

Abstracts for



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Physician Heal thyself

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Objective: 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: Do you have your own doctor? Are you a doctor for your family? How do you experience to be a patient? 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 fails 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 of professional development.

Method: Group work initiated by a short presentation

Disclosure of Interest: None Declared

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DOCAPP Digital Online Consultations: Antibiotic Prescribing in Primary Care

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Background: Advancements in telehealth and abundance of smartphones has made digital online consultations (eVisits) popular among patients in Swedish primary care. Controversy exists regarding diagnostic accuracy and appropriate prescription of antibiotics. Comparisons between eVisits and physical visits are lacking, especially in clinical settings outside of the US.

Methods: We conducted a prospective cohort study using medical record data to identify patients presenting with sore throat, cough, dysuria or cold/flu after choosing online (DIGI) or physical (PHYSI) consultations. A cohort of similar patients presenting prior to implementation of eVisits was used as a control group (CONTROL). Prospective data from local registries and medical records was gathered 14 days after the consultation. The primary outcome was rate of antibiotic prescription after sore throat. Secondary outcomes included patient revisits (including hospital admissions), registered diagnoses, and documentation of Centor Criteria and UTI-Criteria.

Significance: Results will shed light on whether antibiotic prescription differs significantly between digital and physical primary care consultations. Hypotheses may also be generated as to how patients seek care as eVisits improve physician availability in a tax-sponsored healthcare system.

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A culturally adapted prevention program addressing non-European immigrants

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Background: Middle-Eastern (ME) immigrants represent the largest group of non-European immigrants in Sweden and are at increased risk for T2D and poor mental health. Lifestyle intervention trials focusing on physical activity and healthy diet delays/prevents the onset of T2D and has therapeutic effects on anxiety and depression. However, the evidence of the efficacy of such interventions in non-European immigrants is scarce.

Aims: to study if a lifestyle intervention adapted to the ME culture could improve cardiometabolic outcomes and mental health in a ME immigrant population at-risk for T2D.

Methods: A randomised controlled trial conducted January to June 2015. Iraqi born immigrants in Malmö identified at high risk of T2D were invited and participants were randomised to control (CG) or intervention group (IG). Anthropometrics, blood tests and oral glucose tolerance test assessed and information on socio-demography and lifestyle habits collected. The intervention was adapted to match Middle-Eastern culture and comprised of 7 group sessions and 1 cooking class.

Results: A reduction in body weight (0.4% per month), LDL-cholesterol levels (2.1% per month), as well as improvement in insulin sensitivity index (10.9% per month), an increase in number of hours/day spent in light-intensity activities as well as beneficial effects on mental was observed in the IG (n=50) compared to the CG (n=46) at follow-up vs. baseline

Conclusion: Adopting a culturally sensitive lifestyle intervention approach in primary health care settings could be potentially beneficial for improving lifestyle habits and reducing the risk of T2D and poor mental health in the ME immigrant population.

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Group supervision for GPs why and how?

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Background: In Denmark there is a long tradition for group supervision for GPs and about one third of the Danish GPs participated in a supervision group. For more than a decade group supervision for registrars is mandatory during the last year of vocational training in general medicine.

Many different approaches have been used and in this symposium several approaches and methods will be described as well as a psychodynamic training course for supervisors specifically for GPs and registrars. Finally results from a research project is presented.

Dorte Kjeldmand from Sweden will present Balint group work, what it is and what it is not, based on her PhD-thesis and her long experience as participant and leader.

Jan-Helge Larsen from Denmark will tell about The Macro-Micro supervision method based on many year's courses on the Greek isle of Kalymnos.

Outi Seppala from Finland will speak about solution focused supervision which is a method tailored for general practitioners.

Stine Lei Fredslund from Denmark will tell about a 3-year supervisor training course in Denmark which qualifies to supervise GPs and registrars in vocational training. The approach is psychodynamic analytic orientated, which aims to strengthen the doctors' resilience and pave the way for more creativity.

Helena Galina Nielsen from Denmark will finally tell about her research project concerning group supervision for GPs, address general benefits and challenges throughout the different approaches and which conditions are important for making supervision successful.

The different methods will be shown in workshops during the congress.

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Children with wheezing - A Survey of examination and treatment

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Background: Asthma is the most common chronic disease in childhood. In children younger than three years of age, 20-30% have an episode of wheezing. The medical history is important in diagnosis. Treatments are often based on the doctor's experience, together with saturation and respiratory rate data, to estimate the severity of the disease. The purpose of this study was to investigate current examinations and treatments for children with wheezing in a Swedish primary health care setting.

Methods: Children between 0 and 3 years, diagnosed with acute bronchitis or asthma during 2016, were included in this quantitative retrospective observational study. Two health care centers were observed: Närhälsan Hjo (5 000 patients) and Närhälsan Guldvingen (14 500 patients). Patient records were studied regarding anamnesis, diagnostic examinations and treatment.

Results: A total of 27 children were diagnosed with bronchitis or asthma. No information about atopy or parental smoking was documented in one third and one quarter of the children, respectively. Saturation and respiratory rates were noted in only 8% of the cases. Two thirds of the children received inhalations at the health care center and one third was given prescriptions for medication.

Conclusions: Fewer children than we expected were diagnosed with acute bronchitis or asthma at the two health care centers during the year. It is possible that small children are more often brought to the hospital's pediatric department or to emergency clinics in primary care. Information on saturation and respiratory rate, which is important for correct treatment, was missing for most children.

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Assessing parent-child relationships in general practice - CARO

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Background: Parent - infant interaction is fast and fluid. Several tools are available for clinicians and researchers to assess the interaction using video recordings, but there are no reliable and valid tools that can be used in everyday practice in real time.

CARO (Child-Adult Relationship Observation) is a streamlined version of the Mellow Parenting Observation System (MPOS), which when used with parents and 1-year-old infants has proven predictive validity for mental health problems at age 7. It is however time-consuming and demanding to learn. CARO has been developed to exploit the qualities of MPOS, but in a more streamlined and user-friendly way.

Activities: CARO allows video-recorded interaction to be coded on an app, which is run on a smart phone which has been used in training GPs. CARO allows a rapid and responsive system of triage, so that findings can be shared with parents and fellow professionals, and further detailed investigations can follow if indicated. We shall demonstrate the CARO system with video material to demonstrate the concepts.

Experiences/evaluations and perspectives: Research findings to date using CARO will be described, including how well it aligns with MPOS ratings and inter-rater reliability data from training sessions with GPs and health visitors. Finally, we shall focus on reflections on the process of training and using CARO in practice and specific modifications to make it work best with GPs during child development assessments. We plan to use the tool in the Tryg Foundation-funded FamilieTrivsel trial involving 1,000 Danish families, starting in early 2019.

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C-peptide predicts death in persons with newly diagnosed type 2 diabetes

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Background: Diabetes is associated with severe micro- and macrovascular complications and premature death. All risk factors for the development of complications are not yet known. Identifying high risk individuals early could possibly help to initiate more aggressive treatment and follow up to avoid or postpone complications. C-peptide is a useful clinical indicator of insulin secretion and represents a possible biomarker for predicting cardiovascular complications among individuals with newly diagnosed type 2 diabetes.

Methods: The Skaraborg Diabetes Register contains data on baseline C-peptide concentrations among 398 persons <65 years with newly diagnosed type 2 diabetes 1996-1998. National registries were used to determine all-cause death, cardiovascular death and incidence of myocardial infarction and ischemic stroke until 31 December 2014. The association between baseline C-peptide and outcomes were evaluated with adjustment for multiple confounders by Cox regression analysis. Missing data were handled by multiple imputation.

Results: In the imputed and fully adjusted model an increase of 1 nmol/l in C-peptide concentration was significantly associated to an increase in all-cause death (HR 2.20, 95% CI 1.49-3.25, p<0.001, number of events=104), cardiovascular death (HR 2.69, 1.49-4.85, p=0.001, n=35) and the composite outcome of cardiovascular death, myocardial infarction and ischemic stroke (HR 1.61, 1.06-2.45, p=0.027, n=90).

Conclusions: Elevated C-peptide levels in persons with newly diagnosed type 2 diabetes are associated with increased risk of all-cause and cardiovascular mortality. Therefore, C-peptide might be used to identify persons at high risk of cardiovascular complications and premature death in order to initiate early interventions.

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Circling the Undefined- Intercultural Consultations in Swedish Primary Care

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Background: In the Nordic countries primary care is facing a rising demand to manage a culturally diverse population. Consequently, the need for improved communication skills in intercultural consultations has been emphasized, not least in order to ensure equity in care. Intercultural consultations have by previous studies often been characterized as complex, but studies exploring the physician-patient interaction in order to contribute to the understanding of why are lacking.

Therefore, the aim of this study was to explore intercultural physician-patient communication in primary care consultations, in order to generate a conceptual model of the interpersonal interactions as described by both the physicians and the patients.

Methods: 15 residents in Family Medicine and 30 foreign-born patients were interviewed. The transcripts were analyzed using grounded theory.

Results: Different communicative behaviors among the physicians, mirrored by the patients, were identified in the analysis and integrated in a conceptual model labelled "circling the undefined". The model illustrates how a silent agreement on issues fundamental to the core of the consultation was inadequately presumed, and how the

behaviors identified seemed to uphold rather than resolve this.

Conclusions: "Circling the undefined" models what can take place on an interpersonal level in intercultural consultations, illustrating a possible contributory cause of their perceived complexity. Addressing the undefined, as part of the intercultural consultation, might result in less insecurities and misunderstandings on both parts, and be a first step towards building a common ground for increased mutual understanding; in the long run ensuring a better foundation for equity in care.

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Symptom burden in multimorbidity. A Danish population study.

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Background: Multimorbidity is associated with reduced quality of life and increased mortality. Patients with multimorbidity report high symptom burden and the symptoms, more than the diagnoses, influence how patients rate own health. Knowledge about the burden of symptoms among people with different groups of diagnoses and how symptom burden is affected when diagnosis groups appear in combination (multimorbidity) compared to as singles is in demand. This presentation will present an ongoing Danish population-based study on how symptoms and symptom burden are related to individual diagnosis groups and to multimorbidity.

Methods: The study is based on information from 47.452 persons aged ≥ 20 years living in Denmark on 1 January, 2012 and participating in the Danish Symptom Cohort. The national Danish registers were used to provide information on migration, diagnoses, socioeconomic status, etc. Multimorbidity was defined as having diagnoses from at least two out of ten groups of diagnoses, found in the registries between 2002 and 2011.

Results: Symptoms and symptom burden in relation to different groups of diagnoses will be presented. In addition, it will be presented how symptom burden is affected when diagnosis groups appear in combination (multimorbidity) compared to the sum of burden from the individual diagnosis groups.

Conclusions: Knowledge about symptom burden in relation to chronic diagnoses, especially when the diagnoses appear in combination, is important in order to get a better understanding of how diseases and particularly multimorbidity present clinically.

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Evaluation of the emergency access button in Danish out-of-hours services

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Objectives: The out-of-hours (OOH) services provide medical advice for citizens in urgent need of healthcare outside office hours. All citizens must wait in the telephone waiting line, even if the health problem is highly urgent or life-threatening. In some cases, prolonged waiting time could cause harm. We tested an emergency access button (EAB) allowing callers to bypass the waiting line if they perceived their health problem as sufficiently severe. We aimed to investigate the frequency of use, the relevance of use, and the potential impact on the citizens' satisfaction with the OOH service and their feeling of safety.

Design: Randomized controlled trial based on questionnaire data from callers and OOH service triage staff.

Setting: The OOH services in two Danish regions

Participants: Callers contacting the OOH services from 4 September to 18 December 2017.

Results: The EAB was used 2,905 times out of 97,791 calls (2.97%, 95% CI: 2.86; 3.08). Triage staff assessed only 23% of EAB use as "not relevant". EAB users reported higher satisfaction with the OOH services and higher feeling of safety compared to EAB non-users.

Conclusion: The EAB offers a novel way of providing fast access to OOH medical advice for citizens with urgent healthcare needs. The low frequency of use combined with an estimated 23% frequency of "irrelevant" use suggests a misuse level below 1% in the general population. This study inspired two Danish OOH services to implement the EAB in the near future.

Repeated missed appointments in general practice - what do they signify?

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Background: Previous studies have examined risk factors for missing single GP appointments but routine data can be used to understand associations with patterns of missed appointments.

Methods: We used routine Scottish GP records from 2013-2016, representing appointment history for approximately 15% of the population. We linked the GP records to hospital data and deaths records for patients who had died within a 16-month follow up period.

Results: 19% patients missed >2 appointments over three years. Young adults, those >90 years, and those in deprived areas were significantly more likely to miss multiple appointments after controlling for number of appointments made. Practice factors also affected attendance patterns, with urban practices in affluent areas being most likely to have patients who serially miss appointments. Models combining patient and practice factors to predict appointments missed were more predictive than models using either group of factors separately. Repeated GP non-attendance was not associated with use of hospital emergency departments. Patients with more long-term conditions and more adverse childhood experiences had greater risk of missing GP appointments. All-cause mortality was higher among patients missing multiple appointments. Patients without long-term physical health conditions who missed >2 appointments per year had an eight-fold increased risk of dying compared with those who missed no appointments. These patients died prematurely, most commonly from non-natural external factors.

Conclusions: Both patient and practice characteristics contribute to non-attendance at GP appointments. Missed appointments are a significant risk marker for all-cause mortality. Trials designed to increase attendance in high-risk patients may be justified.

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Core values and principles of general practice in the Nordic countries

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Aim: This workshop explores the possibility of *an eye-catching and concise summary of fundamental values, principles and purposes of general practice in the Nordic context*. Such a "poster" is intended as a common anchor for promoting and teaching general practice, as it encounters old and new dilemmas and increasingly acute challenges.*

Method: A Nordic position paper/poster *draft* will be presented for discussion.

Background: The fundamentals of general practice need continuous attention and revival. In 2001, The Norwegian College of GPs launched "Sju teser," depicting the principles of good general practice for the practice community itself, students, patients, politicians and other stakeholders. In 2016, the Danish College launched very comparable "Pejlemærker for faget almen medicin", inspired by "Sju teser," based on an elaborate vision process which involved hundreds of Danish GPs. In parallel to this Norwegian-Danish process, WONCA-Europe has developed a framework for core GP competencies, culminating in "the WONCA tree" (2011). Our draft paper consolidates and sharpens the core ideas from "Sju teser", "Pejlemærker" and WONCA. Ideally, a Nordic paper can subsequently serve as a template for more detailed elaborations of the discipline's contextual, scientific and ethical foundations, and inspire courageous leadership at every level.

*Significant challenges include: new technologies, medical overactivity in many fields combined with increasing commercialization and an increasing social gradient, emergence of opportunistic "screen doctoring" companies, as well as health authorities, investors and researchers' interest in monitoring consultations and analyzing "Big Data" (you are invited to add to the list!).

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Identification of vulnerability among pregnant women in general practice

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Background and aim: Many women in the childbearing age report signs of vulnerability in terms of low mental health, and consumption of alcohol and substances. The consequences for the women, children and society can be substantial. Also, it is known that the use of alcohol and substances is underreported. The **aim** of this study is to analyse GPs' attitudes, preferences, and barriers for identification of vulnerability among fertile and pregnant women. Specific focus is the cross-sectional collaboration in antenatal care.

Methods: The objectives will be investigated by a mixed-method study. Focus interviews with GPs, municipal authorities and obstetricians from specialized antenatal care will reveal relevant topics from the clinical setting of antenatal care. These topics will be implemented in a nationwide questionnaire survey to all GPs, evaluating GPs' attitudes, preferences, and barriers in identification of vulnerability in fertile and pregnant women, and challenges in the cross-sectional collaboration in antenatal care.

Results: Our project will contribute to the knowledge of GPs preferences, and barriers to identify indicators of vulnerability in fertile and pregnant women, and elucidate whether and how organizational conditions in general practice and the cross-sectional collaboration influence the GPs ability to identify vulnerability. Conclusion Knowledge of GPs' dealing with vulnerable fertile and pregnant women will elucidate areas in antenatal care in the primary sector, where increased focus can be applied to strengthen the possibility of early detection of vulnerability among pregnant women. Our project is in the initial phase, and the first results will be discussed on the congress.

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Medication reviews and their impact on hospital admissions and mortality

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Background: Drug-related problems and polypharmacy in elderly are common and increasing. Multi-professional medication reviews (MR) have arisen as a method to optimize drug therapy for frail elderly. MRs, well-established in Sweden, are controversial as research has not shown any effect on mortality nor on hospital admissions. A randomized controlled study including 369 patients was performed in 2012, showing that multi-professional medication reviews had lowering effect on the number of potentially inappropriate medications (PIMs) in elderly in short term follow up, two months after the intervention. The aim of this study is to assess MRs' effect on mortality and hospital admissions at long term follow up in the same frail population of 369 patients in primary care. The hypothesis for this study is that MRs are associated with lower mortality and fewer hospital admissions.

Methods: The study design is prospective observational with group comparison analysis of mortality and hospital admissions between the group who received MRs and the control group, 6 months and 12 months after the MRs. Data on hospital admissions and mortality will be collected from the electronic medical journal and Region Skånes patient database. A cross-sectional analysis in all patients will study the association between MR and hospitalization or death and will be analysed with odds ratio (OR) adjusted for gender, living form, age and number of drugs.

Results: Results are expected during spring 2019, data collection and analysis is ongoing.

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A new tool to assess and enhance reflection in medical education

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Background: Clinical practice is never simply straight forward. Doctors are practicing complex competencies in a clinical world embedded with uncertainty and where the textbook knowledge only provides some of the answers. Clinical decision-making therefore requires that doctors can combine experience-based knowledge with evidence-based knowledge, but also that doctors can constructively process all kinds of formal and informal feedback. The ability to reflect is necessary for efficient use of feedback and essential for clinical practice in order to handle complex competencies. It has been argued that the ability to reflect on one's own role and performance is the key factor in expertise development. It therefore seems rational to try to teach and assess it in medical specialist training. Activities

In this workshop we will present Global Assessment of Reflection Ability (GAR) which is a newly developed assessment tool for postgraduate GP training. It includes a preparation phase in which the trainee produces a mind map or similar written presentation and subsequently a structured conversation between trainer and trainee with focus on formative aspects and reflection on the trainee's own practise.

Experiences/evaluation: Validation studies have shown good feasibility and acceptability among both trainers and trainees. The time consumption is relatively low which makes it possible to conduct several GARs during a learning

process.

Perspectives: During the workshop we will present data from our validation studies and the participants will be able to try out GAR in small role plays.

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Antivirals for Bell's palsy - a systematic review and meta-analysis

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Background: Bell's Palsy affects approximately one in 60 people during their lifetime. Residual symptoms affect 30-40% of sufferers. An earlier Cochrane review of corticosteroids in Bell's palsy, showed the *proportion* of fully recovered patients in the corticosteroid group was higher than in the placebo group (NNT = 9). The aim of this review was to determine whether the combination of corticosteroids and antivirals has any additional benefit in people presenting within a few days of developing Bell's palsy.

Methods: We performed a meta-analysis of data from randomized controlled trials. The primary endpoint was incomplete recovery within 3-12 months of onset. Secondary endpoints were residual symptoms and adverse events.

Results: Fourteen randomized controlled trials (n = 2488) met the inclusion criteria. There is little or no effect in people with Bell's palsy when treated with antivirals plus corticosteroids compared with corticosteroids alone (risk ratio RR was 0.81, 95% confidence interval CI 0.38 to 1.74, n = 766, 3 trials, low certainty of evidence); this analysis excluded 10 of 13 trials of high or unclear risk of bias in several domains. We were unable to draw conclusions from the full data set as the certainty of evidence was very low (RR 0.54, 95% CI 0.38 to 0.77, n = 1729, 13 trials). We found adverse events were equally frequent.

Conclusions: The review showed no benefit from combining antivirals with steroids in comparison with steroids alone for people with Bell's palsy.

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Chest auscultation in future general practice

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The stethoscope is strongly challenged as a diagnostic tool by medical imaging, including ultrasound devices. In general practice there are several good reasons to preserve and improve chest auscultation as a cornerstone procedure. The aim of this workshop is to present new knowledge on the value of chest auscultation in identifying diseases of the heart and lungs, and to discuss its role in the future. Can we still rely on the traditional stethoscope or do we need electronic stethoscopes which makes storing and visualization of heart and lung sounds possible, and even computerized classification of the sounds. The presenters are all doing research on lung and heart sounds at the General Practice Research Unit at UIT the Arctic University of Norway, based on lung sounds from 4033 participants and heart sounds from 2132 participants in the 7th Tromsø Study .

Schedule:

Introduction (5 minutes). Hasse Melbye, professor.

Why are abnormal lung sounds commonly heard in the elderly? (8 minutes). Juan Carlos Aviles Solis, MD, PhD student.

How do GPs agree on heart murmurs? (8 minutes). Stian Andersen, GP, PhD student

Do heart murmurs reflect valvular heart disease? (8 minutes). Anne Herefoss Davidsen, GP, PhD student

Group work, discussing recordings (with graphic presentations) from hearts and lungs (20 minutes)

The future of chest auscultation in primary care, (10 minutes). Hasse Melbye initiates a discussion

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Increased strength in pregnant women predicted by vitamin D intake

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Background: Muscular weakness and severe vitamin D (S-25-OHD) deficiency tend to be prevalent in veiled pregnant Somali women in Sweden.

Aims: Explore adherence to intake of supplemental vitamin D in pregnant and new mothers with low S-25-OHD and its effects on grip strength and upper leg performance.

Methods: A cross-sectional sample of Somali (target group, TG) and Swedish women (reference group, RG) was recruited in antenatal care. Women with S-25-OHD < 50 nmol/L were prescribed one (800 IU vitamin D3 with 500 mg calcium) or two tablets daily for 10 months from spring through winter. Baseline and 10-month measurements of S-25-OHD, maximal grip strength (Newton, N) and ability to squat (yes; no) were measured. Total tablet intake (n) was calculated. Outcome variables were grip strength and ability to squat. Predicting variables were calculated using linear and binary logistic regression in final models.

Results: Seventy-one women (46 TG; 25 RG) participated. 17% TG and 8% RG refrained from supplement. Mean S-25-OHD increased from 16 to 49 nmol/L (TG) and 39 to 67nmol/L (RG) ($p < 0.001$). Grip strength had improved from 153 to 188 N (TG) ($p < 0.001$) and from 257 to 297 N (RG) ($p = 0.003$) and inability to squat had decreased in TG (35 to 9, $p < 0.001$).

Intake of number of tablets predicted increased grip strength (B 0.067, 95% CI 0.008 - 0.127, $p = 0.027$). One tablet daily (> 300 in total) predicted improved ability to squat (OR 16; 95% CI 1.8 - 144.6).

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Randomized Trial of Coaching Intervention on Physician Burnout

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Background: Burnout symptoms among physicians are common and have potentially serious ramifications for physicians and their patients. Randomized studies testing interventions to address burnout have been uncommon.

Methods: We conducted a randomized clinical trial involving 88 practicing physicians conducted between October 2017 and March 2018. The intervention involved 6 coaching sessions facilitated by a professional coach. We measured burnout, quality of life (QOL), resilience, job satisfaction, engagement, and meaning at work using established metrics.

Results: After 6 months of professional coaching, emotional exhaustion decreased by 5.2 points in the intervention arm compared to an increase of 1.5 points in the control arm by the end of the study ($p < .001$). Rates of high emotional exhaustion at 5 months decreased by 19.5% in the intervention arm and increased by 9.8% in the control arm ($p < .001$). Rates of overall burnout at 5 months also decreased by 17.1% in the intervention arm and increased by 4.9% in the control arm ($p < .001$). QOL improved by 1.2 points in the intervention arm compared to 0.1 points in the control arm ($p = .005$) and resilience scores improved by 1.3 points in the intervention arm compared to 0.6 points in the control arm ($p = .04$). No statistically significant difference in depersonalization, job satisfaction, engagement, or meaning in work were observed.

Conclusions: Professional coaching may be an effective way to reduce emotional exhaustion and burnout as well as improve QOL and resilience for physicians.

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Deprescribing in primary care: How do we move forward?

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Background: The increasing prevalence of multimorbidity, polypharmacy, and inappropriate medication use has directed attention towards deprescribing as an approach to optimize medication therapy. The purpose of this workshop is to set focus on deprescribing in primary care, share experiences, and discuss how to move forward.

Methods: The workshop is based on a literature review and a mixed-methods study using questionnaire surveys and semi-structured interviews. The mixed-methods study is based on the multifaceted quality improvement project, Medicine in the Middle, which is conducted in the Central Denmark Region in 2017-2019. The project consists of two parts: a) information packages on appropriate prescribing of selected medications, including feedback comparing practice-level prescribing data with corresponding data among peers and b) a skills-upgrading course on polypharmacy and medication review.

Results: In the workshop, we will present an overview of existing knowledge of mechanisms, barriers, and facilitators related to inappropriate medication use as well as results from interventions targeting deprescribing in primary care. Furthermore, we will share our own experiences with you from the multifaceted intervention, Medicine in Middle. The participants will discuss opportunities and strategies for deprescribing in daily practice and how to design interventions aiming to improve appropriate deprescribing in general practice.

Conclusions: The workshop will provide insights into a range of issues related to deprescribing in primary care and give room for discussions and generation of new ideas.

Diabetes in immigrants: what affects the mortality risk?

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Background: Non-European groups of immigrants, especially from Middle East and South Asia, have an increased risk of diabetes, and of coronary heart disease. However, one study from the Swedish National Diabetes Register showed a lower mortality among non-European immigrants with diabetes, and another study of patients with hypertension and with or without diabetes showed a lower mortality risk in both these disease groups compared to Swedish-born individuals.

Methods: We used national Swedish data on mortality among first- and second-generation diabetes patients to study the mortality risk, adjusting for age and socio-economic status.

Results: Preliminary results show a lower mortality risk among first-generation immigrants (HR 0.86, 95% CI 0.83-0.88) but not among second-generation immigrants (with both parents born abroad HR 1.14, 95% CI 0.97-1.33).
Conclusions: First-generation but not second-generation immigrants with diabetes are shown to exhibit a lower mortality risk. The reason for this discrepancy is unknown, why a discussion on different possible mechanisms are of great interest to discuss. We will discuss with the audience possible mechanisms from the knowledge from published studies, including co-morbidity patterns, life style factors, socio-economic status and possible hereditary factors. As the findings seem contradictory we expect interesting discussion within this workshop.

Practice based research networks: A giant leap for primary care research

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Background: Most clinical research is based in hospitals. However, hospital based research may not be applicable to the challenges facing GPs in everyday practice. There is a continuous need for high quality primary care research on topics that are relevant to GPs and their patients. In order to achieve this, practice based research networks (PBRNs) have been implemented. Currently PBRNs are under establishment in Finland and Norway. The aims of this workshop are to present PBRNs in Finland, Norway and elsewhere, and get GPs and primary care researchers inspired to participate in PBRN based research.

Methods: The session will start with five presentations:

- 1) PBRNs in general practice – experiences, examples and opportunities (Sullivan)
- 2) The Norwegian PBRN from idea to reality – lessons learned (Rørtveit)
- 3) SNOW - a privacy preserving IT tool for PBRNs (Bellika)
- 4) The Norwegian PBRN – practices, patients and projects (Nilsen)
- 5) A small scale low budget PBRN – the Finnish experience (Koskela)

The last part of the session is dedicated to a general discussion of research ideas and possibilities for future participation and collaboration across the Nordic countries.

Results: Participants will get insight into how PBRNs work and the rewards that may follow from participation in PBRN based research for patients, practice and policy. Some participants might be inspired to set up a PBRN in their own country.

Conclusions: Practice based research networks are essential for high quality research in primary care. This workshop will inspire and prepare for future participation and collaboration.

Negotiation, temporality and context in clinical encounters

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Background: In general practice, obtaining patients perspectives and finding common ground has for many years been a core value. Negotiation is often associated with agenda setting as well as shared decision making (SDM) and is defined as finding common ground between two parties. This study aims to connect the social meeting between general practitioner (GP) and patient with the organisational, physical and temporal contexts of general

practice to account for the possibilities of negotiation.

Methods: The analysis presented here is based on a qualitative study design combining observations of clinical encounters and semi-structured interviews of GPs as well as patients. The empirical material was collected in relation to the intervention project *Check-In*. The intervention examined the effectiveness of an invitation of patients without formal education beyond lower secondary school to a prescheduled preventive health check at his or her GP.

Results: Overall, the findings in this study reveal that temporal conditions, such as continuity and length of consultations, frame social (inter)action in clinical encounters. The study finds that GPs go to great lengths to meet patients' requests which indicates that GPs are concerned with and considered patients' satisfaction at the expense of the temporal framework.

Conclusion: Negotiation is sensitive to both the contexts of patients' everyday lives as well as the contexts of the clinical encounter. Finding common ground between GP and patients vary in different social contexts as the temporal conditions of the wider contexts influences and are influenced by negotiations between GPs and patients.

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Calcium concentrations and mortality in primary care patients in Sweden

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Background: High calcium concentrations are associated with primary hyperparathyroidism, malignancies and kidney disease, hypocalcemia with vitamin D deficiency, gastrointestinal and kidney disease, and low albumin concentrations with malignancies. Hypocalcemia and increased mortality have been described in severely ill patients, in a small Swedish and a large American population. The aim was to investigate calcium concentrations and mortality in a large primary health care (PHC) setting.

Methods: Skaraborg is a rural area in Sweden with 256,000 inhabitants, 97% of whom attended public PHCs in 2005. All patients with a plasma calcium analysis between 2001 and 2005 registered in public PHC medical records were included. Age, sex, BMI, BP, albumin, hemoglobin, thyroid hormones, creatinine, HbA1c, and blood lipids were registered. Calcium concentrations were classified as hypocalcemia (≤ 2.30), normocalcemia (2.31–2.49), and hypercalcemia (≥ 2.50 mmol/L). Clinical data were linked to data from the National Cause of Death Register up to 2015. The main outcome was mortality.

Results: Of 52,094 patients with concomitant calcium and albumin analyses, 14% had hypocalcemia, 66% normal calcium and 20% hypercalcemia. Death occurred in 17,114 patients. Preliminary, crude analyses showed increased mortality in both hypocalcemia (OR 1.22, 95% CI 1.17-1.27) and hypercalcemia (OR 1.12, 95% CI 1.08-1.17), most pronounced among patients with hypocalcemia and partly explained by low albumin concentrations. Further analyses on causes of death, including confounders, are ongoing. **Conclusion** In the primary health care setting, abnormal calcium concentrations were associated with increased mortality, making the calcium concentration a putative risk marker for mortal disease.

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The consultation kit: Five cards

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Objectives: In this workshop we want share our experiences of an easy way to identify, train and teach the essential dimensions of patient/personcentred care.

Background: On the Kalymnos courses we have developed and tested a consultation kit. It is divided into three parts: the Patient's, the Doctor's and the Shared part. **The Five cards** are used for the Patient's part. To help the patient tell his narrative, you use two cards:

The receipt card. When you give this card the patient will feel listened to, accepted and stimulated to go on. The receipt card relieves tension both in the patient and in you.

Summary card. When you summarize what the patient has told you, he will listen to you.

The patient has got three 'thought' cards, all preferably to be initiated by a receipt card:

The thought card. What has the patient had on his mind?

The worries card. Normally the worries urge the patient to make the appointment.

The wish card. This card will clarify what the patient wants you to do.

Session content : After a short presentation of the five cards you will have the chance to test the cards in small groups under guidance of the above-mentioned experienced teachers. Afterwards we will discuss the method and results.

Interviews with doctors *using* the consultation kit 5 cards shows, that doctors will assess their consultations much better after course participation and feel less stressed.

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Acute poisoning related to recreational use of prescription drugs

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Background: Recreational use of prescription drugs is widespread. We describe a case series of patients with acute poisoning related to recreational use of prescription drugs.

Methods: Case series. From October 2013 through March 2015, we registered all patients presenting at a primary care emergency outpatient clinic in Oslo, Norway, with an acute poisoning related to recreational drug use. We included 819/2218 (36.9%) cases involving one or more prescription drugs. We registered demographic data, toxic agents taken, and treatment.

Results: Among the 819 included cases, 190 (23.2%) were in women. Median age was 37 years. The drugs most commonly involved were benzodiazepines in 696 (85.0%) cases, methadone in 60 (7.3%), buprenorphine in 53 (6.5%), other class A opioids in 35 (4.3%), Z-drugs in 26 (3.2%), class B opioids in 22 (2.7%), and methylphenidate in 11 (1.3%). Prescription drugs were combined with other toxic agents in 659 (80.5%) cases; heroin in 351 (42.9%), alcohol in 232 (28.3%), amphetamine in 141 (17.2%), cannabis in 70 (8.5%), GHB in 34 (4.2%), cocaine in 29 (3.5%), and other illegal drugs in 46 (5.6%). The patient was given naloxone in 133 (16.2%) cases, sedation in 15 (1.8%), and flumazenil in 3 (0.4%). In 157 (19.2%) cases the patient was sent on to hospital.

Conclusions: One in three acute poisonings related to recreational drug use involved prescription drugs. Benzodiazepines were by far the most common class of drugs. Prescription drugs had mostly been taken in combination with illegal drugs or alcohol.

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Development of the online patient satisfaction index for low back pain

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Background: Guidelines recommend information and education about the nature of low back pain (LBP) as a first-line treatment option. The internet is increasingly being used as a source of health information delivery. However, a validated measurement tool for satisfaction is needed. Consequently, the aims are to develop and validate a multi-item instrument to measure an index score of satisfaction with online information for patients with LBP.

Methods: The questionnaire is modelled based on the assumption of a formative model. The first draft of the questionnaire is developed based on a previous published interview study with 15 patients and is evaluated for face validity by seven experts. To optimise content validity, the second draft of the questionnaire is pilot-tested among 20 patients and evaluated among 150 patients for construct validity and interpretation. Among this population, 70 are randomised to participate in a re-test for reproducibility. Patients are recruited from a rehabilitation center and from social media.

Results: An eight-item questionnaire is developed. The questionnaire is assessed for content validity and face validity. The items are related to design, readability, customisation, credibility, usability, and coping. Each item is scored from 0-3 points, where 0 indicates not at all satisfied, 1 indicates little satisfaction, 2 indicates some satisfaction, and 3 indicates very satisfied giving an overall index score between 0 and 24 points.

Conclusions: An eight-item questionnaire measuring satisfaction with an index score from 0-24 points has been developed. Results of the complete validation procedure will be presented at the congress.

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Follow-up screening after GDM - perspectives from general practice

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Background: Follow-up screening after birth are recommended among women with a previous pregnancy complicated by gestational diabetes (GDM), as they remain in a 7-fold higher risk of developing type 2 diabetes (T2DM) later in life. Previous studies indicate that 40% develops T2DM within a 10-year period after birth. In a

register-based study from 2014, low participations rates have been found in the region of North Jutland, which constitutes an unutilized potential for prevention. In a qualitative study from the same region, women suggested that being a part of an organizational solution as a reminder system would be preferred. International studies indicate that screening support systems, such as electronic reminders, if adapted to contextually factors, can increase women's participation in the recommended screening. The perspectives of General practitioners (GP's) and other health care professionals in general practice are essential in the development process of such interventions, as their perspectives could help determine components of the interventions and create understandings of the actual context.

Methods: 20 semi-structured interviews with GP's and other health care professionals in general practice are being performed in the Sep-Dec 2018 in the region of North Jutland Denmark.

Results: Preliminary results will be presented.

Conclusion: As a part of interventions study, based on the English Medical Research Council's framework for development and evaluation of complex interventions within public health, the result of this study informs and improve the development process of an intervention with a purpose to increase participation and ensure early detection of diabetes among these women.

