, Åberg et al., 2014, Nyberg et al., 2013, Nyberg et al., 2014). The highest risks were observed for individuals with a combination of low cardiovascular fitness and cognitive performance.

Conclusion
These findings indicate the importance of cardiovascular exercise during adolescence for cognitive capabilities and future brain health. From a public health perspective and from a lifetime perspective the issues of how physical activity, fitness and IQ are related over time to cognition and neuroprotection are central to obtain answers for, so that we can have a good basis for future prevention and intervention.

Points for discussion
– Although the results in the present population-based prospective study are compelling there are possible confounders that have not been accounted for.
– The adolescence is a crucial time for the development of higher brain functions. In addition it is in this age group that mental illness is currently rising the most.
– Physical fitness is not static, but could be affected by changes in life-style. Therefore, it
is also important to investigate if a change in physical fitness affects cognition and neuroprotection later in life.

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Infectious morbidity in 18-month-old children. A prospective study in Iceland

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Background
Infections are common among children and the most common reason for contact with the health care personnel at the primary care setting among children and parents with young children. Of those who seek help, respiratory tract infections are the most common. Prospective studies on this problem are rare, and little is known about infections in young children and their families, which does not lead to contact within the health care system.

Objectives
What is the prevalence of infectious diseases among young children and their families? How much of the infectious symptoms do the families deal with themselves, what is the rate of doctors’ visits and antibiotic prescriptions?

Material/Methods: During November 2012 till March 2014, parents who came for routine check-ups with 18-month old children at their Health Care Centres in five different municipalities in Iceland were asked to participate, answer a questionnaire, and fill out a logbook, day by day during the next 31 days, regarding the child. Main outcome measures were specific infectious symptoms, health care visits, rate and type of antibiotic prescriptions, use of tympanostomy tube.

Results
Of all children, 92.4% got symptoms of infectious diseases, of whom 65% had rhinitis as the most common symptom. The prevalence of days with symptoms was 36.1% (2788/7691) person-days. During the observation period 20% of the children had medical visits and 45% of those were treated with antibiotics, mostly penicillin. 19.4% of the children had been treated with tympanostomy tubes.

Conclusion
Infections are very common among 18-mohts old children. Parents manage to deal with most of them.

Points for discussion
1) Are families with young children prepared for the high incidence of infectious diseases among their children?
2) Can medical advice and support be improved to families with young children.
3) Can antibiotic prescribing be improved?

439-OP

Vitamin D status of Icelandic children and its influence on bone accrual

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Background
The importance of vitamin D on children’s bone-health has been well established, with long-lasting and severe deficiency causing rickets. The effects of less severe deficiency are not fully known and have been linked to various conditions.
Abstracts

Objectives
The main objective of this study was to assess the vitamin D status of Icelandic children at the age of 7, and again at 9 years of age, and the association of vitamin D status with bone mineral content and bone accrual over two years.

Material/Methods
In 2006 321 children were invited to this study and 267 (83%) took part. 211 (79%) underwent a DXA scan in 2006, and 164 were again scanned two years later. 159 (60%) vitamin D samples were measured in 2006, and 119 (75%) were measured again in 2008.

Results
At age seven 65% of the children had vitamin D concentrations under 50 nmol/L, and at age nine this figure was 60%. At age seven 43% of the children had insufficient amounts of vitamin D (from 37.5 to 50 nmol/L), and 22% had a vitamin D deficiency (under 37.5 nmol/L). Of the children that had vitamin D concentrations less than 50 nmol/L at age 9, 58% of them had also been under 50 nmol/L at age seven.

In linear regression analysis no association was found between vitamin D and bone mineral content. Furthermore, there was no significant difference in bone accrual over two years for the children with insufficient or deficient vitamin D at both ages, compared to those having over 50 nmol/L at both time points.

Conclusion
Over 60% of Icelandic children have inadequate concentrations of vitamin D in serum repeatedly over a two-year interval. However, vitamin D in the range measured in this study did not have a significant effect on bone mineral content or accrual at ages 7 and 9.

Points for discussion
The results of our study regarding vitamin D status show a higher prevalence of low vitamin D status in Iceland than previous studies in other Nordic countries have shown. Although our study did not show any association between vitamin D concentrations and BMC or bone mineral accrual, other studies have had different results. Thus, it is clear that more research on this topic is necessary, and randomized controlled trials could help eliminate potential confounding factors, both known and unknown.

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Children with fever and respiratory infections in out-of-hours services in Norway

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Background
Many out of hours (OOH) contacts are related to infections and respiratory sickness, especially in the youngest age group, and in the winter seasons. Many contacts are non-urgent in a strict medical sense. On site measurement of C-reactive protein (CRP) is the most frequent laboratory test in Norwegian OOH, used in 60% of all contacts with children with infections and respiratory diseases. CRP is aimed to differentiate between bacterial infections, viral and/or not serious infections and to keep the use of antibiotics as low as possible. Nevertheless, the use of antibiotics has increased since the test was introduced as a point of care test. Several studies have investigated the diagnostic value of laboratory tests for children with fever, but not in primary health care were the prevalence of serious bacterial infections is low.

Objectives
The aim of this study was to investigate what symptoms and clinical findings were associated with most serious infections at OOH-services and if the frequent use of CRP was of diagnostic significance for the choice of treatment and use of antibiotics.

Material/Methods
Randomized controlled observational study at OOH-services in Norway.
INCLUSION: Children < 7 year, presenting fever and/or respiratory symptoms to an OOH-service or a paediatric emergency unit.

RANDOMIZING: 1/3 randomized to take CRP before the consultation; else the doctor decides if the test is needed giving approximately 1/3 with CRP and 1/3 without.

DATA: clinical data from the consultation, questionnaire to parents before the consultations and 7 days after.

Results
The inclusion is in progress, we plan to include 500 children and per December 2014 217 children are included. Based on an interim analysis of first 217 patients the use of CRP and the antibiotic prescription was more frequent at OOH-services than at the pediatric unit, but there were no significant differences in the different CRP groups. The only clinical finding of significant value for serious illness (referral to hospital) was a high respiratory frequency. More results will be presented at the Nordic Congress of General Practice in June 2015.

Conclusion
The use of CRP and antibiotic prescription are more frequent at OOH-services than at a paediatric emergency unit. It seems that primary care physicians consider respiratory frequency as the most important sign in children with acute fever and respiratory illness.

Points for discussion
The importance of CRP in the decision of treatment when the patient is a child with fever or respiratory symptoms.

Background
Infantile colic is a painful condition in the first months of infancy. Acupuncture is used in Scandinavia as a treatment for infantile colic. Two Scandinavian acupuncture treatment trials of children with infantile colic have been published (Reinthal et al 2008, Landgren et al 2010). Both studies concluded that acupuncture significantly reduced crying and pain-related behaviour without noticeable adverse effects. Effect sizes were small, and there was no blinding validation.

Objectives
A blinding-validated randomized controlled trial was carried out with the aim of testing the hypothesis that acupuncture treatment has a clinically relevant effect for this condition. The results of the trial was published in Scandinavian Journal of Primary Health Care October 2013.

Material/Methods
A prospective, blinding-validated, randomized controlled multicentre trial in general practice. 13 GP offices were involved. The intervention consisted of three days of standardized needle acupuncture on the acupuncture point ST36, with no treatment as control. Main outcome measure was difference in crying time during the trial period between the intervention and control group.

Results
113 patients were recruited; 23 patients were excluded, and 90 randomized; 79 diaries and 84 interviews were analysed. The blinding validation questions showed a random distribution with p = 0.41 and 0.60, indicating true blinding. We found no statistically significant difference in crying time reduction between acupuncture and control group at any of the measured intervals, nor in the main regression analysis of differences in changes over time (p = 0.26). There was a tendency in favour of the acupuncture group, with a non-significant total baseline-corrected mean of 13 minutes (95% CI -2.4 to +5.1) difference in crying time between the groups. This was not considered clinically relevant, according to protocol.
Conclusion
This trial of acupuncture treatment for infantile colic showed no statistically significant or clinically relevant effect. With the current evidence, we suggest that acupuncture for infantile colic should be restricted to clinical trials.

Points for discussion
Acupuncture in children is a potentially painful treatment. This is especially important in small children without competence of consent. Small children have no established anticipation/reward systems; it is the real effect of the needle that defines the relevance of acupuncture treatment. It would be unethical to treat in response to the parents’ hope of improvement if the effect size does not outweigh the potential pain inflicted on the child. Our trial could not prove such a justification.

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Growth patterns in children aged 0–5 years in a cohort of multi-ethnic preschool children: identifying children at risk of developing overweight and obesity

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Background
Prevalence of childhood overweight and obesity has increased in many countries over the last decades. Research shows associations between growth patterns in utero, during infancy, early childhood, and adult obesity and metabolic diseases. Several ethnic minority groups are more affected by obesity, cardiovascular diseases and type 2 diabetes than the general population.

Objectives
To present an ongoing study in primary care on growth patterns of preschool children in a multi-ethnic community, and preliminary data on prevalence of overweight and obesity stratified by ethnicity and adjusted for other factors.

Material/Methods
Design: Observational study based on a cohort of pregnant mothers, fathers and their offspring. Study population: 823 pregnant women were during 2008–2010 included in the STORK-G study, a population-based cohort study in Groruddalen, Oslo. 59% had ethnic minority background. We have broad range of data on mothers and fathers. Growth data is available for 786 children from 3 ultrasound measurements during pregnancy and anthropometric data at birth. We are now collecting anthropometric data at children’s local Child Health Clinics where they were routinely measured at the age of 6 weeks, at 3, 6, 12, and 15 months, and at 2 and 4–5 years. So far, we have data on 526 children up to the age of 2 years. We expect to collect data on approximately 600 children by the age of 4 years.

Results
Primary outcome is data on prevalence of overweight and obesity at the pre-school visit at 4–5 years of age. In Gothenburg June 2015 we will present preliminary data for the largest ethnic groups and adjust for parents’ socioeconomic position.

Later we plan to explore the importance of exposure data from early life (duration of pregnancy, anthropometric data, breast feeding, vitamin D supplements), and parental exposure variables (household structure, parental body mass index, maternal integration level, dietary- and physical activity patterns, gestational diabetes, depression score, and smoking).

Points for discussion
Prevalence of resistant bacteria in children in primary care

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**Background**

About 30% of the visits to primary healthcare in Sweden concerns infectious problems, of these some 70% regards respiratory tract symptoms. Children at the age of 0–6 years receive most antibiotic of all age groups and infections in the upper airways dominate the diagnosis. The frequency of pneumococci with reduced susceptibility to penicillin (PNSP) in children was found to be high in the early 90’s in Sweden. The frequency of PNSP was found to be correlated to the antibiotic consumption. In Sweden antibiotic prescribing to children has been substantially reduced over the last decades.

**Objectives**

This study aim to provide information about the current prevalence of PNSP in children at a primary care level and if possible identify association to antibiotic use.

**Material/Methods**

Nasopharyngeal cultures will be performed on children, aged 0–10 years of age, consulting their medical center with symptoms of respiratory tract infection (RTI). The parents will be asked to fill out a questionnaire about the child’s antibiotic consumption and other questions of concern. Isolates of Streptococcus pneumoniae, Hemophilus Influenzae, Moraxella catarrhalis and Group A Streptococci will be noted. Pneumococci with a minimal inhibitory concentration (MIC) exceeding 1.0 mg/l will be regarded as resistant. Frequency of Betalactamase production in Hemophilus Influenzae and Moraxella Catarrhalis will be registered.

**Results**

The collection of nasopharyngeal cultures are ongoing at the moment, so far 226 cultures have been analyzed. The current findings suggests that PNSP (MIC=0,125 mg/l) are very sparse at a rate of 6%. No resistant pneumococci (MIC>1.0 mg/l) has been registered so far. The Betalactamaseproduction in Hemophilus Influenzae has been found to be 30% and in Moraxella Catarrhalis is 98%.

The process of gathering samples will be ongoing until spring 2015.

**Conclusion**

Despite a decrease in antibiotic prescribing to children, there seem to be an increase in resistant markers such as betalactamase production in Moraxella Catarrhalis and Hemophilus Influenzae. PNSP seem to be kept at a low level, compared to the outbreak in the early 90’s.

Points for discussion: Is there an association between the presence of resistant bacteria and previous antibiotic consumption, at an individual level?

How do we monitor bacterial resistance in primary care?

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Do the patients perceive that we care? A Swedish version of the CARE measure

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**Background**

A validated measure to gather patient feedback on physicians’ empathy is not available in Swedish.

**Objectives**

The objective for this study was to examine the psychometric characteristics of a Swedish version of the Consultation and Relational Empathy (CARE) measure (widely used in British
physicians) and investigate if the scale could be used also in other health care professions.

**Material/Methods**
The CARE measure was translated into Swedish and tested on 829 unselected patients visiting physicians, nurses, nurse assistants, psychologists and lab personnel in two primary care clinics in northwestern Stockholm, Sweden. Main outcome measures were adequate translation, as well as reliability and validity of the Swedish CARE measure.

**Results**
The Swedish CARE measure seemed to demonstrate high acceptability and face validity when consulting a physician or a psychologist, with 1.4–6.1% non-applicable or missing responses (NA/M). Lower acceptability was demonstrated for nurses (16% NA/M), laboratory services or nurse assistant (NA/M 39–48%). The mean CARE score for all caregivers (41.70±8.60) was not significantly influenced by seasonality, age or gender. Scores displayed negative skewness (-0.94), but corrected item-total correlations were high (0.698–0.719) suggesting homogeneity. Internal reliability was very high (Cronbach’s alpha 0.976). Factor analysis implied a one-dimensional structure with factor loadings between 0.87–0.91.

**Conclusion**
The Swedish CARE measure appears to be psychometrically valid and reliable enough in physicians, and also relevant in evaluating psychologists and nurses.

**Points for discussion**
The use of assessment measures for clinical care and empathy might increase the awareness of challenges in patient centered care, illuminate possible strategies to increase e.g. empathy in physicians in a sustainable way, and enable monitoring the effects of interventions and organizational changes. Larger studies are warranted to establish reference values appropriate in Swedish settings. It would also be of interest to analyze unidimensionality and redundancy in the CARE scale with item response theory methods.

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**453-P**

**Mental health among 30–49 year-olds participating in a preventive health check. A cohort study**

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**Background**
Poor mental health is an increasing public health problem with high human, social and economic costs. The prevalence of poor mental health has previously been shown to be higher among women, heavy smoking men, being single and related to depression and other psychiatric disorders. “Check Your Health” is a community-based preventive health check offered to 30–49 year olds in a Danish municipality. The health checks were performed in the local health center with a subsequent consultation with the individual’s general practitioner.

**Objectives**
The aim is to describe clinical and health behavioral associations to poor mental health in Danish 30–49 year-olds participating in the preventive health check “Check Your Health”.

**Material/Methods**
Study design: A cohort-study in 2671 individuals aged 30–49 years participating in “Check Your Health” in 2012-13. Mental health, smoking, and alcohol risk-behavior (CAGE-C) were collected from questionnaires from the health check. The questionnaire included the 12-Item Short Form Health Survey (SF-12) from which the mental component summary (MCS)-score was obtained. Poor mental health was defined as MCS<35.76.

Body mass index, systolic blood pressure, and cholesterol were collected from the clinical...
examination at the health check.

Prescriptions of antidepressants, anxiolytics, and antipsychotic drugs, and contacts to psychologist or psychiatrist in the year prior to inclusion were collected from Danish national registers. The descriptive analyses are categorized into sex.

**Results**

Among 30–49 year olds 7% men and 11% women reported poor mental health.

**Men:** The following reported poor mental health: 12% smokers, 14% with alcohol risk-behavior, 4% with blood pressure >140 mmHg, and 6% with cholesterol >6 mmol/L.

**Women:** The following reported poor mental health: 14% smokers, 11% with alcohol risk-behaviour, 16% with obesity, 9% with blood pressure >140/mmHg, and 22% with cholesterol >6 mmol/L.

Further results will be presented at the Nordic Congress 2015.

**Conclusion**

The prevalence of poor mental health among 30–49 year-old participants in a preventive health check is, as expected, higher for women than for men. Further characteristics of those with poor mental health will add to identify unmet needs for mental health care from the general practitioner.

**Points for discussion**

This study is the first part of a PhD-project studying mental health in “Check Your Health”. Further studies will evaluate if a focus on mental health in a community-based preventive health check involving the general practitioners can increase the mental health among 30–49 year-olds.

Subgroup analyses on register-data will indicate how non-participants differ from participants in the preventive health check “Check Your Health”.

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454-P

**The use of a Handheld ECG Monitor to detect atrial fibrillation in General Practice**

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**Background**

It is important to identify and treat patients with atrial fibrillation (AF) to reduce the risk of stroke. However, disabled patients may not be able to come to the general practice (GP) clinic for a normal 12-lead ECG. We do not know if an inexpensive portable Handheld ECG Monitor (HEM) could be used to identify patients with AF instead a 12-lead ECG.

**Objectives**

To evaluate the effectiveness of using a HEM device in a GP clinic to detect AF.

Material/Methods: From April 2014 we have included patients who came to the GP clinic “Lægerne Sløjfen”, Aalborg, Denmark for a routine health assessment including an ECG. Excluded were patients with severe dementia, mental illness or poor ECG readings. After the patients had given informed consent a standard 12-lead ECG (Cardiak PC-ECG) was recorded and simultaneously a 3-lead recording using a HEM device (Handheld ECG monitor, Beijing Choice Electronic Technology Co, Ltd, Beijin, China) was registered. The HEM recordings were analyzed blinded for the results of the ECG recordings and vice versa. Disagreement was settled by a cardiologist (SR). The proportion of technically acceptable HEM recordings as well as the sensitivity and specificity in relation to detecting AF was calculated.

