# P01 Quality assurance of surgical procedures by GPs. Initial data from an automated surgical audit service in Ireland.

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### **Background**

GPs in Ireland as in other countries undertake a significant range and volume of office based procedures. Commissioners and providers need data on casemix and quality.

#### Methods:

In 2015, the Primary Care Surgical Association launched a case recording add-on for a major medical record system in Ireland. In tandem a data extraction tool was developed with our national primary care research network. Automated algorithms provide for key performance indicators to be calculated and reported

#### Results:

10 pilot sites recorded over 2,000 cases. The most common procedures were: joint and peri-articular injections (21%), cryosurgical ablations (19%) biopsies (12%) curettage and/or cautery (12%) ellipse excisions (11%) nail surgery (9%) excision of cysts (5%)

84 cases of non melanoma skin cancer were treated in six months.

The clinic-pathological correlation was positive in 74% of applicable cases.

Complication rate was 5%.

#### Discussion:

The project demonstrates the operation of a surgical data gathering tool embedded in the routine clinical record. This is, as far as we know unique. Difficulties were encountered with under-reporting by laboratories of quantitative disease margins for cancer cases and with the extraction analysis for monitoring inappropriate full thickness excisions. Refinements to the process will be targeted at these issues.

## P02 Home blood pressure in primary care

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#### **Background**

Hypertension is a common disease in Sweden. The most of the patients are controlled by office blood pressure (BP) (1). Our project group work with home BP monitoring. This method can reduce amount of patient with white-coat hypertension and masked hypertension. Guideline from European Society of Hypertension and European Society of Cardiology (ESH/ESC) (2013) shows that home BP is more closely related to hypertension-induced organ damage than office BP. Recent meta-analyses indicate that the prediction of cardiovascular morbidity and mortality is significantly better with home BP than with office BP (2).

## **Objective**

Identify patient with white- coat hypertension and thus reduce medication. Inclusions criteria are patients with high normal BP and hypertension. Exclusions criteria are arrhythmia, malign hypertension, unmotivated patients. Method The patients borrow an oscillometric automatic sphygmomanometer and take BP two times/day, on at least 3 days. The results are reported in a standardized logbook. Home BP is the average of these readings, with exclusion of the first monitoring day. We use ESH/ ESC guideline for evaluation of blood pressure. Our project is a pilot study. We are in the planning phase. All of the preparations are ready (project plan, license from director, approval from patients, instructions and logbook for patients).

## Results

Patient care has going on since January 2016. Some patients has used this method. All have completed our program.

## Conclusion

Local guideline for out- of- office blood pressure has not existed in our region before our study. Our aim is to start with home blood pressure monitoring which is a safer method for blood pressure control than office blood pressure. Blood pressure monitoring is going to be more effective and controlled. Our target is overmedication. Health education is included in our program. Our expectation is that it can improve patient involvement and health awareness.

## References:

(1) Swedish Council on Health Technology Assessment. (2010). Home Blood Pressure Monitoring. (2) Mancia. (2013). ESH/ESC Guidelines for the management of arterial hypertension. Journal of Hypertension, pp. 1281-1357.

## health care settings

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## Background:

The etiology of chronic widespread pain is still unknown and therefore a matter of debate in both literature and clinical practice. Some believe in a psychiatric explanation whereas others hold on to a somatic cause. However, there seems to have been a paradigm shift over the last decades in research and literature towards an understanding that is acknowledging the pain as physical and possible comorbid mental problems as a side effect of the pain. Despite this movement patients still report feeling stigmatized and viewed as mentally ill patients in real life. This study explores how patients and professionals from general practice, secondary health care and municipality understand chronic widespread pain. Data is part of a larger study where the cross-sectorial treatment in a Danish health care setting of patients with chronic widespread pain is investigated.

#### **Objectives:**

The aim is to study how patients and professionals in general practice, secondary health care and municipality express their understanding of the illness chronic widespread pain.