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Therapeutic Alliance assessment - translation of an instrument to Swedish

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Introduction: One outcome suggested to be important in general practice consultations is therapeutic alliance (TA). In consultation research, instruments to assess outcomes like therapeutic alliance, patient satisfaction or patient enablement are useful. Yet, validated instruments are rarely used, making interpretation of results and comparisons of studies inaccurate. Therefore, we translated the instrument "Working Alliance Inventory Short Revised" (WAI-SR) into Swedish.

Methods: A Delphi expert group approach with initially 30 general practitioners (GPs) was used to make a forward translation. A backward translation followed to ensure that the Swedish version was consistent with the original English version.

Results: Two Delphi-rounds with 12 GPs in the last, yielded consensus for a proposed Swedish WAI-SR translation, suitable for Swedish general practice. The backward translation showed fair conformity to the original English version.

Discussion: WAI-SR was developed for psychotherapy which became evident during the translational process. In Swedish, therapy (swe: terapi) is normally not used for consultations with GPs and therapist (swe: terapeut) is not used referring to a GP. Therefore, more applicable expressions were used in the WAI-SR Swedish. WAI-SR is intended for clinical, scientific and educational purposes. Before broader use, scientific testing for validity and reliability for each of these settings is suggested.

Conclusion: After a Delphi procedure translation, WAI-SR Swedish is now available for assessing therapeutic alliance in GP consultations. Until properly validated, we propose that it should be used carefully outside of research settings. Once validated, we believe it could be a useful research tool in GP consultation research.

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WHEN A GP AND A CARDIOLOGIST AGREE ON ANGINA PATIENT SELECTION

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Background: Coronary artery disease (CAD) is the leading cause of health loss in Finland, counting for one in five deaths in both genders. Invasive cardiology has expanded rapidly since 1990s. We investigated the diagnostic yield of elective coronary angiography when a GP and a cardiologist agree on patient selection.

Methods: Information on the patients referred from the health centers to the Turku University Hospital and underwent coronary angiography for suspected stable CAD symptoms during the year 2011 were identified using the Angiography Registry. Comorbidities, cardiovascular risk factors, medication use, non-invasive cardiac testing, and the symptoms of the patients at the time of angiography were gathered from the referrals made by the GP's and from the medical records made by the cardiologists.

Results: There were 246 patients (mean age 69 years) with suspected angina symptoms. Obstructive CAD was identified in 179 (73%), 136/162 (84%) in males and 43/84 (51%) in females ($p < 0.001$). Thirteen per cent of the

patients were over 80 years of age, and 94% of them had obstructive CAD. There were no substantial differences in the treatment, risk factors or symptoms between genders. The prevalence of hypertension was 60%, treatment goal was achieved by 25%.

Conclusions: This study shows that when a GP and a cardiologist in Finland agree on patient selection for elective coronary angiography, the diagnostic yield for obstructive CAD is about 70%. Diagnostic yield in women was low compared to men (52% vs. 84%). There is a need to improve treatment of high blood pressure.

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Current Management Strategies in Osgood Schlatter: A qualitative study

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Introduction: Osgood Schlatter (OS) is the most common knee condition in sports active adolescents affecting one in five. Despite its' commonality, there is no high-quality evidence to guide how best to manage the condition. This constitutes a need to identify how clinicians currently manage OS and their clinical reasoning. This qualitative study aimed to explore current management strategies in health-care professionals.

Materials and Methods: Twenty healthcare practitioners (medical doctors and physiotherapists) were recruited from an international survey on current management strategies of OS. Participants participated in qualitative semi-structured interviews covering the following domains; background, diagnostics, treatment, expected outcomes, return to play and evidence. A phenomenological approach was used to conduct and thematic analyse the interviews.

Results: Six central themes were identified (diagnostics, treatment strategies, family issues, psychological components, and factors influencing prognosis). The data suggested complex psychosocial factors (e.g. social exclusion and kinesiphobia) as important aspects in the management of these patients. Coding revealed performative parenting was considered a barrier to return to sport and a challenge for the clinician. Finally, in addition to conventional strategies such as complete rest and stretching, the data revealed application of novel treatments such as sports activity/load management, reassurance about prognosis and eccentric training.

Conclusion: This study shows a discrepancy in opinions on the most effective management of OS. Clinicians highlighted that psychosocial factors and parental involvement is important, and if not addressed correctly, this may prolong returning to full participation and activity.

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Current Management Strategies in Osgood Schlatter: A quantitative study

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Introduction: Osgood Schlatter (OS) is the most common knee condition in active adolescents, affecting one in five athletes. There is no evidence to guide clinical practice, and how it is managed is an enigma. Therefore, this study aimed to investigate management strategies across health-care professionals.

Materials and Methods: Health-care professionals managing adolescents with OS were recruited through social media and professional societies and invited to complete a 64-item questionnaire. The questionnaire covered the following domains; prognosis, diagnostics, treatment, and return to play. Responses for diagnostics and treatment were measured on a 5-point Likert scale (ranging from very likely to unlikely) and were considered 'for' ('very likely' or 'likely') or 'against' ('unlikely' or 'very unlikely').

Results: Two hundred and fifty-one completed the questionnaire. The most common diagnostic criteria were; pain at the tibial tuberosity (97% for), and pain with palpation of the tibial tuberosity (95% for), with imaging being the least likely criteria (38% for). The majority of participants (75%) favoured an active with the most common being exercise (92%) and education (99%). There was heterogeneity in use of taping (43% for versus 34% against), weight management (31% for versus 37% against) and pain medication (31% for, versus 34% against). Pain intensity, managing training load and psychological factors were considered the most important factors influencing return to full participation and activity.

Conclusion: There was good agreement between clinicians on diagnostic criteria, but greater heterogeneity in treatment. Treatment choices were in contrast to narrative reviews and recommendations for rest and stretching.

Model to switch high-risk warfarin patients to direct oral anticoagulants

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Background: The most important treatment target in atrial fibrillation (AF) patients is to prevent strokes. Direct oral anticoagulants (DOACs) are currently recommended as a first choice to manage AF especially for high-risk warfarin patients.

Methods: We piloted health center model for identifying and switching high-risk warfarin patients to DOACs in nonvalvular AF. In our health center (Municipal Health Center at Mouhijärvi for approximately 5000 inhabitants) primary care physicians (PCPs) work in pairs with nurses. In 2018 the nurses were educated (90 min interactive lecture) to identify high-risk warfarin patients by using TTR (time in therapeutic range) < 70% during the previous year. Reasons for unsatisfied warfarin treatment balance were charted and managed when possible. For the rest of high-risk warfarin patients verbal and written information were given to raise awareness of the possibility to use DOACs instead of warfarin. Information included switching protocol in guidance with PCP and nurse. We monitored INR laboratory tests taken during the year prior the intervention implementation (April 2017- March 2018) and year after (April 2018- March 2019). The primary outcome was the percentage of high-risk warfarin patients before and after the intervention implementation. Secondary outcomes included adherence rate for DOAC medication, bleedings or thrombotic events and patient satisfaction.

Results and conclusions: Preliminary results will be shown at the congress. All informed high-risk patients were willing to switch warfarin to DOAC during the next 6 months after information delivery.

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Research orientation among Finnish General Practitioners

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Background: In Finland every fourth physician has published a doctoral thesis. We examined the situation among Finnish general practitioners in a postal questionnaire.

Methods: The Finnish Physician Study has been conducted every five years since 1988. The 2013 survey comprised 50% of all Finnish doctors under 70 years of age. The response rate was 50.5%. The data contained 512 doctors (62% women) specialized in general practice and 183 (82% women) who were specializing in the field. The respondents were asked in a 5-step Likert's scale how much the possibility of doing research has had an effect on their choosing of general practice as their specialty. We also inquired whether they had published a doctoral thesis or whether they were planning to write one in the future.

Results: Altogether 74% of respondents reported that doing research did not have any effect on their choosing general practice as their specialty. Only 2% reported that it had great influence. There were no differences between genders. Of male responders 84% and of female 90% were not planning to pursue a doctoral degree. Moreover, 11% male and 5% female responders had already published a thesis (p=0.011).

Conclusions: The aspiration to do research is rather low among Finnish general practitioners. Publishing a doctoral thesis is less common as compared to the rest of the medical profession. The number of general practitioners with doctoral degree is twice as high among male GPs as their female colleagues. It is a challenge to get more GPs interested in research.

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Do patients consider low back pain a signal to stop being active?

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Background: Advice to stay active is recommended to all patients with low back pain (LBP) without a serious underlying condition. Some patients still believe that inactivity leads to recovery. However, these patients may be less likely to experience favourable outcomes. The aim is to investigate how many patients consider LBP to be a signal to stop being active.

Methods: A cross sectional study involving adults with LBP referred from general practices to the Spine Centre at Silkeborg Regional Hospital, Denmark. Patients who completed a routinely delivered electronic questionnaire prior to initial consultation were considered for inclusion. Patients were excluded if serious pathology was suspected. Included patients replied to additional socio-demographic questions, attitudes to spinal imaging, and beliefs about LBP. The question: 'if pain is increasing, it is a warning signal to stop with my physical activities until pain is

decreasing' from 0 to 10. Scores of 0-5 were coded as 'disagree' and scores of 6-10 were coded as 'agree'.

Results: 826 consecutive patients were included during 2017. Mean age was 52.7 years (SD 13.8) and 458 (55.5%) were women. 749 (90.7%) had chronic LBP, the mean NPR was 5.2 (SD 2.5), and the mean RMDQ score was 14.0 (SD 4.9). 605 (73.2%) agreed that pain is a warning signal to stop being active and 727 (88.1%) considered MR scans and x-rays to be important for their recovery.

Conclusion: Patients with LBP frequently hold erroneous beliefs that may be detrimental for recovery.

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Risk factors for readmission and mortality in the elderly after pneumonia

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Background: Pneumonia is common in primary care and remains a leading cause of hospitalization and mortality worldwide, especially among the elderly. Despite of this, little is known about which factors play a role for the risk of readmission and premature death in elderly with pneumonia

Methods: Using the Danish registers, we will establish a study cohort consisting of all persons who are at least 65 years old and have had a hospitalization for pneumonia during 2000-2016. Our cohort comprises 250,000 persons. We will estimate the associations between socioeconomic factors, health-seeking behavior, polypharmacy and comorbidity and the risk of readmission and premature death after admission for pneumonia.

Results: We will present an estimate of the association of each of the potential risk factors for the 30-day readmission and mortality rate. As this will entail four potential outcomes 30 days after discharge (1: no readmission and alive, 2: readmission and alive, 3: readmission and subsequent death, 4: no readmission and death), we will estimate the risk of outcome 2, 3 and 4 relative to outcome 1, by using multinomial logistic regression. We will present the crude proportion for each of the 4 outcomes and estimate the adjusted odds ratios (ORs) and corresponding 95% confidence intervals (CIs).

Conclusion: There is an urgent need for a better understanding of risk factors for readmission and death after pneumonia. This project will produce vital knowledge for targeting persons at risk when designing interventions aimed at preventing excess deaths and readmissions after pneumonia in the elderly.

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The utilisation of medical cannabis in the Region of South Denmark

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Introduction: The presentation shows the preliminary results regarding a 4 year pilot on legalisation of the use of medical cannabis in Denmark by January 2018. The ATC-group N02BG10 Cannabinoids consists on 7 cannabis products along the original medication Sativex®. The analysis focus on whether the numbers of patients using Sativex or the number of DDD for Sativex changes as a side effect due to liberating the use medical cannabis.

Material/methods: The study is based on a quasi-experimental design which aims to evaluate interventions without the use of randomization and gives the possibility to demonstrate the causality between an intervention and the outcome.

Data is extracted on a monthly basis and consist of all prescription in the period January 2015 to October 2018. The conferencepresentation will contain data from 2019.

Results: The patient model explained 85,1 % of the variance in the trend. 3 of 4 variables had (p<0.001).

In general the rise in patient was approximately 2 patient pro year until 2017. The pilot got immediately 8 more patients into the population of Sativex users. And the extended number of patient with a prescription of Sativex is estimated to be 6 patients pro year.

Conclusions: The study shows more patients after January 2018 receiving medication from ATC-group N02BG10. An unintended side effect is a higher number of patients on Sativex which has not been part of the debate regarding medical cannabis. Whether the side effect is because of underuse or overuse of Sativex cannot be examined in this study.

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Physical harm from colorectal cancer screening - a systematic review

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Screening programmes for colorectal cancer are emerging on a global scale. Screening intends to provide benefit but it also invariably involves an unintended risk of causing harm. Many potential harms of screening exist. One of these harms is the risk of physical harm, i.e. complications. It is scientifically well-established that the harms of screening are often underreported, underappreciated and inadequately measured compared to the benefits of screening. Many systematic reviews do not address these issues and thus compound the poor harm assessments. This raises concern, that the physical harms of colorectal cancer screening may be underestimated. This systematic review aims to assess the risk of any type of physical harm occurring due to screening for colorectal cancer by inviting asymptomatic individuals in average risk of colorectal cancer to screening via any combination of fecal occult blood testing, sigmoidoscopy and/or colonoscopy. The review is conducted in line with recent methodological recommendations to adequately assess the harms of medical interventions, like screening.

The study protocol is published on PROSPERO, available at:

https://www.crd.york.ac.uk/prospERO/display_record.php?RecordID=58844

Databases were searched in April 2017. There were no restrictions concerning study design, language or date of publication. All types of clinical studies were included. Risk of bias in the included studies was assessed using an extended version of the risk of bias tool ROBINS-I. Overall quality of the evidence was evaluated using the GRADE criteria. Results of the systematic review, and the potential implications of these, will be presented at the conference.

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A systematic review: adverse events in patients taking macrolides

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Background: Macrolides are among the most commonly prescribed antibiotics worldwide, and are used for a wide range of infections.

Objectives: To quantify the incidences of reported adverse events in people taking macrolides compared with placebo for any indication.

Method: We searched CENTRAL, MEDLINE, EMBASE, CINAHL, LILACS, and Web of Science from inception to May 2018 for randomized placebo-controlled trials. The search was limited to the most commonly used macrolides. Two authors independently screened potentially relevant studies, extracted data, and assessed study quality.

Results: We included 183 studies with 252,886 participants. Gastrointestinal adverse events were more often reported by participants taking macrolides than placebo. Taste disturbances and hearing loss were also more often reported, but only a few studies reported on these adverse events.

We did not find any evidence that macrolides caused more cardiac disorders, liver disorders, blood infections, skin and soft tissue infections, changes in liver enzymes, appetite loss, dizziness, headache, respiratory symptoms, itching, or rashes than placebo.

We did not find more deaths in people treated with macrolides than in those treated with placebo.

Conclusion: The intent of this review is to support clinicians and patients in evaluating harms as well as benefits in the choice of management when antibiotics are contemplated.

This abstract is based on a draft and post-peer reviewed version of "Adverse events in patients taking macrolide antibiotics versus placebo for any indication (Protocol)". Upon completion and approval, the final version is expected to be published in the *Cochrane Database of Systematic Reviews* (<http://www.cochranelibrary.com/>).

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Clinical ultrasonography in Danish general practice

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Background: Point-of-Care ultrasonography is increasingly used in general practice. However, little is known about how ultrasonography is used by general practitioners (GPs) in daily practice.

Objectives: This project aimed to describe the use of ultrasonography in Danish general practice by newly-educated GPs.

Method: In August/September 2018, 30 GPs in the Region of Southern Denmark attended an introductory course. Next, the GPs registered all patient contacts where they used ultrasonography in the consultation. Registrations were performed according to the Audit Project Odense (APO) method. GPs were asked to fill in a registration chart with 40 variables including age and gender of the patient, the organ system being scanned (musculoskeletal, gynaecology/obstetric, abdominal, lungs, skin, other), conclusion of the scan (conclusive/inconclusive), the result of the scan (pathology yes/no), the time used for the ultrasonography, and the consequences of the scan (more certain diagnosis, changing the diagnosis, changing plans of referral, changing treatment, performing an intervention, referral to radiology, referral to other specialists). In addition, GPs were asked to fill in a short questionnaire with questions about what type of practice they work in, rural or urban location of the practice, distance to the Department of Radiology, and the GPs previous experiences with using clinical ultrasonography.

Results: Data collection finished on November 30th 2018. We plan to present data from this study at the NCGP 2019.

Conclusion: Ultrasonography might be a future tool for every GP. This study describes which clinical conditions might be relevant for ultrasound examinations in general practice.

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Diagnostic labelling of patients with acute lower respiratory infections

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Background: Acute lower respiratory tract infections (LRTI) are among the most common infections treated with antibiotics in Danish general practice.

Objectives: The aim of this study was (i) to describe which patient characteristics, symptoms, and findings precede the diagnosis of either acute bronchitis or pneumonia in Danish general practice and (ii) to explore the associations between symptoms, findings, and C-reactive protein (CRP) values and being diagnosed with pneumonia and having an antibiotic prescription.

Methods: General practitioners (GP) and practice nurses (PN) in three Regions were asked to register patients presenting with symptoms of an LRTI according to the Audit Project Odense (APO) method during 20 days in winter 2017/18.

Results: In total, 158 GPs and 56 practice nurses registered 1384 patients diagnosed with either acute bronchitis or pneumonia. Fever, cough, dyspnoea, increased purulent sputum, abnormal stethoscopy/chest retractions, and assessed 'generally unwell' were the most frequent symptoms and findings in both groups. Patients with a fever were almost five times more likely to be diagnosed with pneumonia (odds ratio (OR) = 4.6; 95% confidence interval (CI) 3.6 to 5.9). Most patients had a CRP test performed (71.4% with acute bronchitis; 83.1% with pneumonia) and the likelihood of being diagnosed with pneumonia or having an antibiotic script increased markedly with increasing CRP values.

Conclusion: A large overlap between symptoms and findings of patients diagnosed with either acute bronchitis or pneumonia exists and CRP tests are highly used in the management of patients with LRTIs in Danish general practice.

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Multimorbidity: New Perspectives on the (Over?)Diagnosis of Patients

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Objectives: To debate multimorbidity as an (over)diagnosis and its consequences for the work in general practice.

Background: There is no consensus of how to define multimorbidity. The different broad definitions with the high number of risk factors can question the meaning of the concept of multimorbidity and lead to overdiagnosis. Moreover, if early diagnosis is in focus this can lead to even more overdiagnosis. Therefore, some of the many existing definitions have a risk of targeting the wrong patients. In this workshop, we will introduce you to two types of overdiagnosis: overdefinition and overdetection, different definitions of multimorbidity and possible consequences of multimorbidity as an increasingly more common diagnosis in general practice. Finally, we will invite you to a discussion about consequences of working with multimorbidity in relation to patients, general practice, and future research.

Content: The symposium will start with six brief presentations of aspects on multimorbidity as a diagnosis, based

upon current research carried out by the presenters.
Overdiagnosis and Multimorbidity

The Definition(s) of Multimorbidity

"Living with multi-morbidity" - the patient perspective on the diagnosis multimorbidity

"Knowing patients as persons" – the GP perspective on multimorbidity

The Roadmap to a Multimorbidity Guideline for General Practice

Multimorbidity as a phenomenon and possible consequences for overdiagnosis in General Practice

Methods: Following the presentations will be plenum discussions facilitated by the organizers. The symposium thus interactively informs the future research and work in general practice in regards to multimorbidity.

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Primary care doctors' role in emergency hospital admissions in Norway

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Background: Primary care doctors have a gatekeeper function, and strategies to reduce emergency hospital admissions often focus on general practitioners' (GPs) and out-of-hours (OOH) doctors' role. This study aimed to investigate these doctors' role in emergency admissions to somatic hospitals.

Methods: A cross-sectional analysis was performed by linking data from the Norwegian Patient Registry (NPR) and the physicians' claims database. The referring doctor was defined as the physician who had sent a claim for a consultation with the patient within 24 hours prior to an emergency admission. If there was no claim registered prior to hospital arrival, the admission was defined as direct, and may be by ambulance, from nursing home, private health provider, or referred from hospital, e.g. outpatient clinic.

Results: In 2014 there were 551 753 emergency admissions to somatic hospitals in Norway. 22% of these were referred by GPs, 28% by OOH doctors and 2% from community specialist practice, whereas 10% were birth related admissions and 38% direct. Direct admissions were more common in central areas (52%), here GPs' referrals were only 16%. The proportion of direct admissions varied with the hospital discharge diagnosis. With atrial fibrillation 34% came by GP and 37% were direct, respectively 12% and 58% for femoral fractures. For acute appendicitis 52% came by OOH and only 17% direct admissions.

Conclusion: Although many emergencies admitted to somatic hospitals were referred from GPs or OOH doctors, a significant proportion was not, and this reduces the impact of the GPs' and OOH doctors' gatekeeper role.

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Age-Normative MMSE Data for Older Persons Aged 85 to 93 in a Swedish Cohort

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Background/Objectives: Normative Mini-mental state examination (MMSE) reference values in elderly are scarce. Therefore, the aim is to present normative MMSE values for 85-93 year olds.

Methods: A longitudinal age cohort study. A population study of the residents in the municipality of Linköping, Sweden. Residents (n=650) born in 1922 during the course of 2007. In total, 374 individuals participated and were tested with MMSE at age 85, 280 of these were willing and able to also participate at age 86, 107 at age 90 and 51 at age 93.

Measurements: MMSE, from 0–30, with lower scores denoting more impaired cognition.

Results: Median MMSE values for the total population over the ages 85, 86, 90 and 93 years was 28 for all ages investigated. The 25th percentile values were 26, 26, 26 and 27, respectively. For a "brain healthy" sub-group median values were 28, 29, 28, and 28. The 25th percentile values were 27, 28, 26 and 27, respectively. Comparisons for age-effects showed no differences when all individuals for each age group were compared. When only the individuals reaching 93 years of age (n = 50) were analyzed, there was a significant lowering of MMSE in that age group.

Conclusion: The literature is variable and in clinical practice a low (24) MMSE cut off is often used for possible cognitive impairment in old age. The present data indicate that MMSE 26 is a reasonable cut off for possible cognitive decline in older persons up to the age of 93.

Health Inequity in General Practice

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Objectives: This symposium discusses how political and social structures, diseases, culture, and practices create, preserve or strengthen health inequity in general practice. The discussion will form base for a common understanding of the most pressing health inequity challenges in general practice, and thus point to the direction of future research and development of clinical practices.

Background: The Nordic health systems are among the world's best with universal access to health care. Despite this, health inequalities is rising in the Nordic countries. It manifests in differences in health status, risk of contracting diseases, disease prognosis and life expectancy. In affluent welfare states like the Nordic countries, the most predictive social determinants of health are educational level and income. For instance, people with low levels of education have a ten year shorter life expectancy than people with high levels of education. The question is whether this is due to increasing inequity in health.

Content: The symposium will start with five brief presentations of epidemiological, anthropological and clinical perspectives on health inequities in general practices. The presentations are based upon current research carried out by the presenters, followed by discussions.

Social position and health inequalities– implications for general practice

Multimorbidity and health inequity

Interactions between patient, health professionals and organization, which influence goal setting in treatment of type 2 diabetes and participation in rehabilitation

Social class, experiences of the body and health practices

Self-perpetuating stigma and inequities in health

Methods: Following the presentations will be plenum discussions facilitated by the organizers.

Do cancer patients consult their general practitioners, and why?

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Background: Survival rates of cancer patients increase due to improvements in diagnostics and therapies. The traditional hospital-based follow-up model is challenged due to the subsequent increasing workload, and it has been suggested that selected cancer patients could be followed up by general practitioners (GPs).

Our hypothesis is that regardless the hospital-based follow-up care, GPs see their cancer patients both for cancer-related problems and for other reasons. A formalized follow-up by GPs would not implicate a too large change. The purpose of this study was to explore if cancer patients consult their GPs, and for what reasons.

Methods: We conducted an explorative study based on one-year data electronically extracted from GPs' electronic medical records 2016-2017.

Results: We collected one-year data from 91 GPs. There were in total 11 074 consultations generated by 1 932 cancer patients.

We aim to present results regarding the characteristics of the cancer patients who consult their GP, the characteristics of the GPs, the frequency of consultations and the diagnoses causing them.

Conclusions: We intend to present results from the study which tell us to what extent cancer patients consult their GP and the reasons for it. This knowledge could help in developing and improving guidelines regarding follow-up of cancer patients.

Improving Practice Visits for General Practice

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Background: The Unit for Rational Pharmacotherapy in The North Denmark Region offers practice visits regarding rational pharmacotherapy to general practitioners including ordination statistics on selected medicaments. General practitioners working as rational pharmacotherapy consultants carry out the visits. The practice visits initiative includes a behavioural change aspect focusing on promoting behavioural change towards rational ordination patterns in general practice.

Methods: In order to develop the consultants' competencies within the behavioural change area a competence development process have been carried out including two workshops. The process have included development of a systematic way of working with a typical course of a practice visit and the rhetoric based on Aristotles' forms of appeal: logos(logic), patos(emotions) and etos(credibility). To practice visits regarding rational pharmacotherapy the key is to handle patos in order to target logos by means of etos.

Results: The results consist of a general competence lift amongst the consultants including using Stephen Toulmin's argument model as a systematic approach to the preparation process related to specific medicaments and a visiting guide in the form of pamphlet. The visiting guide is both a tool for training new rational pharmacotherapy consultants and maintaining of the knowledge and abilities learned by the current rational pharmacotherapy consultants.

Conclusions: An evaluation will be carried out during the first five months of 2019 focusing on how the participants' perceive the etos of The Unit for Rational Pharmacotherapy following the competence development process. The evaluation will be carried out using a survey amongst participating practices.

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Defensive medicine in General Practice - Too much to do about nothing?

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Background: Recent years have witnessed a progressive increase in defensive medicine (DM) in several Western welfare countries. In Danish primary and secondary care, documentation on the extent of DM is lacking. A preceding phenomenological study of General Practitioners' (GPs') understandings of and experiences with DM yielded the following definition: *Defensive medicine is actions that run counter to the physicians' professionalism, but are carried out due to demands and pressures.* The interviews moreover revealed various forms of GP-perceived defensive medical practices and the GPs' reasons for executing these.

Aim: To characterize the use and extent of DM in Danish general practice and to investigate GPs' reasons for practising DM in the individual consultations.

Methods: All GPs residing in the Southern Denmark Region are invited to participate in an audit under the auspices of Audit Project Odense (APO) registering all consultations during a five-day period in February 2019. The audit template comprises the following items: Knowledge of the patient, reason for encounter, time of day, defensive practices carried out; e.g. prescriptions, point-of-care-tests, laboratory tests, referrals, excessive recording and documentation. Moreover, the GPs' reasons for practicing DM are surveyed; e.g. concern about overlooking critical illness, concern about patient complaint, patient demand, etc.

Results: We will present analyses on the extend - and types - of DM and the GPs' reasons for practicing DM. Moreover, there will be group discussions on the participants' experiences with DM in order to gain insight into the Nordic perspective on DM.

Conclusion: Will be presented at the congress.

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Dermoscopy of skin tumors in general practice and suspicions on malignancy

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Background: The incidence of malignant melanoma (MM) and other skin cancers is increasing in Denmark. Inquiries for an assessment of skin lesions is a common reason for encounter in general practice. The discrimination between a benign skin tumor and an early melanoma can be very difficult and may result in an undue high number of excisions and referrals to dermatologists and plastic surgeons. Training of General Practitioners (GPs) in dermoscopy has been shown to increase the sensitivity in diagnosing without reducing the specificity.

Objectives: To describe the presentation and diagnosing of suspicious skin tumors in general practice when using dermoscopy.

Methods: A prospective audit registration according to the APO method of patients presenting in general practice with a skin tumor. The GPs registered symptoms, clinical findings, risk factors, tentative diagnosis, consequence and perceived diagnostic security.

Results: All GPs residing in the Southern Denmark Region were invited on a first come first serve basis. A total of 48 GPs registered 501 suspicious skin tumors. The most frequent reported symptom was were growth (61%), patient concern (57%) and color change (35%). The most frequent diagnoses were atypical nevus (36%), BCC

(21%) and actinic keratosis (AK) (12%). The diagnosis of MM and SCC was suggested in 9% respective 4% of the registrations.

Conclusion: A diagnosis of MM, BCC or SCC was suggested in more than a third of suspicious skin lesions examined in general practice. The diagnosis of skin tumors may be further qualified by training GPs in dermoscopy.

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Workload in Norwegian general practice

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Background: Rising workload in general practice has recently been gaining a lot of concerns, so also in Norway. Long working hours and heavy workload seem to affect recruitment and retention of regular general practitioners (RGPs). We investigated Norwegian RGPs workload in terms of time used on office patient related work, administrative work, municipality tasks and other professional activities in relation to RGPs, and gender, age, employment status and size of municipality.

Methods: Electronic survey to all 4716 RGPs in Norway. The RGP reported minutes per day used on various tasks prospectively during one week. Working time also included additional tasks in the municipality, other professional work and on out-of-hours work. Differences were analysed by t-tests and one-way ANOVA.

Results: Among 1876 RGPs (39.8%), the mean total working hours per week was 55.6, while the mean for regular number of working hours was 49.0 hours weekly. Men worked 1.5 hours more than women (49.7 vs. 48.2 hours, $p=0.010$). Self-employed RGPs work more than salaried RGPs (49.3 vs. 42.5 hours, $p<0.001$), and RGPs age 55-44 years worked more than RGPs at age 30-39 (51.1 vs. 47.3 hours, $p<0.001$). 54.1% of the regular working hours was used on face-to-face patient work.

Conclusions: Norwegian RGPs have long working hours compared to recommended regular working hours in Norway, with small gender differences. Only half of the working time is used on face-to-face consultations. There seems to be a trend of increasing workload among Norwegian GPs, at the cost of direct patient contact.

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Chronic pain and quality of life in women with Autism and/or ADHD

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Objective: To investigate the prevalence of chronic pain and its consequences regarding health-related quality of life in a group of women, diagnosed with Autism spectrum disorder (ASD) and/or Attention deficit hyperactive disorder (ADHD) in their childhood.

Method: A sub-study of a longitudinal 16-19 years follow-up study of 100 girls diagnosed with ASD and/or ADHD in their childhood or adolescent years, conducted in Sweden.

Result: A majority of the women (76.2%) reported chronic pain. Health-related quality of life was low and even lower for those reporting chronic pain. The women who had ongoing treatment with stimulants, indicated lower incidence of chronic pain than those who did not.

Conclusions: Chronic pain in women with ASD and/or ADHD is important to address in the clinic. This is even more important since this women with chronic pain have a noticeably reduced quality of life.

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Audit on early diagnosis of cancer in the region of Southern Denmark

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Background: Early diagnosis of cancer usually limits the complexity of treatment and increases healthy survival.

Objective: To describe trajectories and reduce delay in cancer diagnostics in general practice in Southern Denmark

Methods: Using the Audit Project Odense method, all GPs in the region were invited to review the medical records of all new cases of cancer among their listed patients that had occurred during the previous two years.

Results: The project enrolled 85 GPs (11%) who recorded a total of 1190 patients diagnosed with cancer of whom 879 (74%) first presented in general practice with symptoms, signs or coincident findings, 9.4% in hospital, 7.9% were diagnosed by the national screening programs for mamma- and colon cancer, 3.6% at specialist practitioners,

3.1% at a GP substitute or out-of-hours service, and 1.8 not accounted for.

For patients presenting in general practice, half had organ-specific symptoms of cancer, about 6% were at some point advised to wait and see, about three quarters were at some point referred with an explicitly written suspicion of cancer, the median patient delay was four weeks, the GPs referred about three quarters of the patients within one week, three quarters had a hospital cancer diagnosis within four weeks from referral, about three quarters of the diagnostic trajectories were regarded as 'Good' by the GPs. About 90% of the GPs evaluated the audit as recommendable to other GPs.

Conclusion: Diagnostic trajectories can be improved in about one in four cancers. Audits are probably a valuable tool in achieving that.

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Quality indicators - sometimes useful sometimes not!

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Quality indicators can be very useful as a starting point for quality improvement work. However, using quality indicators for pay for performance, seems to have mainly negative consequences. In order to clarify this EQuIP updated their policy paper on quality indicators, which was recently endorsed by Wonca Europe.

The positive side of indicators, using them for quality improvement, is exemplified by "Primary Care Quality", a Swedish system for quality improvement in primary care.

In this workshop, a brief background to EQuIP's policy paper is presented. Thereafter "Primary Care Quality" is introduced.

Together, the participants will discuss different use of quality indicators with focus on

How the Position paper can be applied in their context

How indicators for quality improvement can help quality improvement (by testing "cases" from Swedish health care centres).

Finally, we summarize our experience of working with quality indicators and discuss what we can do to facilitate the positive use of them.

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Experiences of being a patient with chronic widespread pain

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Background: Patients with chronic widespread pain (CWP) experience a comprehensive burden of symptoms. They have frequent contacts with general practice (GP), municipality and hospitals. Prior research has shown that professionals find it difficult to handle CWP and see patients as a communicative challenge. Patients likewise describe a problematic relationship with GPs and other professionals. The aim is to investigate how patients with CWP experience their contact with different sectors in Denmark including GPs, hospitals and municipality.

Methods: The study is based on individual semi-structured interviews with 10 persons with CWP. Analysis was conducted with Interpretative Phenomenological Analysis.

Results: In meetings with GPs, hospitals and municipality patients mostly experienced an empathic attitude which promoted a smooth and honest communication. However, all patients had also experienced a disrespectful, not-understanding attitude from social workers and doctors and had perceived that the professional did not make an effort to imagine their situation. This attitude made the patients withhold information and resign from the relation. Furthermore, patients experienced a lack of coordination between different interventions and felt that nobody took responsibility for the whole problem. The fragmentation was also experienced between departments in the municipality and when the social worker changed. Finally, patients experienced a loss of autonomy in meetings with the municipality, because they could not make their own decisions about important life events in fear of financial consequences.

Conclusions: Patients with CWP face several challenges in their contact with GPs, hospitals and municipality, which can prolong and complicate their course of treatment.

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A patient-centered framework for GPs and patients with multimorbidity

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Background: There is a known inverse relationship between a patient's number of medical conditions and their

quality of life (QoL). Patients with multimorbidity frequently attend their GP, and primary health care plays a central role in coordinating their care. However, there is no assessment tool for creating a mutual comprehension in the consultation for GPs that include the patients' perspectives of living with multimorbidity such as values, preferences and experiences. Our aim is to develop a set of five patient-centered questions to be used by GPs as a framework in their consultations with patients with multimorbidity.

Methods: Data collection through semistructured individual and focus group interviews covering QoL when living with multimorbidity.

A systematic review has been conducted to examine how QoL is measured among patients with multimorbidity. Identified items from this review as well as the needs-based model, defining QoL from the individuals needs and expectations, lay the foundation for a semistructured interview guide.

All interviews will be audiotaped and transcribed verbatim.

A selection of themes will be made by using systematic text condensation. The five key questions will be identified by being the ones that open the dialogue and covers the patients' experiences, needs and expectations regarding QoL.

Results: There are no results yet. The interview guide is currently being developed. Interviews will be conducted in January to May 2019.

Conclusion: A set of five patient-centred key questions, to be used by GPs as a framework in their consultations with patients with multimorbidity, will be developed via qualitative interviews.

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The UNG study: Ultrasound in Norwegian General practice, a prevalence study

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Background: Ultrasound devices have been part of medical diagnostics since the 1950s, utilized first by radiologist, cardiologists and gynecologists. With technological advances, the devices have become smaller, cheaper and easier to use. The extent of use in general practice varies between European countries.

Norway has a list system, with general practitioners (GP) in all municipalities across the country. Since 2008, GPs can claim reimbursements for some use of ultrasound. The procedures covered are first-trimester bleeding, fetal head position at term, gallbladder and aortic disease, DVTs, residual urine and skin-near processes. Each time a GP carries out one of these procedures, the GP sends a claim to the national health insurance. The aim of the present study was to assess the frequency of use of ultrasound procedures in Norwegian general practices in years 2009, 2012 and 2016. Has there been an increase in the various procedures performed? Are there any geographical differences? Are there any differences amongst the GPs when it comes to gender, age and speciality in general practice?