**Results**

We expect to include 100 patients and have obtained data on 77 patients. Based on the 77
patients the preliminary results are: The mean (SD) age was 64.2 years and 38 (49.4%) were women. Their most common main diagnoses were hypertension (56%), diabetes mellitus (18%) and atrial fibrillation (23%). Of the 77 patients 7 recordings obtained with the HEM device were initially classified as AF patients, of whom 6 patients were confirmed to have AF on the ECG reading by the cardiologist (SR). It is expected that all data will be analyzed by February 2015.

Conclusion
An inexpensive portable HEM device may improve diagnosing AF on frail patients who may not be able to come to the GP clinic. The forthcoming analysis of data will provide us the sensitivity and specificity of the HEM recordings compared with a standard 12-lead ECG recording.

Points for discussion
If the HEM recordings are suitable for detecting AF it may be used as a standard diagnostic tool in primary care. However, further studies are needed to evaluate the usefulness of the HEM device in GP clinics and examine the consequences of early diagnosis and treatment in these patients.

Healthcare contacts after myocardial infarction according to mental health and socioeconomic position

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Background
Mounting evidence suggests that mental health and socioeconomic position play an important role for the prognosis after myocardial infarction (MI). Part of the explanation may be low use of healthcare after MI among these patients.

Objectives
To examine the long-term use of healthcare contacts to general practice (GP) and hospital after a first-time MI according to mental health and socioeconomic position.

Material/Methods
Population-based cohort study of all patients discharged with first-time MI in the Central Denmark Region in 2009 (n=908). We estimated adjusted incidence rates and incidence rate ratios (IRR) for GP and hospital contacts according to depressive and anxiety symptoms, educational level and cohabitation status.

Results
During the 24-month period after the MI, patients with anxiety symptoms had 24% more GP contacts (adjusted IRR 1.24, 95% CI 1.12–1.36) than patients with no anxiety symptoms. In contrast, patients with depressive symptoms (1.05, 0.94–1.16), short and medium education (<10 years: 0.96, 0.84-1.08; 10–12 years: 0.91, 0.80–1.03) and patients living alone (0.95, 0.87–1.04) had the same number of GP contacts as their counterparts (patients with no depressive symptoms, with long education (>12 years) and patients living with a partner). During the first 6 months after the MI, patients living alone had 13% fewer hospital contacts (0.87, 0.77–0.99), patients with short education had 16% fewer hospital contacts (<10 years: 0.84, 0.72–0.98) and patients with anxiety symptoms had 27% fewer hospital contacts (0.73, 0.62–0.86) than their counterparts. In contrast, patients with depressive symptoms (0.92, 0.77–1.10) and medium education (10–12 years: 1.05, 0.91–1.22) had the same number of hospital contacts as their counterparts.

Conclusion
This study indicates that patients with depressive symptoms, short and medium education and patients living alone have a lower long-term use of healthcare contacts following...
MI than patients without these risk factors. Patients with depressive symptoms and low socioeconomic position would be expected to have a higher need of healthcare after MI as they have a poorer prognosis.

**Points for discussion**

Low socioeconomic position and depressive symptoms after MI have consistently been associated with mortality, whereas anxiety symptoms have not. Part of this difference in prognosis may be explained by differences in the use of healthcare.

More contacts to the healthcare system among MI patients with depressive symptoms and low socioeconomic position may lead to a more optimised treatment, less severe cardiac disease and lower mortality. This may be achieved through differentiated and outreaching treatment strategies for patients with these risk factors.

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**456-P**

A cross sectional study how nurses and general practitioner perceives the doctors calendar, a questionnaire study in Swedish primary health care

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**Background**

In Sweden, patients usually get into contact with health centers by phone. The call is received in most cases by a nurse that makes a medical assessment and decides which action that is required and how urgent it is. If the patient needs a doctor the nurse makes a booking in the doctors’ calendar. It is insufficiently mapped how doctors work environment is affected by that other profession are booking the patients, resulting in doctors having little control over their own workload.

**Objectives**

To find out how nurses and doctors perceive the doctors calendar at health centers and if there are differences about how long it is estimated that a doctor’s appointment takes.

**Material/Methods**

This is a quantitative cross sectional study using questionnaires, one for each profession, about how often certain things happen and how long time a doctor’s appointment takes. All nurses working with phone counseling and all doctors who work at both private and public primary health centers in seven small to medium sized cities in southwestern Sweden were included in the study. Thirty-nine nurses and twenty-seven doctors working at fifteen health centers chose to participate.

**Results**

The two groups are largely in agreement on how long time a doctor’s appointment takes for different symptoms. Where there is a statistic significant difference are the differences in minutes small and clinically negligible. The groups are in disagreement on how often too short appointments are booked, how often more than one patient is booked at the same time, how often it is taken into account the doctor’s educational degree, if the nurses got the right skills to determine how long a doctor’s appointment takes and to which extent nurses get feedback on their bookings.

**Conclusion**

This study provides some indication of how doctors and nurses perceive the doctors calendar and hopefully be a starting point for discussions in respective health center on how bookings of patients works now and how it could work in the future. Further studies are needed to better understand how bookings are made and how it effects the work environment for both doctors and nurses.

**Points for discussion**

How the resources of the health center best are used. How nurses, by the way they book patients, affect the doctor’s workload and work environment. How nurses and doctors communicate with each other.
Use of primary care during the years before first psychiatric diagnosis

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Background
Schizophrenia is the most common psychosis illness, and is characterized by a slowly progressing onset of symptoms. A long duration of untreated psychosis is associated with an unfavorable long term prognosis.

Objectives
The present study seeks to determine when the possible first symptoms of schizophrenia could be detected in general practice.

Material/Methods
We conducted a population-based matched comparative study using nationwide registry data. We included as cases, all patients in Denmark above 15 years of age (N = 23,078) diagnosed with schizophrenia disorders (ICD-8 code 295 and ICD-10 code F.20) from January 1st 1998 till June 5th 2014. As controls, 20 per case were matched on gender and age (N = 461,560). Utilization of primary health care services (day time contacts and out-of-hours contacts) during six years preceding diagnosis/index date was measured for cases and controls.

Results
Patients with schizophrenia utilized primary care more than the control cohort during all six years before diagnosis. For daytime contacts the first two months with an IRR = 1.55 (95% CI: 1.40–1.70) and the last two months before diagnosis showing 4 fold increased visit rates, IRR = 4.14 (95% CI: 3.90–4.40).

Conclusion:
The study shows excess health care use for patients with schizophrenia years before established diagnosis. We found that the cases had significant more visits than the controls in all 72 months before diagnosis was established.

Points for discussion
More knowledge about early symptoms and the diagnostic pathway for schizophrenia would be clinically relevant. This in order to ensure a better, and faster diagnostic pathway for this vulnerable group of patients.

MINI for assessment of depression and anxiety in primary care – is it feasible?

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Background
A correct diagnosis is vital for the best practice management of patients with mental ill-health. Diagnostic interviews like the structured Mini International Neuropsychiatric Interview (MINI) may facilitate the diagnosis. MINI has high diagnostic accuracy for depression and acceptable properties for anxiety disorders. It is well documented for use in psychiatry. The feasibility of MINI in primary care has not been described in the literature.

Objectives
– To explore experiences of assessments with MINI in primary care;
To explore whether referral to a counsellor or a psychologist for the assessment is acceptable.

**Material/Methods**
Consecutive patients were recruited from three primary care centers (Mar 2014-Feb 2015). Patients for whom depression was a possible diagnosis according to specified inclusion criteria were assessed with MINI, either by the GP or by a psychologist or counsellor after referral from the GP. Data collection included structured questionnaires to patients (n=118) and assessors (n=114), semi-structured interviews with a purposive sample of patients (n=21), and focus groups with GPs (n=17).

**Results**
Most of the patients (80%) were referred to a psychologist or counsellor. The mean time for the assessment was 26 minutes; 53% were completed in 20 minutes or less, and 80% in 30 minutes or less. Most patients appreciated MINI showing a median global satisfaction of 80 on VAS (range 0–100), although six percent found the interview intrusive and three percent that it was too strenuous. Nearly 70% perceived that the assessment was useful. MINI helped the patients verbalize their problems and to admit symptoms that were shameful. The median global satisfaction was 93 on VAS (range 0–100) for being referred to a psychologist or a counsellor for the MINI assessment.

GPs appreciated the opportunity to refer patients for MINI and had also used the referral for patients outside the study. The assessment had helped to unveil co-morbidities, less common diagnoses, such as PTSD and bipolar II disorder, as well as to rule out psychiatric disorders for some seemingly depressed patients.

**Conclusion**
This explorative study thus shows that MINI is feasible in primary care. Also, the time for the assessment was shorter than anticipated.

**Points for discussion**
GPs preferred to refer patients for the MINI-assessment and patients highly appreciated to be assessed by a counsellor or a psychologist. Patients appreciated a structured assessment as a complement to the patient-centered consultation.

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**459-P**

**Randomized comparison of a novel variant of cognitive behavioral therapy and standard psychotherapeutic care among women in primary care**

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**Background**
Various psychotherapeutic methods have been tested to prevent sickness absence from work. Women with mental health problems are at increased risk of sick leave.

**Objectives**
Compare a novel treatment method developed by the first author (ID) with standard primary care psychotherapeutic treatment.

**Material/Methods**
153 women aged 20–60 years were referred to a psychosocial team at a primary care centre, 79 of these were eligible and 36 agreed to participate. They presented symptoms of anxiety, depression or diffuse muscle pain and were currently on or deemed at risk for sick-leave. 18 were randomized to the standard individual treatment and 18 to the experimental treatment. This consisted of 5 individual 90-minute consultations and 7 group meetings with 5–6 participants, 120 minutes each. The novel treatment was based on cognitive behavioral theory as well as systems therapy with emphasis on the importance of social context and family myths.

Changes in legislation during the study period prevented the use of sick leave as outcome. Instead the subscales of The Hospital Anxiety and Depression Scale (HADS-A and HADS-D) and the 29-item version of Antonovsky’s Sense of Coherence Scale (SOC) were used.

The study was approved by the Regional Ethical Review Board in Gothenburg. No authors reported any conflict of interests.
Results
Participants in the experimental group had somewhat larger, but not statistically significant, decreases in HADS-A and HADS-D from baseline to 6 and 12 months in comparison with standard treatment. The increase in SOC, where higher scores indicate higher sense of coherence, was slightly more pronounced in the experimental group, p=0.03 at 12 months.

Despite randomization patients in the experimental group were younger than those in the standard treatment group and fewer of them took psychotropic drugs at baseline.

Conclusion
The experimental treatment showed similar or somewhat better outcomes than standard treatment. The results must be interpreted with caution due to group differences in baseline symptoms and psychotropic drug use. Possible sources of bias are gender constellation effects (ID is male, all other therapists female, all patients female), and the fact that ID is a strong proponent of the novel method which may have prompted socially desirable responses. The inclusion rate was low, raising concerns about generalizability.

Points for discussion
What is the value of non-manualized psychotherapy methods in primary health care?

Background
Evidence shows that female sexual dysfunction (FSD) is common and that women with this difficulties also have risk factors for many other conditions. It is known that only a minority of women experiencing sexual problems seek treatment. The role of the general practitioner (GP) and the resident in FSD diagnosis and treatment is not well explored.

Objectives
The aim of this study was to characterize the physicians’ knowledge, attitudes and clinical experiences of FSD in health centers in Dalarna, Sweden.

Material/Methods
A survey using self-administered questionnaires applied to a total of 206 physicians, 140 GPs and 66 residents, working in health centers in Dalarna, Sweden. The survey was anonymous. Data was collected in October–November 2014.

Results
The response rate was 62.1% (128 of 206). The majority of the respondents, 74 (57.8%) were male and 54 (42.2%) were female. The GPs and residents rated their level of knowledge as low, 102 (79.7%) and 23 (18.0%) estimated their level of knowledge as quite high. A large proportion of the physicians, 111 (86.7%), desired a higher level of knowledge. Among women using medications, whose side effects include sexual dysfunction, 65 (50.8%) physicians asked if they had experienced sexual problems. If a woman has an illness that can cause sexual problems, 50 (39.0%) of the physicians would ask if she had any problems with sexual dysfunction. Seventy-two (56.2%) of the physicians asked about sexual abuse when women sought help for a sexual problem. Regarding the issue of sexual abuse, more female doctors, 35 (64.8%) than male 37 (50.0%) asked this question and it was more common among doctors, 45 years of age or older, 44 (63.8%) and GPs 49 (64.5%).

Conclusion
The majority of the responding physicians working in general practice would like a higher level of knowledge of female sexual dysfunction.

Management of Female Sexual Dysfunction: Knowledge, Attitude and Clinical Experience of General Practitioners and Resident Doctors in Dalarna, Sweden

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dysfunction. Around eighty percent rated their knowledge as low. Just over half of respondents asked about sexual abuse when women sought help for a sexual problem or asked about sexual dysfunction when a woman was using a medication whose side effects include sexual dysfunction. Even fewer would enquire about female sexual dysfunction in a woman with an illness that could cause sexual dysfunction. In this study the level of knowledge of female sexual dysfunction is low but the interest in further education is high.

Points for discussion
How can the level of knowledge and management of FSD by physicians in general practice be improved?

Objectives
This study aimed to study patient knowledge and perceptions of antibiotic treatment and further to explore possible associations between patient gender, age, and educational level and accurate knowledge of antibiotics and ARIs.

Material/Methods
As part of an Audit Project Odense project a questionnaire survey was conducted in Danish primary care during winter 2014. Patients aged ≥18 years consulting their GP with symptoms of ARI were requested to fill in a questionnaire on knowledge and perception of antibiotic treatment. Socio-demographic information was obtained.

Results
A total of 361 patients completed the questionnaire (response rate 64%). Three out of four recognized that antibiotics are effective against bacteria and not against virus. Overuse of antibiotics was acknowledged by 80% of respondents as an important factor in the development of resistant bacteria. Most respondents (97%) stated that they take antibiotics for the number of days prescribed by their doctor. Female gender was the only patient characteristic significantly associated with accurate knowledge. Respondents having received antibiotic treatment within the previous two years tended to believe that antibiotics were effective against virus, OR 2.3 (95% CI 1.3–4.1, p 0.005).

Conclusion
Our study found that patients were generally well-informed about antibiotics and aware of antibiotic overuse as an important factor in the development of resistant bacteria. The study indicates that one third of patients who had received antibiotics during the previous two years believed that antibiotics were effective against viral infections.

Points for discussion
To what extent does patient knowledge and perception on antibiotics influence the GP when considering prescribing antibiotics? How can knowledge of patient perception of ARIs and antibiotics be helpful in the consultation room? Are shared decision-making and delayed prescription relevant methods in primary care for reducing antibiotic consumption?
The role of vitamin D status in chronic low back pain: a cross-sectional case-control study in Swedish primary care

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Background
Vitamin D deficiency is common and reported in many chronic pain conditions, including chronic low back pain (CLBP). Evidence for association is conflicting and randomised controlled trials showing effect of vitamin D treatment in chronic pain are few. The role of vitamin D status in CLBP remains unclear.

Objectives: The purpose of this study was to evaluate vitamin D status in individuals with CLBP in a Swedish general population, compared with controls matched for sex and age.

Material/Methods
Participants (n=44) with self-reported low back pain for at least 3 months and individually sex- and age-matched healthy controls (n=44), were recruited from the general population by random letter of invitation. Venous blood sampling and background data collection by structured forms was performed in single visits in two time periods: 26 March – 27 June and 25 October – 8 November 2012. Analysis of serum 25-hydroxyvitamin D (S-25OHD) levels was made by high-pressure liquid chromatography with tandem mass spectrometry.

Results
S-25OHD levels did not differ between individuals with CLBP and matched controls, mean difference 1.1 nmol/L (95% CI -1.1 to 1.3), p=0.86. There was no difference between the CLBP group and the control group in number of individuals meeting criteria for vitamin D deficiency using either <25, <50 or <75 nmol/L as cut-off level for S-25OHD. Vitamin D status did not contribute to explain the variance in CLBP.

Conclusion
This study did not find any association between vitamin D status and the presence of CLBP. Measuring vitamin D for the purpose of finding and treating an underlying cause of pain may be unnecessary in the majority of cases in the management of CLBP in a primary care setting.

Points for discussion
Is the present sample population representative and clinically relevant to the primary care setting? What are the results’ implications for the management of CLBP? Can assessment of vitamin D status be important in subsets of CLBP patients? What is the importance of background prevalence of vitamin D deficiency in decision making in a clinical context?

Reinforcing partnership between cancer patient, general practitioner and oncologist – a randomised controlled trial

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Background
International guidelines underline the importance of strengthening the coordination and continuity of cancer care. The different roles of general practitioners and oncologists with regard to treatment, follow-up and rehabilitation during and after cancer treatment are often obscure to cancer patients. Parallel courses of healthcare are often taking place instead of coordinated care characterised by continuity and partnership between care providers. Patients may feel uncertain about the health professionals’ skills and area of respon-
sibility. Healthcare seeking and support during and after cancer treatment may, therefore, be inappropriate, leaving patients feeling insecure, lost between care providers, and with reduced quality of life.