Methods: The qualitative data consist of 38 semi-structured interviews with patients, general practitioners, social workers and professionals working in hospitals. Informants were recruited strategically to include a variety of symptom complexity for the patients and a variety of professions, gender, age, and work experience among the professionals. All participants were recruited in the Capital Region of Denmark. Data were analyzed idiographically with Interpretive Phenomenological Analysis.

#### Results

Preliminary analysis of data shows diverting understandings between patients and professionals, with the professionals being more likely than the patients to involve social and psychological factors in their explanation of symptoms. In addition, professionals seem to have two different mindsets of explanation for the symptoms of chronic widespread pain. On one hand they acknowledge that the pain is real and disabling and on the other hand they categorize patients as women in their 50<sup>th</sup>, who are struggling with their life and life expectancies. Conclusions: Data shows that the psychosocial understanding of etiology for chronic widespread pain is still common among professionals who work with these patients. There is a risk that these positions can affect the

# P04 LONG TERM CONSEQUENCES OF GESTATIONAL GLUCOSE INTOLERANCE ON WOMEN'S AND OFFSPRING'S HEALTH: LONG-TERM REGISTER-BASED FOLLOW-UP STUDY

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relation and alliance with the patients in a negative way.

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# **Background**

Globally, the incidence of gestational diabetes mellitus (GDM) is increasing. In Finland, the prevalence of GDM has estimated to be about 16 %. GDM increases women's and their offspring's risk to develop cardiovascular disease, obesity, metabolic syndrome as well as abnormal glucose metabolism. Less is known has GDM any association with autoimmune or other than glucose related chronic diseases, or whether GDM has any association with offspring's physical or mental development.

## Objectives

The main aim of this study is to investigate the associations of gestational glucose intolerance on women's and their offspring's later health.

The more specific aims of this study are to investigate

- 1) Are there differences between GDM and non-GDM women in pre-gestational health and health later on.
- 2) What is the importance of fasting and 1h and 2h post load glucose values during an oral glucose tolerance test in prediction type 2 diabetes later on.
- 3) Are there differences between GDM and non-GDM women's offspring in relation to the birth complications or later health.

## Material/Methods

Participants consist of those women from the city of Vantaa, Finland, who delivered a singleton 1-Jan-2009 – 31-Dec-2015, and the offspring of these pregnancies. All together, there are approximately 30 000 – 34 000 study participants.

Data on deliveries and birth complications was obtained from the Birth Register (the National Institute for Health and Welfare, Finland [THL]).

Data on participants' health was obtained from the Register of Congenital Malformations (THL), the Register of Primary Health Care Visits (THL), the Care Register for Health Care (THL) and from the patient chart of Vantaa Health Center, Finland.

Data on participants' reimbursable medications and drug purchases was obtained from the National Finnish Social Insurance Institution.

Data on participants' education, occupation and socioeconomic status will be collected from the register of the Statistics Finland.

This study ends 31-Dec-2031. At that time point the last offspring are 16 years old.

The ethics committee of the Hospital District of Helsinki and Uusimaa approved the study.

#### Results

Data analyses are in a process.

#### Conclusion

The findings of this register-based study will offer important data in relation to prevention of diabetes and other major health problems. Further, the study findings will benefit when planning health care service systems and evaluating their effectiveness.

# P05 Weight Management Groups in health care, organization and evaluation

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#### **Background**

According to the Finnish clinical practice guidelines, overweight adults should have lifestyle counselling in groups. In 2014, several weight control groups were organized in Northern Ostrobothnia Hospital District, both via video conferences and face to face groups. Video groups were organized by specialists at the Unit of Primary Health Care. To get a comparable date we decided to create a system for follow-up and evaluation of obesity groups in cooperation with municipalities.

#### **Objectives**

The purpose of this study is to promote the implementation and quality assurance of group counselling in primary health care centers in Ostrobothnia Hospital District.