Method: We have used data from the KUHR database, which is the national system of administrating reimbursement claims from the entire Norwegian healthcare.

Results: The results will be presented at the conference.

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Antibiotics to children with acute cough in Danish general practice

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Background Children often present with acute cough in general practice and antibiotics are the most frequently prescribed drugs to children.

Objectives To investigate which factors are associated with prescription of antibiotics to children younger than 15 years presenting with acute cough in Danish general practice.

Methods All general practitioners (GPs) in three Danish regions were invited to record information about all children who presented with acute cough during a four-week winter period. Multilevel logistic regression models were performed to investigate factors associated with antibiotic prescription.

Results A total of 161 GPs recorded 864 0-2-year-old, 359 3-5-year-old, and 436 6-14-year-old children with acute cough. An antibiotic, most often Penicillin V (62%), was prescribed to respectively 16%, 13%, and 8% of the children. Respectively 21%, 29%, and 49% of the children had CRP measured. CRP was below 20 mg/L in 77% of measurements being associated with less antibiotic prescriptions (OR: 0.23, CI: 0.13-0.40), and CRP was above 50 mg/L in 5.4% of measurements being associated with more antibiotic prescriptions (OR: 9.4, CI: 3.1-29), both compared to CRP not measured.

Antibiotic prescribing was also associated with abnormal lung stethoscopy / chest retraction (OR: 6.4, CI: 3.7-11), parents' demand for antibiotics (OR: 4.6, CI: 6.8-13), affected general condition (OR: 4.6, CI: 2.5-8.4), presence of fever (OR: 4.6, 2.9-7.3), and aggravation of symptoms after temporary relief (OR: 2.9, CI: 1.5-5.8).

Conclusion Few children presenting with acute cough in Danish general practice are prescribed with antibiotics. CRP level was a strong predictor of prescription with antibiotics.

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Management of sleeping problems in Danish general practice

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Background: Sleeping problems are widespread in today's society and a frequent cause of contacting the GP. Sleeping medicine has limited benefits and severe side effects, especially in elderly patients. Cognitive behavioural therapy (CBT) is recommended.

Objectives: To describe the appearance and management of sleeping problems in Danish general practice and investigate which factors are respectively associated with having CBT and treatment with sleeping medicine.

Methods: During a four-week period, GPs in Southern Denmark recorded all encounters involving a sleeping problem. Multivariate binary logistic regressions were used to analyse associations. Sleeping medicine included z-drugs, benzodiazepines, and tranquilising neuroleptics, antidepressants, antihistamines and 'Others'.

Results: Eighty-eight GPs (11% of all eligible) and 15 practice nurses recorded a total of 1,216 encounters. Of the 494 (41%) encounters, where the patient had no underlying psychiatric disease, 28% solely included treatment with CBT, 28% solely included sleeping medicine, and 35% included both treatments. Factors associated with receiving CBT included poor sleep hygiene, alcohol abuse, experiencing life crisis, and male gender. Factors associated with receiving sleeping medicine were high age and that the patient expected a prescription. The most frequently prescribed drugs were Z-hypnotics (60%), benzodiazepines (12%), and mirtazapine (15%). Almost a third of the prescriptions were off-label.

Conclusion: Much treatment of sleeping problems in Danish general practice does not follow the evidence-based guidelines that CBT should always be used and drugs seldom. Patients prescribed with sleeping medicine are often elderly despite the increased risk of side effects. Use of off-label prescribing is frequent.

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Mindfulness based cognitive therapy (MBCT) for primary care patients

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Background: In Britain, MBCT is a common strategy to prevent relapse in major depressive disorder. The effectiveness of implementing MBCT for patients with mild to moderate depression or anxiety in general practice is unclear.

Purpose: We aimed to compare the effectiveness of MBCT plus treatment as usual (TAU) compared to treatment as usual in the treatment of mild to depression or anxiety in Iceland.

Method: A multicentre randomised controlled trial. Between 12. September 2017 and 20. January, 2019, 120 participants, 18-67 years old, with symptoms of mild to moderate depression and/or anxiety are assessed for eligibility and randomly assigned to MBCT plus TAU (n = 65) or alone (n = 45) *.

Primary outcomes: A comparison of symptoms of anxiety and depression between the two groups will be carried out before and after the MBCT and, in addition, 6 and 18 months afterwards, using GAD7 and PHQ9 questionnaires.

Secondday outcomes: A comparison of well-being score before and after the MBCT as well as after 6 and 18 months, using on the short version of Warwick- Edinburgh subjective well-being scale (SVWEMWBS) and use of anti-depressives / anxiolytics at same time points.

Results: The applicant will be presenting preliminary results from the first follow up evaluation.

Conclusions: We hope to assess whether there are benefits of MBCT at the primary health-care stage and presence of a preventive effect. The trial is registered at clinicaltrials.org.

* At the date of submission (6.12.2018), recruiting is still ongoing.

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What Matters to Patients in General Practice?

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Background: Every year Danish Society for Patient Safety facilitates the international "What matters to you?-day" throughout the Danish Health Care System. The aim of the day is to encourage patient involvement and support meaningful conversations between health care providers and patients.

In order to support "What matters to you?-day" in general practice in The North Denmark Region The Patient Safety Team of The Quality Unite for General Practice in The North Denmark Region (Nord-KAP) is conducting a study of what matters to patients in general practice.

Methods: Two focus group interviews with patients in general practice in The North Denmark Region will be conducted in January 2019. One focus group interview with 8-12 patients with chronic diseases such as chronic obstructive pulmonary disease, diabetes or heart condition and one focus group interview will be conducted with 8-12 patients with musculoskeletal conditions affecting muscles, bones and joints.

The interview guide to be used is based on the questions provided to participants in the "What matters to you?-day" are inspired by The Danish Society for Patient Safety.

Results: The results will be analysed in March – April 2019 and include answers to questions such as 1) what matters to patients in general practice in relation to their general health and 2) what mattered in relation to their last visit to their general practitioner.

Conclusions: The study is meant to broaden the perspective of patient involvement in consultations in general practice.

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Recent trends in incidence of atopic dermatitis among children in Norway

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Background: Atopic Dermatitis (AD) is increasing. Lately a Scandinavian prescription study (1) implies a levelling off among children in outpatient specialist care. Our prescription study also includes primary care (2).

Method: All pharmacies in Norway forward prescription data to The Norwegian Prescription Database. Proxies, reflecting the diagnosis (both ICD-10 and ICPC-2) labelled on the prescription or the local treatment given, identified the patients with AD. Children up to six years were included. For each year and gender, incidence rate per person year (IR/PY) was calculated. The study period was 2009 - <2015 but included also earlier years to ensure that only new cases were identified. We recorded seasonal variation in IR/PY.

Results: Our proxies identified 63.460 children with AD. In the study period IR/PY increased from 0.028 to 0.034 for children <6 years old, from 0.052 to 0.073 for children <1 year old. For children less than one year the IR/PY was 53% higher for boys than girls. The total incidence proportion (prevalence) was 17.4%. The highest IR/PY occurred during winter and spring seasons.

Conclusion: The incidence of AD is still increasing, especially among children less than one year of age, in this nationwide study including primary care. Environmental factors related to season affects AD.

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Management of the difficult headache patient in general practice

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Headache disorders are frequent in general practice and most primary headaches are fully managed by the GP. The most common chronic headache is medication-overuse headache (MOH), afflicting roughly 2% of the population.

MOH contributes to high disability and low quality of life, as well as high socioeconomic costs. The treatment for

MOH is discontinuation of the medication-overuse whereby 50-75% of patients revert to episodic headache.

Can this be done in primary care? Is it time-consuming? Will my patients benefit?

The Norwegian Brief Intervention for MOH (BIMOH) study have dealt with this problem. A structured treatment approach feasible for treatment of MOH in primary care was developed and tested, and has been demonstrated to be highly effective: after 6 months 63% of patients reverted to episodic headache.

Brief Intervention (BI) included a screening tool and afterwards 9 slides with information about MOH, finishing with a common plan between the patient and the GP. The BI was well-accepted among GP's who found the approach feasible, systematic and pedagogical contributing to an alliance between the GP and the patients. On average the GP's spend 9 minutes to go through the information and plan with the patient, which easily can fit into a regular consultation.

The workshop will present cases, outline the rationale behind and the results of the studies done in general practice. The workshop will prepare the participants to use this approach in their own practice.

Methods: Lectures (background and results) and interactive discussion (cases and how-to-do it yourself).

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Headache? Go see your GP!

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Background: Nordic countries are among the leading scientific contributors to the headache field. New headache treatments are emerging for migraine and other headaches, and GPs need to know how to diagnose and treat chronic headache and medication overuse in general practice. The aim of this symposium is to present new knowledge of headache and new evidence-based methods for use in clinical general practice. The symposium will be a mix of presentations of research findings and researchers' reflections, followed by interactive discussions with the audience.

Results: This symposium will, based on recent research from the Norwegian and Danish general population, present a synopsis of the latest knowledge of migraine, tension-type headache and chronic headaches, including new evidence-based treatments for the treatment of chronic headache and medication overuse in general practice. After this symposium, the GPs should be competent in diagnosing and treat migraine, tension-type headache and medication-overuse headache in primary care.

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Lifestyle and mental well-being following the TOF pilot study

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Background: The increasing burden of lifestyle-related diseases (LRD) calls for immediate preventive actions. The TOF pilot study tested a step-wise model for systematic and targeted prevention of LRD. We report on the changes in lifestyle and mental well-being among participants at high risk of LRD and participants with health-risk behavior.

Methods: The TOF pilot study was conducted in two municipalities with participation of 47 general practitioners (GPs). The target group comprised patients aged 29 to 60 years, randomly selected from the GPs' patient list system.

Based on electronic patient records (EPR) and questionnaire data on lifestyle and mental well-being, participants were stratified into four health-risk groups: 1) Diagnosed with LRD, 2) At high risk of LRD, 3) Health-risk behavior, 4) Healthy lifestyle.

All participants received a digital health profile with personalized advice on lifestyle changes. In addition, groups 2 and 3 were offered a targeted intervention at the GP and municipality, respectively.

At one year follow-up, questions on lifestyle and mental well-being were repeated.

Results: Among the 2661 participants who received a personal health profile, 582 were at high risk of LRD and 618 had health-risk behaviors.

At one-year follow-up, the number of participants with unhealthy diets and sedentary lifestyles was significantly reduced. Additionally, their mental well-being score was significantly increased. No change in prevalence of smoking or high-risk alcohol consumption was observed.

Conclusion: Results from the TOF pilot study indicate, that a personal health profile and a subsequent targeted intervention may reduce health-risk behavior and increase mental well-being.

Changing antibiotic prescribing behavior in general practice

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Background: The antibiotic prescribing behavior of general practitioners (GPs) can play an important role in reducing microbiological resistance as 75 % of all antibiotic prescriptions in Denmark are written by GPs. Aim To reduce the number of antibiotic prescriptions in general practice and facilitate the use of narrow rather than broad spectrum antibiotics.

Method: In January 2018 18 GPs met with a pharmacist (regional medical advisor) to review data showing the GPs own prescribing pattern and discuss antibiotic treatment. The GPs were given an antibiotic information brochure that provided further information about rational antibiotic treatment in general practice.

Results: 14 GPs completed a questionnaire after meeting with the pharmacist. 86 % (12 of 14) stated that they intended to change their prescribing behavior based on the meeting. The follow-up data showed a reduction in the use of antibiotics from 2017 to 2018 among the GPs in Central Denmark Region. The reduction was greater in the intervention group than among the GPs in general. Furthermore the proportion of narrow spectrum antibiotics (phenoxymethylpenicillin) had a greater increase in the intervention group.

Conclusion: Collaboration between pharmacist (regional medical advisor) and GP has shown to improve the antibiotic prescribing behavior in general practice.

then executed by the GP in form of a pharmaceutical care plan. All interventions were controlled after 3 and 6 months to evaluate if there were any change in the interventions.

Results: 132 patients had on average 4,3 medical alterations that were accepted both by the GP and the patient. 3 months after the medical review 73% ~96 of the patients had maintained the altered medication list. 3 months later than this 81% of the 96 patients still maintained the altered medication list.

Conclusion: Pharmacists are a potential source of assistance in reviewing medication. Pharmacist[•] led medication review has the capacity to identify and resolve pharmaceutical care issues.

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Point-of-Care Ultrasound Affects the Diagnostic Process in General Practice

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Background: General practitioners (GPs) increasingly use ultrasonography in their examination of patients. The lack of guidelines and educational programmes for general practice makes the use of ultrasonography rely on the individual GP's curriculum and preferences. Research is needed to explore the impact of ultrasonography in the general practice consultation.

This study aimed to explore what ultrasonography was used for in general practice and how it affected the diagnostic process and treatment of patients.

Method: The study took place in 20 different general practices in Denmark where the GPs use ultrasonography. During a one-month period, the GPs were asked to complete a questionnaire each time they used ultrasound. Using a time-log, the questionnaire secured a before-and-after registration of the patient's diagnosis, the plan and the treatment for the patient. Furthermore, indication for performing ultrasonography, organs scanned, and findings were registered.

Results: Five-hundred-seventy patients were included between January and August 2018. Ultrasonography was used for a wide range of different organs; most commonly it was used to examine the uterus and joints. The study revealed that in the majority of consultations ultrasonography changed the diagnoses, plans or treatments of the patients. The final results will be presented at the conference.

Conclusion: This study contributes to the development of clinical guidelines that describe which ultrasound examinations are suited for general practice. Such guidelines may support the general practitioner in appropriate use of the technology.

Patients' Experience with GP Ultrasonography - A mixed method study

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Background: Ultrasonography is increasingly used in general practice, but little is known about how patients experience the use of the scanner within the general practice consultation. GPs and patients may experience the use of ultrasonography differently. Hence, the purpose of this exploratory sequential mixed-methods study was to compare patients' experiences with the use of ultrasonography in general practice with the GPs' experiences.

Method: In the first qualitative phase of the study, we explored the use of ultrasonography in general practice through 13 semi-structured interviews with purposely selected general practitioners. All interviews were transcribed verbatim and analyzed using systematic text condensation.

In the interim phase, we converted the themes from the qualitative interviews concerning the patients' experiences, into items in order to develop a questionnaire for patients. These items were validated by GPs and then pilot tested among patients.

In the second quantitative phase, the final questionnaire was used in a cohort study where 20 GPs examined 570 patients with ultrasonography. We included data from the patient questionnaire and a GP questionnaire with a registration of the GP's confidence in the patient's diagnosis after ultrasonography. The results were analyzed using descriptive statistics.

The integration analysis followed a contiguous approach illustrated through joint displays.

Results: Analysis is pending. We plan to present the results at the conference.

Conclusion: This study will provide insights into the difference between GP and patient experiences with ultrasonography including their sense of reassurance after using the scanner.

The Dissemination and Use of Ultrasonography in Danish General Practice

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Background: Point-of-care ultrasound (POC-US) is called the future stethoscope and clinicians increasingly use it as part of the bedside examination of patients. POC-US is disseminating into Danish general practice, but this is an unregulated process and we do not know to which extent ultrasound is used or how it is used.

The purposes of this study was to, firstly describe the frequency of GPs who use ultrasonography and the characteristics of these GPs. Secondly, we aimed to describe the GPs' experiences with ultrasound examinations, organizational barriers, motivational factors, and concerns raised by the GPs regarding use of ultrasound in general practice.

Method: Mixed methods were used to develop a questionnaire: themes from an interview study with 25 GPs working in Danish general practice were converted into items. Thereafter, a draft version of a questionnaire was tested in group interviews including GPs to secure face validity. A revised version of the questionnaire was then pilot-tested using think-aloud and probing in individual interviews with GPs. After stepwise evaluation and adaption, the final questionnaire will be circulated to all general practitioners registered in the Danish medical association.

Results: We will present the results at the conference.

Conclusion: This study will provide knowledge about the current dissemination of ultrasonography in Danish general practice. Furthermore, the data collected can describe the GPs' capability, opportunity and motivation for using the technology in their consultations. Finally, the study will also be able to reveal the concerns associated with implementation of ultrasound in general practice.

A prognostic support tool for adolescent knee pain in general practice

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Background: One in every three adolescents experience knee pain, and approximately 50% of them continue to

experience knee pain even 2 years later. Adolescent knee pain may limit sport participation, school performance, social activities, and affects quality of life. Every year 119 - 200 adolescents per 10,000 registered within general practice consult their general practitioner for knee pain. A support tool to assist general practitioners to predict the risk of a poor prognosis allow them to use the resources on the adolescents in highest risk of a poor prognosis. This study aims to develop a prognostic support tool for managing adolescent knee pain (age 8-19 years old) in general practice.

Methods: Clinically relevant prognostic factors for adolescent knee pain will be identified using systematic reviews and individual participant meta-analysis. The tool will be piloted (February - May 2019) through a development, testing and implementation stage. The content of the domains included, the acceptability and understanding of the questions, the delivery and time needed to use the tool will be revised in accordance with general practitioners and adolescents (through cognitive interviews).

Results: Data resulting from the piloting stage, a description of the changes applied during the implementation stage and the final version of the tool will be presented.

Conclusions: Future perspectives: the tool will be used (May 2019 - May 2020) in a cohort of approximately 300 adolescents recruited through general practices to identify clinically meaningful risk groups (low/medium/high) for the persistence of knee pain at 3-month and 6-month.

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Solution focused group supervision

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Background: The work of GPs faces increasing demands. An ever growing amount of GP time today is spent on motivating patients to accomplish behavioural changes, to help them cope with mental health issues including depression and somatisation. One promising approach to dealing with such problems is the cost-effective solution focused method. This presentation, as one part of larger supervision symposium, will show how solution focused method and tools can be utilized effectively in GP group supervision.

Objectives: The whole symposium **Group supervision for GPs, why and how?** gives the participants a clear picture about different methods of GP group supervision, solution focused supervision being one of them. It will present how the tools based on solution focused psychology can be used in GP group supervision, for promoting both professional development and wellbeing at work.

Materials and methods: The presentation demonstrates solution focused exercise material tailored for GP group supervision. (The presenter is also ready to lead a supervision group linked with the symposium, if the congress schedule that permits.)

The solution focused approach has been introduced by a workshop in Nordic GP congress 2013 and a presentation 2015. The results of a solution focused training course organized in Denmark for GPs was presented 2017.

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Translation and cultural adaption of SPICT™ in a Danish context

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Background: In Denmark and internationally there is a need for early identification of patients with palliative care needs. The validated tool SPICT™ is used in other countries by health and care professionals to help them identify people at risk of deteriorating and dying with one or more advanced, progressive conditions or life-limiting illness. SPICT™ helps clinicians decide when it is time to look for unmet holistic care needs. The Danish National Health Board recommends the use of SPICT™. REHPA, Knowledge Center for Rehabilitation and Palliative Care, decided to translate SPICT™ into Danish aiming to cultural adapt the tool in a Danish context.

Methods: The translation was inspired partly by the TRAPD-translation model (Translation, Review, Adjudication, Pretesting, and Documentation) and partly by EORTC Quality of Life Translation Procedure in a forward-backward translation. Following the translation, SPICT™ was evaluated and discussed by 29 healthcare professionals in six focus group- and five individual interviews covering professionals in hospitals, primary care, and general practitioners.

Results: From the translation and cultural adaption (interviews), it seems that SPICT™ is feasible in a Danish context. However, it is important to take into account the different professional groups' understanding of SPICT™. It is recommended to use the tool in an interdisciplinary palliative care approach, as well as in educational contexts.

Perspectives: SPICT™ is now translated and culturally adapted in a Danish context and is available for all healthcare professionals.

The next step is to develop national and local implementation strategies in hospitals, the primary sector and general

practice.

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Point-of-care ultrasound in general Practice, how do I get started?

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Point-of-care ultrasound is increasingly being used in general practice to improve diagnosis and guide interventions e.g. intra-articular injections and vascular access. As technology improves and equipment becomes more affordable, a growing number of general practitioners (GPs) acquire ultrasound devices. However, point-of-care ultrasound is highly user dependent and appropriate use requires proper training.

In this workshop we will address the following questions:

- What can point-of-care ultrasound (POCUS) be used for in general practice?
- What equipments and training are needed to get started?
- How is POCUS education organized in the Nordic countries?
- What are the pitfalls of point-of care ultrasound?

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Point-of-care ultrasound in general Practice, what is appropriate use?

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Ultrasound, as a diagnostic tool, is increasingly being used in all medical specialties, including General Practice. As technology improves and equipment becomes more affordable, a growing number of general practitioners (GPs) acquire ultrasound devices. But what is appropriate use? How do we delineate a realistic ultrasound curriculum for GPs? Should we screen for abdominal aortic aneurisms, scan for liver metastases or thyroid cancer? Should scanning for DVT be performed by GPs? How does the introduction of ultrasound affect the consultation, and how do we avoid redundant scans and overdiagnosis?

The latest research about point-of-care ultrasound in general practice will be presented and we will facilitate a discussion about the appropriate use of ultrasound in general practice.

Board members from the Scandinavian associations of ultrasound in general practice will attend the work-shop in order to get different perspectives on the matter.

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Emergency medicine in primary health care in Nordic countries

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Background: Primary care physicians encounter medical emergencies frequently, yet little is known about epidemiology and decision making in emergency medicine in a primary health care setting.

Methods: This workshop will explore emergency primary health care epidemiology using short presentations, inter active quiz and group discussions. We will start the session by presenting different clinical vignettes using a game based learning platform like Kahoot. For each vignette participants will be asked to make decisions regarding the urgency of the situation. Next we will present recent research regarding emergencies in prehospital and in primary health care from Denmark (EF Christensen/M Søvsvø) and (L Huibers/ MB Christensen), and Norway (J Blinkenberg). Finally, by discussion in small groups, we will explore possible paths for further research in this field in the Nordic countries. M Hjortdahl will chair the session.

Results and conclusion: Participants will get an update of the epidemiology of pre-hospital emergencies and insight into the diversity of EM patients in primary healthcare. Furthermore, they will reflect upon GP participation and contribution in these emergencies and explore opportunities for collaboration in research and development activities in this field.

Visual Risk Communication Based on a Dynamic Decision Aid -The DANY project

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Background and purpose: Less than 50% of patients diagnosed with hypertension and treated in general practice, have reached a blood pressure within the recommended levels. Adherence to the GPs' recommendation is one reason, but efficient tools for effectively improving adherence are missing.

Our objective is to evaluate the communication tool: "Your Heart Forecast", to analyse if it can improve patient adherence, health literacy and empowerment. Your Heart Forecast is a software, which comprises information of personal risk factors of cardiovascular disease. It is based on visual illustrations of risk levels and functions dynamically, so that GP's and patients can sit together while they modify the risk profiles in the program and thereby modulates the visual display of the predicted average risk.

Methods: A cluster-randomised controlled trial in the setting of general practice using surveys at inclusion and after 6 and 12 months. Besides questionnaires we will measure the participants blood pressure and retrieve data from national registers (socio-economy, prescription database, disease registers). After 6 months, we will conduct qualitative interviews with a subgroup of patients from the intervention group.

Results: The trial is planned to kick off in two pilot practices in January 2019 and continue with the main trial including 30 practices within the following 6 months.

Conclusion: We expect that this software can improve patient adherence and be an efficient tool to implement in the national blood pressure control program in Denmark.

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Management of acute otitis media in children

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Background: Acute otitis media (AOM) is a common most often self-limiting infection in childhood, usually managed in general practice. Antibiotics are only recommended when certain diagnostic criteria are met.

Objectives: To analyse the associations between patient- and general practitioner (GP) characteristics and antibiotic prescribing for children with AOM and to examine to what extent quality indicators (QI) for AOM management are fulfilled.

Methods: All GPs in the Northern, Southern and Central regions of Denmark were invited to record symptoms, examinations, findings and antibiotic treatment in children with symptoms of an acute respiratory tract infection during a four-week winter period in 2017/2018. Quality was assessed by four QIs. Associations were analysed by means of multivariate logistic regressions. For each child, the GP's tendency to prescribe antibiotics was assessed as the proportion of the GP's other patients in the audit who had an antibiotic.

Results: In total, 99 GPs diagnosed 264 children aged ≤ 7 years with AOM of whom 200 (75.8%) were prescribed with an antibiotic, most often penicillin V (60.0%). Antibiotic prescribing was associated with fever, otorrhea, poor general condition, and with the GPs overall tendency to prescribe antibiotics. None of the GPs fulfilled all four QIs. Considerable variation was observed in the GPs tendency to prescribe antibiotics.

Conclusion: Danish GPs often prescribe antibiotics for AOM even though the diagnostic criteria are not met. Antibiotic prescribing varies considerably amongst GPs. Antibiotic treatment of AOM depends as much on GP characteristics than on patients' symptoms and signs.

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Drugs, distrust and dialogue - GP focus groups on discharge summary use

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Background: Discharge summary with medication report effectively counteracts drug-related problems due to insufficient information transfer in care transitions. The benefits of the discharge summary may be lost if it is not adequately used, and factors affecting optimal use by the GP are of interest. Since the views of Swedish GPs are unexplored, this study aimed to explore and understand GPs experiences, perceptions and feelings regarding the use of the discharge summary with medication report.

Method: This qualitative study was based on four focus group discussions with 18 GPs and resident physicians in family medicine which were performed in 2016 and 2017. A semi-structured interview guide was used. The interviews were transcribed verbatim and analysed using qualitative content analysis.

Results: The analysis resulted in three final main themes: "Importance of the discharge summary", "Role of the GP" and "Create dialogue" with six categories; "Benefits for the GP and perceived benefits for the patient", "GP use of the information", "Significance of different documents", "Spider in the web", "Terminus/End station" and "Improved information transfer in care transitions". Overall, the participants described clear benefits with the discharge summary when accurate although perceived deficiencies were also quite rife.

Conclusion: The GPs' experiences and views of the discharge summary revealed clear benefits regarding mainly medication information, awareness of any plans as well as shared knowledge with the patient. However, perceived deficiencies of the discharge summary affected its use by the GP and enhanced communication was called for.

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Understanding risk factors and warning signs for suicide

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Background: During 2006-2016, altogether 2543 people committed suicide in Estonia. This study was conducted to analyse suicide risk factors.

Methods: We included adult persons who were ready to talk about the suicide committed by the person they knew well. Proxy respondents of the suicide victims were recruited via media and social media. Altogether, we conducted 37 individual interviews, which were recorded using a dictaphone and lasted from 46 to 158 minutes. The interviews were transcribed verbatim and analysed using content analysis method. The interviewees were mostly women (n=27). Most of them (n=28) were family members of the person who had died by suicide in years 2012-2018.

Results and Conclusions: Based on the interviews persons who committed suicide had experienced relationship problems, alcohol misuse, domestic violence in the original families as well as in their last families. The most common health problems they had had were related to mental health. The interviewees were not able to say one reason for suicide. However, some interviewees reported quite concrete triggers for suicide, for example alcohol use, health problem, debt, failed relationship, loss of job. Most of them had had also previous suicide thoughts. However, these thoughts were often not taken seriously. Also previous suicide attempts from the persons themselves or in their families were common. The interviewees in our study pointed out various dilemmas related with the suicide of their closed one. More attention should be turned to the person in risk for suicide. There is a need for suicide prevention strategy.

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Basic Point-of-Care Ultrasound Competencies for General Practitioners

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Background: Point-of-care ultrasound (POCUS) is increasingly being used by general practitioners (GPs). In order to establish relevant educational activities for GPs wanting to use ultrasound, it is necessary to delineate a basic curriculum.

Purpose: The aim of the study is to achieve consensus among a group of experienced GPs on which ultrasound competencies should be included in a basic ultrasound curriculum.

Methods: The Delphi technique was used to achieve consensus on which scanning modalities to include in a basic ultrasound curriculum. Sixty Scandinavian GPs with more than two years of POCUS experience were invited to join the Delphi expert panel. In the first Delphi round (brainstorm phase) each member of the panel was asked to produce a list of ultrasound competencies which he/she found relevant to include in the survey. In Delphi round 2, these suggestions were compiled and presented to the entire panel, which assessed whether or not they thought the competency should be included. Items not reaching consensus in round 2, were presented to the panel in a third and final round. Again, panel members were asked to rate each competency. Competencies reaching more than 70 percent agreement among panel members in round 2 and 3 would be included in the curriculum.

Results: Data collection is currently ongoing. We plan to present data from this study at the NCGP 2019.

Conclusion: We hope to be able to produce a basic ultrasound curriculum for GPs who want to use POCUS in their daily work.

Independent medical evaluations to reduce sick leave in Norwegian

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To reduce the country's sick leave rate, Norwegian politicians have suggested independent medical evaluations (IMEs) for sick-listed workers. Individuals aged 18–65 years, sick listed by their GP and on full or partial sick leave for the past 6 months in a Norwegian county was included in a randomized controlled trial. Exclusion criteria were pregnancy, cancer, dementia or an ICD-10 diagnosis. A total sample of 5888 was randomly assigned to either independent medical evaluation or treatment as usual by their GP. Official register data was used to measure the primary outcome; change in sickness benefits at 7, 9 and 12 months.

We propose a symposium on IME as a second opinion to GPs sick leave follow-up based on four published papers:

Protocol for the effect evaluation of independent medical evaluation after six months sick leave: a randomized controlled trial of independent medical evaluation versus treatment as usual in Norway

Independent medical evaluation for sick-listed patients: a focus group study of GPs' expectations and experiences

Sick-listed workers' expectations about and experiences with independent medical evaluation: a qualitative interview study from Norway

Independent medical evaluation for sick-listed workers in Norway: A focus group study of the experience of IME doctors

And the following unpublished work based on the project:

What is the effect of independent medical evaluation on return to work for long-term sick listed workers in Norway? A pragmatic randomized controlled trial, the NIME-trial

Gender differences in return to work interventions offered to employees on long-term sick leave?

Self-management via a mobile app for urinary incontinence - who benefits?

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Background: Self-management via the mobile app Tät® focused on pelvic floor muscle training (PFMT) is a new effective method for first-line treatment of stress urinary incontinence in women. We aimed to analyse factors associated with completion of self-management or improvement among users of a publically available free mobile app.

Methods: We performed a pragmatic trial in a community setting. Upon downloading the app Tät®, users answered baseline questionnaires regarding their education, residence, and incontinence symptoms. After 3 months, users answered follow-up questions regarding symptoms and frequency of training and app use, and the validated Patient Global Impression of Improvement (PGI-I) questionnaire. These factors were analysed with multivariate logistic regression for possible associations with completion of self-management, improvement, according to the PGI-I. The models were adjusted for age. Factors were stepwise removed according to significance level.

Results: The study included 13,257 participants, of whom 14% completed self-management. Age, educational level, episodes of stress incontinence, and English language predicted completion and accounted for 2.7% of variability (Nagelkerke R^2). Among the completing participants, 68% reported improvement of UI. Improvement was associated with episodes of stress UI, English language, at least weekly PFMT, and app use, accounting for 23.2% of variability (Nagelkerke R^2).

Conclusions: After 3 months, 68% of completing participants experienced improvement from using a mobile app for self-management of urinary incontinence. Basic background factors alone did not determine who benefitted. At least weekly PFMT and use of the app predicted improvement. App use showed additional effect beyond frequency of training.

Rational antibiotic prescribing - perceived opportunities and obstacles

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Background: In Sweden antibiotic prescribing is low and the strategic program against antibiotic resistance (Strama) has worked for rational use of antibiotics. The decrease in prescribing has been larger in Region Västra Götaland compared to most other Swedish regions.

Aim: To explore how the approximately 200 primary health care centres (PHCCs) in Region Västra Götaland perceived opportunities and obstacles for the achievement of rational antibiotic prescribing.

Methods: Yearly during 2013-2016 Strama's contact general practitioners wrote a report on the PHCCs's antibiotic prescribing work. The report, including various antibiotic-related terms, was a summary of reflective meetings with the doctors, the head of the PHCC and desirably the nurses. These reports were qualitatively analysed using Malterud's systematic text condensation. After having read 50 reports, no new items were perceived, and analysis ceased.

Results: *"Everyone wants to do right, but sometimes you do not know what's right or wrong."* Knowledge about diagnosis and treatment of infectious diseases was highlighted. Knowledge and skills had to become part of the clinician to be able to bring about behavioral change. This could be achieved through reflective collegial dialogues where consensus often was found. Structural factors at the PHCC could provide good conditions for "doing right", but could also constitute obstacles. Teamwork including everyone was important to achieve rational antibiotic prescribing.

Conclusions: Knowledge and skills in different forms were highlighted. Emerging concepts were the logical knowledge - episteme, the technical craftsmanship - techne, and wisdom and reflection - pronesis. These concepts are well known since ancient times.

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Finding Local Solutions to Promote Physician Well-Being

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Background: Burnout and depression among physicians is prevalent and decreases quality of care. A recent systematic review on interventions for physician burnout identified a broad range of modestly effective individual-focused and structural interventions. Intervention research, however, is relatively scarce and many questions remain. The origins of burnout are rooted in the local work environment. As such, solutions need to be structural and organizational, rather than solely individual-focused.

Activities: During this workshop facilitators will use highly interactive methods from Liberating Structures (<http://www.liberatingstructures.com/>) to demonstrate how leaders can involve GPs and practice staff in identifying drivers of burnout within their sphere of influence and generate action plans to drive results. The attendees will actively participate and learn new strategies for soliciting ideas and generating action plans that can be used across a variety of settings. At the end of the session, brief comments will be made about available validated instruments to measure GP well-being that can be used by organizations interested in learning the impact of their actions. Experiences/evaluations

Session Objectives: Use various crowd sourcing methods to identify drivers of distress among GPs

Identify possible bottlenecks and barriers to implementing change

Construct an action plan for improving GP well-being locally

List strategies to monitoring outcome of action plans focused on improving GP well-being

Perspectives

This workshop is modeled after a highly successful workshop delivered at several US national meetings, including the AMA Joy in Medicine Research Summit Meeting, AAMC Group on Resident Affairs, and ACGME Annual Meeting.

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Co-creating solutions for coping with chronic pain

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Background: In early 2018, Nord-KAP (The Quality Unite for General Practice in The North Denmark Region) initiated a project with the aim of developing a tool for supporting pain patients in general practice. The criteria was that the final product should; (1) be useful for the general practitioners as well as patients, (2) have a practical function in consultations and (3) focus on non-pharmaceutical pain coping strategies.

Methods: Two co-creation workshops were setup with a diverse group of participants consisting of primarily pain patients, but also a general practitioner, the chief physician from the regional pain clinic, a physiotherapist and a graphic designer.

During the workshops, the group engaged in a dialog on themes of chronic pain and coping strategies, while the designer drew a visual summary.

After the workshops a rough draft had formed. The professionals from the workshops worked on the draft incorporating recommendations from research and guidelines. Subsequently, the tool was evaluated by patients and practitioners.

Results: The final product is partly a visual information tool and partly a conversation guide for consultations. The evaluation showed that the tool is applicable in both settings.

Since the release in the North Denmark (5/12/2018), the tool was requisitioned by 17 clinics. Furthermore, the tool was incorporated in a national project by the organization Danish Regions.

Conclusions: Medical staff provide professional experience, but patients can act as experts in their own right with unique perspectives. The process of co-creation thus have great potential in finding new solutions to shared challenges.

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How to become published: the journey of a paper in a journal

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The main mission of the Scandinavian Journal of Primary Health Care (SJPHC) is to publish original, peer-reviewed research on topics related to general practice and primary care. The journal operates by an editorial team with national and assistant editors from five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) and an editor-in-chief.

This workshop opens the editorial process to the potential authors of the journal. With the editors of SJPHC, we will follow the steps of a research paper, from being submitted to the journal through review and finally publication. We will introduce the editorial system of SJPHC, the Manuscript Manager and guide the researcher through the different steps the paper goes through before becoming published.