Objectives
The study aims to design and evaluate a new way of communication and shared decision-making that brings the patient, the oncologist and general practitioner together in a shared video-consultation in the early phase of chemotherapeutic treatment. The overall aim of this new and innovative intervention is to improve continuity of cancer care as perceived by both patients and healthcare providers.

Material/Methods
The effect of the intervention in addition to usual care will be tested in a randomised controlled trial at Vejle Hospital in the Region of Southern Denmark. Based on sample size calculation, we intent to include 340 patients at the Department of Oncology and their general practitioners. The yearly numbers of referrals starting chemotherapy at this department are increasing from 1200 in 2013.

The possibility of additional video consultations, templates for needs assessment and shared decision-making will be included in the study intervention. Furthermore, footage of the consultations will be accessible to the patient for viewing at home.

Results
Results and process outcomes will be evaluated qualitatively and quantitatively, using footage of the consultations, questionnaires to patients, general practitioners and oncologists, and data from registers. The quantitative outcomes at patient level will include decision self-efficacy (primary outcome), unmet needs of rehabilitation, health-related quality of life, continuity, information received, illness intrusiveness and depression and anxiety.

Conclusion
The project includes development of a new model of communication and shared decision-making bringing the cancer patient, the general practitioner and the oncologist together. Patient inclusion is planned to start mid 2015.

Points for discussion
In what way would the described intervention be of use to you as general practitioner?
Would you have any concerns about footage of the consultations will be accessible to the patient for viewing at home?

Fibromyalgia patients in Finnish primary health care: clinical picture, management and quality of life

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Background
Persistent and widespread pain, fatigue, stiffness, depression and sleep disruption are the main symptoms of fibromyalgia. Its exact etiology is still unclear. Prevalence of fibromyalgia is 2–4% in adult population and 80–90% of patients are female. 60% of patients are between 30 and 50 years old when the diagnosis is made. It is estimated that in primary care visits the occurrence of fibromyalgia is around 2.1–5.7%. In UK 68%, of diagnoses are made in primary health care, however almost a third of primary care doctors do not ever set a fibromyalgia diagnosis. In UK 46% of primary care physicians reported personally treating 63% of their patients. Most patients with juvenile-onset fibromyalgia continue to experience symptoms in early adulthood and symptoms normally last at least 15 years. Exercise helps to control fibromyalgia symptoms but patients don't generally like physical interventions. Medications have limited impact on fibromyalgia symptoms. Most fibromyalgia studies have been conducted in rheumatology clinics and there is no previous published research made in Finnish primary health care.
Objectives
To describe the clinical picture of fibromyalgia patients in Finnish primary health care, their management and the course of the disease.

Material/Methods: Patients with fibromyalgia diagnosis (ICD-10 M79.7 or M79.0 and mention of fibromyalgia in medical record) are identified from the electronic medical record of Nokia Health Center. Four different questionnaires measuring pain, physical function, symptoms, depression and quality of life will be sent to the patients willing to attend the study. After completing these questionnaires doctor's appointment will be scheduled. Clinical examination will be performed and American College of Rheumatology 2010 Fibromyalgia Diagnostic Criteria questionnaire will be filled. Patients will be asked whether fibromyalgia-diagnosis has been originally made in primary or secondary health care. Patient's age, sex and other diseases and medications will be registered. Patient will also be asked if they use any herbal products or alternative medicine for fibromyalgia. Other treatment methods (for example exercise) are also asked and patients will be asked if they have attended to multidisciplinary rehabilitation and do they have a personal care plan made by a doctor.

Results
Preliminary results will be presented at the congress.

Conclusion
Fibromyalgia is quite common in general practitioner’s appointment. Still there is only limited information how it is presented in primary health care. Studying fibromyalgia patients from primary health care's perspective might lead to an intervention method applicable in primary health care.

Points for discussion
The role of primary health care and medications in fibromyalgia patient’s treatment.
Results
There are many parallel and similar initiatives targeting the same patient group - older medical patients. Thus, the general practitioner must balance pros and cons of each temporary project to find the initiative best suited for the single patient.

Conclusion
In everyday work it seems time-consuming and difficult to grasp the many short-term actions and take advantage of the interventions part of e.g. the National Action Plan for Older Medical Patients 2011–2016.

Points for discussion
- Do we need a coordinating platform to ensure implementation of key action plans?
- If, who will it be? Where is the representation of the receiver and the executive party. Why and how should this platform act?
- How to find and choose the individually and locally relevant offered promotions and initiatives?
- How are the doctor and the patient around in the short-term, project deals?
- How can the doctor and the patient follow up on project attempts?
- How can the relevant parts be implemented in everyday life and used more permanent in the future when the project periods expire and new focus areas are introduced?

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Efficacy of SSRIs for acute major depression in the elderly

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Objectives
The aim of the article was to assess the evidence of the effect of SSRIs for major depression in the elderly.

Material/Methods
PubMED, EMBASE, PsychINFO and the Cochrane Library were searched for systematic reviews and meta-analyses investigating the effect of antidepressants in elderly with major depression. To avoid publication bias, the reviews had to include unpublished studies.

The results of the included studies were stratified and discussed.

Results
Three systematic reviews and meta-analyses were found eligible for inclusion. The results varied. Two studies found a statistically significant difference in favour of SSRIs for remission (OR 0.52 and 1.24, NNT 8.9 and 21.2, respectively), and one study a statistically significant difference for response (OR 1.36 and 1.61, NNT 12.4 and 8.3, respectively). One study found no difference for either remission nor response.

Regarding continuous measures, two of the included studies provided a mean change in HAMD-score of 1.2 and 1.37 points respectively, favouring SSRIs compared to placebo, although the analysis in one of the studies was not restricted to major depression. One study found no effect in a quality-of–life analysis using SF-36.

Conclusion
The effect of antidepressants in elderly with major depression, although statistically significant, remains clinically questionable. Considering the greater prevalence of side effects, the risk-benefit ratio for antidepressants in the elderly is dubiously advantageous.

Points for discussion
1. Are antidepressants being prescribed to frequently to the elderly?
2. What are the causes of depressive symptoms in the elderly?
3. What alternatives to antidepressants can we as general practitioners offer to the elderly?
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COPENHAGEN - DENMARK
15 - 18 JUNE 2016

SCIENTIFIC PROGRAMME
Family Doctors with heads and hearts
• The aging Europe
• Making health care affordable
• Future consultations - the doctor-patient relation
• Diagnosing - one task for family medicine
• Inequality in health care and specific patient groups

Welcome to Copenhagen and enjoy the Nordic summer light
Challenges in research and in clinical practice when dealing with children’s and adolescents’ health and wellbeing in a family perspective

Kirsten Lykke1, *Philip Wilson2,* Ole Richard Haavet3,* and Nordic Research Network for Children and Adolescents in General Practice

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Objectives
The aim of the workshop is to explore and discuss the challenges that practitioners and researchers meet when addressing the family perspective in their clinical work and research on children. Moreover, to discuss to what extent the family perspective is drawn into the context.

Background
International research and a growing body of Nordic research on children demonstrate that family health, social conditions and emotional environment have great impact on children’s health, wellbeing and long-term economic and social outcomes. At the same time is it a challenge to identify and support these families and their children in general practice. Studies show that the GP often does not see the child’s health in a family perspective. Why? What are the challenges?

This workshop aim at combining research and clinical practice.

Content: Questions and themes
Clinical practice
How does a GP gain knowledge about a family’s health and dynamics, when he/she assesses the child’s symptoms, morbidity or failure to thrive? Do we have any tools, questionnaires e.g., that can strengthen the physician’s attention and understanding of the situation of the child and the family? How do we talk to parents with somatic or mental illnesses or substance abuse about the possible influence of their condition on the children’s health and development? How do we meet the parents’ values and preferences, and how do we make sure that they keep their confidence in us?

Research:
How do we get knowledge on childhood health in a family and social perspective? What kind of information is important? How do we cope with challenges associated with research into children and families in different study designs (informed consent from children, parental trust, identification of children at risk etc.)?

Method
Short presentations follow by group discussions.

The healthy individual in preventive medicine – a symposium about individuals’ preferences and relevant evidence in screening

Bruno Heleno1, 1, *Mie Hestbech1, Minna Johanson2, Jakob F Rasmussen1, Carlos Martins3, John Brodersen1

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Objectives
– To understand some of the harms of screening and how these are assessed.
– To recognise what are people’s beliefs about benefits and harms of screening.
– To illustrate issues in assessing peoples’ information needs about screening.
– To understand the limitations of current methods of integrating patient preferences in screening decisions.
Background
Decisions about healthcare should respect people’s preferences – especially when it comes to healthy individuals. However, these preferences may be grounded in unreasonable expectations of the outcomes of tests and examinations. Clinicians may feel frustrated when addressing these expectations and a number of problems can complicate this dilemma. Firstly, appropriate evidence on relevant outcomes is difficult to find. Secondly, to have an impact on individuals’ preferences, the available evidence needs to be tailored to fit the individual’s information needs. Thirdly, the impact of preferences in final healthcare decisions is difficult to foresee. In this symposium we will investigate these problems via different examples of screening of healthy individuals: abdominal aortic aneurism (AAA), cervical cancer and lung cancer screenings.

Content
We will present what are the general population beliefs about benefits and harms of screening. People seem enthusiastic about getting tested for everything technology has to offer. Part of the reason may be due to scarce information about harms of screening. Overdiagnosis is the major harm, and we will explain how it was possible to find and report information about overdiagnosis in screening for AAA. Although overdiagnosis is the major harm of screening, this information was not readily available in the trial reports. We are aware that generating evidence is not enough to have an impact on people’s decisions. We will present a project that tries to identify what are the knowledge and information needs of invitees to cervical cancer screening. Finally, we will try to illustrate why incorporating patient preferences in decisions about lung cancer screening may not be an attainable goal.

Method
A mix of lectures, small group discussion and plenum discussion will be used. This will include five case studies derived from the workshop authors’ own research. In small groups, participants will be invited to discuss these cases in relation to their own beliefs, clinical experience and theoretical knowledge. Plenum discussion will be used to share the main results of small group work and summarize workshop results.

503-WS
How can we work efficiently in primary care to find those in the population in need of promotive and preventive measures

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2Department of Public Health and Community Medicine, University of Gothenburg, Gothenburg, Sweden.
3General Practice School of Medicine, University of Tampere, Tampere, Finland.

Objectives
Based on preliminary experience from small-scale studies in the Nordic countries the objective is to discuss targeted early detection and prevention in general practice, with focus on:

- How to identify and handle people at risk of lifestyle related diseases in general practice.
- Acceptability among health care professionals and the general population and feasibility in ordinary primary care context in the Nordic countries.
- Organizational challenges and drivers when implementing preventive programs.
- An additional objective is to promote Nordic research collaboration on targeted prevention in general practice.

Background
The increasing prevalence of lifestyle related diseases (including cardiovascular disease, stroke, diabetes, and COPD) is a major problem in developed countries and is mainly caused by an unhealthy lifestyle and an ageing population. Important lifestyle related causes of morbidity and mortality are smoking, obesity and physical inactivity. Increasing rates of obesity and physical inactivity in combination with smoking will lead to an increase in the number of patients with lifestyle related diseases. At the same time health care systems are faced with the challenge of reducing costs while maintaining or even improving the quality of primary
care and prevention/promotion. This makes hard priorities necessary to where the GP should allocate the available resources.

**IN ORDER TO** reduce the burden of chronic diseases and target the patients most in need, there is, therefore, an urgent need to identify and establish strategies and to implement interventions, allowing for the identification and management of persons at risk of these diseases.

**Content**
The first part of the workshop will focus on the content of a model for early detection and management of people at risk of lifestyle related diseases in general practice. The second part will focus on potential barriers and drivers of selective preventive programs in the Nordic countries.

**Method**
Three short presentations (20 min) with focus on the elements listed under Objectives. Each presentation will be followed by a discussion, and at the end of the workshop main points will be summarized.

**Other considerations**
We need a room that can cater for a participatory and creative process.

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**Personalized medicine meets general practice – a SWOT analysis**

**Linn Getz**, *Henrik Vogt*, *Johann A Sigurdsson*, Lotte Hvas

**Objectives**
To explore the topic ‘Personalized medicine” and how it might influence general practice.
human health and disease than contemporary biomedicine. Still, we worry: Will it make human life and society become even more medicalized, and the healthcare system even more unequal (the inverse care law) in an era of “-omics” and big data?

– In the near future, “digitalized patients” will carry their personal laboratories (= sensors and smartphones) with them. Will the digitalized patient be an empowered citizen, an exploited consumer, or perhaps both?

**Method**
Presentations and discussion.

**Other considerations**
This symposium is planned to complement the symposium; Person Centred Medicine – a humanistic approach to the clinical foundation of Family Medicine.

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**506-WS**

**WhatsApp, Doc? An Overview of Current Recommendations about Online Medical Professionalism and How to Tackle Obstacles**

Ulrik Kirk¹, *Elisabeth Mathilde Stura², Katrina Tibballs³, Kalle Saikkonen⁴,*

¹Quality Unit of Region of Zealand, Soro, Denmark. ²Dalen legesenter, Fyllingsdalen. ³Vinderen Legekontor, Oslo, Norway. ⁴Helsingin Kaupunki, Helsinki, Finland.

**Objectives**
This workshop will explore and identify strategies and tools that promote, encourage and assist General Practitioners to achieve effective and time efficient use of Social Media. It also aims at building skills in online medical professionalism and providing an interactive PDF to support the participants in successfully participating on the Web 2.0.

**Background**
Following the initial slow growth of Social Media, we now find ourselves in a world in which they are hard to escape. Increasingly our patients employ them, not just to find information, but also to interact with their doctors. It is therefore imperative that doctors not only respond to the 2.0 paradigm, but that we learn how to use them effectively and efficiently for collaborative, educational and advocacy purposes, both with other peers and in partnership with our patients. Research shows that training and education support available for GPs using Social Media is limited and evidence proves that inappropriate online behavior can damage personal integrity, doctor-patient and peer relationships, and career opportunities. Education and training on online medical professionalism is therefore quintessential, especially for GPs, who have to balance their community-oriented services, patient-centeredness and accessibility, with the needs to establish a relationship over time through effective communication, ensure the longitudinal continuity of care, and maintaining professional boundaries at all times.

**Content**
The main content will be practical, GP-tailored tips that allow participants to enjoy the online world and safeguard their social media use, while motivating them to think, communicate and share experiences freely and openly on those media. By laying out some simple principles we also aim to make the use of social media less threatening, reassuring current users and empowering latecomers. Having identified tools and strategies that promote and allow efficient and effective use of Social Media, participants will be better equipped to harness their power and potential and incorporate its use more fully in their working lives.

**Method**
We will set small groups to discuss the perceived obstacles to online medical professionalism and how they could be addressed; we will then provide an overview of current recommendations and how they tackle such obstacles. Where possible we will draw upon real life examples based on our own experiences on the social networks (e.g. Facebook, Twitter, LinkedIn, YouTube), in order to illustrate common pitfalls and how to avoid them.
**Abstracts**

Wednesday 15.30 – 17.00

**Other considerations**

Although targeted at GP trainees, the workshop focuses on practical issues also of interest to more experienced doctors, other specialists and patients.

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**507-WS**

New evidence – change of practice? A workshop about patient information, patient values and shared decision making; with place of birth as case

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**Objectives**

To facilitate a qualified discussion among GPs about reception of new challenging evidence; to facilitate a discussion of how to provide proper patient information, elicit patient values and lay the ground for shared decision making.

**Background**

GPs often experience difficulties keeping up-to-date, implement new evidence and share decision making with patients. Shared decision making has lately been described as the biggest single remaining barrier to the implementation of evidence based medicine. By learning and practising this last step of evidence-based medicine, GPs will get a tool to assist life-long patient centred evidence based practice.

**Content**

The didactic method used in the workshop is mostly small group activities with eight participants and one (two?) facilitator(s) in each group.

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**Method**

- Lecture: Welcome and introduction to evidence and challenges – 15 minutes (plenary room).
- Small groups: Structured discussion of evidence and implementation – 60 minutes (smaller rooms)
- Plenary: Summary and final discussion – 15 minutes (plenary room).

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**508-SY**

Registers from primary care – valuable assets for research? Examples from the Scandinavian countries

Kristina Bengtsson Boström¹, *Jan Hasselström², *on behalf of The Swedish Primary care cardiovascular database (SPCCD).

Janus Laust Thomsen³, *Inger Njølstad⁴, *Jörgen Månsson⁵, *

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**Objectives**

To present large primary health care registries in Scandinavia.

**Background**

Research on outcome of treatment, quality assessment and on how to implement new knowledge in practice can be performed using data from electronic medical records linked to national registers.

**Content**

The Danish registers – a paradise?

Halling A, Kristensen T, Thomsen JL, Søndergaard J, Scroll H. – The future use of the Danish primary care database (Dansk Almen
Medicinsk Database, DAMD) is a bone of contention. If administrative use of diagnoses for control of care is inaugurated in addition to quality assessment and research, physicians might begin to code strategically. This could risk the validity and usefulness of the database.

**The sixth survey of the Tromsø Study (Tromsø 6), 2007-08**

Eggen AE, Jacobsen BK, Mathiesen EB, Njølstad I, Wilsgaard T.

– The Tromsø Study, initiated in 1974, is an epidemiological, prospective study of health conditions and chronic diseases, and a resource for the surveillance of disease risk factors. The purpose of Tromsø 6 (2007–08) was to collect novel and repeated measurements of exposure data and to assess levels of disease risk factors.