Research Questions were:

Are present group counselling results good enough, considering recommendations and previous research data? How many people lose more than 5% of their baseline body weight, i.e. achieve a clinically relevant result In how many cases BMI is more than 35 or over when group counselling ends?

### Methods

In order to document patient data systematically, group counsellors and IT administrators were trained by providing a total of five identical training sessions for them. Counsellors recorded the results of the weight control groups into the electronic patient record system, from which research material was collected. The data were collected in collaboration with the Health Care Centre IT administrators and it was then recorded to the network server of the Northern Ostrobothnia Hospital District.

## Results

An uniform recording system of weight control groups and reporting practices was created. In 2014, a total of 36 weight control groups were organized, 22 of which were video groups and 14 face to face groups.

Preliminary results show that 80% of the persons who participated in the weight control group achieved successful weight loss and 17-50% of the participants achieved a significant weight loss.

## **Conclusions**

The collected data acts as feedback to the counsellors and their superiors and encourages them to arrange more and better obesity groups and develop lifestyle counselling practices.

Data collection of obesity groups will be continued in cooperation with health care centers.

Weight management cuts the adult-onset diabetes risk in half. This is of great significance in reducing health care costs.

## P06 ABCDE patient triage and response times in Jämsä emergency department 2010-2015

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## **Background**

In Finland evaluating urgency of the emergency patients in the primary care has been assessed since the first piloting studies published 2003. In Jämsä it has been done since 2008. The ABCDE-triage system was chosen, because it was already then also most widely used in Finland, especially in primary health care. In the ABCDE-triage the group A patients are in immediate life-threatening danger and in urgent need of specialized care. The group B patients are also in urgent and significant risk and need specialized care in within next 30 minutes. The group C patients are more typically the emergent primary care patients that preferably need the physician's attention within

one hour from the arrival. The group D patients are not in immediate danger, but in need of urgent evaluation and treatment, preferably within 2 hours from the arrival. Group E patients are non-urgent and could as well be advised to visit normal daytime appointments. In our system the triage of the arriving patients is done by the nurses working in the emergency department. Triaging was started in the end of 2007 and the personnel has been trained regularly. The department has developed its own instructions for triage, which have been updated, when necessary.

## **Objectives**

In this study the response time in different patient groups were observed to find out, if it correlates with the assessed urgency of the patients. Materials and methods The purpose of triaging is to find and pick out those of the patients that need most urgent help. Managing in that has been assessed by monitoring the response time of the department, the time between arriving and beginning treatment procedures. The parameter followed is the median of the waiting time in each group. The time of arrival and the time when treatment is started were in the electronic patient records, from which the data for the study is collected.

#### Results

During the observation period the response times have shortened. In the C and D groups the response time has decreased significantly 2010-2015. The parameter monitored is the median of the waiting times, so at the times the department is congested with patients the response time for less urgent patients can prolong for several hours. Arrangements were made to direct the less urgent patients to other services, which led to a decrease in the numbers of the group D and E patients after 2011, but no change happened in the more urgent groups. The number of patients in groups A and B is very small, less than 1% of all the patients.

#### Conclusions

Assessing the urgency of the emergency department patients systematically has helped shortening the response time of the urgent patients thus supporting the main purpose of the emergency department.

## P07 Validity and reliability of Patient Enablement Instrument (PEI) in Finnish primary health care.

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# Background:

Patient enablement or enablement is described as patient's ability to understand and cope with illness after a consultation. Enablement is suggested to be a good outcome measure indicating quality of GP appointments in primary health care. Patient Enablement Instrument (PEI) is an established measurement for enablement, consisting of six questions. PEI has been translated to Finnish and used in one previous study but its validity and reliability in Finnish context has not been tested.

## Objectives:

The aim of this study is to examine reliability, validity and other psychometric properties of PEI after GP appointments in Finnish primary health care.