This is an interactive workshop. The participants will have the opportunity to take the roles of editors and reviewers in the assessments and decisions the paper goes through. At the same time, we will focus on the aspects of a good and interesting research paper and how to communicate your message effectively. The workshop will also teach how to write the accompanying letter, why it is important to follow the instructions for authors and how to make sure the paper runs through the process as quick and smooth as possible.

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Time trends in GPs' provision of depression care during 2008-2016

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Background: Depressive disorders require person-centred, coordinated and prolonged health care. The Norwegian Regular General Practitioner Scheme mandates general practitioners (GPs) to provide equitable and coordinated health care services, including certification of health-related benefits to their enlisted patients. Norwegian GPs meet 70% of their list patients annually and have the opportunity to follow those with chronic or recurrent diseases, such as depression. However, little is known of annual health care provision and time trends in Norway. The aim of this study is to examine trends in GPs' provision of health care for depression during 2008 to 2016.

Methods: The data source is a linkage between Norwegian national registers: Population Register, Education Database, Database of control and payment of invoices from primary health care (KUHR) and Prescription Database (NorPD). All Norwegian inhabitants aged 12 or older in 2008 and diagnosed with an episode of depression (P76, International Classification of Primary Care (ICPC)) in primary care (KUHR) are included in the study. Health care provision includes GP consultations, psychotherapy, medication, referrals, certification of sickness absence and collaboration with the Norwegian Labour and Welfare Administration. Descriptive statistics and generalized linear model will provide annual prevalences of health care provision and test for differences in time trends during 2008-2016.

Results: The analyses are ongoing and the results will be presented at the conference.

Conclusion: New knowledge about annual health care provision for people with depression and time trends in Norway can contribute to improving patient pathways and outcomes.

Managing grief: the key role of the GP for family caregivers

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Background: Several family caregivers to severely ill patients develop a *high grief trajectory* with persistent grief symptoms and impaired daily function. Although they may need interventions from health professionals, their use of primary care and mental health interventions has been sparsely investigated. Therefore, we aim to examine associations between grief trajectories and use of general practitioner (GP) services, psychologist sessions and psychotropic medication.

Methods: A population-based, longitudinal study including 1,735 family caregivers who completed the *Prolonged Grief-13* scale before, six months after and three years after the patient's death. Grief trajectories were identified using a Group-Based Trajectory Model. Associations with GP consultations (daytime, talk therapy), medication (antidepressants, sedatives) and psychologist sessions were analysed using multinomial regression (*low* grief as reference).

Results: The development of a *high* grief trajectory was associated with more GP daytime consultations (OR=2.0; 95% CI:1.4-2.8), GP talk therapy (OR=1.8; 95% CI:1.2-2.5), higher use of anti-depressants (OR=1.2; 95% CI:1.1-1.5) and more sedatives (OR=1.6; 95% CI:1.3-1.9) before the patient's death. However, no association was seen with number of psychologist sessions (OR=1.4; 95% CI:0.4-5.3).

Conclusions: During end-of-life care, GPs are in contact with the majority of family caregivers who developed a high grief trajectory. GPs play a key role for most families during end-of-life care. The increased use of talk therapy and psychotropic medication indicate a focus on mental health for vulnerable family caregivers. However, the number of psychologist sessions did not increase. Future studies need to investigate whether the support for vulnerable family caregivers is sufficient.

Importance of quality clusters for GPs' motivation and treatment behavior

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Background: Systematic quality improvement has been on the policy agenda in general practice for many years and several improvement strategies have been developed. However, large scale implementation has often been difficult. Some strategies attempt to influence GPs' motivation and behaviour through financial incentives or regulation based on quality standards, while other strategies rely more on bottom-up mechanisms where groups of GPs drive the quality improvement process based on their own assessments of needs and opportunities. In Denmark it has been decided to phase out accreditation and introduce a new frame for quality improvement based on professional collaboratives, named clusters.

Aim: The overall aim of this study is to analyze the clusters' significance for the GPs' motivation and treatment behavior.

Methods: The study will employ a mixed-method design. Interviews with GPs will address early experience with the cluster program and will be used to develop a nationwide questionnaire survey to all GPs, investigating GPs' motivations, preferences, and barriers to participate in clusters. Finally, we will perform a register study of selected quality indicators to examine changes in treatment behaviour.

Results and conclusion: The project will contribute with knowledge about how aspects of the cluster program are associated with motivation and treatment behaviour in general practice.

Presentation

At the conference I would like to present the hypotheses and design of the project and the first results from the qualitative interviews with the GPs.

Mortality associated with use of hypnotics. Prospective cohort study

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Background: Earlier studies on mortality associated with use of hypnotics/anxiolytics have shown inconsistent results.

Aims: To study the risk of mortality in primary care patients, multimorbid or not, prescribed hypnotics/anxiolytics.

Study design: A population-based longitudinal cohort study.

Methods: Medical records from 114,130 patients attending primary healthcare in Reykjavik and suburbs (average age 38.5, SD 18.3, range 10 to 79 years) were analysed either according to multimorbidity (≥ 2 chronic conditions) or not, either using hypnotics/anxiolytics on a regular basis for three consecutive years (considered as long-term users) or not. Use of hypnotics/anxiolytics defined as low dose (1-300 DDDs/3 years), medium dose (301-1,095 DDDs/3 years) and high dose ($>1,095$ DDDs/3 years). Those neither multimorbid nor using hypnotics/anxiolytics (55,759) comprised the reference group. Mortality was analysed in these groups. Hazard ratios (HR) were calculated, using Cox proportional hazard regression, adjusting for age and sex. Cancer patients were excluded in these analyses.

Results: During a 526,352 person-years follow-up, in total, 2,405 persons died. Mean follow-up was 4.6 years. For the multimorbid patients who did not take these drugs the hazard ratio was 1.2 (95%CI = 0.97-1.49). HR varied from 1.64 to 3.09 (95%CI ranging from 2.44 to 3.91) with increasing doses of hypnotics/anxiolytics among participants without multimorbidity, and correspondingly from 1.31 to 3.11 (2.44-3.96) in multimorbid patients.

Conclusions: Mortality increased in a dose-dependent manner among patients taking hypnotics/anxiolytics. Their use should be limited to the recommended period of two to six weeks; long-term use being detrimental.

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Use and usefulness of external implementation support during accreditation

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Background: From 2016 to 2018, Danish general practice underwent a mandatory accreditation programme. Formal implementation support was developed to guide the clinics through the accreditation process. This study describes the use and usefulness of formal and informal implementation support and explores potential variations across practices.

Methods: We conducted a cross-sectional study based on questionnaires to the general practices which had their accreditation survey from 27th Sept 2016 to 15th Dec 2017. Descriptive statistics were performed to investigate use and usefulness of eight types of support. Logistic regression analyses were conducted to estimate any practice variations in use and usefulness of support.

Results: The total response rate was 74% (n=447). Most practices (99%) used some type of implementation support, on average 5.3 different types. The most frequently used types of support included discussions with other general practices in informal (92%) and formal (80%) networks and accreditation documents produced by other practices (85%) or others (92%). Support tailored to the individual clinic, including workshops and visit in the general practice, were less frequently used. However, these types of support were considered useful by most clinics (91-97%). Only few variations were found in use and usefulness of support across general practice characteristics.

Conclusion: General practices used a broad variety of support during accreditation. Use of usefulness of support did not vary much across different types of practices. Based on this study, it is recommendable for future quality interventions to include support from other general practices and support tailored to the individual clinic.

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Chemical Submission: Chemsex and Drug facilitated Sexual Assault

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Background: The use of recreational drugs to facilitate sexual activities or exploitation, whether voluntarily, unbeknownst or forced on others, is on the rise and linked to different health and legal consequences. Affectation of specific populations such as LGBTQ and people living in precarious conditions like migrants, ethnic/religious minorities...made Chemsex and Drug facilitated Sexual Assault by Chemical Submission be a raising urgent concern. It now acquires the size of a public health problem and, even, vital danger and its consequences begin to be visible in PC, hospital consultations, emergencies, courtrooms and press.

Activities: Presentation on Chemsex and Chemical Submission, its definitions, pharmacology and cornerstones, will be followed y exercises that will equip listeners with the integral approaching skills of the problems.

Experiences/evaluations: -Can the non-consensual sexual relation be justified by personality, profession, social position, appearance, state of intoxication or behaviour of the victim? If the victim did not resist the violation, can it be called "spoiled"?

-5 gay men are diagnosed with HIV every single day in London. How to advise them without threatening or obliging?
- Chemsex. Is this a sex or a drug problem?

We will exchange opinions and share our knowledge on these and other questions as members of the Equality Different and Family Violence working groups of the Vasco da Gama Movement

Perspectives: We aim to familiarize GPs/FDs with Sexualised substance use phenomenon, its physical and mental health risks and consequences on people and invite our Nordic colleagues to join us in our work and struggle.

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Out-of-hours healthcare services and subsequent hospital contacts

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Background: Denmark has three different out-of-hours (OOH) healthcare services: general practitioners cooperative (four of five regions), Medical Helpline 1813 (Capital Region only) and the Emergency Medical Services (nationwide). These complementary services are intended for different medical situations and levels of urgency. Due to patient help seeking behaviour and limitations of telephone triage, the patient population may overlap i.e. patients in need of urgent care are seen by services intended for non-urgent medical situations and contrariwise. Such care pathways may need optimization. An overview of disease patterns (diagnoses received subsequently in hospital) of patients contacting these services may identify if pathways reflect the intended differences in urgency and severity. Thus, we aim to compare disease patterns in subsequent hospital contacts of patients contacting different OOH healthcare services.

Methods: We performed a population-based historic cohort study and included patients who contacted OOH healthcare services in the North and Capital Region of Denmark during 2016 and who had a subsequent hospital contact within 24 hours.

Results: Data has been collected. Firstly, we plan to present a comparison of disease patterns in terms of the top-ten most frequent diagnoses at ICD-10 chapter level for each of the OOH healthcare services. Secondly, the association between specific diagnoses and OOH services usage will be analysed.

Conclusions: The results will provide an overview of the diseases handled by the different OOH healthcare services and may identify certain diagnoses for which the care pathway could be optimized through better and clearer guidance for citizens on OOH services usage.

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Time-critical diseases in the Danish out-of-hours healthcare services

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Background: Outside general practitioners' (GPs) working hours, three Danish out-of-hours (OOH) healthcare services are available. Emergency Medical Service is nationwide and intended for serious injuries/life-threatening situations. For less serious illness/injuries that cannot wait until the patients' own GP is available, the Capital Region of Denmark has the Medical Helpline 1813, whereas the rest of Denmark has OOH GP services. These services are accessible through telephone triage, but call waiting time and triage model (i.e. type of call-handler and triage tools) differ. Patients choose which OOH service to contact and in cases of time-critical diseases, this choice could influence the care pathway, time to treatment and thus outcome. Therefore, we aim to investigate differences in length of stay, intensive care unit stay and 1- and 30-day mortality in patients with AMI, stroke, sepsis and asthma in relation to the OOH healthcare service contacted prior to hospital admission.

Methods: Population-based historic cohort study of patients who contacted OOH healthcare services in the North and Capital Region of Denmark during 2016 and who received the diagnoses AMI, stroke, sepsis or asthma in hospital within 24 hours.

Results: Data collection has ended. Mean difference in length of stay will be presented. Association between OOH healthcare service and occurrence of intensive care unit stay, 1- and 30-day mortality will be presented as hazard ratios.

Conclusions: The chosen measures could work as proxy for answering whether the choice of OOH service affects patient outcome and identify areas with room for improvement such as faster access to triage.

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Discovering strong sides among patients with medically unexplained symptoms

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Background: Based on theories of embodied subjectivity, one may hypothesize that for most patients it can be helpful if their GP treats them as a co-subject rather than an object or case. This may be of even stronger importance for patients with medically unexplained symptoms (MUS). One way in which GPs can recognize and respect their patients as co-subjects, is through acknowledging a strong side in the patient.

Method: We performed an interview study with altogether 17 GPs in four focus groups in Norway in 2018. We interviewed the GPs about their experiences with discovering strong sides in patients with MUS, and what such discoveries had meant for the GPs. We are currently analyzing the interviews according to the method of systematic text-condensation of verbatim transcripts.

Results: The GPs experienced the interview question as challenging, but also as an eye-opener, and they tried to come up with reasons why it was difficult. The stories they shared about MUS patients' strong sides covered a broad range of examples, e.g. a positive attitude, contributing to society, caring for family or friends, scrapbooking or singing in a choir. A strong side was sometimes discovered after having known the patient for a long time. Knowledge of patients' strong sides could make consultations less demanding for GPs and they sometimes felt that this knowledge enabled them to provide better help.

Conclusion: Although potentially useful and available, knowledge about MUS patients' strong sides and its benefits may remain unclear to GPs.

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A toolbox for design and implementation of selective CMD prevention

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Background: Cardio-metabolic diseases (CMD; cardiovascular disease, type 2 diabetes, chronic kidney disease) represent a major public health problem globally. Presently, nearly half a billion people are diagnosed with diabetes, and cardiovascular disease persists as the most common cause of death. While most of these diseases can be assuaged or prevented through behavior change, the best way to implement preventive interventions is unclear. We aim to fill this knowledge gap by creating an evidence-based and adaptable "toolbox" for the design and implementation of selective prevention initiatives (SPI) targeting CMD.

Method: We built our toolbox based on evidence from a pan-European research project on primary care CMD SPIs in five national contexts. The project included (1) two systematic literature reviews and two surveys of patient and general practitioner barriers and facilitators of engaging with SPIs, (2) a consensus meeting with leading experts in the field about what should be included in an SPI, and (3) a feasibility study of a generic primary care SPI protocol in five European countries.

Results: We generated 12 recommendations for how best to design and implement CMD SPIs in primary care. We further supplemented our recommendations with practical, evidence-based suggestions for how each recommendation might best be heeded.

Conclusion: The toolbox is generic and adaptable to various national and systemic settings by clinicians and policy makers alike. We stress, however, that our product needs to be kept up-to-date to be effective and improve current and future research to add relevant tools as they are developed.

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Chronic care consultations for patients with cancer and comorbidity

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Background: Due to a growing population with both cancer and chronic diseases, we explored general practitioners' experiences, perspectives and priorities regarding chronic care in patients with cancer and comorbidity.

Methods: Semi-structured interviews were conducted during 2016 with 13 general practitioners (GPs) in Region Zealand in Denmark. The analysis was done using Systematic Text Condensation.

Results: Preliminary analysis of interviews shows that GPs give a high priority to chronic care consultations. In cases with interruption due to the cancer treatment, chronic care consultations are soon "back on track", and very few patients are lost to follow-up.

According to the GPs, chronic care consultations serve different purposes. The primary goal is to treat and follow up on the chronic condition. In addition, the consultations serve as a "green card" for patients to consult the doctor about different issues, and continuous future appointments were experienced as symbolizing positive expectations about the patient's prognosis.

Some GPs prioritized talk about the patient's cancer process during the chronic care consultation. However, other GPs went through the chronic care consultation with a focused structure based on guidelines related to the chronic condition and did not acknowledge cancer talk as a part of the chronic care consultation.

Conclusion: GPs prioritize and emphasize the importance of chronic care in patients with a cancer diagnosis. Chronic care consultations can serve other important purposes than dealing with the chronic condition, e.g. being a speaking space and reviving the patient's hope. However, GPs structure chronic care consultations more or less rigorously.

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Frequent attenders at a primary health care centre in Sweden

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Background: Frequent attenders (FA) are reported in several parts of the world. A small group of patients uses a large amount of the resources and contributes to a considerable workload and frustration among the health care staff. In this study, we wanted to identify the FA group at Närhälsan Ågårdsskogens primary health care centre (ÅPHCC) (18,300 patients) and record common features, in order to provide better care for these patients in the future.

Methods: Patients over the age of 18 (14,271) who had been in contact with the ÅPHCC during 2016 were selected for this cross-sectional study (10,244). The patients were divided into three gender-specific age groups; 18-44, 45-54, and 65 years and older. FAs were defined as the ten per cent of patients with the most frequent contacts in the respective sex and age groups. The medical records of about one-sixth of the patients were studied.

Results: FAs (10%) accounted for 31-40% of all contacts in the different age groups, on average 34%. As a mean, the FAs had contact with 13 different health care professionals during the year. The younger FAs often had many psychiatric diagnoses and contacts with mental health units, while chronic somatic diseases were more common among elderly FAs. A stressful social situation was common among younger female FAs.

Conclusions: The FA group different in the different sex and age groups. The care for this important patient group could be improved if the number of different health care providers was reduced through better continuity.

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Obesity - is weight-reducing surgery the only option?

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Background: Obesity is considered to be one of the greatest challenges of modern and future health care. Weight-reducing (bariatric) surgery is commonly regarded the most effective treatment and it may even lead to remission of type 2 diabetes. Annual number of bariatric surgeries is on the rise and operating non-obese patients with type 2 diabetes has even been suggested. However, the risk of complications is considerable and studies on long-term effects are few. Although valid data on long-term post-operative management is lacking, annual follow-up in primary care is recommended. Simultaneously, there is an increasing awareness that for some patients, history of adverse life events might be a significant factor driving the development of obesity, as well as being a barrier to treatment. The evidence supporting the trauma-obesity connection is growing, indicating that it is time to take action. However, present guidelines lack clear recommendations for how to handle this challenge.

Methods: Empirical data on bariatric surgery and on the adversity-obesity connection will be presented, as well as some of the related challenges in primary care. Workshop participants will, in smaller groups as well as collectively, get to elaborate on how to address these challenges and how to improve current guidelines.

Results: The aim of the workshop is to increase awareness of the complex causes of obesity and challenges associated with treatment options such as bariatric surgery and the long-term follow-up.

Conclusion: Viewpoints gathered and insights gained from the workshop will support the supervisors' ongoing research projects on the subject.

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The impact of GPs' depression care on future work participation: A register-based cohort study

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Background: Depression is the second most important contributor to health loss in the Norwegian population, and ranks high on diagnoses-specific sickness absence. The majority of people presenting with depression are managed in primary health care. GPs play an important role in follow-up of these patients, including return to work among those sick listed. However, population-based studies of GPs' depression care and potential impact on subsequent work participation are sparse. Access to registries of primary care and welfare benefits provides a unique opportunity to fill the knowledge gaps. The aim of this study is to examine associations between GPs' depression care and patients' future work participation across populations groups.

Methods: A prospective cohort study linking national health- and welfare registers in Norway. The study population comprises all inhabitants aged 18-67 years diagnosed with a new episode of depression in general practice during the period from January 1 to December 31 2015. Linear and logistic regression models will be used to investigate associations between GPs' depression care and patients' work participation 12 months after the index depression episode.

Results: The analyses are ongoing and the results will be presented at the conference.

Conclusion: New knowledge about the impact of GPs' depression care on work participation may contribute to improving patient pathways and outcomes.

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Timely detection

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Disease definitions, referral boundaries and treatment thresholds can be regarded as dichotomization of continuous variables. In situations where this is the case, defining diseases, boundaries and thresholds is not an exact science but an arbitrary construct aiming at timely detection. Defining and setting these cut-off values results in dilemmas in everyday clinical practice as well as in preventive medicine. The aim of this symposium is to give several short presentations in very different contexts where these dilemmas are in play:

The threshold for an abnormal screening result partly determines the balance between benefits and harms.

Examples from colorectal cancer (CRC) screening.

The value of the PSA-blood test as a diagnostic tool and the consequences of the increased used as such.

Balancing benefits and harms related to medical screening - viewpoints from informed laypeople.

How do actors other than doctors influence the determination of a threshold? From the mentioned thresholds, what examples do we have of actors, other than doctors, having interest in changing the threshold?

Systematically influencing citizens into medical screening programmes: Is there a threshold for too much nudge/influence?

Unspecific serious symptoms that can be cancer; What is the threshold of GP's to use the urgent referral cancer pathway?

The symposium will end with a plenum session for questions, discussions and debate.

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Redefining hypertension: 130/80 - why and what are the consequences?

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Background: Treatment of high blood pressure (BP) is a central task in the everyday practice of the general practitioner (GP). The American College of Cardiology published new guidelines on treatment of high BP in november 2017, lowering the threshold defining hypertension and the treatment goals to 130/80 mmHg instead of 140/90. The recommendations increase the prevalence of hypertension substantially and should increase use of BP lowering agents accordingly. The European guidelines published in august 2018 are somewhat more conservative but recommended treatment goals have been lowered for most patients, $\leq 130/80$ mmHg. The aim of the workshop is to discuss the consequences of the new recommendations in near and distant future for GPs and how the likely increased workload should be met.

Methods: The workshop will open with a presentation of the recent guidelines, what's new, what evidence it is based on, weaknesses of the evidence base and the guidelines as a whole. The workshop participants will discuss the topic jointly as well as in smaller groups.

Results: After the workshop the participants should be better aware of the worldwide trend of lowering cut-offs for BP lowering treatment, they will be more familiar with the evidence these recommendations are based on as well as the consequences for primary care.

Conclusions: Recent American and European guidelines on BP treatment introduce a considerable change to clinical practice which may increase the workload markedly. Discussion among GPs on how to meet the challenge is highly actual and will take place in this workshop.

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Glycemic status and risk of thromboembolism in atrial fibrillation

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Background: Diabetes is associated with increased risk of stroke in patients with atrial fibrillation and the level of hemoglobin 1Ac (HbA1c) may affect this risk. We aimed to examine the effect of HbA1c on the risk of thromboembolism among patients with atrial fibrillation and type 2 diabetes.

Methods: Through Danish registries, covering both primary and secondary care, we identified patients with diagnoses of type 2 diabetes and incident nonvalvular atrial fibrillation in the period of May 1, 2005 to December 31, 2015. Cox regression analyses were used to estimate hazard ratios (HR) for the outcome thromboembolism (defined as either ischemic stroke or systemic embolism).

Results: The study population included 5,386 patients with incident nonvalvular atrial fibrillation and type 2 diabetes. Compared with patients with HbA1c ≤ 48 mmol/mol, we observed a higher risk of thromboembolism among patients with HbA1c = 49-58 mmol/mol (HR: 1.49, 95% CI: 1.09-2.05) and HbA1c >58 mmol/mol (HR: 1.59, 95% CI: 1.13-2.23) after adjusting for confounding factors. When the study population was stratified on diabetes duration, similar results were found in patients with diabetes duration of <10 years. Contrastingly in patients with diabetes duration of ≥ 10 years higher HbA1c levels were not associated with a higher risk of thromboembolism.

Conclusions: Elevated levels of glycemic status were associated with an increased risk of thromboembolism among patients with atrial fibrillation and shorter duration of diabetes. Thromboembolism risk may be reduced by strict glycemic control, but randomized trials investigating specific strategies for glycemic control are needed for conclusive evidence.

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Family resilience in general practice - a trial of a web-based intervention

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Background: There is increasing evidence of the crucial role early childhood plays for future health and wellbeing. In Denmark, all pregnant women are offered four pregnancy consultations and seven preventive child health examinations until the child's fifth year by their GP. This continuity and family knowledge places the GP in a unique position to support family resilience.

Aim: To develop an existing web-based resilience programme (Resilience.org) into a useful tool for general practitioners and their pregnant patients and families.

Method: The resilience programme was presented and revised iteratively with GPs in three workshops and tested for feasibility and acceptability in 10 general practices and 84 families. All patients received an electronic

questionnaire, and individual interviews were conducted with GPs and patients.

Results: The GPs recognised that they lack a tool for supporting families with problems that do not need more specialised treatment or referrals but the program needs targeting to the problems the GP identified in the consultations. Clinical case training was highly needed. The patients appreciated trustworthy guidance presented by their GP in the jungle of good advice for new parents. There was low uptake of the programme though and the patients needed reminders to use the program. Patients also advocated for higher usability for their specific problems.

Conclusion: Mental health and resilience in families is a central topic in preventive child health examinations and the availability of a targeted web-based psychoeducation resource may be a valuable tool in general practice if the GP's gets familiar with the program.

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Persistent symptoms in primary care - characteristics and interventions

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Background: According to the bodily distress syndrome criteria about 17% of adults in general practice have four or more symptoms across different organ systems and at least half of these will still fulfil the criteria after two years. The high proportion of patients with persistent symptoms in primary care calls for interventions. However, the often used biomedical approach is only effective in few cases and may, unintentionally, contribute to perpetuation or even worsening of symptoms.

In this symposium we call attention to the many patients in primary care who continue to have disabling symptoms despite investigations and biomedical treatments. We wish to provide updated evidence on patient characteristics and diagnostic approach. Furthermore, we will inform about interventions targeting primary care patients.

Methods: The studies presented draw on 1) epidemiological research based on questionnaires and register data, 2) a randomized controlled trial and 3) participatory design of a new eHealth intervention.

The symposium consists of the following presentations:

Bodily distress syndrome in the general population: prevalence, characteristics, medication and healthcare utilization/ v. Dorte Ejg Jarbøl

Long-term follow-up of strategies for diagnosing irritable bowel syndrome – healthcare utilization and safety/ v. Peter Fentz Haastrup

eHealth and GP assisted programme for persistent symptoms – a new primary care project/ v. Marianne Rosendal
Development and testing of online advice and information to support patients' management of low back pain in primary care/ v. Allan Riis

Conclusion: Persistent symptoms can be detected early in primary care and future interventions have the potential to improve our approach and the

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Clinical effects of accreditation - A cluster-randomised controlled trial

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Background: Danish general practice underwent a mandatory accreditation program in the period 2016-2018. However, there is a lack of evidence on the effects of accreditation programs on clinical outcomes in general practice.

Objectives: To analyse clinical effects of mandatory accreditation.

Methods: Cluster-randomised controlled trial comprising all Danish general practices. The accreditation program (intervention) was rolled out with a staggered start-up within the period January 2016 to December 2018. Practices allocated to accreditation in 2016 serve as the intervention group and practices allocated to accreditation in 2018 as controls. The primary outcome was changes in numbers of drugs prescribed to the elderly in general practice. Secondary outcomes were changes in: Proportion of polypharmacy patients older than 65 years, daily drug dose (DDD) of non-steroidal antiinflammatory drugs without proton pump inhibitor, DDD of sleeping medicine, proportion of persons older than 75 years receiving a preventive home visit, proportion of annual controls for chronic disease, number of spirometries performed, proportion of practices with a patient satisfaction survey. All outcomes relate to quality indicators in the Danish Health Care Quality Program (DDKM). Outcomes are retrieved in National Danish registers.

Results: Will be presented at the conference.

Conclusions: This is the first RCT in general practice addressing a nationwide mandatory accreditation program. The implications of this study will have a significant potential for future organisation of and quality development in general practice.

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Alcohol dependency: easy to treat - difficult to identify

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About 4.5 percent of the population is alcohol dependent (point prevalence). Lifetime prevalence is estimated to around 15 percent. The health burden is high, with increased morbidity and mortality. Partners and relatives are exposed to consequences. We treat its symptoms - we as well as our patient often unaware of the role of alcohol. The most severely addicted, often with psychiatric or social problems are obvious to us in healthcare. These, however, are a small proportion of the alcohol dependent population. The vast majority is socially well functioning and without serious psychiatric problems. Our failure to identify these depends largely on stigma, patient's shame, fear of patronizing and condescending. And also on our lack of knowledge of simple but effective treatments, including controlled drinking. However, for the patient seeking help, a person centred handling and utilizing effective treatments is easy, and most rewarding. Drugs that reduces desires to drink and the quantity is welcomed by those who can't accept sobriety. Disulfiram is an alternative to those who want support for an alcohol pause or sobriety. An evidence based KBT treatment with four visits is easily learned by all interested GPs.

At the workshop we will discuss and practice: - Patient agenda management - Pharmaceutical treatment - Manual based KBT treatment - Approach and support for more difficult addiction - How do we get patients to seek help? Pedagogic content:

Ppt presentations, small group sessions followed by big group sum ups, 2&2 training, films

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Benefits of school doctors' routine health checks

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Background: School doctors check all children at predetermined ages in Finland, regardless of the children's health risks. Consequently, doctors have insufficient time for vulnerable children, at all age groups.

The aims of this study are 1) to evaluate the benefits of school doctors' routine health checks at ages 7 and 11 and 2) to assess the reliability and validity of our study questionnaire-based screening method.

Methods: We conducted a prospective, multicenter observational study in four urban municipalities in Finland. We recruited a random sample of 1013 children of said ages from 21 primary schools. Parents, nurses and teachers filled a questionnaire to identify any concerns about each child. Doctors, blinded to the questionnaires, checked all children and completed an electronic report including advices, referrals and recalls. The doctors, parents and children assessed the benefit of the appointments. We assessed the questionnaires to determine the need for a doctor's evaluation and compared the need to the benefit gained.

Results: The participation rate was 75.5%. The doctors considered 40.6% and the parents 83.4% of the health checks beneficial. In total, 211 out of the 1013 children (20.9%) had no determined need for an appointment, although the doctor considered examining 42 of them as beneficial. Of those 42 children, only two had problems that actually required doctor's expertise to be recognized.

Conclusions: One fifth of school doctors' routine health checks may be omitted using the study questionnaires. We will analyze further all the arguments for the benefits of the health checks.

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Prognosis in Shared Decision Making for Advanced CKD: A Qualitative Study

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Background: Prognostic information is key to shared decision making. Efforts are underway to enhance and implement prognostic tools for prediction of CKD progression and mortality. Whether patients are receptive and value such individualized risk predictions is unclear.,

Methods: Semi-structured telephone or in-person interviews were in a multidisciplinary CKD clinic asking patients about their perspectives and experiences related to sharing dialysis risk prediction and prognosis. Interviews were audiotaped, transcribed, and analyzed line-by-line with open, axial, and selective coding followed by content

analysis.

Results: We enrolled 19 patients stage 3b-5, age 67-89 (avg. 78.57), 74% men. Almost all patients reported that they wanted to receive a prediction of their risk of progressing to dialysis, even if it would be "kinda scary." Patients reported this could help them "plan for the future" and motivate them to adhere to preventive measures, but noted that the prediction might be upsetting to some. There was less agreement about the value of receiving a life expectancy prediction. Patients suggested that it should be offered only when a patient requests it or agrees to it. We found that several patients conflated the risk of progression to dialysis with the risk of death, equating refusing dialysis with rapid death.

Conclusions: This prospective patient-centered qualitative study confirms that CKD patients are interested in prognostic information. Our findings add context and depth to the value of risk prediction in the clinical encounter. This can help further the development of intuitive shared decision making tools to relay this information to patients.

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Patient-reported treatment preferences in case of future depression

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Background: Depression is prevalent in general practice, but few studies have explored patients' preferences regarding depression care. This study aimed to assess patient-reported treatment preferences in case of future depression according to sex, age, education level and prior depression.

Methods: A patient survey was conducted in GPs' waiting room in 2016-2107. Of the 2335 consecutive respondents (response rate 89.2%) 1782 answered questions about future treatment preferences.

Results: The study population (N=2239) had a mean age of 48.6 ± 17.7 years (range 18–91), 60.1% were female. In case of future depression, 81.6% of the respondents reported they would discuss this with their GP. Among those, 44.1% would prefer treatment by GP only (conversation therapy in particular), while 25.0% would prefer referral to psychologist/psychiatrist alone and 27.9% combinations of treatment by GP and secondary care. Among patients previously treated by a GP for depression, 37.9% would prefer medication if a new depressive episode compared to 14.3% among those with no prior depression. Future treatment preferences varied significantly according to patient characteristics. Male gender, higher age and lower education were associated with preference for conversation therapy and medication. Female gender, lower age and higher education predicted preference for secondary care.

Conclusion: In case of future depression, most patients would consult their GP and prefer conversation therapy but a significant proportion preferred referral and few saw medications as an option. GPs need to be aware of these variations in patient preferences when providing depression care.

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From Theory to Praxis - Complexity Sciences in Daily Practice

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Aims: (1) to introduce the basic concepts '*complexity*' and '*systems thinking*' in clinical practice – they have relevance to understand the causes behind disease and suffering, the identification of potential treatment options, and the overall behaviour of healthcare systems; (2) to inspire the implementation of systems thinking into daily work.

Background: Many, if not most, health problems encountered by GPs are *complex* ('*complexus*' means interwoven). Complexity sciences explore the nonlinear, i.e. non-proportional, responses observed in many 'living world' phenomena. The 'living world' consists of interconnected networks (systems) where the effects of a small change in one network component may trigger multiple responses resulting in divergent outcomes – just think about the treatment of hypertension in the elderly to prevent a stroke that then causes a fall due to postural hypotension rendering a fit and independent 82-year-old a bed-bound nursing home resident. Nonlinear responses are drivers of so-called *emergent* behaviours and outcomes. These are not precisely determinable; however, emergent outcomes are not random or chaotic. Complexity sciences have developed 'simple tools' to understand complex systems and their dynamic behaviours, ideally enabling GPs to better describe and substantiate the way we actually think and work.

Method: We will introduce the 'simple tool' of mapping systems and their dynamic relationships. Participants will then apply this approach to one of 3 topics: Obesity, Fatigue or Back Pain. We will showcase how this approach can help to understand the '*complexities*' of our multilayered health system networks.

Abdominal 'rule-in' pathway for primary care patients with vague symptoms

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Background: Thirty percent of all cancers in Denmark do not qualify for cancer patient pathways (CPP) as they present in primary care with vague symptoms. Therefore, cancer diagnostic pathways should also include a pathway for patients with vague non-specific symptoms.

We aimed to develop a rapid, stepped abdominal 'rule-in' pathway for patients in primary care with abdominal symptoms, who do not fulfil the criteria for a CPP, and to set up a feasibility study to test this pathway.

Methods: Two focus groups, each with eight specialists, had three meeting sessions, from January to September 2018. Based on the interviews, and the results of an observational study exploring the investigations performed in the year preceding an abdominal cancer diagnosis, we developed an abdominal 'rule-in' pathway, and prepared a feasibility study.

Results: The abdominal 'rule-in' pathway consists of three steps; 1) Medical and objective examination, 2) Selected blood samples and a faecal immunochemical test (FIT), and 3) Abdominal and transvaginal ultrasound. The general practitioner (GP) continues to hold responsibility for follow-up, while hospital examinations are performed on an outpatient same-day basis. During spring 2019, the feasibility study is planned to be initiated. Preliminary results from the observational study and the initiated abdominal 'rule-in' pathway will be presented at NCGP 2019.

Conclusion: The study provides important knowledge on how to improve the diagnostics of abdominal cancers and other serious abdominal diseases, in patients with vague and non-specific abdominal symptoms, by initiating a novel and simplified 'rule-in' approach for patients with vague abdominal symptoms.

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Hidden influences effect on participation in a fictional screening program

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Objectives: The objective of this study was to assess if different categories of hidden influences (Use of relative risk reductions; Emission of harms/exaggeration of benefits; Pre-booked appointments; Explicit recommendation of participation; Inducing fear) had a significant effect on the intention to participate in a screening programme for a non-communicable life-threatening disease, and whether the applied hidden influences are recognized by the participants.

Methods: We created seven different pamphlets, inviting the reader to a screening programme for a fictional non-communicable life-threatening disease. Five pamphlets encompassed one of the five abovementioned influences, one encompassed none, and one encompassed all five influences combined. 600 random passer-by in public locations were randomised to read one of the seven pamphlets, and were then asked about intention to participate and visibility of potential influences. Statistical analysis (Chi²) was used, to measure the effect the hidden influences had on intention to participate. A descriptive analysis of the participant's ability to identify the influences was also conducted.

Results and conclusion: In this study, four of five categories of hidden influence proved to increase intention to participate statistically significantly, except for the category pre-booked appointments. Only a minority were able to identify the hidden influences, and since not identifying an influence is associated with an increased tendency to intend to participate, our results suggests, that some participants intended to participate in the screening programme because they were not able to recognize that they were being influenced. This effect seems to increase with increasing potency of the influences.