**Swedish Primary care cardiovascular database (SPCCD).**

Bengtsson Boström K, Hasselström J, Hjerpe P, Kahan T, Manhem K, Wettermark B.

– SPCCD comprise 74 751 individuals with hypertension 2001–2008 from one mixed urban and one rural area. Clinical and laboratory data, data on drugs, socio economy, consumption of care, causes of death, were retrieved. Basic findings, patterns of treatment, persistence of antihypertensive treatment as well as blood pressure target attainment will be presented.

**NPR - National Primary care Register - Quality Register in Swedish primary care**

Jörgen Månsson

– As nearly all primary care units are computerized a national initiative for launching a national Primary Health Care quality register using automatic collection of information has been taken. A regional register in West Sweden (Q-reg PV) comprise 250,000 individuals, 65,000 with diabetes, 200,000 with hypertension and 45,000 with IHD. Q.reg PV is used for building a national standard for collecting data from all regional systems.

**Method**

Since electronic medical records became standard for registering encounters with patients data has been gathered for addressing issues in administration, quality assessment and also for research purposes.

**Other considerations**

**Proposed panel discussion:** Advantages and draw-backs with registers in primary care.

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**509-SY**

**How ICPC (International Classification of Primary Care) may support quality improvement in primary care**


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2Department of Public Health and General Practice, University of Trondheim, Trondheim, Norway.
3Department of General Practice, University of Turku, Turku, Finland.
4Danish Quality Unit of General Practice, Odense, Denmark.

**Objectives**

To increase the understanding of the benefits of the use of ICPC (International Classification of Primary Care) in primary health care as a part of the electronic medical record.

**Background**

The ICPC was first published in 1987 by Wonca and is now used in every day practice in Norway and Denmark, to some extent in Finland and in research projects in Sweden. It is an international classification developed for the registration of work in primary health care and it belongs to the International Family of Classifications, acknowledged by the WHO. The development in health informatics during the last decade has increased our need for systematized overview of health data and provides us with new possibilities of quality improvement.

**Content**

During the symposium, presentations will be held by members of the Wonca International Classification Committee. We will 1) introduce ICPC and present important use cases for the clinician such as how ICPC may facilitate
Abstracts

retrieval of information and the entry of data for projects (MR). Then look at 2) how the ICPC is used for decision support and standardization of presenting refunded medication in Norway (AG). 3) We will learn how the new definitions of process codes may help in recording activities by the clinician (MK). And finally we will demonstrate 4) how ICPC is used for feedback quality reports for patients with COPD both at the individual and at a population level in general practice (PL).

Method
Four presentations and debate with attenders.

Other considerations
References:

510-WS
Teamwork, leadership and decision making in primary care emergency teams

Magnus Hjortdahl1,*Helen Brandstorp1, *Mante Hedman2,*Peder A. Halvorsen1
1Department of Community Medicine, UiT- The Arctic University of Norway, Tromsø, Norway.
2Rural Medicine Center in Storuman, Västerbotten County Council, Storuman, Sweden.

Objectives
Participants will be presented with a team training model for primary care emergencies that has proven sustainable for several years. Through small group discussions and short presentations of ongoing research we will explore how teamwork, leadership and decision making is enacted.

Content
1) Small group discussion of clinical scenario (15 min).
2) On site demonstration of training session (20 min).
3) The role of GPs in primary care emergency teams – a qualitative study by Magnus Hjortdahl, MD (12 min).
4) Training interaction in primary care emergency teams – an action research project by Helen Brandstorp, MD (12 min).
5) Teamwork at a distance – experiences from the Rural Medicine Center in Storuman by Peter Berggren, MD (12 min)
6) General discussion (19 min).
Chair: Professor Peder A. Halvorsen

Method
Participants are presented with a clinical vignette describing a potential on call emergency. In small groups participants will discuss the decision of whether to accompany the ambulance or not, and possible pros and cons of GP participation. An on site demonstration of a training session based on the same vignette will be given, followed by two short presentations and a general discussion.
First aid consultation kit: five cards and a package

Jan-Helge Larsen¹, *Charlotte Hedberg²,*
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²Department of general practice, Karolinska Institutet, Stockholm, Sweden.

Objectives
To share our experiences of an easy way to identify, train and teach the essential dimensions of patient/personcentred care. We invite participants to test the presented consultation kit.

Background
Since 1980s a tradition regarding the patients’ ideas, concerns and expectations (ICE) has been developed within a patient-centred care framework. The aim has been to get the patients’ whole agenda in consultations. Currently, the outcome of patient-centred care is assessed in terms of clarifying and answering the patient’s questions, whether the patient get sufficient knowledge enabling her/him to make shared decisions.

Our point of departure is that ICE is a precondition for a shared understanding and shared decision-making. Our hypothesis is that patients who attend a doctor using the suggested first-aid-consultation-kit will assess the consultation afterwards as good.

Content
We present the consultation divided into three parts: the Patient’s, the Doctor’s and the Shared part. Five cards are used for the Patient part and a package for the Shared part.

While letting the patient tell his narrative, you will have to imagine you have got two cards:
1. The receipt card. Of this card you can give as many as you can and the patient will feel listened to and stimulated to go on.
2. Summary card. Every time you summarize what the patient has told you, he will listen to you. That gives you the opportunity to control the conversation and play one of the following cards.

The patient has got three ‘thought’ cards:
1. The idea card. This card you must give at least one time.
2. The concern card. Also this card you must give at least one time
3. The expectation card. Give it at least one time, because it will clarify what you have to do in the consultation.

The Package focus on assuring that the doctor has:
I) Recognised the patient’s agenda regarding ideas, concerns and expectations understood as the patient’s questions
II) Answering the patient’s questions and presenting the doctor’s explanations or hypothesis according to her/his clinical reasoning
III) Checked shared understanding
IV) Made shared decision-making.

Method
We will give a short presentation, role-play ourselves and then ask participants to role-play in pairs of three. Some of the plays will be video-recorded and revised. Finally we will have a plenary discussion.

Other considerations
30–40 participants (depending on facilities for small group work).

512-SY

Creating future Primary Care in Sweden and Nordic countries


Objectives
To highlight the following questions: How do the Nordic countries use the competence and power of the primary care sector for a dynamic future development of the health care system? How can we share knowledge about activities with potential for future development? What are the challenges? What are the obstacles?

Background
The organization and management of primary care differs between the Nordic countries. We can learn from each other when designing the future primary care for sustainable health care. Are the cornerstones of General Practice still relevant – accessible, person/family-focused and with continuity of care?

Content
The symposium begins with Jan De Maeseneer, giving a short summing up of his studies around health care cost effects of continuity in primary care (Provider continuity in family medicine: does it make a difference for total health care costs?). Thereafter representatives from the Nordic colleges of General Practice and the Swedish Association of General Practice will each give a short reflection of the challenges and possibilities of today and in the future, in the different Nordic countries. Based on a presentation by the Minister of Swedish Health Care on cornerstones of Swedish primary care for future development, the participants will discuss development of future primary care/general practice to form a sustainable primary care supporting health for all.

Method
Effects of high quality primary care with examples from different Nordic and European countries will be discussed. Short audience discussion.

521-OP

Meeting real patients: a qualitative study of medical students’ experiences of early patient contact

Anette Graungaard1, *John Sahl Andersen1, *1Section of General Practice and Research Unit for General Practice and The University Clinic, Department of Public Health, University of Copenhagen, DK-1353 Copenhagen K, Denmark.

Background
Teaching communication skills is an important task in the medical curriculum. It is widely agreed that the ability to communicate with the patient is just as important as biomedical knowledge and technical skills. We present data from an early patient contact course (EPC) with integrated theoretical and practical skills inspired by modifications of Kolb’s learning cycle.

Objectives
To examine first term medical students’ personal experiences and challenges with EPC.

Material/Methods
A qualitative design was adopted, with data from written logbooks and focus groups interviews with medical students who had recently completed an EPC course. Data were analysed with a grounded theory approach.

Results
We found that meeting with a real patient – a person – was a central point of learning. Students’ perceptions and reflections on their
future profession and personal skills were broadened. Students became respectful of a patients' life and illness experiences, and their understanding of communication as central to a doctor’s daily work increased.

Conclusion
Our results deepen the current knowledge of students’ benefit from EPC by taking it into first-term students’ perspectives and focusing on the personal experiences and challenges that the students met during the course. Further integration of the patient in the learning processes is recommended.

Points for discussion
Why should first-term medical students meet patients? How should it be done?

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Teaching consultation skills to medical students using e-learning

Merete Jørgensen1,*
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Background
The course in Family Medicine at Copenhagen University takes place in the last term before the students graduate. The course is mandatory. During the course each student work eight days as a doctor in a general practice clinic. They video record their consultations and analyse them in small group sessions at the university with their teacher and fellow students.

The final evaluation of the students includes a video of a consultation with the student in the doctor role, seeing a real patient, and the student’s skills in the subsequent analysis of the process.

Objectives
We aim to measure the development of medical students’ ability to analyse communication in a primary care consultations. It has been shown earlier that this is essential to the development of good communication skills.

Material/Methods
We are performing a controlled trial of the effect of the usual course, compared to the usual course supplemented with the students having access to 16 video clips on a learning platform. This material is being used interactively by the teachers in the group teaching. All students at the course in 2013 were included in the project (n=361).

On the first and last day of the course the whole group of students watch a test-video of a consultation with a GP and an actor. The actor was told the topic of the consultation and to react intuitively to the GP as a real patient would do. The GP was not instructed beforehand.

After watching the video they fill in a ten item questionnaire (DanSCORE), registering important elements from the patient centred consultation.

For the on-line teaching we use video-clips of parts of consultations between a GP and an actor. They last between one and five minutes and are accompanied by questions from the DanSCORE questionnaire. They are meant to produce reflections and so there may be more than one answer to some items.

Results
When access to the e-learning clips were combined with interactive use in the teaching sessions, we found (significant (p<0,005 change) improvement in the students’ ability to analyse the test-video in six out of ten items, when compared with the usual course. The students were able to identify more relevant critical elements in test-video.

Conclusion
E-learning has an effect on students skills in analysing general practice consultations used interactively with the classroom sessions.

Points for discussion
E-learning works, but our experience is that students did not use the program sufficiently, unless it is a course requirement.
Assessment of reflection during specialist training

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3Department of Postgraduate Medicinal Education. 
4Research unit of General Practice, Institute of Public Health, University of Southern Denmark, Odense, Denmark.

Background
The ability for specialist trainees to reflect has been in focus for more than 20 years. However we have been missing a generally accepted definition of the concept and an instrument for assessment of the ability to reflect. In Denmark we have introduced an instrument (KV5) to assess and encourage reflection during training in family medicine.

Objectives
To enhance formative and summative assessment of reflective ability the instrument has been developed and introduced in the Danish specialist education in family medicine.

Material/Methods
The instrument is based on an understanding of reflection in medical education, as described by Schön, Coles, Eve, Moon and Sanders. The instrument explores the trainees’ ability to reflect by letting him or her engage in a mind-mapping and concept formation exercise, followed by structured discussion with the trainer.

The instrument has been presented and tested during 29 train the trainer courses in Denmark with 750 participants during 2014. The participants’ reactions were registered.

Results
The vast majority of participating trainers found the instrument: “to make good sense”, “to be feasible” “to be seen as a way to improve the quality of trainer-trainee interviews” and “as a way to obtain an understanding of the trainee’s ability to reflect”.

A MAJOR CHALLENGE REMAINS, HOWEVER:
That is to investigate the validity and reliability of the instrument in assessment and to demonstrate to which extent it does encourage reflective practice and learning in trainees.

Conclusion
A new Danish instrument to assess and encourage reflective learning in specialist training has been well accepted by the trainers. Ongoing work is looking further into validity and reliability of the instrument.

(At the congress two other Danish presentations will address 1) the new postgraduate training scheme in general and 2) the 4 other assessment methods used).

Points for discussion
Is it of relevance to try to measure trainees’ ability to reflect?
 Does the presented method seem feasible to you?
 How can an assessment tool measuring reflection best be validated?
 How important is the validity of an assessment tool measuring reflection compared to its ability to stimulate reflective learning?

The new GP training scheme in Denmark – content and the process leading to it

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4GP Training, Region North Jutland, Skive. 
5GP Training, Region Zealand. 
6GP Training, Region Capital, Copenhagen, Denmark.

Background
The 5 year GP specialist training scheme from 2003 called for revision – primarily due to changes in expectations to GP’s competencies and in changed learning conditions in hospital
setting. The new training scheme went into action from 2014.

**Objectives**
To describe how a profound revision of a national training scheme can be done. Discussion of pro’s et con’s for the chosen method.

**Material/Methods**
The creative process from 2011 to 2013 integrated experiences from trainees, GP-trainers and hospital trainers as the first step. Second step included inspiration from European and non-European training schemes and feedback from patient groups. Third step was teamwork in groups of trainees and GP-trainers/educational coordinators. Fourth step was facing the political and administrative reality – a challenge! Fifth step is implementation in all areas of Denmark.

**Results**
Despite challenges, a brand new training scheme went into action from 2014. We will present the training scheme in broad details – focusing on:
- the clinical posts in the training scheme (2 ½ years in GP and 2 ½ years in hospital settings)
- the electronic portfolio
- the new assessment methods. The 5 assessment methods will be presented in more detail in 2 other presentations at Nordic Congress 2015.

**Conclusion**
A good educational process can meet severe political challenges and the end-result will be shaped by it! Despite this fact, we are proud to present a new training scheme preparing the new GP’s for the challenges of the future in general practice.

**Points for discussion**
Should a revision process of a training scheme be a joint venture between the payers and educationalists from the beginning?
- Or: will early involvement of the “payers” hamper the process and lead to a less ambitious result?
- What is the optimal distribution of training time between GP and hospital settings?

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**Assessment methods in GP training**

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⁶North Jutland Region, Skive, Denmark.

**Background**
The field of assessment in specialist training has evolved radically within the last decade. There is a great variety of methods, all with different pros and cons, but no method has proved to be efficient to stand alone. In the development of a new blueprint for the Danish GP specialist training programme, decisions had to be made about how to assess the trainees.

**Objectives**
To select the relevant assessment methods for the 84 competencies in the programme. Then to adapt them to the Danish circumstances.

**Material/Methods**
The international literature was revised and inspiration collected from foreign schemes. Emphasis was put on selecting methods that would strengthen learning and feedback as well as provide evidence for summative pass/fail decisions.

We identified 4 validated methods for assessment of different roles and competencies. However, we failed to find a method for assessment of the ability to reflect. A new instrument was therefore developed which will be introduced in another presentation.

**ALL ASSESSMENT FORMS** were translated and revised to comply with a Danish GP setting. They were sent to a group of experienced trainers who tested them and gave their comments, and the forms were revised again.
Results
The assessment methods chosen are: Case-based discussion, Mini Clinical Evaluation Exercise (mini-CEX), Direct Observation of Procedural Skills (DOPS), Multi-source feedback (MSF) and the newly developed instrument for assessment of the ability to reflect. The judgment by the trainer is given on the form as numeral values on a scale as well as narratives for DOPS, mini-CEX and MSF. The scales used for each method are similar to ones we have found in the literature about the respective method. The forms used for the two other methods serve as instruction for a structured discussion including feedback, and the summative evaluation is pass/fail.

Conclusion
No method is suitable to assess all competences, in fact it seems to be necessary to apply several different methods with separate perspectives on the trainee's competence in order to get the full picture. With these 5 instruments, we hope to provide better feedback and qualified summative assessment in specialist training.

Points for discussion
Can these 5 methods be implemented without further need for "education time" in daily practice?
What are the benefits of using different assessment methods in the course of a rotation?
Can compulsory assessment methods throughout the program help us to identify doctors in difficulty earlier?

526-OP

Development and evaluation of undergraduate medical education – A seventeen year follow-up in Estonia

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Background
The minority of physicians working in health care in Estonia has trained at the time after Estonia declared independence from the Soviet Union in 1991. The physician's professional identity has changed together with the changes in Estonian society.

Objectives
Our study examines how the hospital doctors and general practitioners (family doctors) trained according to the EU directives and graduated in 1997–2006 evaluated their undergraduate medical education in 2011.

Material/Methods
We used cross-sectional study with a web questionnaire. Altogether 1802 physicians were questioned in 1995 (graduated in 1982–1991), 2563 physicians (graduated in 1982–1996) and 457 family doctors in 2000 and 457 family doctors in 2000 and 2005 (graduated 1982–2001) and 891 physicians in 2011 (graduated in 1997–2006). The response rates were 64%, 68%, 73%, 64%, and 64.5%, respectively. We used a five-step Likert scale for evaluation the undergraduate medical education and other 60 specific undergraduate education items.

Results
The respondents were satisfied with the teaching and training they had had for hospital work, and primary health care work. The doctors in hospitals and primary health care practice (family doctors) feel shortage in issues of rehabilitation, social medicine, multi-professional cooperation, and administration and planning. Opinions of general practitioners did not differ from the ones of hospital doctors.
Conclusion
The physician's point of view is important when we are thinking how to develop medical school curriculum to be better corresponded with many important areas of doctor's everyday work.

Points for discussion
1) Strengths and weaknesses of the seventeen year follow-up study.
2) Correspondence of undergraduate medical education to the tasks of young physicians
3) How to develop medical school curricula concerning non-clinical issues?