## Material/Methods:

A questionnaire study in Pirkkala Municipal Health Centre at Tampere University Hospital District in Western Finland. The survey consists of three parts: A) a questionnaire before an appointment with a GP, B) a questionnaire after an appointment with a GP (including PEI) and C) a telephone survey two weeks after the appointment with a GP. At first, 20 randomly selected patients are asked to complete the questionnaire. Content validity of the study questionnaires are assessed by cognitive debriefing interviews. The survey questionnaires are then administered to all patients visiting a GP appointment during one randomly selected week; the goal is 200 patients. All the respondents who give their consent are contacted with telephone to complete PEI again two weeks after the appointment. Construct validity is assessed with factor analysis, discriminative properties of PEI and known group comparison. Reproducibility is tested with intra-class correlations and kappa statistics of test-retest correlations. Internal consistency is assessed with item-scale correlations and Cronbach's? coefficients.

Results: First results will be presented in the congress.

Keywords: Finland, Patient enablement, PEI, Psychometric properties, Primary health care

## P08 LATE-ONSET HYPOGONADISM IN LATVIA

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#### Aim

The aim of this study was to examine how common is LOH in Latvian men and to determine the target audience that needs screening for LOH.

## Materials and methods.

300 men over the age of 40 who came to their family doctors and to sexologists were asked to complete the

questionnaires for Aging Male Symptoms Rating Scale. Men were divided in three groups based on their age: 40-49 years old, 50-59 years old, and >59 years old. The men who according to the AMS questionnaires had suspicion of LOH symptoms were asked to check their level of testosterone in the blood serum. The authors also have summarized the data on the spread of different chronic diseases among the men.

#### Results

134 men were asked to check level of testosterone in the blood serum. 29% of men appeared to have hypogonadism. 38% of this men appeared to have adiposity, 77% - hypertension, 18% – diabetes, 51% – dislipidemia, 66%– erectile dysfunction. Among men with normal testosterone level adiposity was found in 29%, hypertension-in 56%, diabetes-in 5%, dislipidemia-in 39%, erectile dysfunction-in 61%. Significantly in hypogonadal men in the group 50-59 years was more frequent hypertension, and in all groups – diabetes mellitus **Conclusions** 

1/3 of men aged 40 and older have diagnosis of LOH in the groups under research. It is necessary to check testosterone and free testosterone level: in all men 50-59 years old with arterial hypertension; in all men over the age of 40 with diabetes.

P09 'Somebody else will also notice ... surely.' - A qualitative, interview-based study of GPs' and registrar GPs' experiences of reporting, and not reporting, cases of suspected child abuse and neglect.

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### Background:

Compared with other doctors and health care professionals, General Practitioners (GPs) are in a unique position to find and file a report of children at risk of suspected child abuse and neglect. This, mainly because they meet the children and their families regularly and often follow them over time. Although a mandatory Swedish legislation requires health care professionals to immediately report suspected cases of child abuse and neglect to Social Services, only a small number of cases are, in fact, reported. Earlier studies show that insecurity of the medical practitioner's medical judgement, lack of time, and stress all contribute to the low numbers.

Objective:

To assess the experiences, opinions and considerations that influence GPs' decision-making while considering whether they should or shouldn't report suspected child abuse and neglect.

### Method:

Seven qualitative interviews with open-ended questions and narrative answers were conducted with GPs and registrar GPs from southern Sweden. The GPs' work experience ranged between five and 23 years. A qualitative analysis inspired by Kvale was done.

## Results:

Three main themes were identified: The first had to do with each doctors' inner work process and considerations, the second related to them finding alternative strategies instead of actually filing a report. The third theme related to how the doctor/patient relationship was affected by a report.