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GP follow-up after a first diagnosis of depression among adolescents

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Background: GPs are the first-line service for adolescents, also regarding psychological issues. The aim of this study was to assess the follow-up by GP after registering of a diagnosis of depression or depressive symptoms for the first time.

Methods: Based on claims data from Norwegian GPs in a study population of N=117 040 adolescents at age 15-16 without prior psychological (P) diagnoses registered by a GP we identified patients with an initial diagnosis of feeling

depressed (ICPC-2 code P03) or depression (P76) and assessed the GP treatment options the following 12 months.

Results: The first-time P diagnosis was P03 for 436 patients (0.4%) and P76 for 867 (0.7%), 70% female in both groups. After an initial diagnosis of P76, 49.3% had no subsequent consultation with P diagnosis during the subsequent 12 months, 23.0% had one and 27.8% ≥ 2 consultations, with no significant differences compared to the P03-group.

Among the adolescents diagnosed with P76, 34.8% were referred to secondary care after first consultation, compared to 18.9% of those with a P03 diagnosis ($P < 0.001$). Within 12 months 44.4% and 29.4% ($P < 0.001$) were referred respectively, for 20% of patients in both groups an interdisciplinary contact was reported. However, for 30% no further P-diagnosed treatment options were reported.

Conclusion: Concerning depressive problems at age 15-16 years, the GPs' role is mainly as referrers, number of follow-up consultations are limited. Differences between P03 (symptoms) and P76 (disorder) are not marked regarding GP follow-up and these diagnostic codes may represent rather similar conditions.

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THE PERFECT INTERNATIONAL PROFESSIONAL EXCHANGE

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Background: The 12-year-old Vasco da Gama Movement (VdGM) has been actively promoting several professional exchange initiatives within and outside Europe, which have become increasingly popular. In addition to the well-established Hippocrates rural and urban individual 2-4 weeks exchange program in a European territory, group exchanges linked to the National Primary Care Congresses have been successfully organized with the participation of many European colleagues. These programs not only proved to be beneficial at the individual level by encouraging cultural and scientific exchange, but also in discovering a broader perspective on the ways of doing medicine and promoting the GP / FM specialty and art nationally and internationally.

Activities: Group of experts will share their experiences and expertise in the organization and / or participation in individual and group exchanges, highlighting the benefits and potential difficulties encountered by organizers, visitors, tutors and hosts and ways of improvement to create a perfect experience.

Experiences/evaluations: The workshop will be a dynamic interaction between all participants, presenters and facilitators, who will collaborate to create a perfect model of an ideal professional exchange based on their personal experiences and innovative ideas

Perspectives: The aim of this workshop is to offer a variety of enriching exchange opportunities offered by the VdGM Exchange Group in an interactive and fun way and to encourage residents, young family doctors and tutors to participate actively in exchanges.

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Feasibility of a training GPs to deliver CBT in a shared-care model

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Introduction: Most patients with common mental disorders are treated in general practice, often with some form of talking therapy. Danish GPs get a fee for conducting talking therapy. In a regional shared-care model for treatment of depression and anxiety GPs were expected to do Cognitive Behavioural Therapy (CBT). After a brief introduction the GPs were trained through supervision from psychiatric nurses and a psychiatrist with CBT-experience.

Aim: To explore the professionals' experiences with the concept of training GPs in CBT and integrating CBT by GPs in routine practice.

Methods: Qualitative interviews with nine GPs, seven psychiatric nurses and one psychiatrist. Interviews focused on how professionals made sense of and bought into the concept, and experienced its practical workability.

Results: Most GPs considered it difficult to deliver CBT in routine practice. It was too time consuming, the frames were inappropriate, some GPs were trained in other models, and it was difficult to restrict the consultation agenda to mental matters. Professionals from psychiatry found it difficult to engage GPs in supervision, and overall they did not consider it realistic to train GPs to perform this specific therapeutic task.

Discussion: The results suggest that for large scale implementation it is not feasible to make GPs carry out CBT for patients with depression and anxiety. However, there could be a potential in strengthening GPs' therapeutic 'attitude' through training common therapeutic factors not restricted to this specific therapeutic approach.

Trial Protocol: GP psycho-educational intervention for families w. children

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Introduction: Scheduled antenatal and child development assessments have been part of the Danish preventive health services for more than seventy years. Families and infants have changed over time and psycho-social challenges now predominate. Demand for mental health services for Danish children has tripled over the last decade and general practice is involved in most cases. Some mental health problems are related to family dynamics and parental stress. Scheduled preventive consultations carried out by GPs should reflect this and provide an enhanced focus on detecting these problems; and the GP should be able to offer tools and strategies to families to cope with challenges connected transition to parenthood.

Aim: To evaluate the effect of a web-based, psycho-education for pregnant women and families with young children in general practice

Method: A cluster-randomised controlled trial designed to evaluate a web-based, psycho-educational programme compared to an enhanced treatment as usual for 1.000 women recruited at the first antenatal appointment. Patients are recruited from two Danish regions. The primary outcome is child language and socio-emotional development at 30 months. Secondary outcomes include maternal mental health, parent-child interaction quality.

Discussion: Results will add to the limited pool of knowledge about general practice based instruments to enhance psycho-social well-being in families with small children. The study will additionally provide a unique general practice based child cohort.

Feasibility of GP performed systematic assessment of parent child relation

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Background: Various factors are associated with mental health problems in children and one causative factor is the parent-child relationship. Danish GPs see children frequently from birth to the age of five for regular preventive check-ups. Systematic assessment of parent-child relationships is not used in Danish general practice. We explored feasibility and acceptability of a three item parent-child-relationship assessment instrument in general practice. GPs got brief training in describing parental behaviours according to the domains: co-operation with the child, respecting the child's autonomy and showing responsiveness towards the child's needs.

Objective: To investigate the acceptability of systematic assessment of parent-child relationships and the integration of the assessment tool into routine practice.

Methods: Two waves of semi-structured, open-ended interviews with 12 GPs. Interviews were analysed with Normalization Process Theory.

Results: Practitioners experienced a need for a method to describe and assess parent-child relations. They found the assessment instrument helped them guide their focus on parent-child interaction. GPs found the assessment easy to integrate during physical examination; it could be used by a physician with minimal introduction and training but practitioners found it difficult to separate items from each other.

Discussion: Multiple and competing events that need the GP's attention happen during child health examinations. Any new observations and recording can be difficult to integrate in routine practice. The assessment tool provided a new vocabulary to describe parent-child interaction: one that carries potential to be used as a conceptual framework for both communication with the families and other health professionals.

Out-of-hours primary care: workload, access, triage, and safety (EurOOHnet)

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Background: Different models for out-of-hours (OOH) primary care exists, but challenges are similar. European countries face high demands, with consequent high workload for general practitioners and other services. Telephone triage (TT) is used to assess urgency and manage patient flow. Communication skills are essential.

Methods: We start with a short introduction, explaining OOH primary care and challenges, followed by five presentations, and end with an overall conclusion.

Results and conclusions:

OOH workload among Norwegian GPs

To investigate OOH work of GPs and impact on their regular work

Electronic survey to all Norwegian GPs

Time used per tasks (practice, OOH), relation with demographics

Emergency Access Button (EAB) to jump the line in OOH care

To study use of EAB and its relevance

Randomized descriptive study

Description of users, medical and overall relevance

Safety and efficiency of TT

To compare safety and efficiency of GP- and nurse-led TT

Quasi-experimental study, assessing 1,294 audio-recorded contacts

Under- and over-triage, health-related quality, overall safety and efficiency

Communicative characteristics of TT

To compare communication in GP and nurse-led TT

Quasi-experimental study, assessing 200 audio-recorded contacts

Length of telephone contact and spontaneous talking time, number of questions asked

Safety attitudes among healthcare workers in European OOH services

To study patient safety attitudes in Croatia, Italy, Norway, the Netherlands and Slovenia

Cross-sectional study, including 1,933 respondents

Large variations in safety attitudes existed across the five countries

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New evidence - new fact sheet: How do I change practice?

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Background: The GP is the entrance to the healthcare system. Good conversations about patient values and priorities are just as important as professional advice based on the best available external evidence – and particularly so in relation to interventions of longer duration. The Danish College of General Practitioners (DSAM) therefore decided to prepare a series of two-page fact sheets to keep members up to date on hot topics. The organizers of this workshop prepared one of these fact sheets (on choice of place of birth) to be published during spring 2019.

In Denmark, the first pregnancy visit is with the GP, and the best available evidence shows that for healthy women planned home birth is as safe as planned hospital birth with less intervention and fewer complications. However, only few GPs tell pregnant women about home birth as an option even though place of birth should be discussed at first pregnancy visit.

The aim of this workshop is to prepare GPs for this task.

Activities: We will present the evidence present the content of the fact sheet including proposed conversations with the pregnant women set up role plays with GPs and 'pregnant women' organize a discussion of myths, evidence, patient values, own experiences, decision making and more.

Experiences and Perspectives: In relation to information-giving and decision-making it is particularly important to make room for reflections on emotional laden topics in health care (e.g. place of birth, screening, overdiagnosis) in addition to just a 'naked' reference to the 'hard core' external evidence.

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Reconsidering 'selfishness' in GPs' ethics: A Grounded Theory study

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Background: In their everyday ethical decisions, GPs consider demands from four sources: their professional ethics, the institution, the situation, and the self. Although the latter source becomes most conspicuous when the GP struggles for survival, its significance may be wider. In this study we explore the nature of the 'voice of the self' by characterising its demands.

Methods: We observed and interviewed sixteen GPs and family medicine residents working in cities, towns and

sparsely populated areas in four counties in Southern, Middle and Northern Sweden. The data was analysed using Grounded Theory.

Results: Demands from the voice of the self are composed of up to four different imperatives, each of which instructs the GP to avert a specific threat: 'Predict!' (avert worry), 'Belong!' (avert disrespect), 'Eschew!' (avert helplessness), and 'Simplify!' (avert strain). Worry may drive the GP to prioritise situational over institutional demands. Disrespect is a hallmark of conflicts between professional ideals and external demands. When facing helplessness, the GP is more likely to detach themselves and assume command. Strain is a strong enough motivator to sometimes override other concerns, but the act of averting it is usually compatible with professional norms.

Conclusions: As the needs of the self are entwined with professional, interpersonal and institutional demands, ostensibly selfish behaviours nearly always align with norms from one or several of those sources. Judging the motives and performance of GPs requires consideration of the intellectually challenging nature of their work, their responsibilities to different parties, and often strained working conditions.

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Comparison of Patient Enablement Instrument to two single-item measures

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Background: The Patient Enablement Instrument (PEI) is an established Patient-Reported Outcome Measure (PROM) that reflects the quality of a GP appointment. It is a six-item questionnaire, addressed to the patient immediately after a consultation. The aim of this study was to evaluate, whether a the single-item measure (the Q1), based on the PEI, or a single question extracted from the PEI itself (the Q2) could replace the PEI when measuring patient enablement among the Finnish health care centre patients.

Methods: The study design included 1) a pilot study with brief interviews with the respondents, 2) a questionnaire study before and after a single appointment with a GP, and 3) a telephone interview two weeks after the appointment. The correlations between the measures were examined. The sensitivity, specificity and both positive and negative predictive values for the Q1 and the Q2 were calculated, with different PEI score cut-off points.

Results: Altogether 483 patients with completed PEI were included in the analyses. The correlations between the PEI and the Q1 or the Q2 were 0.48 and 0.84, respectively. Both the Q1 and the Q2 had high sensitivity and negative predictive value in relation to patients with lower enablement scores. The reliability coefficients were 0.24 for the Q1 and 0.76 for the Q2.

Conclusions: The Q2 seems to be valid and reliable to measure patient enablement. The Q1 seems to be less correlated with the PEI, but it also has high negative predictive value in relation to low enablement scores.

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'Motivational work' in a treatment-oriented practice - a qualitative study

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Background: Little is known of the extent to which general practitioners (GP) motivate patients to change adverse health behavior and how this is done in clinical encounters. In this study we explore the unfolding of preventive health dialogues in general practice through the perspectives of both GPs and patients. By introducing the concept of 'motivational work' we seek to understand the social interactions and temporal complexities embedded in preventive health dialogues.

Methods: The study draws on observations and semi-structured interviews with both GPs and patients from a process evaluation of the preventive healthcare intervention TOF, that was tested in a non-randomized pilot study in 2016. Through an approach of population-based risk stratification, the TOF intervention addressed early detection and prevention in general practice.

Results: The findings reveal a tendency among GPs to do motivational work without facilitating dialogue about the underlying social causes of the behavior or the patients' possibilities to change health behavior. Instead, health dialogues were focused on treatment and structured around clinical facts and risk factor guidance estranged from the patients' everyday lives.

Perceiving GPs as practitioners rather than 'preventers' we find that patients, take part in reproducing the clinical and treatment-oriented focus in the clinical encounter.

Conclusion: Patients' perspectives and expectations to the structure and content of the health dialogue influence the character of how and whether GPs motivate patients to change health behavior. In sum, the study shows that both GPs and patients - in an interplay - affect motivational work in the health dialogue.

Can be found only what is looked for, and is sought only what is suspected

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Background: Violence against women constitutes a devastating social and public health problem. The out-of-hours/emergency services are often the first link in these women's care, so the knowledge of action protocols and indicators of suspicion of the possible mistreatment existence are essential. 7/10 cases of abuse go unnoticed in our usual clinical care.

Objective: We report a case of suicide attempt, in which the multidisciplinary and coordinated approach of extra- and intra-hospital health personnel and the National Police has been fundamental for revelation of the underlying problem to the physical injuries.

Materials/methods: Middle-aged woman is severely self-injured by nailing a 16 cm kitchen knife in the epigastrium. Medical 112 team and police find the patient conscious, agitated and trying to keep hurting herself. The patient receives mild sedation, analgesia, evaluation according to the ITLS protocol and transferred to the hospital for urgent surgery, where genital lesions suggestive of sexual abuse are also found. After careful medical interview, the patient acknowledges being a victim of mistreatment by her partner for a long time. According to Protocol, legal, social and psychological attention was requested for the patient, who is currently in follow-up for his GP among others.

Results/ Conclusions: The tragic ends of gender violence are varied, and the suicide attempt is its second fatal consequence. Battered women are 3-5 times more likely to commit suicide than the rest. It's crucial identify indicators of possible mistreatment and act in accordance with local protocols. We are ready to share the ones we have in Spain.

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General health checks? - How to read and use the scientific literature

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Background: GPs often experience difficulties in keeping up-to-date, and at times feel they reach the outer boundaries of their knowledge. The practice of medicine in which the busy physician finds, assesses, and implements methods of diagnosis and treatment on the basis of the best available current research, clinical expertise, and combines this with the needs and preferences of the patient, is termed evidence-based medicine. What are the benefits and harms of general health checks? This workshop will invite participants to read the Inter99 randomised trial about general health checks and scrutinise the paper using the method of critical appraisal.

Activities: The didactic method used in the workshop is mostly small group activities with eight participants and two tutors in each group. The participants will receive two scientific papers: the Inter99 randomised trial about general health checks and a paper about how to read an article about therapy or prevention. Furthermore, a check list about which issues in the empirical paper to scrutinise will be distributed to the participants.

Flow of session:

Lecture: Welcome and how to work in small groups – 15 minutes (plenary room)

Small groups: systematic critical assessment of the empirical paper – 60 minutes (smaller rooms)

Plenary: Summary and final discussion – 15 minutes (plenary room)

Experiences and perspectives: By learning and practising the principles of evidence-based medicine, GPs will have a tool to assist life-long learning in practice. Based on the questions that arise in daily practice, we can learn by doing.

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Dealing with parental concerns in preventive child health assessments

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Background: According to the recommendations from the Danish National Board of Health on the preventive child health assessments, the GP should assess a child's physical, psychological and social development together with general well-being. While the elements of the physical examination are specified, how the GP should assess the

other elements remains unclear. A key to the development of an effective assessment is insight into parental concerns. Whereas much of the literature has dealt with the quantification and classification of concerns, less exists on expressions of concern as an interactional phenomenon. Based on video recordings this study aimed to investigate how parental concerns are dealt with in preventive child health assessments.

Methods: This qualitative study analysed video recordings of 32 preventive child health assessments with interactional microanalysis: Conversation analysis.

Preliminary results: GPs were observed to employ mechanisms both impeding (i.g. interactional dominance, medical questioning, child focus) and enhancing (i.g. attentive listening, repetition of questions, affective exploration, family focus) exploration of concerns. Furthermore, different mechanisms led to GPs' marked termination of discussion on concerns including ignoring cues, change of subject to biomedical topics and addressing the child.

Conclusion: Conversation analysis demonstrates the core structures of the GP-parent interaction: Since parents generally cooperate, it is up to the GP to create a space where concerns can be dealt with. To improve the handling of concerns, implications for communication training and practice are discussed.

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Individualized discussions with vaccine hesitant parents: C.A.S.E. approach

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Background: Mayo Clinic, best known as a tertiary care center, also provides primary care to a local population of over 140,000 patients. We too are challenged by parents who have varying degrees of "vaccine hesitancy" - postponing or never receiving many recommended immunizations, particularly HPV. Although we distribute written materials, many physicians and nurses feel that they lack the time, confidence, or necessary skills to make strong recommendations in favor of vaccines (rather than a neutral recommendation which implies that immunization is simply one option among many).

Session Content: We will teach and practice the approach used throughout our Mayo Clinic primary care practices, where we *corroborate* (exploring the parents' concerns and highlighting our shared beliefs), talk *about me* (emphasizing our professional standing), *summarize* the science (briefly and in plain language), and *explain* the best course of action (giving the vaccine today) – C.A.S.E.

Pedagogical Methods: Reflecting our practice model, our presenters will include primary care physicians and specialists who actively work together at Mayo Clinic. We will share formats and scripts with the larger group, and then break into smaller groups where individuals can practice with each other (in their own language). We will come back into the larger group to share what worked and what did not. In similar workshops, using an experienced moderator and effective time management, we have been able to successfully engage the audience through questions and shared experiences, ensuring that all objectives are addressed and that participants are able to learn from one another.

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When access trumps continuity: a trusting relationship in 10 minutes

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Background: Mayo Clinic, best known as a tertiary care center, also provides primary care to a local population of over 140,000 patients. We have found that patients often seek urgent evaluations for acute flares of chronic conditions (functional abdominal pain, migraine headache, etc.), and are often given appointments with physicians with whom they are barely, if at all, acquainted.

Session Content: We have developed a framework for categorizing symptoms, and a structured approach to their evaluation, which help establish trusting relationships in the first minutes of a visit. Using irritable bowel syndrome as an example, we will outline the 9 essential steps for patients to understand and accept the biopsychosocial aspects of chronic conditions, to be confident that the evaluation has been adequate to rule out other organic conditions while minimizing unnecessary testing, to accept the limitations of therapy and incremental improvements of symptoms, and to engage in effective self-management.

Pedagogical Methods: Reflecting our practice model, our presenters will include primary care physicians and specialists who actively work together at Mayo Clinic in a structured interactive workshop designed to allow all participants to share challenges, stories, and their own best practices in similar settings, and the generally increased professional satisfaction and more effective management of patients which has resulted. In similar workshops, using an experienced moderator and effective time management, we have been able to successfully engage the audience through questions and shared experiences, ensuring that all objectives are addressed and that participants are able to learn from one another.

Primary care and behavioral health integration: our collaborative journey

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Background: Mayo Clinic in Rochester Minnesota, best known as a tertiary care center, also provides primary care to a local population of over 140,000 patients. Since 2006, in response to growing needs, Mayo has committed increased behavioral health resources across our primary care clinics, with mental health professionals providing both direct and indirect support for the primary care teams. Both groups have been required to learn new roles and skills, with generally increased professional satisfaction and more effective management of patients with depression and anxiety.

Session Content: We will outline the 6 key components of our collaborative care model of depression care, among primary care physicians and psychiatrists, as well as outcomes data. Through stories and narrative, we will share specific examples of how this model is experienced by both providers and patients, the new roles and skills which they have developed, and the generally increased professional satisfaction and more effective management which has resulted.

Pedagogical Methods: In similar workshops, we have been able to successfully engage the audience in the learning process through questions and shared experiences. Using a skilled moderator, we will focus our time depending on the needs and interests of the audience. We will ensure that all components of the model are addressed and that the ensuing discussion will enable all participants to learn from each other and to consider the development of a similar model in their own healthcare systems.

Understanding and improving curbside consultations in general practice

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Objectives: To clarify the value and process of the curbside consultation and identify ways to optimize this activity.

Methods: We conducted 13 focus groups at an academic medical center and outlying community sites, involving a sample of 54 primary care and subspecialist internal medicine and family medicine physicians. Focus group discussions were transcribed and then analyzed to identify benefits, liabilities, mechanisms, and potential improvements related to curbside consultations.

Results: We developed a model describing the role and process of the curbside consultation. Focus group participants perceived that curbside consultations add particular value in offering immediate, individualized answers with bidirectional information exchange, and this in turn expedites patient care and increases patient confidence. Despite the uncompensated interruption and potential risks, we found experts generally happy to provide curbside consultations because they are appreciated being asked and the opportunity to help colleagues, expedite patient care, and teach. Key decisions for the initiator (each reflecting a potential barrier) include whom to contact, how to contact that expert, and how to determine availability. Experts decide to accept a request on the basis of personal expertise, physical location, and capacity to commit time and attention. Participants suggested systems-level improvements to facilitate expert selection, clarify expert availability, enhance access to clinical information, and acknowledge the expert's effort.

Conclusions: Curbside consultations play an important role in enhancing communication and care coordination; the process can be further improved using information technology solutions. (Cook DA, Sorensen KJ, Wilkinson JM. Mayo Clinic Proc. 2014;89(5):602-614)

Health care utilisation and medication one year after myocardial infarction

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Background: Medical secondary prevention after myocardial infarction is important to improve long term survival. Thus, guidelines recommend five different types of drugs after myocardial infarction. However, previous research shows that prescription of these drugs is often improvable. Thus, the aim of this study was to assess both healthcare and prescribed pharmaceutical treatment one year after myocardial infarction.

Methods: We conducted a claims data analysis with five year data from the largest German health insurance fund. Patients who survived a myocardial infarction in 2013 or 2014 were identified. We analysed contacts to physicians, hospital care and actual prescriptions for beta blockers, ACE Inhibitors or angiotensin II receptor blockers, P2Y12-

anti-platelet agents, acetylsalicylic acid, and statins one year after the event. Analysis was conducted stratified by age and sex.

Results: 2352 patients were included in the analysis. 97% of the patients had at least one contact with their general practitioner one year after myocardial infarction. 23% visited a cardiologist. Only 30% of the patients received at least four of five recommended drug groups. Prescription of recommended drugs after myocardial infarction decreased steadily over time. Elderly women visited less often a cardiologist, were more often hospitalized and received less often statins and antiplatelet agents than the other patient groups.

Conclusion: Long-term medical secondary prevention after myocardial infarction is improvable. The GP surgery seems to be the place to improve medical treatment; one year after the event seems to be a good opportunity. Special attention should be paid to elderly women.

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Workload and empathy in general practice

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Background: Physician empathy is important for optimal physician and patient outcomes. Some have hypothesized that there is an association between high workload and low levels of empathy. Therefore, we aim to analyze the association between measures of workload and physician empathy among GPs.

Method: A web-based survey comprising GP demographic, professional and workload characteristics, as well as the Jefferson Scale of Empathy (JSE-HP) was distributed to a random, stratified sample of 1,196 Danish GPs. Workload characteristics included measures of workload activity, as well as perceived workload-burden (PWB) measures of selected socioeconomic patient types. By means of regression models, we analyzed the association between GP workload characteristics and empathy. Factor analysis and weighted averages were performed to reduce the number of covariates for PWB and create rounded, global measures of perceived workload.

Results: A total of 464 GPs (38.8%) in 406 clinics completed the questionnaire. There was no link between empathy and measures of workload activity. A "U-shaped" relationship emerged between empathy and proxies for overall GP PWB, such that high empathy scores occurred at both high and low levels of PWB. These findings were consistent across model types. A high PWB associated with "Difficult Communication" patient types was associated with higher empathy levels.

Conclusion: GPs who perceive a higher workload and GPs who perceive a lower workload appear to be more empathic than the other GPs.

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Effect of general practice-based health checks in individuals with low SEP

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Background: The effectiveness of health checks aimed at the general population is disputable. However, health checks aimed at certain groups at high risk may reduce adverse health behaviour and identify persons with metabolic risk factors and non-communicable diseases (NCDs).

Objective: To assess the effect of general practice-based health checks on health behaviour and incidence on NCDs in individuals with low socioeconomic position.

Methods: The Check-In trial was undertaken in 32 general practice units in Copenhagen, Denmark. Individuals with low level of education and aged 45-64 years were assigned to the intervention group of a prescheduled preventive health check from the general practitioner or to control group of usual. The primary outcome was smoking status at 12-month follow-up. Secondary outcomes included status in other health behaviours such as alcohol consumption, physical activity and body mass index (measured by self-administered questionnaire), as well as incidence of metabolic risk factors and NCDs such as hypertension, hypercholesterolemia, chronic obstructive pulmonary disease, type-2 diabetes mellitus, hypothyroidism, hyperthyroidism and depression drawn from national health care registries.

Results: 1,104 participants were included in the study. At 12-month follow-up no difference in health behaviour nor in the incidence of metabolic risk factors and NCDs between the intervention and control group were found.

Conclusion: The lack of effectiveness may be due to low intensity of intervention, a high prevalence of metabolic risk factors and NCDs among the participants at baseline as well as a high number of contacts with the general practitioners in general.

Trial registration: Clinical Trials NCT01979107.

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Does the continuity of GP-care influence survival?

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Background: Strengthening primary care and general practice (GP) is a main health care politics goal. However, the evidence for the individual benefit of general practice for patients is low. Thus, our goal was to examine the effect of continuity of GP-care on individual survival including possible interactions.

Methods: Survival analysis with five years claims data of 500.002 randomly chosen insured persons from Germany. The continuity of GP-care was measured by the Usual Provider of Care Index. Morbidity was measured by the Charlson Update Index. We performed a cox regression; age, gender and morbidity were used as covariates and interaction terms.

Results: The analysis showed non-linear effects as well as interaction. For persons with no or low morbidity there is no gender difference. The Usual Provider of Care Index in persons younger than 60 is not associated with survival; for mildly morbid persons 60 and older a Usual Provider of Care Index about a third is associated with best survival. In persons with a high morbidity there is a gender difference: For women younger than 60 and men of all ages a higher Usual Provider of Care Index is associated with a better survival; for morbid women 60 years or older a Usual Provider of Care Index around a half is associated with the best survival.

Conclusion: For patients with an underlying morbidity a combination of GP and specialist health care seems to be the best. Future analyses in other countries should include age, morbidity and gender as interaction terms.

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Evaluation of palliative care in a Danish general practice

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Background: Most terminally ill patients wish to die at home and this requires specific competences in end-of-life-care amongst general practitioners.

Hypothesis: Number of home-deaths (including nursing homes) over a three-year period was expected to be larger if the general practitioner (GP) was primary responsible for end-of-life care.

Methods: All patients affiliated with a large (6500 patients) Danish 4-doctor general practice located in a Copenhagen suburb, who died between 1/1 2015 and 31/7 2018 were identified. Patients who died by accident or suicide were excluded. Patients were divided in two groups based on the number of palliation-related contacts with their GP during the last 2 weeks of life (group 1: ≥1 contact, group 2: 0 contacts).

Results: 201 patients were included in the study. The mean age at time of death was 82.4 years and 112 (56%) were women. Nine-ty-nine patients (49%) died at home or at a nursing home, 93 patients (46%) died at a hospital or in a hospice.

Group 1 patients (88 patients) were older than group 2 patients (113 patients) (86 and 80 years respectively, $p < 0.01$). 86% of group 1 patients died at home whereas only 23% of group 2 patients died at home ($p < 0.01$). The distribution of important variables in the groups will be further explored in the final results.

Conclusion: One or more consultation with the GP during the last 2 weeks of life is associated with a higher rate of home death.

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Resources of patients with many problems

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Background: Patients living in poor socioeconomic conditions get more diseases earlier in life. Lack of capacity,

skills, and understanding interfere with patients' ability to prevent and handle disease. While multimorbidity only includes diseases, the concept of patient complexity covers patients' problems in broader terms and offers a clinical relevant perspective on patients with many problems.

This symposium discusses how resources, self-care and capacity of patients with many problems interfere with and can be engaged in treatment and prevention.

Programme

Welcome

Introduction

What counts as problems?

Discussion in groups

How do you approach patients with many problems?

Presentations of research on patients with many problems in general practice

- Involving vulnerable patients' self-assessed resources in preventive consultations

Even complex problems can be solved when including patients' resources. The presentation reports patients' self-assessed resources, how they were used in solving problems in a complex intervention, and main results after one year.

- Self-care as judged by patients and general practitioners

Little is known about the views on treatment and self-care of patients with a doctor-assessed lowered ability of self-care. The presentation reports the analysis of qualitative interviews with patients.

- Planning care for patients with many problems

Prioritizing while simultaneously keeping the whole in view is necessary in patients with many (health) problems. The presentation outlines relevant generalist skills based on observation and interviews in general practice.

Discussion of presentations by Stewart Mercer

Plenary discussion

How do we best handle patients with many problems in general practice

Conclusion and perspectives

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Effect and safety of duration of antibiotic treatment for GAS pharyngitis

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Purpose: To summarize and evaluate current evidence regarding effectiveness and safety of short and long courses of antibiotic treatment in a primary care setting of patients with streptococcal pharyngitis/tonsillitis.

Methods: We performed a systematic review of randomized control trials (RCTs) retrieved from PubMed (from January 1966 to April 2018) using a structured search strategy. We included trials comparing short-courses (6 days or less) with longer courses of antibiotic therapy for streptococcal pharyngitis/tonsillitis (minimum ≥ 2 days longer than the short course). Included studies were assessed in the programme Covidence® and using the Cochrane's Risk of Bias (ROB) Tool.

Results: Of 1053 identified studies, 15 met our inclusion criteria. The RCTs compared short-course versus long-course treatment with: azithromycin, clarithromycin, cefuroxime, amoxicillin, telithromycin, cefpodoxime, cefdinir and penicillin V. This literature review included a total of 13,233 patients, 86% children. Twelve of the included studies had high risk of bias when looking at blinding of participants. Ten of the included studies had high risk of bias in blinding of investigators. Twelve of the trials had unclear risk of bias in allocation concealment. No studies compared the same drug and duration. Among included trials that compared antibiotics with penicillin V, no significant improvement in terms of clinical efficacy was found.

Conclusions: Our findings suggest that with current knowledge there is no solid evidence for a best length of treatment in patients with streptococcal pharyngitis/tonsillitis in a primary care setting. The heterogeneity of methods used should encourage future RCTs with a more uniform and homogenous design.

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The doctor's perspective on pain assessment - A qualitative study

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Background: The subjective nature of pain challenges the objective, analytical approach that doctors rely on in many other medical situations. We know from quantitative research that doctors and patients can have different perceptions on how much pain the patient is experiencing but data regarding thoughts and feelings this discrepancy triggers in doctors is sparse.

Objectives: This project aimed to investigate general practitioners and residency doctors' perspectives on patient's pain assessments.

Methods: A qualitative study based on 8 semi-structured interviews with an explorative, phenomenological approach investigated general practitioners and residency-doctors perspective (self-reported thoughts, feelings and experiences) on patient's pain and pain assessments. The participants were strategically chosen to ensure a maximum level of variation in age, experience, gender and workplace within the two categories. Information about experience and job satisfaction was also collected. Additional information about doctors age, job position, type of practice or hospital department were obtained in a short survey. The interviews were transcribed in Express Scribe Transcription Software and coded and analyzed in Nvivo12.

Results: Data collection finished in February 2019. The results will be presented at the NCGP 2019.

Conclusions: More in-depth knowledge on the doctor's perspective on pain assessments can be valuable in regards to supervision and training of doctors.

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Working with complexity is a core generalist competence - Obesity as a case

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The symposium will introduce and explore *complexity* as a core concept for GPs.

Background: Many phenomena in general practice, both patient encounters and collaborative processes at every level, involve *complex adaptive systems*, characterized by *non-linear causal relationships* and *emergent* behaviors / outcomes: The pathogenesis behind e.g. cancer, cardiovascular disease and depression is complex. A cheerful and insightful remark at the right moment can start a healing process. Management by protocol may fail to deliver desired outcomes and at worst do harm. A serious medical error rarely has one single cause. Engel's and McWhinney's vision of bio-psycho-social medicine seems pertinent, but how to operationalize this at a scientific and clinical level? Here enters the scientific perspective and vocabulary of *complexity theory*.

Methods: We will explore a complex phenomenon, namely obesity. We start with an individual patient. The case acquires different features through the frequently applied lenses of 'common-sense bookkeeping' (calories-in-vs-calories-out), endocrinology / metabolism, and public health, to which we will add microbiomics, gestational / childhood imprinting and stress physiology. Finally, we will introduce a *narrative approach* as one way of operationalizing a generalist approach to complex adaptive systems. We will explore how the competent GP might apply this perspective in her work with the particular patient.

Results: We hope to inspire participants to add complexity theory to their professional toolbox so that they may competently avoid coercive oversimplifications of clinical reality and human agency.

Conclusions: Participants who want more complexity theory: Please come to our consecutive workshop (Sturmberg et al.).

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Birth and Growth of academic general practice in the Nordic countries

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While general practice is almost as old as medicine is itself, the history of general practice as a university discipline first started in 1963 with the first university department in the world in Scotland (Edinburgh). Next was the Netherlands (Utrecht 1966) followed by Canada (Western Ontario, 1968). Since then, general practice/family medicine has grown to become an internationally recognized scientific discipline with its own research and a tailored

training towards a clinical speciality. General practitioners' core values and clinical methods reflect the uniqueness of the clinical setting in primary care and within the healthcare system.

The first chair/department to be established in each Nordic country was: Norway 1968 (Oslo), Finland 1973 (Tampere), Denmark 1974 (Copenhagen), Sweden 1981 (Malmö-Lund), and Iceland 1991 (Reykjavik). In 1975, Norway was the first country in the world to have general practice units within all medical schools. Not until 1980-ies, had general practice become part of the undergraduate curricula in all Nordic countries.

The symposium will be comprised by presentations from all Nordic countries. Brief overviews will be given highlighting why, when and how general practice became a university discipline in the various countries. Attention will also be given to the departments' subsequent roles for developing teaching, education, clinical research - and hence improved quality of care - in general practice.

Knowing the history on how our profession has been shaped, is valuable for better understanding the present situation and may also serve as a guiding tool for how to navigate in the future.

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Functional disorders as social constructions

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Background: Functional Disorders (FD) as medically unexplained disabilities, is now well-described and recognized conditions. FD constitutes a substantial part of all contacts in general practice, a number which have been stable over time, though the symptoms have changed. However, still no specific etiology or treatment has been established, and a strong disagreement remains between the patients, the patient associations and the health care and social services as how to understand the conditions. FD resembles biomedical diseases, and everyone agrees that finding biomedical markers will be crucial for acknowledgment, and thus all efforts are focused on this. I would like to question whether this is an appropriate way.

Methods: With 30 years of experience as a general practitioner and in social medicine, medical and social scientific literature on the subject has been reviewed.

Results: It has been proposed that FD is better understood as social constructions, by some authors called "Kultursygdomme". This understanding of FD could be seen as a consequence of our strong medical diagnostic culture. Furthermore recent brain research has shown that our emotions are not only biological but developed in interaction with our cultural environment as social constructions and there is a close connection between emotions, symptoms and diseases.