Collaboration between general practice and municipalities on the referral of patients with chronic diseases to patient education and rehabilitation programs in the municipalities

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Background
Structural reforms in the Danish public sector have delegated increased responsibility for health care to the municipalities. In response, the municipalities have established a range of new education and rehabilitation programs for patients with chronic diseases. General Practitioners (GPs) are expected to play an important role in recruiting patients for these programs. However studies have shown that many patients are not informed about the programs, and that it is difficult for the municipalities to get information about the programs across to the GPs and make them refer their patients.

Objectives
To investigate what factors influence whether or not GPs recommend patients with chronic disease to attend patient education and rehabilitation programs in the municipalities?

Material/Methods
We focused on two types of patient education and rehabilitation programs:
1. Disease specific rehabilitation programs for type-2-diabetes and COPD.
2. A generic program called Learn how to live with a chronic disease which is based on the Stanford Model, where patients teach patients how to live a good life with a chronic disease.

The data collection process consisted of two main parts: 1) A qualitative case study of collaborative relations in four municipalities involving interviews with 25 GPs and 13 representatives from the municipalities as well as observations at meetings in relevant cooperation committees. 2) A questionnaire study among a representative sample of GPs, inquiring into their knowledge about, attitudes towards and experiences with referring patients with chronic diseases to patient education and rehabilitation programs in the municipalities.

Results
The main reason for not referring patients to patient rehabilitation and education programs in the municipalities was lack of knowledge about the content and quality of the programs. This was especially pronounced with regard to Learn how to live with a chronic disease. Other important reasons for not referring were forgetfulness and a busy schedule that did not always allow for prolonged talks about rehabilitation, as well as patients’ lack of motivation. Positive stories from patients who had participated in a program and experience with working with the municipalities influenced referral rates positively. The GPs differed with respect to how they preferred to receive information about the programs in the municipalities.

Conclusion
Many GPs felt they knew too little about the rehabilitation and education programs in the municipalities. The municipalities should make use of several different information strategies in order to reach the GPs.

Points for discussion
What could the municipalities do to increase the referral rates?
Improving healthcare for multimorbid patients receiving polypharmacy – experiences with the development and delivery of a tailored intervention

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Background
After the paradigm shift towards an evidence-based treatment of patients, the number of guidelines has been increasing. However, guidelines are often not followed by care providers. This “evidence-practice-gap” is a major barrier to establishing sustainable healthcare. Implementation research examines how to implement the current “best practice” into routine care with lasting effect. One approach is the development of “tailored” interventions (TI), which comprise strategies selected to address specific, previously identified barriers. We performed a Cluster-RCT to evaluate a TI to implement three guideline recommendations for multimorbid patients with polypharmacy into German General Practices, which are: Medication counseling, use of medication lists and avoidance of potentially inappropriate medication.

Objectives
To report our experiences with the tailoring process including intervention fidelity, which we examined by means of a process evaluation going along with the trial.

Material/Methods
A TI and the associated “logic model”, stating the previously identified determinants and strategies, was developed. 22 General Practitioners (GPs) and 344 patients were included in a randomized trial. The TI consisted of a workshop, individual improvement concepts for practices and resources for GPs and patients. The primary outcome of the trial was “degree of implementation” measured by a set of indicators. The experiences of GPs and practice nurses with the study were assessed by interviews and a written survey.

Results
First descriptive analyses of the survey indicate that the logic model has largely been confirmed. Most of the identified determinants were perceived as relevant and most of the strategies selected to address these determinants were perceived as helpful by the target group. The interviews, however, revealed aspects partly contradictory to the results of the survey, e.g. concerning the use of checklists. Rejection towards standardization of health care and lacking awareness for performance gaps were identified as relevant factors for intervention fidelity.

Conclusion
The methods used for tailoring seem appropriate to identify relevant determinants and potentially effective strategies. However, attitudes and awareness should be considered as possible barriers to sustainable implementation and intervention fidelity. The combination of qualitative and quantitative methods resulted in a better understanding of the ongoing processes.

Points for discussion
How is the attitude towards standardisation of health care in other countries?
How can we “tailor” interventions on a more individual level taking into account particular circumstances in individual practices to improve health care in a sustainable manner?
The impact of perceived stress on mortality among persons with multimorbidity: a population-based cohort study

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Background
Multimorbidity (two or more long-term conditions) is now common in populations worldwide. Increasing levels of multimorbidity are associated with poorer psychological wellbeing, and the association aggravates with increasing number of physical conditions. However, no studies have evaluated whether mental health status affects the prognosis of multimorbidity.

Objectives
In the present study, we aimed to investigate the impact of perceived stress on mortality in patients with multimorbidity.

Material/Methods
We performed a population-based cohort study of 118,411 persons (25 years or older) participating in the Danish National Health Survey of 2010, who were followed until 2014. From the survey, we obtained exposure information on perceived stress using Cohen’s Perceived Stress Scale (PSS) along with life-style and socioeconomic covariates. This was combined with individual health register data on multimorbidity by pooling registered diagnoses and redeemed drug prescriptions in an algorithm defining 39 conditions. Our outcome was all-cause mortality.

Results
During 453,567 person-years at risk, we identified 4,220 deaths of which 3,220 (76%) were persons with multimorbidity. Mortality increased with increasing level of perceived stress after adjusting for physical and mental conditions, lifestyle and socioeconomic factors (lowest vs highest PSS quintile, adjusted hazard ratio 1.47, 95% CI 1.32–1.64). The highest mortality was found among persons with severe multimorbidity (four or more conditions) in the highest PSS quintile (adjusted hazard ratio 4.21, 95% CI 3.48–5.10) compared to persons with no multimorbidity in the lowest PSS quintile. Perceived stress increased mortality independently of multimorbidity status in a dose-response relationship (tests for linear trend p<0.0001 for each multimorbidity group). The association was equally strong among persons with low and high levels of education.

Conclusion
Our study suggests that psychological wellbeing is as an important prognostic factor for death in persons with multimorbidity even when taking lifestyle, socioeconomic status and morbidity burden into account. These findings confirm that patients should be seen in a biopsychosocial context. Personalised care with a strong focus on mental health is essential when treating persons with multimorbidity.

Points for discussion
How well is mental-physical multimorbidity handled in primary care today? Are patients offered opportunistic screening for mental health problems? Which interventions may prove effective in clinical care?
Patient pathways in older people with hip fracture

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Background
Hip fractures are prevalent among older people. Consequently, costs are high for patients (functional impairment and dependency, increased mortality) and society (health care expenditures). Most patients need rehabilitation after surgery for hip fracture. Because municipalities vary in available health services the question arises as to what extent municipal resources might affect patient outcomes.

Objectives
We aim to examine associations between municipal resources and patient outcomes through the first year after a hip fracture.

Material/Methods
We are conducting a cohort study based on merged data from three national registries. From the Norwegian Hip Fracture Registry, we obtain dates of all primary hip fractures in 2011–2012, demographic data, total morbidity (ASA) score, quality of life 12 months after hip fracture surgery, and date of death (if applicable). From the Norwegian Patient Register, we extract dates of admission and discharge for primary surgery, or readmission in 2011–2013. From Statistics Norway, we obtain data on available municipal health services with regard to rehabilitation.

Results
Preliminary: The study population comprises all 16024 people who experienced a primary hip fracture, mean age 80.8 (SD 11.6) years, 68.6% women. All-cause mortality 8.7% after 30 days and 25.5% after 1 year. We will analyze, and present at the conference, associations between survival, readmission and quality of life at the patient level with rehabilitation resources at the municipality level.

Points for discussion
– Implications for organizing rehabilitation in the municipalities.
– Implications for selecting patients with regard to rehabilitation.

Drugs prescribed by general practitioners according to age, gender and socioeconomic status after adjustment for multimorbidity level

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Background
Age, gender and socioeconomic status have been shown to be associated with the use of prescription drugs, even after adjustment for multimorbidity. General practitioners have a holistic and patient-centred perspective and our hypothesis is that this may reflect on the prescription of drugs. In Sweden the patient may seek secondary care without a letter of referral and the liability of the prescription of drugs accompanies the patient, which makes it suitable for this type of research.

Objectives
In this study we examine the odds of having prescription drug use in the population and the rates of prescription drugs among patients, issued in primary health care, according to age, gender and socioeconomic status after adjustment for multimorbidity level.
Material/Methods
Data were collected on all individuals above 20 years of age in Östergötland county with about 400,000 inhabitants in year 2006. The John Hopkins ACG Case-mix was used as a proxy for multimorbidity level. Odds ratio (OR) of having prescription drugs issued in primary health care in the population and rates of prescription drug use among patients in primary health care, stated as incidence rate ratio (IRR), according to age, gender and socioeconomic status were calculated and adjusted for multimorbidity.

Results
After adjustment for multimorbidity, individuals 80 years or older had higher odds ratio (OR 3.37 (CI 95% 3.22–3.52)) and incidence rate ratio (IRR 6.24 (CI 95% 5.79–6.72)) for prescription drug use. Male individuals had a lower odds ratio of having prescription drugs (OR 0.66 (CI 95% 0.64–0.69)), but among patients males had a slightly higher incidence rate of drug use (IRR 1.06 (CI 95% 1.04–1.09)). Individuals with the highest income had the lowest odds ratio of having prescription drugs and individuals with the second lowest income had the highest odds ratio of having prescription drugs (OR 1.10 (CI 95% 1.07–1.13)). Individuals with the highest education had the lowest odds ratio of having prescription drugs (OR 0.61 (CI 95% 0.54–0.67)).

Conclusion
Age, gender and socioeconomic status are associated with large differences in the use of prescribed drugs in primary health care, even after adjustment for multimorbidity level.

Points for discussion
Do general practitioners plan, evaluate and discontinue prescription drugs properly among the elderly patients?
Is the barrier to initiate pharmacological treatment higher for male patients compared to female patients?
To what extent does the patient’s socioeconomic status affect the decision to initiate pharmacological treatment?
To what extent do general practitioners consider the patient’s age, gender and socioeconomic status when initiating and choosing pharmacological treatment?

Women with wrist fractures: what is their risk for osteoporosis, their co-morbidity and quality of life?

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Background
Wrist fractures after low energy trauma are common in women and indicate a higher risk for hip- or spine fractures and for osteoporosis which is under diagnosed and undertreated in Sweden. FRAX (WHO Fracture Risk Assessment tool) can be used to identify high risk patients in need for further investigation with BMD (Bone Mineral density) measurement.

WRIST FRACTURES AND osteoporosis presumably have negative effect on the patient’s quality of life (QoL) and increase risk for co-morbidity, this should be investigated in order to optimize the care of these patients.

Objectives
To study a cohort of women with wrist fractures concerning their risk for osteoporosis, future fractures, their co-morbidity and QoL.

Material/Methods
To all women, ≥50 years (n=403) treated 2009 at Skaraborgs hospital for wrist fracture a questionnaire was send in 2013. Information needed to analyze FRAX was collected as well as data on BMD-measurement, treatment for osteoporosis, co-morbidity and current medication. The SF-36 questionnaire was used to evaluate QoL.
Results
A study of medical records 2010 showed that 11% of these 403 women received a BMD-measurement and/or got treatment for osteoporosis. The questionnaire was answered by 237 women in 2013. Two hundred-six (86.9%) had FRAX >15 indicating high risk of which 51.5% had previous fractures and 80.6% had concurrent diseases. Of the 206 women 30.9% had been investigated for osteoporosis and 33.5% were treated. Symptoms after wrist fracture (pain, stiffness and weakness) were still a complaint in 116 women. QoL is currently analyzed.

Conclusion
Only one third of the women has been investigated and treated 4 years after wrist fracture. This is an increase since the first study but still far from what is recommended by The Swedish National Board of Health and Welfare. Half of the women with FRAX >15 complained about remaining symptoms after fracture, how this affects QoL will be investigated.

Points for discussion
An increasing interest in care of patients with risk for osteoporosis and future fractures has been noted and organizational arrangements have been inaugurated locally and regionally to encourage detection and increase treatment of these patients. Primary Health Care is one of the stakeholders and discussions of how the care would be arranged to be optimal is mandatory.

Background
Health care utilization is an important aspect of health services research and influences GPs’ daily work. However, secondary analysis of routine data gives only a limited view of health care utilization and survey data have their methodological shortcomings because of recall bias and lack of details.

Objectives
To develop and evaluate a health care utilization diary inspired by event diaries.

Material/Methods
We developed a health care utilization diary based on results from a qualitative study. The diary consists of socio-demographic questions, calendar-like questionnaires to check for different sorts of therapies, hospital admissions, health complaints and of a comprehensive diary to document each visit to a physician in a given time period.

We evaluated the diary in three waves. In between each wave the diary was improved by the results of the former wave. The sample consisted of volunteers, mainly recruited from primary care practices. The participants were called by phone after filling out the diary to check for comprehensibility, problems and validity. Reliability was checked by a split-half of the diary (odd/even days) and use of the Spearman-Brown-equation. Validity was checked by the Kendall correlation coefficient between the summative results of the diary and the answers on survey questions by phone.

Results
In the three waves 5 of 8, 136 of 230 and at least 64 of 234 persons took part respectively. In the second wave, 67% of the participants mentioned at least one complaint during a one month period. 18% had at least one encounter with a physiotherapist, 72% had at least one and 10% at least four contacts with a physician in one month.

The calendar-like questionnaires showed a good reliability (r=.89 for physiotherapy) and a good validity (r=.77 for physiotherapy). However, we detected inconsistencies in a substantial part of the forms (36%) of the second
wave. Thus, we revised the form and shortened the time period from one month to two weeks for the third wave. By the abstract deadline the third wave had just ended, a first check of the forms looks promising. We are going to present the final results at the congress.

Conclusion
A health care utilization diary can give deeper insights into the actual health care utilization on different levels of health care. Calendar-like questionnaires to check appointments are easy to administer. More complicated forms asking more specific questions pose problems for filling out. With our step-by-step approach of constructing and evaluating this health care diary we hope to develop a reliable and valid instrument for research purposes.

Points for discussion
To what extent is routine data on health care utilization available in your country?
What does a measurement instrument of health care utilization in diary form add to the already available information from your point of view?

Objectives
To determine possible predictors for long-term success in women treated with PFMT for SUI.

Material/Methods
Secondary analysis of data from a randomized controlled trial comparing two non face-to-face treatment programs for women with clinically relevant SUI (≥1/week), both based mainly on PFMT. We included all participants that answered the one-year follow-up (n=169, mean age 50.3 (SD 10.1) years), regardless of intervention group. Three outcome variables, Patient Global Impression of Improvement (PGI-I), International Consultation on Incontinence Modular Questionnaire Urinary Incontinence Short form (ICIQ-UI SF), and sufficient treatment were used to define success after one year. Data from baseline, the four-month, and one-year follow-ups were evaluated as potential predictors for success using logistic regression.

Results
Of the participants, 77% (129/169) were successful in at least one of the outcome variables, and 23% (37/160) were successful in all three. The adjusted odds ratios (ORs) for success at one year were 5.15 (95% confidence interval (CI) 2.40–11.03) for PGI-I, 6.85 (95% CI 2.83–16.58) for ICIQ-UI SF, and 3.78 (95% CI 1.58–9.08) for sufficient treatment, for women that were successful in the corresponding outcome variable at 4-months, compared with those who were not. Older age (years) was a significant predictor for success in PGI-I and sufficient treatment, with the adjusted ORs of 1.06 (95% CI 1.02–1.10) and 1.08 (95% CI 1.03–1.13) respectively. Performing regular PFMT at one year was a significant predictor for success, compared with not training regularly, for the PGI and sufficient treatment (adjusted ORs; 2.32 (95% CI 1.04–5.20), and 2.99 (95% CI 1.23–7.27), respectively).

Conclusion
This study suggests that there are predictors that foresee long-term success in women with clinically relevant SUI treated with PFMT without face-to-face contact. A successful result at the four-month follow-up, performance of
regular PFMT after one year, and older age were significant predictors for success. These results can be helpful when informing patients with SUI about PFMT in a clinical setting.

**Points for discussion**
Clinically relevant outcome measures? How can the results be used in a clinical setting?

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**535-OP**

Patient consents in APO audits using automatic data capture and pop-up questionnaires

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**Background**
During the last few years automated data collection and feedback has become a generalised tool for optimising various aspects of patient treatment and disease prevention in Danish general practice. Necessary collection of patient consents complicates the use of data-triggered questionnaires and data already entered in the GPs’ electronic patient record systems.

**Objectives**
This presentation aims to demonstrate a way of integrating patient consent in automated data collection and feedback, so that it can be used in activities carried out by Audit Project Odense (APO).

**Material/Methods**
An addition to the data collection software has been programmed. Specific combinations of patient-specific data from the GPs’ electronic patient record systems can instantly trigger a specific pop-up questionnaire. The pop-up now includes an item where the GP can state whether the patient has consented to data collection. The data automatically collected for specific projects are pre-typed in the pop-up, so the patient can see which data are used in each project. It is ready for printing or e-mailing to the patient.

**Results**
The tool will be used for quality improvement activities carried out by APO. During the audit period, automatically generated individual data overview and benchmarking are made available to the GPs by log on to a secure website. The participating GPs meet for training and discussion at courses and/or receive educational material. Effects on the targeted quality improvement items are analysed in a closing report.

**Conclusion**
The method and pop-up module will be presented, preferably exemplified by project data.

**Points for discussion**
What is the optimal way to ascertain patient consent in use of the most modern ways of data collection for quality improvement purposes?

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**536-OP**

Digital prescribing in Europa – overview on the bases of questionnaire filled up by experts in each country

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**Background**
In Estonia the nationwide digital prescribing system has been in use from 01.01.2010. We wanted to know what kind of prescription systems are used in other European countries.