Threats and feelings of loneliness were common. All but one GP had at some point considered to file a report, but chosen not to. Reports were often described as "a help" and "a support" for the family, to be easier for the family to accept. Referrals to another clinic and a strict follow-up at the health center were described as alternative strategies. **Conclusion:** 

The dual loyalty towards both child and parents and the GPs' manner of work should not obstruct the GP to file a report. The doctor-patient relationship can be repaired. It is important to establish forums to discuss cases that raise a question whether child abuse and neglect should be suspected and reported. GPs should be encouraged to collaborate with Social Services and take the opportunity to contact them personally. GPs should not presume that somebody else will notice the suspected abuse or neglect.

P10 Early intervention for patients with sub chronic pain - Methods towards preventing the development of chronic pain in primary care patients

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#### Background

In 2013, the North Denmark Region received extended funds for a strengthened effort for people with sustained and chronic pain. The political objective was a better and more efficient treatment, offering patients timely and optimal relief. The effort of supporting this was formulated in two main areas i.e. *further training of GPs and cooperation between GP and the Regional Pain Clinic*, and, *extended capacity of the Pain Clinic and more timely treatment of patients referred*. A project group was established consisting of representatives from GP and the Regional Pain

#### Clinic.

#### **Objectives**

To develop the means and tools for better primary care treatment of patients suffering from sub chronic pain. This would serve to provide timely treatment to those at risk of developing chronic pain, and relieve the Pain Clinics' waiting lists.

## Methods

To facilitate easy accessible training of GPs towards helping patients with pain

To develop a tool for consultations to ensure focus on non-pharmacological aspects of treatment

To develop alternative support for the patients and their relatives

To facilitate better cooperation between GP and the Regional Pain Clinic

#### Results

The improved cooperation between the Pain Clinic and GP has produced a number of tangible results. First, training videos following the patient through the GP consultations and the Pain Clinic were developed. The videos are self-guiding and will enable the GPs to discuss optimal care for their patient with chronic pain. They will feature in a postgraduate educational package in 2017.

Second, a consultation-tool was developed to guide the content of the patient-GP dialog. It is formulated as two 'pain-circles' containing 10 themes for the GP and the patient to focus on in the consultation. The tool is an integral part of the training videos and the aim is to help focus the communication on pain related themes other than the medication.

Third, two 3-hour course modules were developed for chronic and sub chronic pain patients and their relatives. The course offers information on pain and pain management delivered by physiotherapists, psychologists and doctors. The first courses are scheduled for the spring of 2017.

#### Conclusion

The project group has proven a productive forum to facilitate cooperation between the GPs and the specialists in the Pain Clinic, with shared goals of providing better and more efficient treatment for patients in primary care with long-standing pain. The success of the cooperation in reaching these goals, however, remains to be seen in the implementation and facilitation of the developed tools and courses.

# P11 Maternal depression and offspring attendance to routine well child care and vaccination program in Denmark

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## Background:

Depression is a common mental illness worldwide with potentially severe consequences. It has a female preponderance, and the risk of depression is increased during pregnancy and birth. Extant research reports that prenatal depression predicts health problems in offspring, which again predicts impaired social functioning and youth depressive symptoms. Maternal depression has also been linked to internalizing and externalizing behavior in the offspring. Routine health care is a corner stone in modern welfare and grants the physician the opportunity to identify and assess vulnerable families.

# Objectives:

To evaluate the association between maternal depression and attendance to the Danish routine child care and vaccination program.

### Material/methods:

A population-based cohort study using historical data from Danish nationwide registers. Participants were all live born children in Denmark in the years 1997-2013. Our birth cohort counted 1,063,820 children and 617,050 mothers. Exposure measure was maternal depression and mothers were categorized into three groups; never, ever and acute. Outcome of interest was attendance to well child care visits and immunizations at the general practitioner. Data were modelled by binary regression and adjusted for maternal age, parity, income, civil status, education, maternal mental comorbidity, and paternal depression. Nine different regressions were performed, one for each of seven child care visits at the ages 5 weeks, 5 months, 12 months, 2 years, 3 years, 4 years, and 5 years of age, and two regressions for vaccinations.