Conclusions: Seeing FD as social constructions probably gives better understanding as to their variation of symptoms over time, the social heritage and social infectivity, the gender difference, the importance of giving the conditions a name and treatment resistance.

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Can we justify omitting person-centered care for people with SMI?

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Background: Patients with severe mental illness (SMI) have a 10-20 years shorter lifespan than the background population with chronic disease. However, research indicates that this excess mortality may be reduced by using a patient-centered approach. In Denmark, medical students are taught how to perform patient-centered care in the consultation according to a modified ICE (Ideas, Concerns and Expectations). This study explores the barriers and opportunities for implementing a patient-centered approach in consultations with SMI-patients.

Methods: 14 qualitative interviews were conducted with GPs in two Danish regions and 6 observations of consultations with SMI patients was performed (to be supplemented). The interviews were analyzed using systematic text condensation.

Results: Most of the GP's found it difficult to get an overview of their SMI-patients and some expressed that the consultations were difficult with the patients often having other agendas than expected. The GP's rarely used the ICE tools to deliver person-centered care and they experienced insufficient time for exploring patient values and preferences when the biological aspects of illness also needed examination.

Conclusion: These preliminary results suggest that the GP's find it difficult to practice person-centered care for patients with severe mental illness. While a lack of time may often be a reason for this, the results could also indicate that the doctors' paternalistic concerns for the patients' capacities, an unrecognized lack of empathy or uncertainty regarding their own professional competences play a role. Analysis containing possible explanations will be discussed in the presentation.

Understanding the medical relevance of patients' stories

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Background: During the two last decades, several studies have found interconnectedness between life experiences and health. General practitioners (GPs) who see their patients over time are in a unique position to observe and explore how their patients' lives and health interact. However, GPs might not be aware of adverse life experiences in their patients' biographies, despite long doctor-patient relationships. Towards this background, we wanted to study what reflections and experiences GPs have regarding the role of life stories in clinical work.

Methods: We conducted three focus group interviews with both experienced and novel GPs who were also teaching medical students, plus one focus group interview with an experienced GP "think-tank" that had an explicit interest in humanistic aspects of medicine. The interviews were analysed according to Interpretative Phenomenological Analysis (work in progress).

Results: The three initial GP groups expressed varied and somewhat ambivalent views on patients' life stories. The "think-tank" in contrast, unambiguously recognized patients' biographies as medically relevant and applied theoretical and conceptual frameworks from other disciplines; for instance from narrative medicine and complexity theory, as well as from learning theory, craftsmanship and art in their discussion.

Conclusion: Our findings suggest the GP community still has a way to go in order to optimally integrate patients' stories in everyday, clinical work. An appropriate theoretical framework, meaningful professional concepts, relevant working tools and more research are all required to carry this work forward.

Cardiovascular autonomic neuropathy associates with all-cause mortality

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Background: Cardiovascular autonomic neuropathy (CAN) has been shown to increase morbidity and mortality in diabetes patients. This study aimed to quantify mortality risk during 7 years follow-up by presence of CAN in type 2 diabetes.

Methods: We used data on CAN assessments from 777 participants with median age of 65 years (IQR: 60;70) of the ADDITION-Denmark study who attended the 6-year follow-up examination. CAN was defined as two or three abnormal standard cardiovascular autonomic reflex tests (lying-to-standing, deep breathing, and Valsalva maneuver) using the VAGUS™ device. Individuals were followed from CAN assessment (between 2008-2009) to death or the censoring date (31.12.2016). History of cardiovascular diseases (CVD) was obtained from national registers, as were records on deaths. Cox regression models were used to estimate mortality rates by CAN status.

Results: At 6-year follow-up CAN was present in 70 participants (10%). During the median follow-up of 7.2 years (IQR: 7.1;7.3), 12(17%) deaths occurred in participants with CAN, whereas 71(10%) deaths occurred in participants without CAN. A higher mortality rate was seen for participants with CAN (HR 1.8 (95% CI:1.1;3.0)) compared with participants without CAN in a Cox regression model adjusted for sex, age, systolic blood pressure, LDL-cholesterol level and trial-randomization group. This estimate decreased only marginally by further adjusting for history of CVD (HR 1.7 (95% CI:1.0;2.9)).

Conclusion: CAN is associated with all-cause mortality in patients with type 2, beyond the impact of CVD. Therefore, identifying CAN in people with type 2 diabetes might enhance risk stratification models used in their care.

Exploring health and health-compromising behaviours in adolescent males

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Background: In adolescent males, poor mental health and health-compromising behaviours are major causes of morbidity and mortality. Such subjects may therefore be important in consultations with a general practitioner. Despite well-known associations between poor mental health and health-compromising behaviours, the overall structure of the covariation is scarcely known. The aim of the study is to explore the covariation of health-compromising behaviours and mental symptoms and their underlying factors in adolescent males 15–18 years old.

Methods: Data was obtained from a school-based survey, Life and Health in Youth, in a Swedish county in 2011 (response rate 80%, n=2823). Answers from male students in year 9 in compulsory school (15–16 years old) and year 2 in upper secondary school (17–18 years old) were used. A wide range of aspects of health-compromising behaviours and mental health including associated somatic symptoms, dissatisfaction with or unsafety in everyday life, were included in an exploratory factor analysis.

Results: The model comprised four underlying factors reflecting four separate vulnerabilities: the first to substance use, delinquent behaviours and no use of contraceptives; the second to feel unsafe regardless of circumstances; the third to pessimism and dissatisfaction with life and the fourth a susceptibility to pain. Vulnerability for pessimism correlated rather strongly (0.5) to pain susceptibility.

Conclusions: According to this theoretical model, a comprehensive assessment of common health risks in adolescent males includes aspects of all four factors. When validated, this model may be a useful theoretical tool for the general practitioner when meeting adolescent males.

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Women's experience of pregnancy related symptoms and the women's worries

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Background: About 85% women wish to discuss pregnancy symptoms with their midwife or general practitioner (GP) at the prenatal care visits. However, the GPs and the pregnant women's understanding of these symptoms are far from aligned. The purpose of our study was to examine the frequency of symptoms and worries in various phases of pregnancy.

Methods: The study population comprised pregnant women sampled by 420 Danish general practitioners. A questionnaire about 10 common pregnancy related symptoms was answered for each trimester corresponding to week 6-10, week 25 and week 32. Further the women reported the degree of concern initiated by the symptoms. These data were correlated to the women's age and parity.

Results: The questionnaire was answered by 1455 pregnant women in the first trimester while 1351 and 1333 answered the questionnaire concerning 2nd and 3rd trimester, respectively. In the first trimester approximately 65% of the women reported having two to four symptoms at the same time. Similar figures for the 2nd semester and 3rd trimester was found, but these women had three to five or six symptoms at the same time. Depending on the type of symptom a fraction of the women worried to different degrees in all three phases.

Conclusion: A number of symptoms are common in all phases of pregnancy. They may produce worries among some groups of women and should be addressed by the GP at the prenatal care visits.

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Can we improve the management of patients with anaemia?

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Background: Anaemia affects 17% of people aged 65+ years. Anaemia is often a symptom of underlying disease and can be a sign of undiagnosed malignancy. The distinction between anaemia subtypes is clinically important as the different types of anaemia warrant different diagnostic and treatment strategies. Iron deficiency anaemia (IDA) is a recognised risk marker of gastrointestinal cancer, and patients with IDA have an increased overall cancer risk. Nevertheless, 53% of patients with IDA has been reported to be suboptimal managed. This may cause diagnostic delay.

No previous study has evaluated the management of patients with anaemia in Nordic healthcare systems.

Aim: To explore the management of anaemic patients among Danish general practitioners.

Methods: The study is a population-based cohort study based on Danish national registers and regional laboratory databases, including patients aged 40-90 years identified with anaemia based on a blood test from primary care. We will explore the management of anaemic patients and investigate the frequency of referrals to urgent cancer patient pathways, gastroscopies, colonoscopies, CT scans, CT colonographies, faecal occult blood tests and to private practicing specialists within three months from the date of anaemia. Statistical analyses will be stratified by anaemia subtypes, age groups and chronic diseases.

Results: Data is too preliminary to warrant analysis at present; however, we will be able to present preliminary results in June 2019.

Perspectives: This study will increase the awareness of anaemia, which may improve diagnostic workup in

anaemic patients and lead to earlier cancer diagnoses and improved survival.

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Characteristics of COPD patients prescribed inhaled corticosteroid

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Background and Objective: The risk-benefit ratio for treating COPD patients with ICS is much debated these years. Our aim was to characterize COPD patients treated with ICS in primary care.

Methods: Electronic patient records in participating general practices were searched for patients coded as COPD (ICPC-2 code R95) and treated with ICS (ACT code R03AK and R03BA). Data on demographics, smoking habits, spirometry, COPD medication, dyspnoea score, and exacerbation history was retrieved for all identified cases.

Results: A total of 2.289 patients (44.7% males) with COPD on ICS were identified (138 GPs) corresponding to 31.6% of the patients coded by the participating GPs as COPD. The COPD diagnosis was verified by post-bronchodilator spirometry in 68.6% of the cases and 23.6% were coded as having both COPD and asthma. Mean age was 71 years (SD 10.8) and MRC 2.7 (SD 1.1), 51.3% were ex-smokers, and mean FEV1 was 60.3%pred. (SD 23.3). Overall exacerbation rate was 0.88/year (SD 1.5), and 55.7% of the cases had had no exacerbation in the previous year (and 44.9% not within the two previous years). Patients were mostly treated with LABA (98.2%), whereas only 57.3% were on LAMA therapy. Seventy-six patients (3.3%) were on maintenance therapy with oral corticosteroid. Most of the patients (74.4%) were managed only by their GP.

Conclusion: Although only one third of the COPD patients seen in primary care were treated with ICS, our findings suggest that management of those COPD patients prescribed ICS could be tailored more precisely to the individual patient.

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Kierkegaard, Sokrates, Olsen Banden and 'the Ape' - my educational will

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As a GP you have to educate patients, medical students, trainees and colleagues! In order to do that successfully, you must have good ideas and methods to follow.

In the 50 years I have been a GP and an educator, I have used the following philosophy and rolemodels:

Kierkegaard, who says that if you want to help another person, you must first find him where he is, and then guide him from there.

Using Socratic questions you can meet the patient/student where he/she is. When you have 'met' her, you may have a shared understanding of what the problem is, and then you - together with the patient/student - can walk towards a solution.

In order to know what way you have to go, you must have 'a plan'. Neither the patient nor the student know which route to follow - so you have to decide where to go. Adopt the philosophy of Egon in 'Olsen Banden', he always has a plan!

When you have dealt with the patient's or the student's problem, you have to ensure, that they take it back, and work on it. You must not take over their problem - it is their "Ape", and they have to deal with it. Otherwise you will 'burn out' quickly.

This presentation will show how this philosophy and the rolemodels are used in teaching, so that younger GP's can improve their teaching and their patients and/or students can learn more from them. This is my 'educational will'.

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Physical diseases in patients with SMI: Findings from The Phy-Psy Trial

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Objectives: The aim of this symposium is to present initial results from the preparatory phase of The Phy-Psy Trial intervention. The results are based on epidemiological and qualitative collected among patients, general practitioners and municipalities, and show barriers for cross-sectoral treating physical diseases in patients with severe mental illness (SMI).

Background: Patients with SMI die 10-20 years earlier than the general population. The Phy-Psy Trial will develop, execute and test in a randomized controlled trial an intervention consisting of a coordinated care plan supported by information and communication technology.

Content: The symposium will present initial analyses of collected data:

What do patients with SMI die from

What are the barriers for municipality workers when treating physical diseases among patients with SMI

How do GPs manage the care of patients with SMI and what is needed to optimize this?

What do patients with SMI want from the health care services to attend to their physical health?

PROM among patients with SMI and somatic comorbidities

Cutting heels and toes: How to incorporate co-design knowledge into a controlled randomized trial

Methods: Following the presentations there will be plenum discussions facilitated by the organizers. The discussions with the audience will develop and inform the future design of the intervention.

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Social differences in multimorbidity with frailty in a general population

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Background: Multimorbidity is common, however disease and treatment burden vary. Co-occurrent frailty may identify individuals needing coordinated, person-centred care. We investigated the social epidemiology of combined multimorbidity and frailty in a general population.

Methods: Data from The HUNT3 Survey on 37838 participants, aged 25-100 years. Definitions: Multimorbidity: Two or more chronic conditions. Frailty: One or more impairments (general, mental, physical or social). Social status: Occupation allocated in Goldthorpe class scheme. Statistics: Logistic regression models stratified by sex, followed by postestimation, yielded prevalence ratios (PR) and differences (PD) with 95% confidence intervals (CI) in multimorbidity and frailty between occupational classes. Fully adjusted model: Occupational class, continuous age, age squared and occupational class and age interaction.

Results: Overall, 39% (14879/37824) were multimorbid and frail, 41% women and 37% men. Proportions increased with age in both sex, however, the majority 65 % (9669/14879), were working age (25-64 years). The largest prevalence differences, compared to "Higher grade professionals", were found in female "Unskilled manual workers", age 30, 0.27 (0.17-0.36), female "Skilled manual workers", age 50, 0.26 (0.21-0.31) and male, "Unskilled manual workers", age 70, 0.23 (0.13-0.33). In men age 30, significant PD was limited to "Routine non-manual workers", 0.11 (0.04-0.17).

Conclusions: Combined multimorbidity and frailty is common, majority being working age. Occupational class discrepancies vary with sex and age group. Universal and targeted, life cycle approach to tackle social health determinants is required. Multimorbid approach to care, including social context, should be prioritized in health care organization, treatment and education.

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Physical discomforts in early pregnancy and depressive symptoms postpartum

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Purpose: At the pregnancy examinations in general practice the main focus is on identifying high-risk pregnancies and pregnancy complications. The pregnancy health record has a biomedical focus and consequently less attention may be given to the woman's mental well-being.

The aim of the study was to evaluate to what extent early pregnancy-related symptoms, can be considered, as signs that indicate an increased risk of depression symptoms postpartum. Symptoms.

Materials and methods: For a prospective cohort of 1,508 pregnant women, the presence of eleven pregnancy-related symptoms was recorded at the first prenatal care consultation together with background information about socio-demography and health. Depression was assessed eight weeks postpartum with the Major Depression Inventory (MDI) and depression was considered present if MDI >20. Multivariable logistic regression was used to assess the association between pregnancy-related symptoms and depression symptoms postpartum, and to adjust for potential confounders.

Results: A high depression score (MDI score >20) eight weeks postpartum was found among 6.6% of the women and showed apparent associations to early pregnancy symptoms such as back pain and pelvic cavity pain. Analysis of confounding revealed, however, that signs of vulnerable mental health, present in early pregnancy, explained most of these associations.

Conclusions: Signs that indicate an increased risk of postpartum depression symptoms may be seen in early pregnancy. Pregnancy-related pain in the first trimester may be a sign of psychological vulnerability or an aspect of an existing depressive state that calls for attention.

Practice variation: The when and how of the gynaecological examination

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Introduction: Little is known about the indications general practitioners (GPs) perceive as relevant for performing gynaecological examinations (GEs), how GPs master the GE and associated procedures, and how they handle the sensitive nature of GEs.

Methods: In 2015, medical students at the University of Bergen distributed a questionnaire to 175 GPs in the practices they visited. The questions covered routines related to GEs, insertion of intrauterine devices, frequency of GEs in different clinical settings and use of assisting personnel. Statistical analyses included chi-square tests and multiple logistic regressions adjusting for age, gender, specialization and localization.

Results: Ninety male and 61 female GPs (87% of invited) responded to the questionnaire. Compared with female colleagues, male GPs performed bimanual palpation significantly less often in connection with routine Pap smear (AOR 0.3 (95% CI 0.1-0.6)). Twenty-eight percent of the GPs stated that they often or always omitted the GE if the patient was anxious about GE and 35% when the patient asked for referral to a gynaecologist. Omission was more frequent among male GPs. When the GP decided to refer to a gynaecologist based on the patient's symptoms, more male than female GPs omitted GE (AOR 2.5 (95% CI 1.1-5.4)).

Conclusion: Male gender of the GP may be associated with barriers to medical evaluation of pelvic symptoms in women, potentially leading to substandard care. However, male GPs' refraining from bimanual palpation when asymptomatic women consult for a Pap smear may also limit the use of an examination of questionable utility.

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Lower-Extremity Tendinopathies in General Practice: A cross-sectional study

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Background: Tendinopathies of the lower extremity (e.g. Achilles, patellar and plantar heel pain) are common in both general and sporting populations. However, the extent and associated workload in a Danish general practice has not been investigated. The aim was to determine the prevalence and incidence of lower-extremity tendinopathies in a Danish general practice.

Methods: In this observational cross-sectional study, we extracted data from the electronic patient files of a Danish general practice with 8836 patients to identify patients with either of the following lower-extremity tendinopathies: plantar heel pain; Achilles tendinopathy; patellar tendinopathy; greater trochanteric pain syndrome or adductor tendinopathy. We defined an incident and prevalent case as a patient with a consultation because of tendinopathy in 2016 only. A prevalent but not incident case was a patient with consultations in both 2015 and 2016. Incidence and prevalence were expressed as the number of patients with a tendinopathy per 1000 registered patients.

Results: The prevalence and incidence rates were 16.6 and 7.9 per 1000 registered patients, respectively. Plantar heel pain was the most prevalent tendinopathy and accounted for 39% of all lower-extremity tendinopathies. Patients with tendinopathy were significantly older than all registered patients (46.0 years (95%CI: 43.3;48.7) versus 38.8 years (95%CI: 38.4;39.3), respectively).

Conclusions: Lower-extremity tendinopathies, especially plantar heel pain, were found to have high prevalence and incidence rate in a Danish general practice. In a typical general practice with 5000 registered patients, the general practitioners should expect to see more than 80 patients with a lower-extremity tendinopathy every year.

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Consultations and antibiotic treatment for UTIs in primary care

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Background: Extensive use of antibiotics and the resulting emergence of antibiotic-resistant microbes is a major health concern globally. In Norway, 85% of antibiotics is prescribed in primary care and 1 in 4 prescriptions is issued for the treatment of urinary tract infections (UTI).

Objectives: To investigate antibiotic treatment following consultations for UTI in primary care in Norway, and to

explore characteristics associated with variations in prescribing.

Material/Methods: Information on all patient consultations for cystitis, pyelonephritis and UTI symptoms in general practice and out-of-hours (OOH) services and all prescriptions of antibiotics for UTI dispensed in 2006-15 was obtained from the Register for control and payment of health reimbursements, and the Norwegian Prescription Database, respectively. Associations were investigated by bivariate statistics.

Results: Altogether 2 078 211 consultations for UTI took place in the study period; 77.1% in general practice and 22.0% in OOH services. The annual number of UTI consultations increased by 42% during the 10-year period. Of all UTI consultations, 87.7% were due to cystitis, 5.1% to pyelonephritis, and 7.2% to UTI symptoms. Patients' mean age was 49.2 (SD 24.9) years, 81.9% were female. Results from further analyses will be presented at the conference.

Conclusion: In the 10-year study period there was a marked increase in consultations for UTI. Most UTIs in primary care are managed during regular working hours. Updated knowledge about the extent and predicting factors of antibiotic treatment for UTI will inform targets for quality improvement and guidelines.

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Self-dosed or pre-determined exercise programmes in plantar fasciopathy

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Introduction: Plantar fasciopathy (PF) is increasingly being treated with heavy-slow resistance training (HSR). A barrier to optimal outcome is poor compliance. A plausible strategy to overcome this is to encourage patients to perform as much as possible guided by symptoms. We compared the efficacy of a self-dosed versus a pre-determined HSR programme in improving the Foot Health Status Questionnaire (FHSQ) pain score in individuals with PF.

Materials and methods: We recruited 70 participants with PF for this prospectively-registered (NCT03304353), participant-blinded, superiority trial. Participants were randomised to a self-dosed or pre-determined 12-week HSR programme of heel raises. The self-dosed group performed as many sets as possible at 8RM guided by perception of symptoms, whereas the pre-determined group followed a standardised protocol. Primary outcome was FHSQ pain. Secondary outcomes included a 7-point Global Rating of Change (GROC) dichotomised to "improved" or "not improved", Patient Acceptable Symptom State (PASS), and training sessions performed.

Results: There was no between-group difference in FHSQ pain after 12 weeks (adjusted mean difference: -6.9 points, 95%CI: -15.5, 1.7, P=0.115) and both groups had similar clinically important improvements. According to GROC, 24/33 (72.7%) in the self-dosed group and 20/32 (62.5%) in the pre-determined group achieved improvement. 3/35 (8.6%) in the self-dosed group and 1/35 (2.9%) in the pre-determined group achieved PASS. Both groups performed an equal number of training sessions (P=0.412).

Conclusion: There is no difference between self-dosed and pre-determined HSR programmes on pain. Both are associated with similar response over 12 weeks, which was not sufficient to achieve acceptable symptom state.

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Exercises in addition to a corticosteroid injection in plantar fasciopathy

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Introduction: Plantar fasciopathy, characterised by plantar heel pain, affects one in ten in a lifetime. Heavy-slow resistance training (HSR) is an emerging treatment but it often takes considerable time before the effect starts to manifest. Combining HSR with a corticosteroid injection (known for its short-term pain relief), could potentially improve outcomes in both short and long term. As this combination is yet to be investigated, we aimed to evaluate the feasibility of combining HSR with a corticosteroid injection for individuals with plantar fasciopathy.

Materials and methods: We recruited 20 participants with plantar fasciopathy for this prospectively-registered feasibility study (clinicaltrials.gov:NCT03535896). Participants received an ultrasound-guided injection and performed heel raises on a step every second day for 8 weeks. To assess feasibility, we used a 7-point Likert scale dichotomised to "unacceptable" (categories 1-2) or "acceptable" (categories 3-7) and compliance based on training diaries. $\geq 10/20$ had to rate the combination "acceptable", $\geq 15/20$ had to perform ≥ 20 training sessions, and $\geq 15/20$ had to start exercising ≤ 7 days after injection. Additional outcomes included a 7-point Global Rating of Change (GROC) dichotomised to "improved" or "not improved".

Results: 18/20 rated the combination acceptable. 5 training diaries could not be retrieved. 10/15 participants

performed ≥ 20 training sessions and 20/20 started exercising ≤ 7 days after injection. According to GROC, 6/20 participants were improved after 8 weeks.

Conclusion: Based on participant acceptability and time to exercise start, combining HSR with corticosteroid injection is feasible. Due to loss of 5/20 training diaries, firm conclusions regarding exercise compliance could not be drawn.

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Functional dyspepsia is associated with new-onset anxiety in 10-years

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Functional dyspepsia (FD) is common in the population. It is associated with duodenal eosinophilia and it is known that anxiety at baseline is associated with new-onset functional dyspepsia in long term. Innate immunity response is linked with gut-brain/brain-gut regulation and psychological distress. Our aim was to investigate whether FD (Rome III) is associated with new-onset anxiety and if this can be predicted by duodenal inflammation in a population based 10-year follow-up study.

Methods: Participants (n=1000) were randomly selected from the national Swedish population register and surveyed in 1998 by a validated abdominal symptom questionnaire (ASQ) and hospital anxiety and depression scale (HADS) and completed an esophagogastroduodenoscopy in 1998-2001. All eligible (n=887, response rate 79%) were invited to a follow-up in 2010. In a case-control study of 213 subjects (FD vs. healthy controls), histology from the duodenum was evaluated at baseline and the possible association of FD and duodenal eosinophilia to incident anxiety was analysed.

Data were analyzed by Fisher's exact test and logistic regression.

Results: Incident anxiety was associated with baseline functional dyspepsia (10/83 vs. 2/116, p=0.004), especially postprandial distress syndrome (10/65 vs. 2/134, p<0.001). Incident anxiety was also associated with duodenal eosinophilia at baseline (9/75 vs. 3/124, p=0.011, OR=5.2, 95% CI 1.31-20.4, adjusting for age, gender and FD).

Conclusions: Incident anxiety is significantly associated with baseline FD and duodenal eosinophilia is associated with a 5-fold increased risk of anxiety in a 10-year follow-up supporting the concept that mucosal immune system can regulate the bidirectional gut-brain communication.

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Video-consultations brings patient, GP and oncologist together

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Background: In a randomised controlled design, THE PARTNERSHIP STUDY tests the effect of a video-consultation bringing the cancer patient, general practitioner and oncologist together. This new way of communication may improve intersectoral cooperation and continuity of care and be an important way of improving future health care. However, a number of practical concerns may hinder implementation in routine care, and a detailed evaluation of user perspectives is important.

This survey aims to describe USER PERSPECTIVES on video quality, logistic challenges, content and perceived usefulness of the consultations.

Methods: The RCT is ongoing at the Department of Oncology, Vejle Hospital, Denmark.

Shortly after the video-consultation cancer patients, general practitioners and oncologist answers a questionnaire about the consultation. The patients evaluates the usefulness of the intervention and their understanding of the different health professionals' roles. General practitioners evaluates the content of the consultation and their future role. Oncologists evaluates the technical issues including the length, the potential ease for department and information from the general practitioner that could influence their treatment.

Results: At time of the conference data from about 65 consultations will be ready for presentation. As intended in the protocol, these consultations represents a wide variation regarding patient gender, age, cancer type and prognosis; practice type, gender and age of the general practitioners, and gender and professional experience of the oncologists.

Conclusions: This study may add knowledge important for understanding the potential and practicability of video-based consultations bringing the patient, the general practitioner and a specialist together.

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What are predictors of a career in Family Medicine in Rural Communities

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Australia is a large diverse country, with communities largely clustered in Coastal Areas. Health demographics decline as with travel inland, leading to some of the poorest measures of health access and equity in Indigenous and rural communities in remote locations. Identifying and encouraging students to enter a career in rural and remote medicine has been an enduring challenge.

The workshop speaker will discuss the initiatives undertaken by Australian Governments, Universities and the Australian College of Rural and Remote Medicine to build a resilient sustainable workforce for rural communities. Recent work by the Australian Rural Health Commissioner Professor Paul Worley has delivered a blueprint for a new type of Doctor; the Rural Generalist.

The workshop component will then explore current and future initiatives being undertaken to build capacity for rural communities, including improving access and equity of care. The aim of the workshop is to introduce the concept of the Rural Generalist to Nordic clinicians and to inform future directions for the WONCA Rural Working Party and the Australian College of Rural and Remote Medicine.

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Between-ward variance of patient safety climate scores in nursing homes

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Background: Safety climates are perceptions of safety culture shared by staff in organizational units. Across-ward variations in the measurements of safety climate factor scores may indicate ward-specific risk of adverse events related to patient care routines, work environment, staff behaviour, and patient results. The aim of this study was to investigate whether the Norwegian translation of the Safety Attitudes Questionnaire - Ambulatory Version is useful to identify significant variation in the patient safety climate factor scores: Teamwork climate, Safety climate, Job satisfaction, Working conditions, Stress recognition, and Perceptions of management, across wards in nursing homes.

Methods: In 2016, 463 employees from 33 wards in five nursing homes in Tønsberg, Norway, were invited to participate. Cronbach alphas were computed based on individual respondents' scores on the six patient safety climate factor scores. Intraclass correlation coefficients were calculated by multilevel analysis to measure patient safety climate variance at ward level.

Results: 288 employees (62.2 %) returned the questionnaire. At ward level, Intraclass correlation coefficients for the factors were 10.2 % or higher for the factors Safety climate, Working conditions and Perceptions of management, 2.4 % or lower for Teamwork climate, Job satisfaction, and zero for Stress recognition.

Conclusions: Staff perceptions of Safety climate, Working conditions and Perceptions of management varied significantly across wards. These factor scores may, therefore, be used to identify wards in nursing homes with high and low risk of adverse events, and guide improvement resources to where they are most needed.

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Patient safety culture in European Out-of-hours services (SAFE-EUR-OOH)

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Background: 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 62 item instrument to measure safety attitudes of health care providers. The SAQ includes six major safety culture 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. The aim of this study was to investigate patient safety attitudes among Out-of-hours (OOH) primary care workers in the Netherlands, Slovenia, Italy, Croatia and Norway.

Methods: The SAQ was translated and adapted to the national OOH settings in the five participating countries, and distributed electronically. For each of the countries, the mean scores (SD) of the 62 items of the SAQ were calculated and compared. Statistical analysis included one-way ANOVA.

Results: A total of 1933 OOH health care workers participated in the study; the Netherlands: 853 (response rate 43%), Slovenia: 250 (57%), Italy: 491 (71%), Croatia: 185 (52%), and Norway: 154 (46%). We observed significant variations in mean item scores across the countries, these will be presented at the conference.

Conclusions: It was not possible to confirm an identical patient safety factor model in the five participating countries. International comparisons should therefore be on item-level. The large variations found in our study may both reflect differences in the organisation of the OOH services across the countries, and actual variations in safety attitudes among the health care workers.

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Tensions in 'patient-centeredness' in collaboration across sectors

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Background: The organization of the Danish Health Services often causes challenges in collaboration across sectors and continuity in care. Therefore 'Patient-centeredness' has become a targeted and central principle of health care policy discourse. According to the political discourse, patients and relatives are 'empowered' as dialogue collaborates, together with health professionals, collaboratively co-creating knowledge and reaching decisions about their care. However, research from similar fields indicates this involvement to be romanticized and focus on tensions and power hierarchy relations is inadequate.

This study explores "patient-centeredness" and co-creation of knowledge among patients with signs of cancer, GPs and doctors at the hospitals. Data is part of a larger study.

Methods: Our study is based on qualitative data observations and 48 narrative interviews with GPs, patients with diagnosed or suspect cancer and their relatives in Region Zealand. Data has been analyzed with the Integrated Framework for Analyzing Dialogical Knowledge Production and Communication (IFADIA)

Results: Preliminary data analyses demonstrates how GPs in their daily clinical practice handle "patient-centeredness", and how GPs are deeply dedicated and spend time creating continuity in care for patients with cancer. The analyses also reveal specific areas of tension. Lack of information and specific knowledge of the hospital sector often creates tensions in the collaboration with the patients.

Conclusions: Our study reveals how tension in continuity in care for patient with cancer can be understood in the light of different knowledge forms and changing structural conditions in the hospitals and in general practice.

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Risk of all-cause mortality in patients with diabetic peripheral neuropathy

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Background: Diabetic peripheral neuropathy (DPN) has been shown to increase mortality in individuals with type 1 diabetes. The evidence for an association between DPN and higher mortality in type 2 diabetes is however less clear. This study aimed to quantify mortality rate in individuals with prevalent DPN at the time for a screening-detected diagnosis of type 2 diabetes.

Methods: This study was based on data from the ADDITION-DK study (inclusion between 2001-2006) and the Danish cause of Death Registry. Individuals were followed until death or the censoring date (31.12.2016). DPN was assessed by the Michigan Neuropathy Screening Instrument questionnaire (MNSI) with a score ≥ 4 indicating DPN. Adjusted mortality rate ratios were estimated using Cox regression models.

Results: In total, 1445 individuals had MNSI data at inclusion and of these 187 (13%) had an abnormal score indicative of DPN. The median age at diabetes diagnosis was 61 years (IQR: 56-66), median follow-up was 13 years (IQR: 11;14) and 831 (58%) were men. In total, 304 individuals died during follow-up. Of the deceased participants 261(86%) had no DPN and 43(14%) had DPN defined by MNSI. The mortality rate was not significantly higher for participants with DPN, mortality rate ratio of 1.17 (95%CI:0.83;1.64), compared with participants without DPN in a model adjusted for sex, age, systolic blood pressure, LDL cholesterol level, history of CVD and trial randomization-group.

Conclusion: This study shows that DPN, defined by MNSI questionnaire, present at diagnosis of type 2 diabetes is not associated with a higher mortality.

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Danish supervisiongroups Join a Balint Group!

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Often GP's feel alone in their work left with patients who are difficult to help, unwilling to receive our help or who can be overwhelming to deal with for several reasons. Michael Balint discovered this in the fifties and developed a method to help doctors in this situation. Since then doctors have joined balintgroups all over the world, often with the same participants over long time to provide trust and deep relations.

In this workshop you will experience being a member of a Balintgroup for 1 session. You will feel the support and recognition from colleagues working in general practice through sharing cases. One doctor in the group share a case from her or his professional life. A case is a presentation of a doctor-patient relationship, that has caused the doctor problems, difficult feelings like frustration, chaos, guilt, shame or loss of power. It is told from the doctors point of view. The group will reflect their thoughts through "free associations". That means feelings, thoughts, reflections, - also the thoughts that are not straight forward or legitimate. The group leaders will help the group to contain the difficult feelings and stay curious on the doctor-patient relationship in a frame that is caring and trustful. The aim is to help the doctor to understand what is going on between her and the patient. Unconscious thoughts, transference and countertransference might be uncovered. Hopefully the doctor can meet the patient in a new way next time.

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Mental health and general practice contacts in patients with COPD

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Background: Patients suffering from chronic obstructive pulmonary disease (COPD) often have comorbidities which influence the health-related quality of life (HRQoL) and contact frequency to primary care.

Objectives: To describe the HRQoL mental health in COPD patients stratified by the number of comorbidities and to examine the impact of mental health and multimorbidity on the contact pattern to primary care.

Methods: A populations-based cohort study including participants from the Danish National Health Survey, including data on SF-12 mental health score, combined with individual level national register data on COPD. Multimorbidity and contact frequency to primary care including out-of-hours contacts were assessed using Danish national health registers.

Results: COPD and multimorbidity had a negative influence on mental health. Additionally, an increased contact frequency amongst those with increasing number of comorbidities was observed. COPD patients in the lowest mental health quartile had more frequent contacts to primary care, especially out-of-hours contacts.

Conclusion: In patients suffering from COPD, mental health affects both the daytime and out-of-hours contact frequency to primary care, especially in those with several comorbidities.

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The ultimate medical- doctor examination

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Background: Medical examinations have many different forms. The worst-case scenario for many students would be a "random" patient in a GP consultation.

Activities: At Aalborg University, the students have their final medical exam in a general practice. Here the students meet an- to them- unknown and random patient in a setting that mimic an ordinary consultation. Meanwhile the examiner and censor witness and assess the consultation.

Skills to be assed:

Communication with the patient

- The biomedical aspect of the problem
- The impressions of the patient's mental condition
- The exploration of the overall social situation
- Knowledge of the healthcare system in the society

Summary of the above and the patient's agreement to the plan

Experiences: The session will describe the experiences and results of evaluations from the last 3 years in regards to strengths and weaknesses of this form of examination.

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GP evaluation of parent-child relationships in the child health assessments

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Background: The parent-child relationship has been found to be an important factor for the child's psycho-social

well-being and future health. Preventive child health assessments provide general practitioners in Denmark with an opportunity to investigate the parent-child relationship. There is currently no structured guide for this officially recommended assessment. Little is known about how GPs use scheduled assessments to evaluate this relationship.

Objectives: To investigate how GPs use the child health assessment to evaluate the parent-child relationship.

Methods: An exploratory qualitative study using both semi-structured interviews with sixteen Danish GPs and sixteen video recordings of child health assessments. Interviews were transcribed verbatim and thematically coded. Video recordings were also thematically coded and themes identified across the material.

Results: The five themes were: 1) Exploring social-emotional factors in the family 2) Observing the parent-child dyad 3) Addressing the relations in the child health assessment 4) GPs experience and knowledge 5) Cues on parental sensitivity.

Discussion: This study contributes to the understanding of GP assessment of parent-child relationship as being constructed from multiple information sources and observational opportunities occurring in child health assessments. Further research should investigate how training could enhance the potential for GPs to identify psycho-social challenges in families with small children.

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Chloramphenicol eye drops in the treatment of maxillary sinusitis

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Background: Clinical experience in general practice indicate that chloramphenicol eye drops have a favorable effect on patients with acute maxillary sinusitis.