**Objectives**
We decided to get an overview about prescribing systems and habits in Europa.

**Material/Methods**
We used the network of EquiP members as country representers (as experts) to fill the questionnaire about digital prescribing in their countries. For clarifying and explaining (if
needed) we turned towards the experts via e-mail. We got the answers from 25 countries.

**Results**
There is a big variety in Europe in using prescribing systems. There are 6 countries from 25 using the nationwide digital prescribing system. There are 12 countries which do not use digital prescribing. From them in 2 have no active discussions about that theme in society. In other countries digital prescribing is described as regional (4) or between selected partners (3).

We also asked about future – 7 countries prepare to use digital prescribing in near future.

Central prescription-database exists in 11 of countries. Some of countries use automatic decision – support systems consisting different warnings and reminders, helping to follow the guidelines.

How does the patient get the renewals of prescription and what are the possibilities for doctor to prescribe medicine outside of office? 11 of countries allow the renewal only by the doctors/nurses appointment, the others offer the possibility to phone or e-mail, 5 countries allow the renewals via pharmacy. The doctors use paper prescriptions outside of office in 13 countries, the rest of countries allow prescription via table or smartphone, remote-to-desktop possibility or phoning to pharmacy, in some countries it can be sent by fax.

Feedback to doctors (medical service providers) is given centrally in 15 of 25 countries, mostly about guideline – follow-up, but also about generic medication prescribing and medical service expenses. We also asked to describe benefits and harms of digital prescribing system from the view of patient/doctor/pharmacist/state.

**Conclusion**
The digiprescribing was considered convinient, timesaving and safe with benefits of statistics and backfeed from the authorities. The negative aspects are the delicate data protection and IT-connection disturbances, also the danger to loose of doctor/patient relationship.

**Points for discussion**
Nationwide digiprescribing – what in future?

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### The eContinence project

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**Background**
Urinary incontinence (UI) may severely affect quality of life and costs for society are high. Approximately one-fourth of women have UI. First-line treatments are lifestyle advice, pelvic floor muscle training (PFMT) for stress urinary incontinence (SUI) and bladder training for urgency urinary incontinence (UUI). Embarrassment may prevent those in need from seeking help; in addition, access to care varies and treatment is often not optimal. Of the Swedish population, 95% has access to the Internet, and ¾ use a smartphone. Our research group has developed treatment programmes for SUI in women via the internet, via a smartphone application and via a brochure. The efficacy of the Internet programme was evaluated in a randomized controlled trial (RCT) and a cost-utility analysis was done. The overall conclusion was that Internet-based treatment is a new, acceptable and affordable first-line treatment for SUI. The effect of treatment via the smartphone application “tät” is evaluated in another trial. The implementation process and the development of programmes for UUI and mixed urinary incontinence (MUI) have started.

**Objectives:**
The overall aim of the project is to develop, evaluate and implement treatment programmes for urinary incontinence via Internet, Smartphone and PC tablet applications.

**Material/Methods**
**Smartphone application study:** RCT (Clinical trials NCT01848938), 123 women aged >18 yrs with SUI at least once a week were randomized to treatment via a smartphone application or to a postponed treatment group. Outcomes after three months treatment were incontinence...
episode frequency, incontinence severity, use of incontinence aids, condition-specific QOL and subjective improvement.

Implementation studies: Age, education level, place of residence, severity of incontinence and effect of treatment are studied during the implementation process.

Development and evaluation of a diagnostic and treatment programme for UUI and MUI in women: A new platform allows us to individually tailor actions depending on each individual’s preferences, symptoms, and needs. Different treatment programmes such as PFMT, bladder training and other behavioural therapies are included. The treatment effect will be studied in a RCT with the same validated outcomes as in our previous studies. Qualitative methods are also used.

Results
Women treated via a smartphone application achieved significant and clinically relevant improvements regarding symptoms, QOL and urinary leakage, differences were significant between groups. An overview of ongoing studies within the eContinence project will be presented at the congress.

Conclusion
Treatment via Internet/smartphone/pc tablet has the potential to increase access to care and to empower women with urinary incontinence to take an active role in their health care.

Points for discussion
eHealth for urinary incontinence in clinical practice?

A Systematic Method to Train in eHealth at Large Scale
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Background
Information technology and eHealth are powerful enablers both on strategic and operational level for the performance in health care and research. eHealth systems have to support the care processes in a proactive manner, and to detect unmet medical needs. A strategic program for systematic training in eHealth has been established during 2010–2013 and from 2014 integrated in daily operations in Stockholm County Council, Stockholm Health Care Services.

Objectives
Informatics and eHealth: A challenge in all eHealth and IT systems is the capacity to collect and to retrieve validated and correct data. The informatics will constitute the base for the eHealth systems. The usage has to be made widely well known for all staff to ensure the benefits from the systems.

Competence Boost for eHealth: The idea to establish a systematic method to train competence in eHealth for all staff was introduced 2010. The method, called Competence Boost for eHealth, aimed to support care process development and personal skills to ensure that staff could comprehend eHealth concepts to create new more efficient care processes with improved quality.

Material/Methods
The project was strategic and reported to the CEO management team. The plan and content was aligned with the overall strategy plan and involved all clinical directors (120). 20 process leaders and 150 coaches were identified and trained under the lead of the CIO. In a network cascade work shops were held at each clinical department or center.

Results
9 948 employees have participated in at least one work shop. 4 245 work shops led by 142 process coaches and 448 network meetings with the process leaders and process coaches were given between September 2011 to December 2013. Learning seminars for management teams and partners as patient organizations with presentations of good examples were given twice a year as an opportunity to share knowledge. An evaluation of the learning process showed that both managers and employees found work shops important for
learning and the managers verify the method as an important tool for care and process development. The evaluation of the competence level in eHealth shows that self-estimated level of competence was significantly increased for all professionals.

**Conclusion**

We suggest a network model for continuous and systematic learning aligned with the overall strategies in the organization. The attendance of top management and all other clinical leaders is a top priority to increase efficiency and quality in the care processes. The model is now integrated in our care development process, the Value Boost.

**Points for discussion**

How can we use the model for our work with the Future Health Care plan in Stockholm County Council? Can private care providers use the model? Can we work together all caregivers in Stockholm County Council and even in a national way with the informatics and quality improvement? How can we take the next step together?

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**539-OP**

**Retention and recruitment challenges in the Norwegian patient list system**

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**Background**

In 2001, a patient list system was introduced in Norway, theoretically implying that all citizens are assigned to a general practitioner (GP). The GP contracts with a municipality. The system aims at securing continuity of doctor-patient relationships. This prerequisite is known to vary between municipalities, and the rural municipalities face the largest challenges.

**Objectives**

*We ask:*

1. What is the duration of GP-contracts, and how does the GP’s gender and age, list size, and municipality size associate with duration?
2. Which municipalities have the most severe challenges with assigning GPs to their patient lists, and how do they handle situations without regular GPs?

**Material/Methods:**

The material includes all 7,359 GP-contracts concluded between a GP and a municipality, in the period between May 2001 and May 2014. Each GP-contract is characterised by: the GP’s age and gender, size of patient list, start and termination date (if reached), and the population size of the contracting municipality. The GP-contract duration is measured as the time from conclusion until terminated (or censored at end of follow up), and is analyzed using survival analysis (Kaplan-Meyer survival curves and Cox regression).

The same period, 1,091 patient lists were not tied to a named GP. To investigate further into this, a supplementing survey will be conducted in January 2015, to provide better insight into the use of GP-substitutes to serve such lists in rural municipalities. Survey results will be included in the presentation.

**Results**

Municipalities with less than 2,000 inhabitants have retained less than 8 percent of the GPs entering the patient list system in May 2001, while municipalities with 50,000 inhabitants or more have retained 34 percent of their initial GPs. Nationally, 25 percent of the initial GP-contracts where still functional in May 2014. Half of the GP-contracts in municipalities with less than 2,000 inhabitants had ceased after 2 years and 9 months. Corresponding figures for municipalities with 50,000 inhabitants or more was 9 years and 4 months.

The duration of a GP-contract increases significantly according to increasing municipality size and lists including less than 900 patients. The duration reduces significantly with increasing age, a female GP, or if the list includes more than 1200 patients.
The 2,981 GP-contracts terminated during the investigation period lasted on average 4.6 years, and varied on average between 3 years (<2,000 inhabitants) and nearly 6 years (50,000 inhabitants or more).

**Conclusion**
The difference in the duration of GP-contracts between large and small municipalities will increase. Assuming that continuity in the doctor-patient relationship provides better service quality, these results suggest that patients in small municipalities are offered less service quality than patients in large municipalities.

**Points for discussion**
Is this situation acceptable?

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### 540-OP

**Measuring Care Coordination to Identify Patients at Risk**

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**Background**
Coordination of care is threatened when information does not readily flow between those involved in delivering care. Patients with poorly coordinated care are likely to have more costly and lower quality health care due to factors such as excess utilization resulting from redundant investigations, potentially harmful drug-disease interactions, and lower patient satisfaction. Therefore, the identification of patients at risk of poor coordination is essential.

**Objectives**
This presentation will address the impact of information on improving coordination of care across the spectrum of the health care system, specifically presenting the existing scientific evidence regarding:

- the differentiation between primary and specialty care, and issues surrounding coordination,
- the impact of multi-morbidity on the delivery of care, including the identification of patients at risk of poor coordination,
- strategies to implement more appropriate information interfaces between clinicians.

**Material/Methods**
The Johns Hopkins ACG® System has developed four complementary coordination markers as well as a coordination risk score to systematically assess the risk of poor coordination of care. The coordination markers use the clinician taxonomy to determine if a clinician can manage and coordinate the medical needs of the patient. In combination, the markers can identify populations at risk for poor coordination which has implications for cost, quality, and performance assessment. Greater insight about the convergence of risk, medical utilization and prescribing patterns can be captured by combining risk defined by diagnoses with risk defined by pharmacy information.

With the upcoming new release of the ACG System, “Care Density”, a measure of patient sharing among physicians, will be introduced. This patient-level measure assesses the number of individual clinicians a patient sees and the degree to which those clinicians share other patients. The care density measure is based on the hypothesis that patients seen by clinicians who share patients more frequently have higher levels of communication and information sharing.

**Results**
A recent study of the Care Density measure on 9,596 patients with congestive heart failure (CHF) and 52,688 with diabetes demonstrated a significant correlation between lower inpatient costs and rates of hospitalization amongst those patients with high care density. Also, for diabetic patients with high care density, lower outpatient costs and higher pharmacy costs were found.

**Conclusion**
Through a better understanding of how patients are shared amongst clinicians, as well as identifying those patients at risk of uncoordinated care, coordination can be improved, rates of hospitalization reduced and potential cost savings achieved. Further research is necessary to substantiate these results in other health care settings.

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Is the quality of primary healthcare services influenced by the healthcare centre’s type of ownership? – An observational study of privately and publicly owned primary care centres in Sweden

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Background
Primary healthcare in Sweden has undergone comprehensive reforms, including freedom of choice regarding provider, freedom of establishment and increased privatisation in order to meet demands for quality and availability. While the publicly owned primary care centres (PCCs) belong to non-profit organisations, privately owned PCCs have the option of being profit-making organisations.

Objectives
This study aims to investigate whether or not the type of ownership influences the quality of the primary healthcare services provided.

Material/Methods
In this retrospective observational study the patient perceived quality, the rates of purchased prescriptions of antibiotics and benzodiazepine derivatives, and the follow-up routines of certain chronic diseases at all accessible primary care centres in Region Västra Götaland were analysed for the period between April 2011 and January 2014. The outcome measures were compared on a group level between privately owned (n=86) and publicly owned (n=114) PCCs.

Results
In comparison with publicly owned PCCs, privately owned PCCs were characterized by: urban overrepresentation (54%); smaller population sizes (avg. 5932 vs. 9432 individuals); overrepresentation of individuals of working age (62% vs. 56%) and belonging to the second most affluent socioeconomic quintile (26% vs. 14%); better results in perceived patient quality (82.4 vs. 79.6 points); higher 3-month prescription rates of antibiotics per 100 individuals (6.0 vs. 5.1 prescriptions) with a larger variance (SD 2.78 vs. 1.50); lower prescription rates of benzodiazepines; lower rates for follow-ups of chronic disease. While antibiotic use decreased, the use of benzodiazepines increased on average for all PCCs over time.

Conclusion
The findings of this study cannot unambiguously answer the question of whether or not the quality of primary healthcare services is influenced by the healthcare centre’s type of ownership. The effects on the quality of the medical services in a competitive environment remain unclear and indicate that a longer observation period is needed to elucidate possible causal relations.

Points for discussion
Consequences of these findings and future research.
Continuity of primary care is best supported by the availability of a specific doctor appointed for patients: a comparative study of Finnish municipalities in 2011 and 2013

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Background
Continuity is a basic principle and an essential part of high quality primary care. We here assessed patient-related continuity of care in primary health care centres in the Tampere University Hospital catchment area in Finland. We also examined the differences in indicators of municipalities and population in that area, and the relationship between the indicators and the continuity of care.

Objectives
The aim here was to find out if larger population, lower morbidity rate or better affluence of the municipality could bring better continuity for the patients. We also assessed the relationship between a specific doctor appointed for a patient and the possible variation of the continuity in the municipalities.

Material/Methods
We conducted a follow-up questionnaire survey among patients attending the Tampere University Hospital catchment area health care centres in 2011 and 2013. Continuity was assessed with the question: “When visiting the health centre, do you usually see the same doctor?” The indicators describing the municipalities and population were collected from 2011 data from Statistics of Finland, the Association of Finnish Local and Regional Authorities, the National Institute for Health and Welfare and the Social Insurance Institution of Finland.

Results
The continuity of care varied considerably among the municipalities. The highest percentage for continuity of care was 95% and the poorest 0%. None of the indicators describing the municipalities explained the differences between them. If there was a particularly assigned doctor for the patients in the municipality the continuity was significantly more likely (OR 26.1, p<0.001) than in municipalities with no specific doctor appointed for patients. The relationship was notably lower (OR 5.0, p=0.022) between the lack of doctors and the continuity of care.

Conclusion
The population, the morbidity rate and the affluence of the municipality did not explain the variation in continuity of care between the municipalities. Regardless of differences between municipalities and population, the availability of a specific doctor appointed for patients would appear to support best the continuity of care.

Points for discussion
• What does it mean for a patient to have and for a GP to be a specific doctor appointed for a patient?
• How can the authorities ensure the continuity of care for at least those patients who need the care most?

The various ways general practitioners refer to hospital. An observational cross-sectional study using principal components analysis

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Abstracts
Wednesday 15.30 – 17.00

544-OP

Short–term effects of a detailed pay for performance program for diabetes in primary care – an observational study

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Background
In the County Västra Götaland in Sweden, a pay for performance program was introduced in 200 primary care units for several clinical areas in January 2011. In diabetes mellitus care, it covered 10 quality indicators from the National Diabetes Register (NDR). Six indicators covered quality in reporting and 3 covered proportion of patients reaching targets for HbA1c, blood pressure and LDL-cholesterol. This program replaced payment linked only to registration. Lessons learnt from such interventions are important for design of future reimbursement systems in Primary care.

Objectives
We assessed effects on registration practice and comparability of data between care givers for patients with diabetes mellitus.

Material/Methods
Observational study analyzing short term outcomes one year before and one year after introduction of a new payment scheme in primary care in the study county compared with a reference county. The study population consisted of patients from NDR, study county, n = 44 785; reference county, n = 39 268. Variables studied were completeness of data, level and target achievement of glycated haemoglobin (HbA1c), blood pressure (BP) and LDL-cholesterol.

Background
Improving the referral process between physicians is critical to facilitating timely access to specialty care. There are several aspects with the referral process that require significant improvements.

Objectives
To identify factors and components important for the referral process based on the GPs’ opinions about referring and registrations of what they do in practice when they refer.

Material/Methods
Invitation were sent to 37 registered CPD (continuous professional development) groups in Southern Rogaland (330.000 inhabitants, 300 GPs and one local hospital (Stavanger University Hospital). 23 of the CPD groups accepted the invitation to participate. Meetings were held from January to April 2014. 123 group members received information about the study and filled in a questionnaire on a VAS (visual analogue scale) with 10 statements about the referral process. 58 GPs participated in the collection of data when they referred to hospital during one month. Principal component analysis (PCA) was used to find important elements and factors in the referral process.

Results
The study showed that the use of principal component analysis and abduction of quantitative data can give useful insight and understanding of complex processes as referring. The results will be presented as basis for discussion.

Conclusion
The study showed that the use of principal component analysis and abduction of quantitative data can give useful insight and understanding of complex processes as referring.

Points for discussion
The results will be presented as basis for discussion.

544-OP

Short–term effects of a detailed pay for performance program for diabetes in primary care – an observational study

Helena Ödesjö1, *Jörgen Thorn1, Staffan Björck 2
1Department of Primary Healthcare, University of Gothenburg, Sweden.
2Avdelningen för molekylär och genetisk medicin, Institutionen för medicin, Göteborg, Sweden.
**Results**
In VGR, newly recruited patients entered during the incentive program were less well controlled than already known patients in NDR with higher glycated haemoglobin (HbA1c) (54.9 (54.5–55.4) vs 53.7 (53.6–53.9) mmol/mol). Also blood pressure (BP) and LDL cholesterol were higher in new recruited patients. Completeness of data increased in VGR but not in the reference county. In VGR, LDL cholesterol first reported during the incentive program was higher than for patients with annual measurements. In VGR, with an incentive for BP <130/80 mmHg the registration behavior around target was affected with a substantially increased target fulfillment (23.7 vs 28.0%, p <0.001).