#### Results:

Regression analysis revealed that children of mothers with depression had a higher risk of not attending both child care visits and vaccinations. Children of ever depressed mothers had a 3%-8% increased risk of non-attendance. Children of mothers with acute depression had a 7%-12.8% increased risk of non-attendance. Children of mothers with depression had a 3%-6% increased risk of not receiving scheduled vaccinations.

#### Conclusion:

This study indicates that attending routine well child care poses a challenge to families struggling with depression. Acute depression had the greatest impact on attendance. Based on previous research these children are at risk, and through routine child care timely assessment could possibly prevent long term consequences. One interesting finding was that ever being depressed also affected the attendance to child care significantly. An implication of this is

the possibility that the General Practitioner needs to pay attention to these vulnerable families, even years after full recovery.

# P12 Increased risk of complications among long-term users of proton pump inhibitors? A retrospective study of prescriptions at four Swedish Health Care Centres

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#### **Background**

During the last 20 years, there has been a twenty-fold increase in the prescription of proton pump inhibitors (PPIs). PPIs are currently prescribed to between 7.5 % and 11 % of the population. In addition, omeprazole is the 5th most common over-the-counter drug. To a great extent, PPIs are prescribed to patients who use this medication on a daily basis. Earlier studies have shown that roughly half of the PPIs are prescribed as treatment for dyspepsia, which is not a valid indication.

Recent studies have raised concerns that long-term treatment with PPIs may cause decreased uptake of iron, vitamin B12 and calcium, and increase the risk of gastrointestinal infections, osteoporosis and pneumonia. Furthermore, PPIs may interact with other common drugs, potentially causing treatment failure and/or an increased risk of complications.

#### **Objectives**

To analyse the prescription of PPIs and to find signs of complications in patients prescribed long-term treatment with PPIs.

#### Methods

In a retrospective cohort study, data were gathered from the medical records of four health care centres in Västra Götaland, Sweden, for the time period 2010-2015. Data about the patient's age, sex, diagnoses, number of visits, prescriptions and relevant laboratory samples/measurements were collected and anonymised using a Perl script. Descriptive statistics were then prepared with R.

#### Results

During the period in question, approximately 60,000 patients were in contact with the four health care centres, 800,000 patient visits took place, resulting in 300,000 prescriptions and 120,000 laboratory samples/measurements. Seven per cent of the patients received a prescription for a PPI and approximately 85 % of the prescriptions corresponded to a yearly consumption of omeprazole. Elderly patients received PPIs to a greater extent than younger patients. No difference between the sexes was observed. Patients with PPI prescriptions had more unrelated diagnoses, more frequent patient visits and more prescriptions of other drugs.

No discernable differences were observed in the levels of haemoglobin mean corpuscular volume, cobalamin, homocysteine or body mass index. Furthermore, there was no indication that patients on PPIs were prescribed iron and vitamin B12 supplements, bisphosphonates or antibiotics to any greater extent.

Only 40 % of the prescriptions had a valid indication; 20 % of the patients received PPIs for dyspepsia and 40 % of the prescriptions had no apparent indication, even when simultaneous prescription of NSAIDs, previous diagnoses, etc., were considered.

## Conclusion

This study indicates that PPIs often seem to be prescribed without a valid treatment indication. However, the risk of complications seems to be very small, also among long-term users.

# P13 Prescribing antibiotics in general practice: The relative importance of factors influencing prescribing behaviour

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## **Background**

Antibiotics are essential when treating potentially lethal infections. An increasing development of resistant bacteria is considered one of the primary threats to public health. The prescription of broad-spectrum antibiotics can cause unnecessary side effects for the individual and increases the risk of selection of bacteria resistant to antibiotic treatment. The majority of antibiotics are prescribed in general practice. In spite of guidelines aiming to minimise the use of broad-spectrum antibiotics an increase in the use of these agents is observed. The level of resistant bacteria is equally increasing. Quite large variations in prescribing patterns among GPs are observed, but the reasons behind the different approaches have not yet been revealed.