Material and method: Patient with symptoms of acute sinusitis were randomised in two groups, one received systemic antibiotics and the other chloramphenicol eye drops.

Results: 33 patients were included - 27 women and 6 men. 15 were randomised to the systemic antibiotic group and 18 to the chloramphenicol group. In the first group patients experienced clear improvement after 5.0 days, while in the chloramphenicol group this happened after 3.7 days ($p = 0.047$). In the chloramphenicol group 14 patients improved after 3 days, while this was only true for 5 patients taking systemic antibiotics.

Interpretation: Chloramphenicol eye drops appears to be a treatment for patients with acute maxillary sinusitis. In this pilot study, chloramphenicol eye drops gave faster relief and no systemic adverse effects. It is expected that locally applied antibiotic eye drops develop less antibiotic resistance than oral antibiotics with a systemic effect.

Conclusion: Acute sinusitis is the condition for which most systemic antibiotic is prescribed in primary care. The effect of this is very doubtful, but the possibility of developing antibiotic resistance is great. Every effort should therefore be made to reduce this World threatening risk of antibiotic resistance. The Norwegian Antibiotic Center for Primary Care, has received a 15 million Norwegian Kroner grant, to finance a larger study based on the results of Iris Relling Nielsens pilot study.

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Psychological diagnoses and frequency of consultations in general practice

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Objective: The aim of this study was to investigate the prevalence and distribution of psychological diagnoses made by general practitioners (GPs) and the related frequency of consultations during 12 consecutive months.

Design: A cross sectional analysis of data extracted from 31 GPs and 16 796 electronic patient records.

Setting: Six primary health care facilities in Oslo, Norway.

Subjects: All patients aged 16-65 with a registered contact with their GP during 12 months in 2015-2016.

Main outcome measures: Frequency of psychological diagnoses made by GPs, frequency of these, and number of patients' consultations.

Results: GPs made a psychological diagnosis in 15.3 % of the patients. The main diagnostic categories were anxiety and depression, accounting for 53 % of all such diagnoses given. Mean number of visits for all patients was

4.19 [95% CI: 4.13, 4.25]. Patients with a psychological diagnosis had a significant increase in consultations with a mean value of 6.19 [95% CI: 6.00, 6.38] compared to patients without such a diagnoses; 3.83 [95% CI: 3.77, 3.89].

Conclusion: Psychological diagnoses are frequent in general practice, but are captured using rather few diagnostic categories. Patients with psychological diagnoses had a significant increase in mean number of GP consultations regardless of age and gender.

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Development of a collaboration model between nursing home staff and GP

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Background: In the municipal of Fredeiksberg, Denmark, the local doctors and the municipal department of health, wanted to improve collaboration between nursing home staff and GP (general practice).

Methods: A qualitative semi-structured group interview, with 17 municipal nursing home staff and 14 doctors from GP, concluded that specific guidelines were needed, to facilitate collaboration.

Based on these interviews, it was decided to develop a model for collaboration based on *relational coordination*: A group of 15 (Staff and leaders of nursing homes, GPs, the municipal healthmanager, and the chair of the local doctors) developed the draft model, led by a counselor, during a period of 9 months in 2015.

Results: The final model for collaboration included guidelines for communication and expected actions from doctors and nursing staff in specific situations: 1) New citizens moving into a nursing home facility, 2) GP conducted annually health checkups to frail elderly, 3) emergency incident management as well as 4) end of life discussions and treatment.

The model was presented for all the stakeholders, at meeting and in print. Then following 9 months of trial (2015 - 2016). Feedback was collected from a following group of staff members and doctors, finally the model was corrected and redone, to be fit for use.

Evaluation: Semi-structured group interviews, was used to evaluate the model; they reported improved collaboration between nursing home staff, and General Practice. Whether the improvement was due to the model itself, or working with relational coordination, could not be concluded based on the interviews.

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The Package in the final shared part of the patient centered consultation

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Objectives/Background: Within the framework of teaching patient centeredness a model for closing the consultation has been developed during the last five years among medical students, and in courses for residents and GPs.

The consultation is divided into three parts: the Patient's, the Doctor's and the final Shared part – the latter is referred to as the **Package model**. This model serves as a self-regulating guide to avoid common difficulties when closing the consultation. The model consists of four components: YOU, I, WE and WHAT. It also illustrates the "Why", "What" and "How" related to central functions of patient-centeredness.

The session can advantageously be used as natural continuum of the first part of the consultation in the workshop "the Five Cards".

Session content: We want to demonstrate how to use the four components of the Package model in the Shared part of the consultation. After a short presentation of the Package you can test it in a consultation under guidance of experienced teachers. Role plays will be audio-recorded and revised. Afterwards we will discuss the method and results.

The steps in the Package are:

YOU – the doctor summarises the patient's narrative focusing on the questions behind Ideas, Concerns and, Expectations.

I – the doctor addresses the questions of the patient and explains findings

WE – do we understand each other and can we agree on a planning (negotiation)?

WHAT – what does the patient take home from the consultation (safety-net)?

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Improving GP specialist training in the Nordic countries

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Training to become a GP specialist is organized differently in the 5 Nordic countries, but overall the 5 schemes are recognized as ways to create excellent GPs – seen from the outside – and especially seen from inside the Nordic region. A new Nordic Committee on Specialist Training in GP has been created. This committee will lead the workshop, where we very shortly will present the 5 schemes:

- a short overview
- 1-2 special features from each country that others might learn from
- 1-2 items each country wishes to change

The participants (both trainees and trainers) will critically comment on this – and put in their suggestions. They will work on "an open palette" to suggest changes in training schemes. Can GP training be improved in all 5 countries? – and could Nordic GP training schemes even be an inspiration for the rest of Europe?

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The art of saying no - GP's strategies to reject unreasonable requests

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Background: Demands from patients for specific tests, treatments or medical certifications that the doctor perceives as unreasonable, are frequent causes of conflicting consultations in primary care. Such conflicts can result in severe emotional reactions afterwards by the GPs. Some experience that long-term doctor-patient relationships are damaged or brought to an end. It has been shown that frequent negative emotions towards patients affect physicians' health and job satisfaction and that GPs who experienced many of their patients as "difficult" had worse well-being and a higher chance of burnout than doctors with fewer such patients. However, unreasonable requests often end with compromises with the patients, possibly because the doctors lack the right strategies to solve this properly. Increased knowledge about rejecting strategies that lower the chance of conflicts between GPs and their patients, can be a contribution of improving the quality of care directly, but also by reducing symptoms of stress of the GP.

Methods: We intend to perform focus group interviews with experienced Norwegian GPs in March-April 2019, where we will ask the GPs to share examples of how they turn down unreasonable demands from their patients. We will further ask them to discuss what are the prerequisites for succeeding in turning down such demands. We will audio record the focus group interviews and subsequently analyse verbatim transcripts by using a systematic text condensation.

Results: Results of the study will be presented at the Nordic Congress of General Practice in Aalborg in June 2019.

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Grief as a new diagnosis What does it do to us - what does it do for us?

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On the sky of diagnoses a new star is born: Prolonged Grief Disorder.

Grief has in the WHO's 11th classification of diagnoses, ICD11, been transformed from an existential phenomenon into a disorder if the person has a persistent and pervasive longing for the deceased or preoccupation with the deceased, if it diverts from cultural, social or religious norms and causes significant impairment in general functioning, and if it continues for more than 6 months.

It is yet unknown how the diagnosis will be implemented in each country and even the precise nomenclature is under construction.

In this symposium, we will discuss the cultural and social culture that lead us to this new diagnosis – how did we get to a point where grief became a disorder?

We will discuss the content and criteria of the diagnosis, some of the current academic work and research concerning grief; and we will discuss what impact the diagnosis may have in the consultation room between doctor and patient, but also what occurs when the diagnosis leaves the room and moves into other spheres of our personal life and society; what are the consequences getting a diagnosis and who are interested parties.

Scientists and clinicians from different fields will discuss possibilities, limits and even dangers of the new diagnosis from their respective perspectives.

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Continuity of care is associated with higher patient satisfaction

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Background: Patient satisfaction is a major element in assessing quality of care. Continuity of care has a positive correlation with patient satisfaction. We investigated factors associated with patient satisfaction among chronically ill.

Methods: The data is part of Health and Social Support –study based on a random Finnish population sample. A follow-up questionnaire in 2012 was answered by 13 050 participants. We divided participants into two groups based on question concerning their morbidity. The question was "Has a doctor ever told you that you have or have had following diseases or conditions". The somatic group (n=2415) had one somatic, but no mental illnesses. The mental group (n=787) had one mental disease but no other chronic conditions. We explored factors associated with patient satisfaction using crosstabulation and binary logistic analysis.

Results: In adjusted multivariate analysis having a named GP in primary care was strongest associated with higher patient satisfaction in both groups. Somatic OR was 1.93 (CI 1.60-2.31) and mental 1.98 (CI 1.46-2.69). Age 65 or higher (somatic OR 1.23, CI 1.02-1.49) as well as patients' proactivity contacting the named physician were also associated with higher patient satisfaction (somatic OR 1.24, CI 1.02-1.51, mental OR 1.43 CI 1.05-1.95).

Conclusions: A named GP in primary care proved to have a positive correlation with patient satisfaction in both morbidity groups. Named GP indicates continuity of care and should be considered when planning treatment for patients with chronic conditions. Especially for patients with mental illnesses continuity of care enables patient satisfaction.

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Inter-professional Education on Complex Patients in Nursing Homes

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Background: Inter-professional cooperation is essential in order to achieve patient centered care. However, in the different health care professionals' curricula there is a lack of scheduled training in interdisciplinary work. At the University of Oslo, Norway, students from six educations (medicine, pharmacy, odontology, psychology, clinical nutrition, and advanced nurse practitioners in geriatric nursing) collaborates in groups to examine and develop a care plan for a complex nursing home patient.

Aims: To investigate how graduate students experienced inter-professional education on complex patients in a workplace setting in nursing homes.

Method: In spring 2018, 21 graduate students (5 males) who had participated in the collaborative practice were interviewed about their experiences in four focus groups. Data from the focus group interviews were analyzed according to Malterud's systematic text condensation.

Preliminary results: The students reported that the learning outcome by observing and interacting with the other health care professional students was substantial, and that this collaboration was valuable to understand the residents' needs. The students also reported that they became more confident about their own role and gained a better understanding of the importance of a multi professional approach.

Conclusions: The inter-professional education worked as an eye-opener for future collaboration and provided important experiences for all participating professions. As the health care system becomes more specialized, inter-professional education has to be offered to all health care professional students.

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The GP-bus - a new method of recruitment to rural areas?

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Background: Despite the small size of Denmark, we experience large difficulties in recruiting general practitioners to the outreach areas.

Some explanations to this problem are the recent years' centralization of the educational institutions, the health service and the infrastructure which has contributed to the fact that it is no longer attractive to settle in outreach areas.

Furthermore, over the past years, we have trained too few doctors and in particular, too few general practitioners.

The regions have tried to attract young doctors to these areas, but once the attempts fail, due to their obligation to make a doctor available for their citizens, they have established regional-driven clinics with different locum doctors working in temporary positions.

Method: As a counter movement to these regional clinics with locum doctors and as one of several possible solutions for recruitment, the idea is to ensure healthcare by transporting the GP's to the rural areas. The GP-bus is equipped like a GP's office, enabling the GP's on board to do phone calls, answer emails, do

paperwork and telemedicine, whilst being transported. Upon arrival the GPs work as usual in their surgery. The project is directly financed and supported by the region of Zealand in Denmark.

Results and conclusion: The project has made 3 GP's work in a small town. It has been presented on national TV and in a variety of newspapers. Both patients, politicians and doctors are positive towards the idea and our hope is to inspire other rural settings to do something similar.

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The diagnostic 'bubble' - diagnosis revisited from economic perspectives

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Multiple structures and dynamics are known to facilitate overdiagnosis and increasing diagnostic use in society. However, studies so far lack to combine them into a more coherent explanation. Following study offers a more comprehensive explanation. The analysis is based on abductive methodology, in which evidence about osteoporosis is contextualised into the interdisciplinary bubble theories.

This economic theory explains how economical assets are being traded at prices significantly departing from their fundamental value, because of strong narratives among actors about the value of the asset. This constitutes a potential risk of creating a bubble. Latest well-known bubble was the housing bubble in 2007-08.

The inflated value of a specific entity (here the diagnosis), due to various facilitating elements, is what these non-financial scenarios have in common with the financial bubbles.

The concept of speculation - profiting from trade of the asset instead of its use - correlates with the three main reasons for overdiagnosis (disease mongering, lowering thresholds and overdetection) that are all evident in the case of osteoporosis.

Similarly to the financial market, the medical market for osteoporosis seems to be configured in ways to boost the use of the diagnosis.

Actors in financial markets are susceptible to social influence and so it seems, in general, in the medical field.

By the definition of a bubble, it can be argued that the development of the diagnosis of osteoporosis can be seen as one, due to strong narratives about its value and the use of speculation. The consequence is overdiagnosis.

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Patient activation and self-rated health related to chronic diseases

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Background: In the aging population, chronic diseases and multi-morbidity are common. Therefore it is important to engage patients in their self-care.

Objectives: The aim of this study was to analyze the relationship between activation trait and self-rated health (SRH) among patients treated due to chronic disease in the primary health care.

Material/Methods: The data of the present study were based on the Osallistavan Hoitosuunnitelman Vaikuttavuus Tutkimus (OSUVAT). A total of 597 of the patients who were followed up due to the treatment of hypertension, ischemic heart disease or diabetes in the Siilinjärvi Health Center were recruited.

We measured the level of patient's activity in self-care with the Patient Activation Measurement (PAM). SRH was measured with the 5-item Likert scale. In addition, the disease specific measures were measured.

Results: Of the patients, 76 represented low activity, 185 had moderate and 336 patients high activity measured with PAM. Patients with the highest activity were younger, less depressed, had lower body mass index and higher level of physical activity than those with the lower activity. Respectively, SRH was defined good by 29%, 45% and 67% of the patients in these three PAM groups. In the multivariate regression analysis, depressive symptoms, age, physical activity and good SRH were associated with the PAM. There was a significant linear trend between SRH and PAM, $p < 0.001$, respectively Spearman's correlation being 0.34, $p < 0.001$.

Conclusions: Patient activation measurement has a significant linear relationship with self-rated health among primary care patients having diabetes, ischaemic heart disease or hypertension.

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'Sundhedsdansk' - A language teaching material about health and disease

Lone Margit Hald

Background: Health research indicates inequality in health between ethnic minorities and ethnic Danish citizens. This is partly due, to the linguistic and cultural barriers occurring in the meeting between the carer and the ethnic minority citizens.

With the development of this language teaching material with focus on body, health and disease, Region Zealand wants to reduce these linguistic and cultural barriers so that newly arrived foreigners will be better at coping with the Danish health system if they become ill. The intention is to create more equality in health.

Activities: Region Zealand has developed a material that consists of eight booklets with language training assignments. In addition, it also consists of an e-learning material. Available on sundhedsdansk.dk. The material is aimed at the language schools' teachers and students. It has been developed in such a way that it is completely in line with the existing curriculum of the language schools. This means that the students acquire the linguistic competences required, while learning about how to navigate the Danish healthcare system.

Experiences/evaluation: The material has been tested by twelve teachers in four different language schools. The teachers' educational and didactic considerations from the test have helped to perfect form and content. Further testing will reveal if the material qualifies the target group as intended.

Perspectives: Region Zealand will work to ensure that all the language schools of the country will use the material. There are also perspectives in trying to spread knowledge about the material through general practice and residential areas.

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Advanced Access in General Practice and the use of healthcare services

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Background: Advanced Access Scheduling (AAS) is based on the principle that all patients calling to schedule a physician visit are offered an appointment the same day. The use of healthcare services after the implementation of AAS has been shown to vary in previous studies. The aim of this study was to describe the impact of AAS on the use of in-hours and out-of-hours (OOH) primary care as well as short-term hospital admissions in Danish settings.

Methods: A population-based matched cohort study compared the use of healthcare services in a two-year period around the shift to AAS between patients listed with general practitioners (GPs) with AAS (n=176 734) and a group of references practice (n=310 448).

Results: After the implementation of AAS, the use of in-hours face-to-face contacts slightly increased (IRR) from 1.01 (95% CI 0.96 to 1.06) to 1.03 (95% CI 0.97 to 1.09), while the use of phone contacts decreased (IRR) from 0.82 (95% CI 0.71 to 0.96) to 0.75 (95% CI 0.64 to 0.87). The patients listed with the AAS-GPs were using the OOH-services slightly less than the references (IRR): 0.98 (95% CI 0.92 to 1.06) to 0.95 (95% CI 0.88 to 1.02). There were no changes in the number of short-term hospital admissions after the implementation of AAS.

Conclusion: Small changes in the use of healthcare services were seen after the implementation of AAS in general practice.

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Lung function in early adulthood and the burden of lung diseases

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Background: The FEV₁/FVC may underestimate lung function impairment among younger citizens, which makes it difficult to identify citizens at risk of developing lung diseases.

The aim of this study is to examine the association between lung function in early adulthood and the burden of lung diseases, redeemed respiratory medicine throughout 25 years of follow-up.

Method: We performed a cohort study on citizens from the Ebeltoft study, aged 30-49 years at baseline (1991). Age, smoking status and lung symptoms were obtained from a questionnaire. Spirometry measurements were divided into 3 groups: Group 1: FEV₁/FVC < 70, Group 2: FEV₁/FVC: 70 - 75, Group 3: FEV₁/FVC > 75 (reference). Using poisson regression, the burden of lung diseases was measured by contacts to their general practitioner, number of lung disease related hospital admissions and redeemed respiratory medicine from 1991 until 2017. Information was obtained from the Danish National Registers and adjusted for age, sex and smoking status.

Results: 905 citizens were included; mean age: 40.3 years, 47.5% males and 51.2% smokers at baseline. The group with FEV₁/FVC < 70 was impaired as expected. The group with FEV₁/FVC: 70 - 75 also received significant more respiratory medicine IRR=2.99 (95% CI: 2.31 - 3.86) and had significant more contacts to their general practitioner IRR=1.12 (1.05 - 1.19) and hospitals IRR=2.38 (1.18 - 4.89) compared to the reference group.

Conclusion: The results indicate that the general practitioners should pay more attention for younger citizens with FEV₁/FVC: 70 - 75 to prevent development of lung diseases in later life.

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Is it feasible to reduce transportation time for GP out-of-service by GIS?

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Background: Efficient use of GP out-of-hours is important to optimize the use of a scarce resources. Transportation time is one of the elements that can reduce time for patient GP contact. Geographical information systems (GIS) used to reduce response time might be a promising way to overcome this obstacle.

The aim of this study was to compare response time for GP vehicles using GIS (WhatsApp®) versus GP vehicles using telephone assisted driver guidance for a non-acute patient with unknown address.

Methods: A prospective observational control study. Two vehicles dispatching simultaneously from the out-of-hours office: one with GIS and one with telephone assisted guidance to locate the patient. Main outcome, to measure the response time from two different approaches.

Results: A total of 61 patients contacts were analyzed. Age varied from 25 years to 78 years with a media of 56,6 (SD=12,86). Women comprised 28 of the patients (0,459). Main tentative diagnoses were: sore throat, otitis and superficial wound treatment.

The average response time with GIS was 20,0 min (4 – 40 min) and for the ones with phone guidance 28,0 min (3 – 49 min). The difference between the response time of the two technologies was significant (p <0.0001).

Conclusion: GIS seems to help reducing the arrival time of GP vehicles to the patients. Further studies are warranted in order to survey GIS in the GP out-of-hour service.

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Body composition and weight loss in a population with type 2 diabetes

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Hypothesis/aim: To study whether information about fat mass and thereby body composition using bioelectrical impedance analysis (BIA) improves weight loss in patients with type 2 diabetes.

Methods: All patients with type 2 diabetes in one general practice (n=72) were randomized to receive standard weight loss counselling (SWLC) or SWLC + BIA. Therefore, patients were either informed about their body composition or not, and seen between 2 and 6 times over a period of 12 months. Primary outcome was change in BMI (deltaBMI).

Results: 70 of 72 patients had minimum two measurements of BMI. 46 received SWLC and 24 SWLC + BIA. At baseline there were no significant differences between SWLC and SWLC+BIA in regard to mean age (64 ±12.5 years), median diabetes duration (9; range 3-27 years), mean BMI (31.2 ±5.3 kg/m²), median LDL, median albumin/creatinine ratio or the level of retinopathy. Median Hba1c was higher in SWLC + BIA [51.0 (range 42.5 - 82.3mmol/mol)] compared with SWLC [55.5 (range 42.5 - 82.3mmol/mol) p=0.04]. Both groups experienced weight loss, but no differences were detected in median deltaBMI between groups [SWLC: -0.7 (range -7.3-1.3kg/m²), SWLC + BIA: -1.4 (range -5.9-1.9kg/m²) p=0.4].

Conclusions: In one general practice with 72 patients diagnosed with type 2 diabetes, intervening over 12 months, with SWLC or SWLC and BIA, leads to weight loss (0.7kg/m² vs 1.4kg/m² p=0.4), independently of knowledge on body composition.

Randomization was successful regarding all parameters except Hba1c levels, with higher levels found in the SWLC + BIA group.

Needs assessment instruments in cancer follow-up

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Background: General practitioners (GPs) may have a central role in cancer rehabilitation and follow-up. Patient-centered needs assessment is a crucial first step and guidelines recommend that patients fulfill a questionnaire in advance of a consultation. This study adds new knowledge by focusing on how such questionnaires influence the interaction between patient and GP.

Methods: For research purposes Danish general practitioners included a two-paged patient questionnaire for cancer follow-up. The empirical data included semi-structured individual interviews with sixteen patients and eleven general practitioners (GPs), and participant observation from 14 consultations. The qualitative analyses were inspired by a theoretical framework of sociologist Lindsay Prior.

Results: The questionnaire formed part of the interaction between the patient and the GP by the way it was handled. It acted as 'an ally', 'an instigator' and 'an enemy'; as 'an ally' by establishing a common context and by supporting them in reaching a common understanding of the most important needs. It furthermore 'instigated' dialogue and follow-up consultations about issues that would otherwise not have been addressed. However, some GPs regarded the questionnaire as a kind of 'enemy' to the relation and usual way of communication.

Conclusion: The effect of using questionnaires in clinical encounters depends not only on the content of the questionnaire, but also on the way it is handled and how it comes to function. Furthermore, this study reflects how a questionnaire may be perceived as a disturber in the encounter or as a partner capable of unifying patient and GP.

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Trends in tobacco use in the Nordic countries - what are our next steps?

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Background: Tobacco consumption has been one of the big epidemics of the 20th century in the Nordic countries and emphasis on tobacco prevention been strong. Smoking rates remain highest among groups of low socioeconomic status.

Methods and results: In Iceland the long-term trends in smoking prevalence were reviewed in 2016 by analysing serial surveys of the population. The decrease in prevalence of smoking has continued at a stable pace for 30 years within all age groups and both sexes. Prevalence of smoking is three times higher for those of lower socioeconomic status. There is a steep increase in use of smokefree tobacco since 2006 and lately also in e-cigarette use. The prevalence of daily use of smokefree tobacco for all ages was 5.7% in 2012 and had increased in 2018 to 8%. The prevalence is highest in young men age 18 to 24 years old, 15% in 2012. When surveyed in 2018, the use in the 18 – 24 year old men is halting at 14% but the agegroup 25 – 34 year old men have a prevalence of 22.4%. Daily use of smokefree tobacco has been negligible in women, was overall 1% in 2012 but is now in 2018 showing a rate of 3% in young women (18 – 24 year old). Data on e-cigarette use will be available for review.

Conclusions: There are remaining challenges in tobacco control with regard to new products of nicotine consumption and reaching out to vulnerable groups of smokers and tobacco users.

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Consultations including patient, GP and oncologist: Roles and content

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Background: This qualitative study is part of a large randomised controlled trial (RCT) evaluating the effect of the Partnership Intervention: a shared video-consultation between the cancer patient, general practitioner and oncologist. To improve our understanding of this innovative way of communication in establishing relations, facilitate shared decision-making and improve continuity of care we analysed recordings. Focus were on participants' different roles during the consultation, and the content of the communication.

Method: Until now, 150 adult cancer patients are included to the Partnership Study at the Department of Oncology, Vejle Hospital, Denmark. Data collection includes video recordings and audio transcriptions of 10 out of 52 consultations conducted in the intervention group.

We intend to use the Thematic Framework Method for the management and analysis of the data, thereby seeking to draw descriptive and explanatory conclusions clustered around themes.

Results: The empirical data has been retrieved. The ten consultations (cases) represents a satisfactory variation regarding patient gender, age, cancer type and prognosis; practice type, gender and age of the general practitioners, as well as gender and professional experience of the oncologists. The consultation length varied from 4 to 22 minutes.

Conclusion: This study may add new knowledge important for understanding the potential of video-based consultations bringing the patient, the general practitioner and a specialist together to improve patient involvement, role clarification and continuity of care. The analytical phase is ongoing and results will be presented at the conference.

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Sensing the early cancerous body: an ethnography of gut feeling

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Background: During the past decade biomedical studies has shown that the cancer related gut feelings of general practitioners have a relative high predicative value and is a valuable diagnostic tool in timely cancer diagnosis. Despite the merits of these studies, they fail to acknowledge the more sociocultural aspects of gut feeling. The aim of this study is to understand how the transformation of feeling into gut feeling takes place within and is shaped by the biomedical culture, which surrounds contemporary Danish General Practice.

Methods: The project is based on eleven months of ethnographic fieldwork in four general practices in Denmark. The main author observed the daily work in general practice, using the methods of observation, video-recording and qualitative interviews.

Results: It suggests that the contemporary focus on early cancer detection invest the clinical encounter with new diagnostic potentialities, which contribute to (re)fashion gut feeling as a sign of the early cancerous body. It shows how the gut feeling of Danish general practitioners is a sensorial way of knowing acquired through the daily work and training within a community of practice that share particular principles for good doctoring.

Conclusion: It argues that the contemporary focus on early detection of cancer initiates a move toward gut feeling due to its perceived capability to make visible the invisible cancer potential of human bodies. It indicates that the gut feeling of Danish general practitioners is tied to the practices of patient-centeredness, which enables them to sense the abnormal and normal within the sub

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Self-rated health in young people and mortality in young adulthood

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Background: Self-rated health (SRH) has shown to be a strong predictor of morbidity and mortality. However, less is known about the relationship between SRH and all-cause and cause-specific mortality in young adulthood.

Objective: To investigate SRH in young people (13–35 years-old) as a predictor of all-cause mortality in young adulthood (deaths before age 54) and examine the associated causes of death.

Methods: We used data from two population-based cohort studies (N = 23,679): Young-HUNT1 (1995–1997, persons 13 to 20 years old, participation rate = 90%) and HUNT2 (1995–1997, persons 20 to 35 years old, participation rate = 70%). These data were linked to the Norwegian Cause of Death Registry up to 2014, and 247 deaths were identified. Other predictors we examined included age, gender, baseline smoking, physical activity and physical and mental disability.

Results: Participants reporting 'not so good'/'poor' SRH had approximately twice the risk of death compared to those reporting 'good' or 'very good' SRH at baseline. The association between low SRH and risk of death was attenuated when the models were adjusted for other predictors, but remained statistically significant. The causes of death differed somewhat between SRH levels.

Conclusion: SRH predicts all-cause mortality in young adulthood, with poor SRH being associated with death in young adulthood. The findings also indicate different causes of death for different SRH. This knowledge is important for identifying groups at risk for later disease, which can potentially be used to prevent morbidity in the adult population.

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Perceived workload of patient characteristics to general practitioners

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Background: It is well known that patients with certain sociodemographic characteristics provide additional challenges to patient care and add to general practitioner (GP) workload. However, updated measurements of perceived workload in general practice are lacking. Understanding the contribution of different sociodemographic patient types to GP perceived workload may inform planning and resource allocation in general practice.

Aim: To measure perceived workload from patients with different sociodemographic characteristics in general practice, and to reduce patient characteristics into underlying constructs and global, rounded measures of perceived workload.

Methods: A web-based survey was distributed to a random, stratified sample of 1,196 Danish GPs. A part of it contained questions based on the Care Need Index that measure perceived workload of 11 sociodemographic patient characteristics using a 0-9 Likert scale. Exploratory Factor Analysis (EFA) was conducted using principal-component factors method. Additionally, we created an overall perceived workload indicator, weighted by individual patient types.

Results: GPs perceived foreign-born patients to contribute the most (6.82 out of 9) and children under 5 to contribute the least (3.59) to their perceived workload. Male GPs perceived a higher workload than female GPs. Factor analysis revealed two stable underlying factors, entitled "Economically Disadvantaged" and "Difficult Communication". Weighted overall perceived workload was 5.49.

Conclusion: There is considerable variation in how different sociodemographic patient characteristics contribute to perceived GP workload. The suggested measures of overall perceived workload and underlying constructs of perceived workload may simplify how perceived workload is measured and be used to inform the organization of primary care delivery.

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Effects of lifestyle to prevent diabetes in South Asians: a metaanalysis

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Background: We performed an individual participant data (IPD) meta-analysis of randomised controlled trials (RCTs) of lifestyle modification (LSM) using diet and/or physical activity to prevent type 2 diabetes in South Asians, as the effectiveness is unclear.

Methods: We searched 4 databases (to September 24th 2018), and obtained IPD on 1816 participants from all six eligible RCTs on LSM in South Asian adults. We generated hazard ratio (HR) estimates for incident diabetes and mean differences for fasting glucose, 2-hour glucose, weight and waist circumference, using mixed effects meta-analysis overall, and by pre-specified subgroups. We applied the GRADE system to rate the quality of evidence.

Results: Incident diabetes was observed in 118 of 932 (12.6%) participants in the intervention and 176 of 876 (20.0%) participants among controls. The adjusted HR was 0.65 (95% CI 0.51 to 0.82; I²=0%) in the intervention compared with controls; absolute difference 7.4% (95% CI 1 to 16), with no subgroup differences for sex, age, BMI, study duration or region. The GRADE quality of evidence was rated as moderate. Mean difference for intervention versus controls for 2-hour glucose was -0.35 mmol/l (95% CI -0.63 to -0.06; I²=51%); for weight -0.76 kg (95% CI -1.36 to -0.15; I²=72%) and for waist -1.16 cm (95% CI -2.15 to -0.17; I²=74%). Findings were similar across subgroups, except for weight by region. No effect was found for fasting glucose.

Conclusions: In high-risk South Asian origin populations, LMS interventions resulted in a 35% relative reduction in diabetes incidence, consistently present across prespecified subgroups.

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What matters most to breast cancer patients and partners during treatment

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Background: Most breast cancer patients' partners that are the primary source of practical and emotional support. However, partners often find it challenging how to offer support, and cope with their own emotional concerns and challenges. This study investigated the expressed needs of patients and partners and provide general practitioners (GP) knowledge of how to address patients and partners as individuals and as couples.

Methods: A randomized controlled trial including 198 recently diagnosed breast cancer patients and their partners randomly tested a psychological intervention in addition to usual care. The intervention consisted of 4-8 couple sessions with a clinical psychologist up to 5 months after primary surgery. The psychologists had a list of issues to address in the couple sessions, but the content of each session should be guided of what the couple found relevant. Psychologist recorded the content of each session on a tick-off list.

Results: In total, 356 couple sessions were conducted. The primary issues addressed in the couple sessions were issues related to breast cancer (n=268) and the couple's communication(n=258), followed by issues related to primary emotions (fear, anger, happiness, and sadness) (n=230).

Conclusion: Breast cancer and communication in the couple is almost equally important emphasizing the importance of a couple perspective in general practice. When identifying needs of cancer patients and their partners, GPs should not only ask: "Do you have someone to support you", but also "How do you communicate with your primary source of support" and use the possibility of referral to psychological couple therapy.

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GP contact with LUTS among men: the impact of lifestyle and socioeconomy

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Background: Lower urinary tract symptoms (LUTS) are common among men and the prevalence increases with age. Although often caused by benign conditions, experiencing LUTS is shown to reduce quality of life. Effective treatment options are available, but a prerequisite for treatment is that the individuals seek healthcare, which is often not the case. Socioeconomic status (SES) and lifestyle factors has been shown to influence contact to a GP for various symptoms, but this has not been examined among men reporting bothersome LUTS. The aim of this study was thus to examine possible associations between SES, lifestyle factors, and contacting a GP regarding bothersome LUTS among men.

Methods: Population-based questionnaire study combined with data on SES from national registries. A total of 48,910 randomly selected men aged 20+ was invited from the general Danish population in 2012. Logistic regression models were used to calculate odds ratios for the association between GP contact with bothersome LUTS, lifestyle and SES.

Results: 23,240 men participated (49.8%). Only about one third of the men reporting a bothersome LUTS contacted their GP. Increasing age and symptom burden significantly increased the odds for GP contact regarding bothersome LUTS. No overall associations were found between lifestyle, SES and GP contact.

Conclusion: Bothersome LUTS are common among Danish men, yet only one in three bothersome LUTS are discussed with a GP. Advanced age and symptom burden were significantly associated with GP contact. Information on treatment options for LUTS may be useful among Danish men regardless of SES and lifestyle.

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Users' experiences of an app-based treatment for urinary incontinence

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Background: Stress urinary incontinence (SUI) affects 10–39% of women. First-line treatment includes pelvic floor muscle training (PFMT) and lifestyle interventions. We developed the Tåt@ app with a treatment program focusing on PFMT and demonstrated its efficacy regarding incontinence symptoms and quality of life in a randomized controlled trial (RCT). In this study, we investigated participant experiences of the app.

Objective: To explore women's experiences of using an app-based treatment program for SUI.

Methods: A qualitative study based on telephone interviews with 15 women who had used the app in the previous RCT. We used a semi-structured interview guide with open-ended questions and analyzed data according to Grounded Theory.

Results: The results were grouped into three categories: "Something new!", "Keeping motivation up!", and "Good enough?" A core category, "Enabling my independence", was identified. The participants appreciated having a new and modern way to access a treatment program. The use of new technology made incontinence feel more prioritized and less embarrassing. The closeness to their smartphone and app features like reminders helped to support and motivate to continued PFMT. They felt confident in performing the PFMT on their own despite some uncertainty as to whether they did the contractions correctly. They experienced that the app-based treatment increased their self-confidence and enabled them to take responsibility for their treatment.

Conclusions: Using the app-based treatment program empowered the women and helped them self-manage their

SUI. They appreciated the app as a new tool supporting their motivation to carry through a sometimes challenging PFMT.

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Three cases. Being a locum - why doesn't it work? A generalist perspective

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Meeting patients in a general practice setting means bridging gaps between the two cultures of medicine – disease and illness. GPs face the challenge of integrating different bodies of knowledge to understand the complexity of suffering. Meaningful consultations – in terms of delivery of care relevant to the patient - can be seen in *episodic care* or in *virtual meetings*. But sometimes illness is not terminated by merely identifying disease and cure. And sometimes disease does escape identification, yet illness persists.

The paper is based on the analysis of three cases of patients typically seen in general practice. The author is an experienced generalist. Short visits in Scandinavia as a locum has elicited retrospective reflections on what constitutes a generalist approach to care. Patient left in limbo alone with their illness challenges the concept of meaningful consultations. A generalist perspective would be to reveal the disruptive aspects of illness in life. To see the individual as a complex living organism with constant interaction, construction and re-construction of ideas and experience – including illness. To provide the patient with means to elicit imminent creative capacity to proceed. And as a consultant to offer the time and expertise needed to support functioning.

Is this possible without continuity of care?

The presentation discusses the levels of continuity of care, their dimensions and possible underlying factors; and it draws on philosophical notions on presence and temporality, of judgmental practice, of trust and reciprocal commitment.