**Conclusion**
Payment for registration led to an altered registration behavior with increased registration, increased completeness of data and an altered BP registration behavior. Newly recruited patients and data were less well controlled than already known patients. Thus, missing patients and missing data in a quality register can lead to overestimation of performance.

**Points for discussion**
The effect of financial incentives in primary care on registration practice and register data quality.

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**Creating Chronicity – The unsustainable medical making of multi-morbidity**

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**Background**
This paper addresses the solid evidence, converging from the neurosciences including psychology, and from genetics, immunology, epigenetics and endocrinology (in short PNEI), which bespeak the high significance of burdening lifetime experience on human health.

**Objectives**
The knowledge brought forth in the transdisciplinary PNEI-field, invalidating the traditional dogma of mind and matter as separate and different, allows for identifying the shortcomings of the fragmenting biomedical conceptualisation of the human body.

**Material/Methods**
An authentic sickness history is the point of departure for a more comprehensive account of the biomedical approach to a multi-morbid patient.

**Results**
The analysis of the sickness history demonstrates how biomedical logic engendered a multi-morbid patient by failing to identify the underlying common source of what, in accordance with the a fragmenting view on the body, was diagnosed as separate and different health problems. When biographical accounts were given relevance, the apparent multi-morbidity and the high investment from the side of the health care system could be identified as biomedical artefacts, contributing to chronicity and an unsustainable use of health care resources.

**Conclusion**
The common message from the research field termed Psycho-Neuro-Endocrino-Immunology
has, by now, engendered a new model of the impact of chronic overload, a rising interest in biographical accounts, and a renaissance for the concept of personhood.

**Points for discussion**

Personhood is incomprehensible within a strictly biologically oriented and scientifically grounded framework. Its significance calls for a theoretical reorientation in medicine in order to stem the unsustainable yet rising “tide” of multi-morbidity and chronicity in Western societies.

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**546-OP**

**Values-based medicine, EBM and money**

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**Background**

There is an ongoing controversy over how tax revenues are distributed in health care systems and how the authorities’ control systems must be designed to ensure that the professionals use resources appropriately. Since the 1990s, the concept of New Public Management, NPM, has been introduced in health care systems in many Western countries. Over time, more and more negative effects associated with NPM have been identified, particularly in health care. In recent years another concept to direct health care professionals, Value-Based Health Care, has been widely suggested. There seems to be a misunderstanding and violation of the original idea of “values-based medicine”. In value-based healthcare, value equals money. In values-based medicine, value means the patient’s personal values. Patient-centeredness is a prerequisite clarifying the patient’s personal values.

**Objectives**

To highlight the importance of values-based medicine and patient-centeredness to ensure exercising true EBM.

**Material/Methods**

Conclusions from a working group within The Swedish Society of Medicine.

**Results**

A contribution to clarify the importance of the patient’s values relatively to purely medical and economic value in the ongoing controversy over the governance of health care.

**Conclusion**

Patient-centeredness is a method that requires individual skills that can be taught and trained and it aims to identify the patient’s values. To a proper application of EBM, values-based medicine is required. When value in medicine is defined as economic value, it infringes on fundamental ethical values, democratic priorities and shared decision-making.

**Points for discussion**

Strategies for general practice at all levels to contribute to a patient-centered, values-based medicine. How can general practitioners take responsibility for cost effectiveness at the same time.

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**547-OP**

**Health benefits of moderate alcohol consumption – a myth?**

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**Background**

In the daily work on disease prevention, many clinicians hesitate when it comes to alcohol. Among other reasons this is due to the ambivalence towards alcohol in the society. Many people find that the taste and effects of alcohol are positive and at the same time alcohol consumption is linked to shame, guilt and tabu. There have been conflicting statements from the research on the health benefits or harms of drinking alcohol. Time after time evidence suggesting that low doses of alcohol is associated to a reduced risk of cardiovascular
disease. To illuminate where we stand today and the strength of the scientific evidence is therefore valuable. The Swedish Medical Society, SLS, together with the temperance order, IOGT-NTO, has initiated the a project, alcohol and society, with the aim to present an annual research report on alcohol. The main theme each year is suggested jointly by the Medical Society, represented by The Swedish College of General Practice, IOGT-NTO and an international research team. The first report in 2013 focused on youth and alcohol. The actual report from december 2014 report summarizes and and examines the scientific evidence regarding the health effects of "moderate" (i.e, low-dose) alcohol consumption. The report is written by an international research team including leading alcohol researchers from the US, Canada, Australia and Sweden.

**Objectives**
To present and discuss the report and what impact it may have on the daily work in general practice.

**Material/Methods**
The scientific report "Evidence about health effects of "moderate" alcohol consumption": reasons for scepticism and public health implications".

**Results**
The existing evidence finding cardiovascular benefits from low-dose alcohol consumption is weak and emerging evidence suggests that these protective effects are spurious (i.e., do not exist, or are harmful). The view that alcohol confers health benefits is therefore even less of a valid counter-argument against the adoption of effective alcohol control policies (e.g., those which reduce alcohol’s availability and affordability).

**Conclusion**
There is no scientific evidence to recommend alcohol as a mean to promote health.

**Points for discussion**
The general relevancy of the report. What impact it may have on daily work in general practice. Does this change the preventive work in general practice and in the society?

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**What’s the doctor’s part when medicines have played out their role? – A qualitative study about the GPs’ experience of work at nursing homes in Sweden**

**Beata Borgström Bolmsjö1, *Eva Lena Strandberg1, Patrik Midlöv1, Annika Brorsson1**

1Department of Clinical Sciences in Malmö, Lund University, Malmö, Sweden.

**Background**
Nursing homes in Sweden have a limited capacity, and only 5.2% of Swedish residents aged 65 and over live permanently in nursing homes. Hence, elderly subjects living in nursing homes in Sweden represent the part of the elderly population that is most frail and in most need of care.

In Sweden in general, a General Practitioner (GP) takes care of all subjects living in the nursing home, and pays weekly visits.

Research from nursing homes show that the residents seldom have adequate pharmacological treatment according to diagnosis, often have poly-pharmacy and/or inappropriate medical treatment in concerns of declining renal function.

What complicates optimal care for elderly may be lack of knowledge, lack of time or insufficient economic resources.

The GPs’ experience of the work with nursing homes in Sweden is not yet studied.

**Objectives**
This study aims to illuminate the GPs’ experience of the work with elderly living in nursing homes.

**Material/Methods**
This qualitative study is based on individual semi-structured interviews and a follow up focus group discussion.

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**548-OP**

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In total 12 GPs were interviewed. They had been working in primary health care during between 2 and 38 years. The GPs worked at nursing homes situated in different cities as well as in the countryside in the southern part of Sweden.

The interviews were recorded digitally and transcribed verbatim. Further the written text was systematically analyzed with content analysis, with the process leading to identify categories and themes.

Thereafter the themes will be discussed among the participating GPs in a focus group interview. The written text from the focus group discussion will be analyzed stepwise by the authors to develop the themes further.

Results
The picture that emanates in the preliminary analysis is that the work at nursing homes is enjoyable but time consuming for the GPs. The work load could be facilitated if there was more staff at the nursing home. A better collegial dialogue among the GPs working with nursing homes could improve the quality of the GPs work. The team work with the staff is important for the GP and the care of the patient is enhanced if the team is consistent.

Conclusion
Through this study we present the GPs’ experience of elderly care to provide input on how the care for the elderly can be improved, as well as to identify obstacles for good quality of care.

Points for discussion
The GPs role in the patient care at Nursing Homes.

The need for continuous education and collegial dialogue for GPs involved in elderly care.

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551-P

Prescription patterns in the newly diagnosed COPD patients according to severity

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2Primary Care Centre Badalona-5, Catalan Institute of Health, Badalona.
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Background
Treatment for COPD is tailored based on severity and clinical characteristics. Prescription treatment patterns in COPD patients in Primary Care may differ from guidelines recommendations.

Objectives
To describe the adequacy of treatment prescribed in the newly diagnosed COPD patients according to severity.

Material/Methods
Epidemiological study with data obtained from the Information System for Development in Research in Primary Care (SIDIAP), a population database that contains information of 5.8 million of habitants (80% of Catalonia’s population). Newly diagnosed COPD patients in the years 2007–2012 were identified through a diagnostic algorithm, and patients with a diagnostic spirometry were included and classified based on GOLD severity stages. Information about the initial treatment patterns was collected. No information regarding mMRC or CAT was available but previous diagnosis of asthma and exacerbations during the previous year were collected.
Abstracts
Wednesday 15.30 – 17.00

Results
Data from 15,312 patients were analysed. At the time of diagnosis patients were classified as GOLD 1 (13.9%), GOLD 2 (55.2%), GOLD 3 (26%) or GOLD 4 (4.8%). The frequency of patients with a previous diagnosis of asthma or frequent exacerbators was similar between groups (up to 6.6% of patients with previous asthma and 24.5% of frequent exacerbators). Regarding treatment, milder patients were more likely to receive short-acting bronchodilators in monotherapy (21% of patients in GOLD 1 versus 14.8% in GOLD 4) or no treatment after diagnosis (38.7% GOLD 1 versus 13.6% GOLD 4) while patients in GOLD 4 received triple therapy more frequently comparing to GOLD 1 (36.6% versus 5.7%). Few patients were treated with double therapy consisting in LABA+LAMA (from 1.6% patients in GOLD 1 to 4% in GOLD 3). The percentage of patients treated with inhaled corticosteroids was higher in the severe groups (28.3%, 37.3%, 51.3%, 59.3% for GOLD 1 to 4 respectively).

Conclusion
Despite guidelines recommendations some GOLD 4 patients are still receiving short acting bronchodilators or no treatment at all after diagnosis. Inhaled corticosteroids are frequently prescribed, especially for severe patients irrespective of their previous history of asthma or number of exacerbations.

Points for discussion
1. What steps should be taken for avoiding the COPD underdiagnosis, mainly those with a more severe disease?
2. What are the reasons that hamper an appropriate treatment of patients with COPD?
3. Why do GPs still rely upon inhaled corticosteroids for the treatment of COPD?

Full journal publication of abstracts presented at the Nordic Congress of General Practice in 2009 and 2011

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3 Department of Clinical Pharmacology, Bispebjerg Hospital, Copenhagen, Denmark.

Background
Research in general practice is important in order to improve overall health care and is often initially presented at scientific general practice conferences. The Nordic Federation of General Practice arrange Nordic conferences every second year. However, the conference abstracts are not indexed in international search databases and the works could not be considered final until published in full detail in a peer reviewed journal. Optimally, the vast majority of abstracts selected for presentation at conferences should be published and made accessible within a short period after the initial conference presentation in order for results to influence subsequent research and be implemented into clinical practice.

We have not identified any surveys that address publication rates for abstracts presented at general practice congresses.

Objectives
To describe and analyse the overall full journal publication rates for abstracts presented at two consecutive Nordic General Practice congresses.

Material/Methods
All scientific abstracts accepted for poster or oral presentation at the 16th and 17th Nordic congress of General Practices in 2009 and 2011 and published in the official programme were included in the analysis in order to allow at
least 36 months of follow up.

In order to assess publication rate, we searched Medline on the PubMed server and Embase on the Ovid server from January 1st, 2009 through December 1st, 2014.

When we confirmed a full publication, we recorded the journal’s title, date of electronic publication, and the journal’s impact factor in the publication year. All abstracts published as full paper in peer reviewed journals in the months before the corresponding congress, or during the same month that the congress took place, were considered to have been published before the congress.

Results
A total of 338 abstracts were identified. We excluded 105 abstract that represented symposiums and workshops, leaving 233 abstracts eligible for analysis of which 100 abstracts (43%) were identified with a full journal publication within the follow-up period.

Conclusion
Fewer than half of abstracts accepted for the two consecutive Nordic congresses of General Practice were identified with a full journal publication within 36 months of follow up. This may indicate a loss in spreading research results and result in potential publication bias of research from general practice.

Points for discussion
Why is the publication rate this low for works presented as abstracts at the Nordic congresses of General Practice?

Is it possible to improve the publication rate?

Research in general practice is important.

553-P
Fighting Antibiotic Resistance – The one Health Approach in Human and Veterinary Primary Care to Increase Prudent use of Antibiotics for Urinary Tract Infection (UTI)

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2Dept. of Veterinary Clinical & Animal Sciences.

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Background
Antibiotic resistance is one of the most important threats to human health as resistance is rapidly spreading. Resistant strains can be selected for in both humans and animals, and antibiotic use is the most important factor for development of resistance. Clinical signs of urinary tract infection are a common complaint in both humans and dogs and in production animals, urogenital infections can cause lowered fertility and thereby economic loss. In 2013 a multi-disciplinary research center for control of antibiotic resistance in humans and animals (UC-CARE) was established at the University of Copenhagen. This poster describes the clinical work-package, WP4.

Objectives
WP4 aims to create new evidence regarding diagnosis and therapy of UTI in humans and animals and thereby establishing evidence-based diagnostic protocols and guidelines for rational use of antibiotics in the treatment of UTI.

Material/Methods
Mapping of 1500 human patients with suspected UTI recruited from 50 general practices followed by an intervention and re-mapping. Evaluation of a culture and susceptibility point of care test (POCT) in primary care, conducted as a multi-center randomized controlled trial (RCT). Mapping of 800 dogs with suspected UTI
recruited from 100 small animal practices. Evaluation of a culture and susceptibility POCT in small animal practice, conducted as a multi-center RCT.

Examination of the prevalence of UTI in 185 slaughtered sows. The prevalence of UTI in live sows will be investigated on 5 different farms having reproductive problems, with UTI as the suspected cause. The most valid diagnostic test for detecting UTI in sows will be determined. The current procedures and attitudes toward treatment and prevention of UTI among pig veterinarians will be mapped.

Results
The studies are on-going.

Conclusion
Antibiotic resistance is a common problem in human and veterinary medicine. The collaboration has so far given an insight into common challenges as well as substantial differences between species. Hopefully, this study will inspire others to collaborate on confronting the increasing challenge of antibiotic resistance.

Points for discussion
Is a one health approach the way to go in order to combat the development of antibiotic resistant strains?
Where should interventions towards more prudent use of antibiotics be focussed, in the primary sector, the secondary sector or in veterinary medicine?

General Practitioners’ perceptions and assessments of Self-Care Ability in Patients with Multimorbidity and difficulties in Disease Management

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Background
Disease Management Programs (DMPs) have been developed for the major chronic diseases in Denmark. They include a description of the entire treatment process, evidence-based recommendations, a precise description of task responsibility and coordination among all involved actors. A cornerstone in the DMPs is stratification of the patients upon disease complexity and self-care ability. It is performed by the responsible physician, who thereby determines how and where the treatment should take place. There is only sparse knowledge about the General Practitioners’ (GPs’) perceptions of assessing self-care ability according to the DMPs and how it is managed in patients with multimorbidity.

Objectives
To explore GPs’ perceptions of and experiences with assessment of self-care ability in patients with multimorbidity and difficulties in disease management in relation to stratification.

Material/Methods
The experiences are collected by individual, semi-structured interviews with 10–15 GPs reflecting on patient cases. The interviews will be analyzed using a combination of data driven methods and theory.

Results
Preliminary results of the analysis of interviews will be presented.
Conclusion
Our preconception is that GPs’ evaluation of self-care ability in stratification is unsystematic because self-care is not defined in the DMPs. We do, however, expect that GPs make their own evaluations of self-care and a suggestion for a general practice model of self-care will be made.

Points for discussion
How should GPs assess self-care in patients with multimorbidity and difficulties in disease management? Is current care for patients with multimorbidity and low self-care ability adequate?

COPE – A Cognitive Patient Education trial for Low Back Pain in Primary Care

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Background
Cognitive treatment is endorsed by guidelines for the treatment of longstanding low back pain (LBP). In this study we have modified an "Explain Pain" model, into a communication tool for primary care. The model was originally developed in Australia for specialist care. We adapted the model to fit into the daily routine in Norwegian GP and PT practices. The basic idea was to provide the LBP patients with accurate knowledge of the back pain neurophysiology in order to understand the mechanisms and thereby improve their health behavior.

Objectives
The aim of the study was to explore the effect of the model on function and sick leave in normal clinical settings of general practitioners (GPs) and physiotherapists (PTs) in Norwegian primary care.

Material/Methods: The protocol and design have been presented previously (Werner et al, BMC Musculoskeletal Disorders 2010). 16 GPs and 20 PTs were cluster randomized to intervention or control group. The patients had LBP lasting for more than four weeks and less than one year. All patients (in all groups) received four sessions of 30 minutes individually with their health care provider. In the intervention groups these sessions followed a detailed manual. In the control group the patients received normal care. In all groups the health care providers were allowed to add any additional treatment they found indicated.

Results
109 patients were recruited in both groups. There were no statistical differences of the four groups at baseline. There was a significant drop in Roland Morris Disability Questionnaire in the intervention group from baseline mean 9.0 to 3.7 at 12 months follow-up, and an accordingly reduction in number of patients on sick leave of 66%. This was also seen in the control group, with a drop on RMDQ from mean 9.8 to 3.0, and a 73% reduction on sick leave.

Conclusion
In this study, there were no statistical differences between the groups. We suggest that the substantial increase in function and reduction in sick leave in all groups may be an effect of the attention paid by the health care provider regardless of the specific content of the sessions.