#### **Objectives**

The aim of the project is to explore various selected factors influencing the decision process among GPs in the management of patients with symptoms of an infection.

#### Method

A questionnaire comprising a discrete choice experiment will allow us to investigate the relative importance of selected factors (e.g. microbiological diagnostics, point-of-care tests, patients' expectations) in the management of patients with infectious diseases. The questionnaire will be based on information obtained by 3-5 focus group interviews with GPs. The interviews will explore the management of infectious diseases and especially the antibiotic prescription behaviour in general practice. In addition, a panel discussion will be carried out with participation of relevant experts, i.e. clinical microbiologists, GPs and experienced researchers.

#### **Results**

The results from the focus group interviews and the expert panel discussion will be presented at the conference, and identified factors of importance for antibiotic prescribing will be discussed.

## Conclusion

This project will contribute with knowledge on factors influencing Danish GPs, when handling patients with symptoms of an infection. The information can be used for future interventions for optimising antibiotic prescribing in general practice.

Keywords Infections, Anti-bacterial agents, Antibiotic prescription, General practice, Questionnaire.

## P14 Use of Oral Contraception in Girls younger than 15 years of age.

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## Background:

Oral contraception(OC) is used by 20-25 % of women in the childbearing age for birth control, bleeding disorder and menstrual pain. The age of menarche and sexual intercourse has declined over the years and increased the need for oral contraceptions in younger women. In Denmark medicine cannot be prescribed to girls younger than 15 without the parents/legal guardians consents.

#### **Objectives:**

We want to examine the use of OC in girls at the age of 10-14, including age at prescription, indication for the prescription and whether sufficient information is registered in the medical records to comply with the law. Moreover, we want to look into if good clinical practice is followed when prescribing OC.

#### Material/Methods:

We identified all girls between 10-14 years who received a prescription of OC before the age of 15 years in 3 different general practice clinics. The medical records were checked manually to obtain information on age at prescription, indication for the prescription, parental consent, contraindications, blood pressure and given instruction on the use and possible side effects. Moreover, we looked into the nationwide Danish database (www.medstat.dk) to see prescription patterns and checked the Danish health Disciplinary boards former verdicts at (www.stps.dk). **Results:** 

In the 3 clinics, 19 out of 1047 girls had received a prescription for OC between 10 and 14 years of age of whom 17 (89%) were 14 years at the prescription time. The indication were bleeding disorders in 58% and birth control in 42%. Parental consent was documented in 11 of the 19 medical records. For the rest of the criteria the documentation was inadequate in about half the cases.

By using information from nationwide databases, we found that the use of OC among girls under 15 years of age increased from 2,1% in 1999 to 4,0% in 2010 where after it has declined consistently to 2,6% in 2016 No doctors have been reprimanded by the Danish Health Disciplinary board for prescribing OC for girls under the age of 15 without parent consent.

## Conclusion:

The majority of girls who are prescribed OC between 10-14 of age were close to 15 years of age. Medical record documentation was inadequate in terms of documenting good clinical practice and parental consent. To prevent reprimands doctors should be more aware of adequate documentation in the medical records especially when prescribing oral contraception to girls younger than 15 years of age.

The proportion of women between 10-14 years who were in OC has fallen over time, possibly due to increased awareness of side effects. The risks in teenage pregnancy and the socio-economic aspects of bleeding disorders should be held against the risk of side effects.