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Impact of antimicrobial resistance on the course of urinary tract infection

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Background: Urinary tract infection (UTI) is one of the most frequent infections in primary care - commonly caused by *Escherichia coli*. Knowledge about the impact of antimicrobial resistance (AMR) on symptom development for these patients is not conclusive. The aim of this study was therefore to investigate if the AMR pattern of *Escherichia coli* impact the course of symptoms in patients with uncomplicated UTI, using a symptom diary.

Methods: Observational study. Data was collected from December 2014 to May 2016. Urine cultures and susceptibility tests were performed at a microbiological laboratory. The patient kept a symptom diary for 7 days and was prescribed an appropriate antibiotic. Exposure was AMR to ampicillin, sulfamethizol and trimethoprim. Outcomes were; 1) graphs showing severity of symptoms over days and 2) number of days with symptoms - analyzed by ANOVA.

Results: 180 women were included. The majority (63%) were prescribed pivmecillinam. 12.8% were resistant to both ampicillin, sulfamethizol and trimethoprim and 19.4% were resistant to one-two of these. Patients infected with an *Escherichia coli* resistant to all three had a mean of 5.35 days (1.90) with symptoms, the ones resistant to one-two had 4.63 days (1.47) and the ones sensitive to all three had 4.51 days (1.65). There was no significant difference between the groups ($p = 0.11$).

Conclusion: The AMR pattern of *Escherichia coli* has no significant impact on number of days with symptoms of uncomplicated UTI. These are preliminary results. The final results will be available by the time of the congress.

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Advantages and challenges of email consultations in general practice

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Background: E-mail consultation in general practice is considered a technological means to meet the challenge of an increase in the patient population and as a way to make communication in the doctor-patient relationship more effective and time saving.

Content: The symposium includes three presentations of recent research on GPs' and patients' views on and experiences with advantages and challenges of email-consultations.

Main messages from speakers: Does e-mail-consultation hold potential for relationship building- and maintenance? EAH presents results from 15 interviews with GPs on the subject of relational possibilities of e-consultations. The findings suggest that email-consultations might serve to maintain and deepen the relationship with patients that the GP know well providing feed-back to health concerns and offering reassurance to patients in

need of emotional support.

Does e-mail-consultation afford specific perceived advantages for the male (senior) patient? MK presents results derived from 15 interviews with patients suggesting that e-mail-consultation holds potential advantages for the senior male patient with regard to getting and staying in touch with his GP due to the perceived flexibility of this communication form.

How do patients and GPs perceive the email-consultations when it comes to time, efficiency and satisfaction? AG presents results derived from 10 interviews with patients and 3 GPs, including e-consultation examples, showing that if the GPs are aware of the patients' temporal perception and organise the frame for email consultations internally in line with other consultation forms, this will be beneficial for both the patients and the GPs and thereby for the patient-doctor relationship.

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Palliative care in general practice; a questionnaire study on the GPs role

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Background: Patients in need of palliative care often want to reside in their own homes. Providing adequate palliative primary care requires a high level of competence and resources. The Norwegian guideline on palliative care points out the central role of the GP, and specifies an expected level of competence. Guideline implementation is a challenge in primary care. This study investigates adherence to the guideline on palliative care, by targeting the GPs experiences.

Methods: A questionnaire was distributed to 246 GPs. Themes focused on tools depicted in the guideline, communication with partners, how they regarded their own role in palliative care and experiences with terminal care. Data were analyzed descriptively, using SPSS.

Results: Response rate was 57%. The GPs saw few patients with palliative needs, and this represented a challenge for maintaining knowledge. One third had not taken part in terminal care the last three years. Symptom assessment tools and advanced care plans were rarely used. 50% regarded the GP as central in palliative care, and 50% made themselves available outside office hours. Most GPs believed that their patients received adequate relief.

Conclusions: The GPs did not have a uniform view on their role in palliative care and were unfamiliar with supposedly important work methods described in the guideline. The competence requirement may not be suitable for primary care, illustrating a need for tailoring of such guideline demands, to the clinical reality of general practice.

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Do we need a GP next door? Seeking care with cancer worries in rural areas

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Background: This work presents a deeper understanding of socio-geographical inequality in health, and questions what 'distance' means in the context of rural Denmark where distances to healthcare are relatively short compared to neighbouring countries. Departing in the case of cancer and empirical studies on rural Danish communities it asks: What characterizes healthcare seeking practices in areas where access to primary healthcare is characterised by physician shortage, and where secondary healthcare becomes increasingly centralized in the establishment of new 'super-hospitals'? And how are health worries, potential symptoms and risks of serious illness such as cancer negotiated and experienced?

Methods: The project is based on ethnographic fieldwork in the north-western part of Jutland carried out in 2017-18. The fieldwork consisted of repeated semi-structured interviews and participant observation in the homes and social activities as well as health-related activities in participating households, in local community activities and associations, and in local GP clinics.

Results: The results of this project are presented through analysis of local consequences of contemporary changes in the organization of Danish healthcare, in terms of healthcare seeking practices, symptom experiences, cancer worries, and navigation of the healthcare and welfare system.

Conclusions: Preliminary analysis of the empirical data through a classic cultural model of healthcare systems unfolds ideas of 'distance', 'access to care' and 'geographical inequality' in embodiments of place and space in local moral worlds and in the relation between citizen and welfare state.

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Variation in performance of processes of care for type 2 diabetes patients

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Background: There is limited knowledge on the variation in GPs' quality of care. We explored the variation between GPs in their performance of six recommended procedures in type 2 diabetes patients.

Methods: The ROSA 4 study is a cross-sectional study of the quality of care for diabetes patients in Norwegian general practice in 2014.

As a measure of quality, we constructed a sum score on GP level, reflecting whether a GP had performed six recommended procedures in her type 2 diabetes patients. These procedures are measurements of HbA1c, LDL, blood pressure, albuminuria, and recorded foot examination last 15 months, and documented retinopathy screening last 30 months.

Based on the sum score, the GPs were divided in quintiles. A multilevel ordinal logistic regression model was fitted to identify factors associated with being in a quintile with better performance.

Results: We identified 6015 type 2 diabetes patients under 75 years without cardiovascular disease, from 275 GPs in 77 practices.

Adjusting for GP factors and aggregated patient factors, preliminary results show that the strongest association with being in a better quintile was the use of a structured follow-up form. Being a GP specialist and having routines for patient reminders were also associated with better performance, whereas heavier workload and GPs' age above 60 years were associated with a poorer performance. Inclusion of patient factors in the model altered results negligibly.

Conclusions: There is a consistent pattern of variation in GPs' performance of process care, where factors reflecting structure and workload seem to matter.

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Health care practitioners' empathy and patients' outcomes

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Background: Health care systems around the globe are implementing e-health to treat, monitor and coach patients with non-communicable diseases (NCDs). The empathy of healthcare practitioners (HCP) has shown to influence the outcome of their patients significantly. The aim of this study is to examine positive correlations between HCP's empathy score and NCD patients' outcome when using digital lifestyle coaching.

Methods: The present study will use data from 64 HCP's who coach 2.351 patients with NCDs via the digital healthtech solution, Liva.

The study will measure the HCPs' empathy score using the Jefferson Scale of Empathy (JSE). The results will be correlated with data on the clinical outcome of the patients. Outcome measures of the patients are: 1. weight loss, 2. number of steps per day and 3. activity level using Liva.

Descriptive statistics and a quantile plot of the ordered empathy scores will be used to describe empathy variation. In addition (multilevel) regression analysis will be used to analyse the associations between patient outcomes and a set of patient variables (age, gender, illness, geography, employment status) and coach covariates such as empathy score and a set of variables (age, gender, geography and profession).

Results: The results for the patients of the 10% least empathetic HCP's was 53% retention opposed to 73% retention for the patients of the 10% most empathetic HCP's.

Conclusion: In our pilot study we found significant positive correlations between HCPs' empathy score and the patients' outcome of digital lifestyle coaching.

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Antivirals for influenza-Like illness?: the ALIC4E trial

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Introduction: Effective management of seasonal and pandemic influenza is a high priority internationally. This study was aimed at determining the cost effective of antiviral treatment for influenza like illness (ILI) in routine primary care.

Methods: European multinational, multicentre, open-labelled, non-industry funded, pragmatic, adaptive-platform, randomised controlled trial. Initial trial arms were best usual primary care and best usual primary care plus treatment with oseltamivir for 5 days. We aimed to recruit at least 2500 participants ≥ 1 year presenting with ILI, with symptom duration ≤ 72 hours in primary care over three consecutive periods of confirmed high influenza incidence. Participant outcomes were followed up to 28 days by diary and telephone. The primary objective is to determine whether adding

antiviral treatment to best usual primary care is effective in reducing time to return to usual daily activity with fever, headache and muscle ache reduced to minor severity or less.

Results: A total of 3,268 participants with ILI presenting to primary care have been randomised over three winter seasons. Approximately half were positive for influenza on upper respiratory swabs. The study data is being analysed. Process and outcome data available at the time of the conference will be presented.

Conclusions: ALIC4E is novel in many ways. It provides critical information about the clinical and cost-effectiveness of adding oseltamivir to best current ILI management in conditions that approximate usual care, both overall, as well as in important, prespecified subgroups. ALIC4E is likely therefore to enhance the evidence base supporting an important area of clinical practice.

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Health Related Quality of Life in children living with parental cancer

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Background: Approximately 20 % of newly diagnosed cancer patients have children below the age of 18 years. These children are known to have significant socio-emotional challenges. Knowledge about these children's experiences is needed to sufficiently address and support their needs. This study aimed at examining the Health Related Quality of Life (HRQoL) in these children using a standardised measure (KIDSCREEN) in combination with qualitative interviews.

Method: quantitative and qualitative data was collected from 15 children 7-15 years old who had been living with non-terminal parental cancer for more than eight months.

Results: we found a significant difference in qualitative and quantitative reports as e.g. health anxiety, psychosomatic symptoms, selective loneliness and lack of sufficient coping strategies were not captured by the generic measures. Difficulties in communicating emotional states among family members were also not identified but predominant in the interview material. On the other hand, the questionnaires revealed significant symptoms of anxiety and depression in several children.

Conclusion: HRQoL may be significantly reduced when living with parental cancer especially regarding the specific challenges relating to being different from peers, fear of death and difficulties in separation from parents. Communication of mental states was highly reduced and only shared with a few trusted friends. The generic measure of HRQoL does not capture these challenges but mixed methods may contribute to examine this delicate topic.

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Duration antibiotic treatment for pharyngitis: A systematic review

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Introduction: Duration of antibiotic therapy for streptococcal pharyngitis continues being controversial. This systematic review was aimed at summarising and evaluating current evidence regarding effectiveness and safety of short and long courses of antibiotic treatment in a primary care setting of patients with confirmed streptococcal pharyngitis.

Methods: We performed a systematic review of meta-analyses and randomized control trials retrieved from PubMed (from January 1966 to January 2019) using a structured search strategy. We included trials comparing short-courses (6 days or less) with longer courses (7 days or more) of antibiotic therapy for streptococcal pharyngitis. Included studies were assessed in the programme Covidence® for systematic differences and bias according to Cochrane's Risk of Bias.

Results: A total of eight meta-analyses were retrieved. Seven showed that short-courses were as effective as long-course therapies and one demonstrated clear superiority of longer courses compared to shorter courses. Of the 1,053 identified studies, 71 met our inclusion criteria. The studies were very heterogeneous. Studies analyzing shorter-courses of both macrolides and cephalosporins (both families considered as highest priority critically important antibiotics by WHO) showed the same effectiveness compared to longer therapies, but shorter penicillin therapies were inferior to longer regimens. Outcome data and the different sensitivity analyses available at the time of the conference will be presented.

Conclusions: Our findings suggest that with current knowledge there is no solid evidence for a best length of treatment in patients with streptococcal pharyngitis. The heterogeneity of methods used should encourage future RCTs with a more uniform and homogenous design.

Internet mediated CBT - a future for depressed people in primary care?

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Internet Cognitive Behavioural Therapy (I-CBT) is a growing field of E-health especially in the mental health area. More than 70% of persons with depressive and anxiety symptoms seek and are taken care of in primary care. However, most research concerning effects and effectiveness of I-CBT treatment is not performed in the primary care context, but within psychiatry /psychology. Most randomised controlled trials (RCTs) include patients recruited by advertisement and the control arm is often patients on waiting list.

In Sweden, a voluntary organization for quality control has been constructed for development of higher quality of I-CBT programs used in health care. Substantial knowledge on design and treatment effectiveness of I-CBT programs for mental health problems has been developed. Swedish health care now plan wide implementation of I-CBT especially in primary health care.

The few RCTs performed in primary care concerning I-CBT depression treatment show effects comparable to usual treatment in General Practice. To some patients, who prefer I-CBT treatment and for patients with long distance to GP and/or therapist, I-CBT is very convenient, but some patients claim that the responsibility placed on the patient is considerable.

In the workshop, results from primary care RCTs with economic and effectiveness evaluations, and results from the development of quality control protocols for support of development of higher quality I-CBT programs will be presented. In interactive workshop groups will be discussed:

Is I-CBT a preferable alternative for primary care patients?

Experiences from own practices of I-CBT treatment?

What should the quality demands contain?

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Inhaled corticosteroid use among adult Finnish asthmatics

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Background: Adherence to medical therapy in asthma is lower than in many other chronic diseases. In Finland asthma is usually diagnosed and treated within the primary care setting by general practitioners at municipal health care centers and occupational health services. To our knowledge, register-based studies about the asthma medication use in Finland are scarce.

Methods: Study population originates from The Health and Social Support Study 2012, which is part of a nationwide cohort study among adult Finnish population. The participants were inquired whether a doctor had told them they have or have had asthma. The asthma group comprised 1141 individuals (8.9% of all respondents). Registers of The Finnish Social Insurance Institution (SII) were used to study filled prescriptions during 2011. We checked from the registers individuals who had purchased inhaled corticosteroids (ICS) alone or combined to long-acting beta2-agonists (LABA). The proportion of days covered (PDC) by ICS during 2011 was calculated based on the ATC/DDD system of WHO and information on the prescriptions i.e. name and strength of the substance, number of doses in the inhaler and number of inhalers purchased. As recommended for adherence studies, PDC 80% or more was considered good.

Results: According to the register 674 (59%) of the asthma patients had purchased ICS in 2011. Among 21% of these patients, PDC was at least 80%. PDC was below 50% among more than half of the asthmatics (62%).

Conclusions: Regular ICS use among adult asthma patients is considerably low in Finland.

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Qualitative study of communicational barriers between men and GPs

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Background: The focus of this research is to explain inequalities in men's health within the context of cancer detection. Men has a lower estimated life span and a lower cancer survival rate than women. Current literature suggests multiple reasons for this, including differences in regular contact with a doctor. Also, it has been shown that men's educational level is closely related to their cancer survival rates.

Objective: This project investigates the doctor-patient communication and how early detection of cancer and minimising patient delay improves the survival rate for patients.

The aim is to gain a better understanding of men's relation to their own health and experiences from meetings with general practitioners and how it influences when and why they act following changes in sensation of their body.

The project will elaborate on how men experience potential symptoms and communicate them with their GP. The project aims to understand how communicational barriers can influence patient delay.

Methods: The qualitative data consist of 10 semi-structured interviews. The interviews are with male patients, who have experienced an urgent referral pathway for suspected cancer (kræftpakkeforløb), and GPs from Region Zealand.

Results: The presentation will be based on the initial analysis of qualitative interviews with attention to communicational tensions between how men and GPs experience the diagnostic meeting regarding the urgent referral pathway for suspected cancer.

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The ACUBACK study: Acupuncture for acute non-specific low back pain

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Background: Low back pain (LBP) is a common symptom with large consequences for some individual patients and large costs for the society. The patients are usually treated in primary care, and clinical guidelines for acute LBP recommend information, education and advice to stay active and avoid bed rest. In recent international guidelines non-pharmacological treatments are increasingly recommended in the first-line recommendation. Acupuncture is one of the mentioned treatments in the US guidelines, despite lack of high-quality evidence.

The aim of this study was to evaluate whether a single treatment session of acupuncture could reduce time to recovery when applied in addition to standard treatment for acute LBP, compared to standard treatment alone.

Methods: This was a randomized, controlled, multicenter trial in 11 Norwegian general practitioners' (GPs) offices. We included adults with acute, non-specific LBP in the period March 2014 - March 2017. They were randomized into the acupuncture group or control group, and each group was treated by different GPs. The primary outcome was median time to recovery in days. Secondary outcomes were pain intensity, global improvement, back-specific functional status, sick leave, medication and adverse effects. In addition, we performed a cost-effectiveness analysis. The statistician was blinded to group status. The participants answered electronic surveys at 19 different time points from baseline to one year after treatment.

Results: 171 participants received the allocated intervention, 167 of them were included in the analysis. The groups were similar according to baseline characteristics. The main results will be presented at the conference.

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Variation in chronic care services in general practice

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Background: General practitioners (GPs) in Denmark provide comprehensive chronic care, but patients with multimorbidity still have a poor prognosis, possibly due to suboptimal care; these patients tend to have an inappropriate healthcare contact pattern and experience more potentially preventable hospitalizations. Evidence is sparse on chronic care provision by GPs and how this affects the prognosis.

Objective: To describe the variation in annual chronic care consultations (ACCCs) provided by GPs and to analyze how this variation may affect the number of potentially preventable hospitalizations.

Materials/methods: A nationwide cohort study was performed in Denmark. National registers provided information on annual chronic care consultations (ACCCs) by GPs, hospitalizations, multimorbidity, and socioeconomic factors. We calculated the GPs' propensity for using ACCCs accounting for multimorbidity and socioeconomic status in their patient population.

Results: Preliminary results: 1.2 million ACCCs were provided during 13.5 million person-years. ACCCs were associated with age 60 to 80 years, low educational level, and multimorbidity, but not psychiatric conditions. The use of ACCCs varied from 0.01 and 0.176 ACCCs/listed patient/year (adjusted observed/expected median ratios of 0.12 to 1.82) between the GP groups with the lowest and the highest preference for ACCCs. Across GP groups, virtually no differences in level of mental comorbidity, multimorbidity, and socioeconomic status were observed.

Conclusion: We found a large variation in the use of ACCCs, but this was unrelated to the multimorbidity level and socioeconomic status of their patient population. Analyses on whether the variation in ACCCs affects the number of potentially preventable hospitalizations awaits in spring 2019.

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The validity of FINDRISC and the diabetes risk in contemporary Norway

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Background: FINDRISC is a recommended risk-screening tool for type 2 diabetes. Despite its widespread use, there is a lack of long-term cohort studies examining the risk of diabetes according to the current 0-26 point FINDRISC scale. We therefore examined the validity of FINDRISC in a Norwegian population-based cohort followed up from 2006-2008 to 2016.

Methods: We followed up 47,804 participants of the HUNT3 Survey (2006-2008), free of known diabetes at baseline, by linkage to information on glucose-lowering drug dispensing in the Norwegian Prescription Database (2004-2016). We estimated the C-statistic (area under the ROC curve), sensitivity and specificity of FINDRISC as a predictor of incident diabetes, as indicated by incident use of glucose-lowering medication. We estimated the 10-year cumulative incidence of diabetes by categories of FINDRISC, overall and by sex and age.

Results: The C-statistic (95% CI) of FINDRISC in predicting future diabetes was 0.77 (0.76-0.78) (women, 0.78; men, 0.77). At the conventional threshold for elevated FINDRISC of ≥ 15 , FINDRISC had a sensitivity of 38% (women, 44%; men, 34%) and a specificity of 90% (women, 89%; men, 91%). The 10-year cumulative incidence (95% CI) of diabetes was 4.0% (3.8-4.2%) in the entire study population; it increased with increasing FINDRISC score, being 13.5% (12.5-14.5%) and 2.8% (2.6-3.0%) for people with FINDRISC ≥ 15 and < 15 , respectively. By lowering the threshold for elevated FINDRISC to ≥ 11 , sensitivity increased to 73%, but specificity was reduced to 67%.

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Barriers and facilitators for Danish GPs' prescription of medical cannabis

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Background: In recent years, there has been an intense debate led by diverse patient groups requesting cannabis to be considered for a number of medical conditions, and the attitudes among law makers in several countries worldwide seem to be shifting in this direction as well. Judging by the media image, Danish general practitioners, represented by The Danish Medical Association and The Danish College of General Practitioners, are in opposition to this liberalisation of medical cannabis claiming that it might jeopardize the safety of the patients. However, this media image is not necessarily representative of the entire population of general practitioners for which reason we need to explore their attitudes, knowledge and experiences systematically.

The objectives of this study are:

To explore associations between Danish general practitioners' attitudes towards, knowledge of and experiences with medical cannabis and their self-reported prescription of it.

To explore associations between characteristics of Danish general practitioners and their self-reported prescription of medical cannabis.

Methods: This cross-sectional study is based on answers to an electronic survey distributed to a representative sample of Danish general practitioners.

Results and conclusions: Data analyses are ongoing, and we plan to present data from this study at the NCGP 2019. Gaining insight into the attitudes, knowledge and experiences of Danish general practitioners may clarify barriers and facilitators for prescribing medical cannabis. This knowledge may feed into the planning of future medical cannabis prescription schemes by decision makers worldwide.

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Mindfulness based stress reduction and Type 2 diabetes

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Aim: The aim of this study is to investigate effectiveness on psychological and physiological outcomes of implementing mindfulness based stress reduction (MBSR) in a rehabilitation programme to patients with type 2 diabetes (T2DM) compared to usual municipal health education programmes.

Background: T2DM is attributed to lifestyle and genetics, but other factors such as stress and thereby chronic activation of the physiological stress response also seems to increase the risk of developing T2DM and furthermore exacerbates its course.

T2DM is managed in general practice. The municipalities are responsible for rehabilitation programmes consisting of

health education and exercise.

Another approach could be MBSR which is an evidence-based stress reduction programme. The effect of MBSR in stress, anxiety, depression, quality of life and pain relief is documented in more than 100 RCT's. Randomised trials on type 2 diabetes and mindfulness have also shown effect on mental health and HbA1C, these studies are limited by small study populations, different study designs and short follow up time.

Method: RCT including 400 T2DM patients referred from general practice, Central Region Denmark. The patients must be diagnosed within 5 years and have a HbA1C between 53-108 mmol/l. Effects will be measured at 8 weeks, 6 and 12 months on:

Clinical outcomes: HbA1C, cholesterol, weight, waist/hip circumference and heart rate variability and inflammatory markers (IL-6 and hsCRP). Psychological and medication adherence outcomes will be measured by questionnaires. Proposed theories of mechanisms of change regarding well being, as well as autonomous motivation and the association with self-management will be explored.

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From PSA to Stockholm3, the impact of a new test

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Objective: To analyse the impact of a change in clinical practice from PSA to Stockholm3 test on biopsy results for prostate cancer.

Design: A comparison of biopsy results at the department of pathology before and after a change of diagnostic routine in general practice.

Setting: All reports of cancer-positive prostate biopsies sent from the department of pathology at Stavanger University Hospital to the National Cancer Registry of Norway during the first six months of 2017 and 2018 were included.

Results: There was a significant increase both in the number and the proportion of men diagnosed with high-risk prostate cancer (Gleason score ≥ 7) in 2018 (N=187 / 63.8 %) compared to 2017 (N=100 / 41.5 %). At the same time, the number and proportion of men diagnosed with indolent prostate cancer (Gleason score 6) have decreased from 2017 (N= 141 / 58.5 %) to 2018 (N=106 / 36.2%).

Conclusion: This study of the reports of prostate cancer from the department of pathology at Stavanger University Hospital before and after the implementation of the Stockholm3 test shows that it is possible to increase the detection of prostate cancer in need of treatment with more than 50 % while reducing the over-diagnosis of indolent prostate cancer with 25 %. Several projects are still ongoing, with the aim of improving all steps in the diagnostic pathway for prostate cancer, to reduce the problems of under-diagnosis and over-treatment even more.

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Vitamin D and Gestational diabetes in a populationbased multi-ethnic cohort

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Background: A high proportion of ethnic minority women are vitamin D deficient and have gestational diabetes (GDM) compared to Europeans. We investigated associations between serum-25-hydroxyvitamin D [25(OH)D] status during pregnancy and GDM and other measures of glucose metabolism.

Methods: We used a population-based, multiethnic cohort study of 823 pregnant women (59% ethnic minorities) attending the Child Health Clinics for antenatal care in Oslo, Norway and their offspring. We analyzed 25(OH)D at 15 and 28 gestational week in 745 multi-ethnic pregnant women. GDM was diagnosed with a 75 g oral glucose tolerance test at 28 GW. Ethnicity was categorized according to maternal country of birth and information about a range of explanatory factors (maternal age, parity, educational level, pre-pregnancy BMI, season, gestational age) was collected. Women with 25(OH)D < 37 nmol/L at GW 15 were recommended vitamin D₃ supplementation. We performed separate regression analyses to model the associations between 25(OH)D and GDM and measures of glucose metabolism.

Results: In early pregnancy, 51% of the women had vitamin D deficiency. High prevalence of severe deficiency was found in women from Asia and the Middle East. In logistic analyses maternal vitamin D deficiency was associated with GDM after adjusting for age, parity, education and season (OR 1.6; 95% CI 1.1-2.2). After additional adjustments for variables reflecting fat mass and ethnicity, the association disappeared with ethnicity having much stronger effect than the adiposity variables.

Conclusions: Vitamin D deficiency was not associated with GDM or glucose metabolism, after adjustments for

confounding factors, in particular ethnicity.

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Research development in the Practice Sector in the Capital Region Denmark

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Background: In Denmark the private Practice Sector is an important part of health care. The Sector includes several disciplines: General Practice, Specialist Practice, chiropractors, physiotherapists, dentists, psychologists and chiropodist. In the Capital Region 17,7 mill. services were delivered in 2017. A Research Council for the Practice Sector in the Capital Region has been established and initiated in 2017 a mapping of the research. The results showed a very low activity except for General Practice, which has had its own research environment since 1974. Some potential resources in the other disciplines were identified. But there is a lack of knowledge of the work performed and research is needed. The aim of the Council is to develop the research.

Methods: In the first year a research coordinator has been employed and worked together with the chairman of the Council in the research environment for General Practice.

Results: A network has been developed making communication to professionals interested in research easy. Smaller grants have been awarded to initiate projects. The Council has attracted a grant to employ a research fellow for one year. An introduction course to research was launched with more than 30 participants. Lastly, ad hoc counseling has been delivered. The plan is to continue these activities and attract more grants the next two years. The goal is to permanent employ senior researchers to continue the development.

Conclusion: The results show there is a potential and interest for development of research in the Practice Sector.

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Impact of Free Contraceptives on Teen Pregnancy and Abortion on Bornholm

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Introduction: For a long time the Regional Municipality of Bornholm has desired to reduce teen pregnancy rate. As of 01.01.2017 it was decided to provide free contraception for all young women aged 12-18.

Objective: Our objective was to evaluate whether this experiment has reduced unwanted teenage pregnancy and abortion rate

Methods: Data concerning pregnancies, abortions and deliveries among women aged 12-18 during the period of 2010-2018 were provided by the The Department of gynaecology and Obstetrics on Bornholms hospital. Data estimating the use of different kinds of contraceptives were registered by the Regional Municipality of Bornholm. Data on demographics were provided from Statistics Denmark.

Results: Only limited data are currently available. Free contraceptives were prescribed for a total of 67 young women in 2017 (5% of all young women aged 12-18) and 157 in 2018 (12%). In the entire regional municipality of Bornholm abortion rate was reduced from 48 in 2017 to 25 in 2018 (Jan-Sept.). Further data and data concerning teen pregnancies will be expected in March 2019.

Conclusion: Although free contraception was provided only a small proportion of young women took advantage of this offer. However initial data suggest a clinically significant reduction in abortion rates, repeat abortions, and teenage birth rates. Unintended pregnancies may be reduced by providing no-cost contraception and promoting the most effective contraceptive methods in a society like Bornholm.

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Quantification of overdiagnosis in randomised trials of cancer screening

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Background: Cancer screening is a significant part of modern healthcare. However, screening can cause harm, including overdiagnosis. This harm is often overlooked in clinical trials of screening, leading to a lack of evidence for reliable quantification of overdiagnosis.

Objectives: To quantify overdiagnosis in cancer screening trials, to report the quality of the evidence on the subject, and to assess the influence of the quality of the trials on the estimates on overdiagnosis.

Design: Systematic overview and re-analysis of systematic reviews.

Methods: We searched PubMed and the Cochrane library for randomised controlled trials that reported the

incidence of cancer for the screened group and the control group who was either unscreened or had an alternative screening intervention. We extracted data and assessed the risk of bias in accordance with the PRISMAharms criteria and recommended methodological standards by the Cochrane Collaboration.

Results: We included 25 trials, that supplied data permitting estimates of overdiagnosis. Negative 66% to 67% of all screen-detected cancers were overdiagnosed. Only one of 25 included trials had low risk of bias across all domains. Detailed estimates for overdiagnosis for the different types of cancers will be presented at the conference.

Discussion: This overview contributes with estimates on overdiagnosis for five of the major cancer screening programmes. The main limitation of this overview is that the trials were generally not designed for the assessment of overdiagnosis.

Conclusion: The risk of bias in existing trials is large, thus hampering trustworthy estimates of the most serious harm from screening, namely overdiagnosis.

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International partnerships for primary care in low resource settings

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International collaboration is essential for improvements in global health practice and research. We would like to share experiences from two international partnerships.

Partners in Practice (PiP) is an international development program under the Danish Society of General Practice. It aims to develop, support and implement international projects to promote primary healthcare and general practice in low-resource settings and exchange knowledge and practice between partners. PiP currently collaborates with partners in Nepal and Rwanda.

The 'Twin PhD model' is a North-South research partnership between doctoral students and between their institutions. It is a win-win collaboration that contributes in generating high quality evidence to improve health outcomes, while building capacity in PHC and research. The model is a platform for supportive and challenging interactions that create authentic, productive and long-lasting professional relationships between researchers and their institutions.

The presentation will highlight the potential and challenges of these two North-South practice (PiP) and research (Twin PhD) collaborations. We hope it will generate interest among Nordic GPs to further engage in global health and thereby contribute to and impact the health of populations in world regions where access to health care is limited. These collaborations may also inspire in the search for innovative solutions to optimizing health care with the resources available, which also in the Nordic countries is increasingly relevant.

We will discuss possibilities for Nordic GPs to be engaged in such collaborative endeavors that aim to improve health care in low income countries.

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Insomnia and psychological symptoms in patients with musculoskeletal pain

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Background: In general practice, musculoskeletal (MSK) pain forms the largest diagnostic group, accounting for 14 % of all consultations. There is a lack of research documenting co-morbidities in general practice patients with MSK pain. The aim of this study was to examine the association between musculoskeletal pain, insomnia, anxiety, and depressive symptoms in patients from general practice.

Methods: A consecutive sample of 390 patients (aged over 12 years) from a single Danish General Practice were recruited and included 183 patients with MSK pain and 207 patients without MSK pain. Inclusion criteria for participants with MSK pain were MSK pain, which has a negative impact on daily activities, occurring at least weekly during the preceding month.

Insomnia was evaluated by the Athens Insomnia Scale (AIS-8) and psychological symptoms assessed by the Hospital Anxiety and Depression scale (HADS).

Results: Patients with musculoskeletal pain had a significantly higher prevalence of insomnia (difference 25.5 %, $P<0.0001$), anxiety (difference 24.3 %, $P<0.0001$), and depressive symptoms (difference 11 %, $P<0.0001$) compared to patients without musculoskeletal pain. Furthermore, patients with musculoskeletal pain and comorbid insomnia had significantly higher levels of anxiety and symptoms of depression compared to patients with musculoskeletal pain without insomnia ($P<0.0001$).

Conclusion: Musculoskeletal pain affects one in two patients in general practice. Comorbid musculoskeletal pain and insomnia is common, and associated with a higher prevalence of anxiety and depression. This highlights the

importance of establishing the presence of insomnia and affective disorders as potentially modifiable factors during treatment for musculoskeletal pain in general practice.

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Collaborative barriers between general practitioners and nursing homes

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Medical treatment of nursing home residents requires close collaboration between GPs and nursing home staff. In Denmark, more collaborative models exist, including a standard model where the nursing homes collaborate with more GPs, and a new initiative where only one GP (a nursing home practitioner) becomes responsible for all residents. Interprofessional collaboration can impact patient safety, thus studies investigating potential collaborative barriers in nursing homes are of importance. This study explore potential barriers in the interprofessional collaboration.

12 interviews were conducted with four GPs, four social health care workers, and four assistant managers from nursing homes, based on four empirical cases. Informants were recruited using purposive, voluntary sampling. Audio-recordings were transcribed and analyzed across the empirical cases and informants to investigate whether certain collaborative models was associated with more barriers.

Both GPs and nursing home staff perceive their collaboration to be well-functioning. Three categories of potential barriers were found, including barriers associated with the competences of the nursing home staff, communication pathways, and the use of medication cards. These barriers seem less frequent in cases with frequent communication, familiarity between collaborative partners, and structured work routines. The new collaborative initiative seems to be associated with less collaborative barriers compared to the standard organization. This study indicates that though the interprofessional collaboration between GPs and nursing home staff is characterized by certain barriers, these barriers might be resolved with the NHP initiative. However, overcoming the barriers still requires focus on a matching of expectations and the use of a common language.

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Quality of Care Indicators in Immigrant Groups of Type-2 Diabetics

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Aim: To describe treatment quality of prevalent type-2 diabetics in immigrant groups compared to non-immigrants in Central Region of Denmark **Study design:** Register based cross-sectional study

Study population: All prevalent cases of type-2 diabetes in Central Region of Denmark on January 1st 2018.

Method: Prevalent cases of T2DM will be identified through data from the National Patient Registry, Danish National Health Services Registry, Register of Medicinal Product Statistics and the Regional Clinical Laboratory Information System.

Outcome measures:

- Glycemic control
- Macroalbuminuria
- Cardiovascular disease
- Medical antidiabetic treatment

In addition to care quality indicators defined in the Danish Adult Diabetes Database.

Statistical analyses: Descriptive statistics will be performed to describe proportions of outcomes for each migrant group.

Odds ratios of glycemic control (HbA1c <58mmol/mol), dysglycemia (HbA1c >75mmol/mol), macroalbuminuria and cardiovascular disease will be calculated for each migrant group using non-migrants as reference and adjusted for age, sex, socio-economic status and duration of diabetes. A further adjustment model will include oral antidiabetic treatment, insulin use and adherence to oral antidiabetic treatment.

Subanalyses of odds ratios will be performed for the most prevalent subgroups of non-western immigrants.

Results: Results are pending data access, expected Q2 2019.

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Challenges in handling of Urinary tract infections in primary care

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Urinary tract infections (UTI) is the second most common reason for prescribing antibiotics in primary care and comprise around 20% of all prescribed antibiotics. In women, it is the most common reason for getting antibiotic treatment in primary care. Facing the growing global threat of antibiotic resistance it is of great importance to

critically evaluate diagnosis and treatment of UTI in Nordic primary care, including general practice and nursing homes. New diagnostic options have come to primary care and need to be evaluated. Resistance rates have risen over the years, and especially ESBL-UTI has become a common challenge in primary care. UTI is the most common reason for antibiotic treatment in nursing homes and represent a special diagnostic and treatment challenge.

In this symposium we will raise some of the controversial topics within this field from a primary care point of view:

Diagnosis of acute UTI in primary care, clinical symptoms and findings, use of POC tests and culture.

Frail elderly such as in nursing homes with confusion and dementia – how to diagnose UTI and how to handle asymptomatic bacteriuria in these patients.

Who should be treated with immediate antibiotics, and who can benefit from a wait and see strategy with pain killers among patients with UTI?

UTI in men – is it always complicated and what are the best treatment options?

Strategies to handle patients with ESBL UTI in primary care?

What is the most effective prevention and treatment of women with recurrent UTI?