Points for discussion
The study suggests that the time spent with the health care provider in itself may be reassuring and beneficial in order for the patient to restore normal activities and routines. Possibly the providers in the control groups were more updated on the guidelines than average and therefore were more concerned about the delivery of these recommendations. GPs and PTs should be updated and adhere to the guidelines in their daily practices and spend sufficient time with longstanding LBP patients.
Patient Empowerment
Primary care – how to support patient participation as partners?

Britta Berglund1, *Lillemor Fernström1, Christina Fjellstrom1, Eva-Maria Dufva1, Pelle Johansson1, Annika Nyström Karlsson1,

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Background
Many patients with chronic diseases have reported difficulties with care in the primary care sector. Their problems are lifelong and they need follow ups and also need more knowledge about their disease.

Objectives
One aim for this project is to clarify the optimal factors that make primary care functioning for these patients, another aim is to initiate knowledge development in cooperation between patients and staff. The aim is also to produce a material for use in primary care education about chronic patients’ needs.

Material/Methods
A project group started with one person from each of the four patient organizations: Astma/Allergy, Diabetes, Heart/Lung and the Rheumatic Association. During 2014 primary care centers in Sweden are visited. Discussions are held with staff and patient representatives at the care centers. The focus of these meetings are the items in the new Patient law that will be in action 2015.

Results
The first year we have visited eight primary care centers in the country and discussed together with patients and staff how the care center is working, difficulties and wishes. There are differences between care centers in bigger areas and small areas in the country. All centers we met are interested to meet us again and try to go forward with these questions.

Conclusion
There were several points discussed that depend on the allocation of finances. The primary care center is depending on available resources to be able to do what is needed, and coordination of care is sometimes difficult even if we found a will to make care function for the persons with chronic diseases. Patient preferences are often focused on availability and how patient needs are met, but they need as well to have information about the work processes at the care center.

Points for discussion
Finances: what is the impact of the method chosen today to finance primary care? For patient security and participation in a more equal way? For professional development? For staff turnover?

How can it be possible for patients to participate in design, implementation, and evaluation of care in a better way than is made today?

Use of immunochemical faecal occult blood tests in general practice: a study of patients presenting un-characteristic symptoms of colorectal cancer in primary care

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2Department of Public Health Programs.
3Department of Clinical Biochemistry, Regional Hospital of Randers, Randers.
4Department of Surgery, Aarhus University Hospital, Aarhus, Denmark.

Background
Colorectal cancer (CRC) is a common malignancy and a leading cause of cancer-related death. Clinical assessment of patients suspected of CRC is challenged by poor predictors of illness as many patients initially present with
uncharacteristic or vague symptoms. However, research shows that many patients diagnosed with CRC consult their general practitioner (GP) more often than usual for several months before the diagnosis. The immunochemical faecal occult blood test (iFOBT), which is used for screening in many countries, can test for occult blood in the stool and may serve as an important tool for the GP in the evaluation of patients presenting with uncharacteristic symptoms of CRC.

**Objectives**
To develop a guideline for the use of iFOBT in general practice and assess the implementation of this guideline in combination with iFOBT in general practice.

**Material/Methods**
A guideline on iFOBT use in general practice will be developed from existing literature. The guideline will be aimed at men and women aged ≥30 years who present symptoms of CRC, but who do not fulfill the criteria for the urgent referral pathway. The guideline will contain a list of symptoms for which iFOBT performance is recommended and will include suggested actions for positive and negative test results. Cut-off values for determination of positive and negative test results will be set at 50 ng haemoglobin/ml faeces. The guideline will be made available together with iFOBT for general practices in the Central Denmark Region at the start of the study period. Practices will be randomised into four groups; each will receive an intervention package consisting of a lecture on CRC symptoms, iFOBT equipment and guideline. The intervention package will be implemented with a stepped-wedge design during the first six months according to randomisation.

**Results**
Primary outcomes: indications of iFOBT, frequency of iFOBT use, and actions taken on test result.
Secondary outcomes: colonoscopy findings, number of performed colonoscopies, and cancer stage at diagnosis.

**Conclusion**
This study will provide important knowledge both nationally and internationally on the use of iFOBT in general practice when patients present with uncharacteristic symptoms of CRC. These findings may provide better diagnostic tools for CRC and thereby improve patient outcome in the future.

**Points for discussion:**
Advantages and disadvantages of implementing iFOBT in general practice.

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**New organization for quality development in General practice in the Capital Region of Denmark**

Eva Branner1, Jesper Lundh1,*

1Konserv Praksis Region Hovedstaden H, KAP-H, DK – 3400 Hillerød, Denmark

**Background**
Quality in General Practice in the Capital Region of Denmark (KAP-H) was established in 2013. It is a joint organizational structure between the capital region administrative government agency and the organization for General Practitioners in the capital region (PLO-Hovedstaden). The purpose of the joint organizational structure is to promote quality improvement in general practice and facilitate cross-sectoral collaboration between general practice and the rest of the health care system. 10 hospitals and 1,200 general practitioners deliver health care services to a population of 1.7 million inhabitants. The capital region is divided in 29 municipalities.

The vision is to achieve that general practice, in collaboration with the rest of the health system, provides the best professional, organizational and patient-perceived quality of services.

**Objectives**
- To strengthen the professional and administrative coordination of inter-sectoral interventions.
– To facilitate the quick implementation of new initiatives.
– To rationalize the use of consultant skills and create synergy and knowledge sharing.
– To increase efficiency regarding tasks and areas of work across the organization.
– To establish consultant body, Secretariat and steering committee.

Material/Methods
KAP-H has set up six focus areas and associated consultant types:
• Medicine.
• IT and data.
• Cross-sectoral cooperation.
• Organization and Management.
• Patient Safety
• Decentralized and Group-based post-graduate education.

KAP-H has more than 70 consultants with an average workload of 2 – 6 hours per week.

Results
There has been an improvement in the academic and administrative coordination of continuous quality improvement in general practice.

WE HAVE ACHIEVED a more efficient use of advisory competencies as we work with projects with specific purposes. However, the common goal for the entire organization has not been clearly defined yet.

The collaboration between consultant types and the area of knowledge sharing needs of further development.

Conclusion
With the establishment of one large organization some consultants have experienced a greater distance to decisions. It has been difficult to create collaboration across consultant types. Nonetheless some specific projects have succeeded.

Points for discussion
Advantages and disadvantages with centralization of quality development.

Practice municipality coordinator in the Capital Region 2010 to 2012
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1Koncern Praksis Region Hovedstaden H, KAP-H, DK – 3400 Hillerød, Denmark

Background
In the Danish Capital Region there are 1.7 million inhabitants, 10 hospitals, 29 municipalities and 1,200 general practices. The hospitals and general practices are responsible for diagnosing and treating patients with chronic diseases. The municipalities are in charge of rehabilitation. There are specific care pathways for the following diseases - diabetes, heart / vascular disease, COPD, lumbar / spinal disease and cancer. In order to strengthen the collaboration between the municipalities and general practice almost all municipalities have employed a GP as a local practice consultant for about eight hours per month. The 25 municipal practice consultants have a municipal practice coordinator who helps with developing a coherent healthcare system.

Objectives
• to improve the professional quality in general practice and the municipality
• to support coherent patient pathways
• to support internal and external communication between general practice and the municipality
• to ensure that the referrals from general practice and discharge letters to general practice have the same structure for the entire Capital Region.
• to help with implementing national and regional agreements and clinical guidelines.

Material/Methods
To ensure that municipalities have high quality of medical guidance from their local practice consultant, it was essential that consultant had a professional network, where knowledge and experience could be obtained. This was done by setting up an electronic network, network meetings for municipal practice consultants.
Abstracts

Wednesday 15.30 – 17.00

and an annual theme day for municipal practice consultants and their partners in the municipalities.

Results
The number of electronic prescriptions ordered by the local authorities to general practice has increased threefold – more than 14,000 a month from 2009 to 2012.

The number of written messages from the municipality for general practice has increased threefold – more than 14,000 a month from 2009 to 2012.

The number of electronic correspondences from general practice to municipality has increased by a factor of more than 4 to over 19,000 a month from 2009 to 2012.

Conclusion
The function of a municipal practice coordinator has contributed to expanding the quality of cross-sector collaboration between general practice and the municipalities.

Points for discussion
To ensure that all patients in the Capital Region will have the same treatment and rehabilitation services, IT communication between all sectors should be expanded.

Background
Research in healthcare does not only involve patients. Most often, participation of healthcare professionals is crucial. However, their tasks are many, and commitment to research varies. Difficulties in recruitment to research may prolong the study period and even harm external validity. Solberg identified seven R-factors as determinants for successfully recruiting healthcare professionals: relationships, reputation, requirements, rewards, reciprocity, resolution, and respect.

Objectives
Use the seven R-factors to evaluate recruitment of general practices to a low back pain guideline implementation study.

Material/Methods
During the design and conduct of recruitment to a low back pain guideline implementation study, we applied the seven R-factors to guide recruitment of Danish General Practices. General practices situated in the North Denmark region could be included, but we were budgeted to include a maximum of 100 practices. Prior to recruitment start a planned strategy was made on the basis of the seven R-factors and brainstorm sessions with three GPs. During the recruitment feedback on barriers and enablers to participate was collected through personal phone or mail contacts or as letters from potential participants.

Results
Recruitment of practices took place between January 2013 and March 2014. Barriers and enablers for recruitment were discussed on weekly meetings in the recruitment group and adjustments to the recruitment strategy were carried out. We recruited 60 of 189 eligible practices. The need to involve end users in the development of new software and time needed for recruitment were underestimated.

Conclusion
Five of Solberg’s seven R-factors were successfully addressed. The reciprocity factor and the resolution factor were, however, not fully met in our recruitment procedure.

Recruitment in general practice: Is a standardised approach helpful in the involvement of healthcare professionals to research?

Allan Riis¹, *Cathrine Elgaard Jensen², Helle Terkildsen Maindal¹, Flemming Bro⁴, Martin Bach Jensen¹

¹Research unit for General Practice, Department of Clinical Medicine, Aalborg University.
²Danish Center for Health care improvements, Faculty of Social Sciences and faculty of Health Sciences, 9220 Aalborg Ø.
³Department of Public health.
⁴Research unit for General Practice, Aarhus University, 8000 Aarhus, Denmark.

Background
Research in healthcare does not only involve patients. Most often, participation of healthcare professionals is crucial. However, their tasks are many, and commitment to research varies. Difficulties in recruitment to research may prolong the study period and even harm external validity. Solberg identified seven R-factors as determinants for successfully recruiting healthcare professionals: relationships, reputation, requirements, rewards, reciprocity, resolution, and respect.

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Conclusion
Five of Solberg’s seven R-factors were successfully addressed. The reciprocity factor and the resolution factor were, however, not fully met in our recruitment procedure.
We found the use of a tool to guide systematic recruitment was helpful and we suggest an increased awareness on guideline development and support systems for recruitment of healthcare professionals.

562-P

Stratifying information and advice in a tailored web-application for patients with low back pain: study protocol of a randomised controlled trial

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Background
Patients’ competence and self-care opportunities are important when treating low back pain (LBP). Involving patients in the design and development of a web-application may help healthcare providers to address possible barriers for usage and thereby increasing patients’ acceptance and usage of a web-application. Furthermore, stratifying LBP patients using the STarT Back Tool, and target the right treatment to the right patient has been shown to be more effective than a one size fits all treatment approach.

Objectives
The aim of this trial is to compare a web-application with advice based on StarT Back stratification with the same web-application without stratification for patients seeking care for LBP at their general practitioner.

Material/Methods
This is a triple blinded randomised controlled trial. Five hundred LBP patients aged ≥18 years will be included. Excluded are patients with red flags (serious pathology), without Danish reading skills, without internet access, and pregnant women. Patients are randomised 1:1 for each Start Back stratum. A cost-effectiveness analysis will be conducted alongside the trial, along with a process evaluation of patient satisfaction with and the use of web-applications. In addition we describe the development of the web-application tailored to patients’ preferences. Patient identification data (personal identification number and Email address) are collected via electronic pop-ups in general practice at baseline. Patient reported outcomes are collected at baseline and repeated after 4, 8, and 12 weeks via electronic questionnaires. Referral to hospital care and other health related costs are collected via registers with 12 weeks follow-up.

Results
Development of the web-application will be done in 2015.

Conclusion
The randomised controlled trial will be conducted in 2016.

Points for discussion
To our knowledge, this will be the first trial to study the effects of involving patients in the tailoring of a web-application and to stratify LBP advices on the internet.

563-P

Atrial fibrillation patients – a quality challenge

Emil Heinäaho1, Klas Winell2

1Conmedic, Loviisa Health Center. 2Conmedic, Helsinki, Finland.

Background
There is very little systematic quality improvement done with chronic atrial fibrillation
(CAF) patients. The Finnish Quality Network (FQN) decided to start systematic QI with this patient group.

**Objectives**
We aimed to study the actual quality of the treatment of CAF patients.

**Material/Methods**
Ten Finnish health centres (HC) participated in the quality measurement of CAF treatment. The data was collected during all consultations and telephone contacts of CAF patients during two weeks. The indicators were based on the Finnish Current Care Guidelines and international literature. The analyses were made by SPSS Statistics program 20.0. Different organizational factors' influence was tested by multivariate regression analysis.

**Results**
The sample size was 1156 CAF patients, females 48.8% and 28.9% were over 80 years of age. Only 36 patients (3.1%) had a differing (not 2 to 3) therapeutic goal of INR test. Warfarin was the antithrombotic therapy of 97.3% of CAF patients. 57.0% of warfarin patients were in good therapeutic balance (Time in Therapeutic Range, TTR >70%) and 22.0% in poor therapeutic balance (TTR <50%). CHA2DS2VASc (thrombosis risk) score was calculated and registered in the patient record of 13.3% and HAS-BLED (bleeding risk) score of 10.3% CAF patients. 5.0% of patients suffered of severe symptoms of CAF. The warfarin dose was determined by nurses in 82.0% of patients. Five patients (0.4%) decided themselves about the warfarin dose. The therapeutic balance did not differ if it was a GP, nurse or patient who decided about the warfarin dose. However, the balance was significantly better if the HC had named nurses or physicians responsible for warfarin dose decisions.

**Conclusion**
There is a need for improving antithrombotic treatment. The use of CHA2DS2VASc and HAS-BLED risk tests should be increased. It seems that the decisions of warfarin dosing should be concentrated to a few nurses and physicians. The quality measurement will be repeated yearly. The next measurement will be in February 2015. The results will be reported during the Nordic GP meeting.

**Points for discussion**
How do we make the best use of these results in our every day work life? What are the ways to make sure that risk test are used routinely?

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**Brottsplats Boden**

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1Norrbottens läns landsting, Björknäs HC, Boden.
2Dep of Public health and clin.medicine, Family medicine, Luleå, Sweden.

**Background**
Hip fracture is often thought of as a result of osteoporosis, and hence preventable by bisphosphonates. Is this a reasonable hypothesis? We have analysed all hipfractures for a year in Boden.

**Objectives**
To analyse the frequency of hip fracture in the town of Boden correlated till age and gender.

**Material/Methods**
All hospital registrations of hip fracture among inhabitants of Boden – a middle sized town of Sweden, correlated to sick case records from the primary care.

**Results**
Most of the hip fractures appears among the oldest population, and most of the patients are treated in a polypharmacological way. It is hard to decide the nature of the trauma from a normal case record material.

**Conclusion**
Most hip fractures seems to be iatrogenic, and a result of falls correlated to pharmacological side-effects. To reduce the frequency of hip fractures in a small town interventions has to aim at the very oldest part of the population.
Points for discussion
This small study indicates, that most hip fractures are preventable, but not mainly by treating middle aged patients with biphosphonates, but by reducing the pharmacological burden among the very oldest persons in the population.

Material/Methods
We plan to show the procedure of a collegial dialogue and demonstrate a handful of tools to make the validation of competence among general practitioners visible for others.

Results
Our method of validating CPD and planning for the coming CPD, is visible, possible to expand and an effective pedagogic way of developing effective CPD with focus on the individual wants and needs of CPD.

Conclusion
We have a method of validating and analysing CPD in a modern way to make CPD not a burden but a truly developing activity. The method – ASK – is inspired by the specialist exam of GP in Sweden.

Points for discussion
Why is CPD not required in the Swedish health system? Is there another way of validating and planning for CPD?

566-P
ASK – validation of competense

Robert Svartholm1,* and ASK network of SFAM
1Norrbottens läns landsting, Björknäs HC, Boden, Sweden.

Background
Continual Professional Development is important, but not formally required in Sweden. The ASK-network has been testing tools for validation of CPD in intercollegial dialogue.

Objectives
To demonstrate a way and a handful of useful tools to validate CPD in dialogue with a colleague, to make it easier to plan future CPD activities.

Material/Methods
We plan to show the procedure of a collegial dialogue and demonstrate a handful of tools to make the validation of competence among general practitioners visible for others.

Results
Our method of validating CPD and planning for the coming CPD, is visible, possible to expand and an effective pedagogic way of developing effective CPD with focus on the individual wants and needs of CPD.

Conclusion
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Points for discussion
Why is CPD not required in the Swedish health system? Is there another way of validating and planning for CPD?

Vi utvecklar primärvård i världsklass.
Närhälsan är landets största aktör inom primärvård.

Genom livsviktiga möten och professionell vård leder och inspirerar vi Västra Götalandsregionen till att bli den friskaste regionen i världen. För att lyckas med detta behöver vi ha kompetenta medarbetare som arbetar framåt tillsammans.

Läs mer och sök lediga läkartjänster på narhalsan.se/sokjobb
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