## P15 Can primary prophylactic Aspirin prevent colorectal cancer in people without risk factors?

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# Background

Cancer of the colon and rectum is the third most common kind of cancer in Sweden among both men and women. Around 35 percent of those affected will decease within 5 years from diagnosis. In a 1980's Australian case-control study on patients with colorectal cancer, an incidental finding suggested that persons who of other reasons were

treated with the antiinflammatory substance acetylsalicylic acid (ASA, Aspirin) seemed to have a decreased risk to be affected by colorectal cancer.

#### Objective

This literature review aimed to look at what scientific evidence is provided for the hypothesis that ASA would be useful as a chemopreventive agent against colorectal cancer.

#### Materials/methods

The medical databases Medline (PubMed) and Cochrane were searched. In total, 12 articles were reviewed. They were assessed in regard to quality and results consistent with the aim of the study. Seven studies of good quality were finally included in the literature review.

#### Results

The results of the studies pointed in different directions. Most could not see a clear protective effect of ASA, at least not on mortality. Several studies, but not all, saw a clearly decreased incidence in colorectal cancer and colon polyps, which are precursors to cancer.

The studies were in most cases not designed to answer this question, but were reviewed second hand which decreases the usefulness. Further limitations of the interpretation is that colorectal cancer develop over many years and the follow-up time must be long to see effect.

#### **Conclusions**

The conclusion of this literature review is that there are some indications that a regular intake of ASA during a long time (more than 10 years) in people over the age of 50 can decrease the incidence in colorectal cancer, but that the effect on mortality isn't established. Larger studies over longer time focusing on this question, evaluating the optimal dose and length of treatment, is needed before a recommendation of ASA as a chemoprophylactic agent against colorectal cancer can be issued.

P16 Is it possible to select patients suitable for referral for colonoscopy, to find more patients with colorectal cancer? A retrospective study in one large Swedish Health Care Centre.

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## **Background**

Cancer of the colon and rectum are the 4<sup>th</sup> and 8<sup>th</sup> most common cancers. The rate of survival is highly dependent on an early diagnosis. The most typical symptoms of colorectal cancer, blood in the stools, anaemia and changed bowel habits, are common among the general population, making it difficult to select the right patients for colonoscopy. Patients who receive a colorectal cancer diagnosis after visiting the hospital with acute symptoms, and who were referred for a colonoscopy by the hospital, may have a more advanced disease. In Sweden, other approaches, such as general screening of the population with colonoscopy or fast-track protocols for colonoscopy, are discussed to allow for earlier diagnoses.

### Objective

Is it possible to grade the risk of cancer based on information in the primary health care centre (PHCC) records and the referrals? How large a proportion of the patients with newly diagnosed colorectal cancer were referred for colonoscopy by the primary care?

#### Methods

All referrals for colonoscopy (n = 107, 65 women) from Ågårdsskogens PHCC (18,000 patients), in the rural community of Lidköping, Sweden, were collected in 2014. The PHCC medical records and the referrals were studied. The risk of cancer was classified into three groups by the author before looking at the consultation response. The group with the highest risk included patients with iron deficiency anaemia and weight loss; the intermediate group, patients with altered bowel habits and haematochezia, and the group with the estimated lowest risk was colonoscopies for excluding disease at suspected IBS. The number of persons living in Lidköping municipality with newly diagnosed colorectal cancer in 2014 was retrieved from the Swedish National Board of Cancer Registries.

## Results

The median waiting time for colonoscopy was 55 days. Three patients had newly diagnosed colorectal cancer (average age 75 years, 2 women), giving an incidence of 17/100,000. None of the patients with colorectal cancer was included in the group with the highest estimated risk before the investigation.

During 2014,28 patients living in Lidköping received a colorectal cancer diagnosis, giving an incidence of 72/100,000. The national incidence of colorectal cancer is 64/100,000.

#### Conclusion

This small study confirms the difficulty to predict colorectal cancer at an early stage due to the lack of obvious symptoms. In this study, about one quarter (17 of 72/100,000) of patients with newly diagnosed colorectal cancer in 2014 was referred for colonoscopy from the primary care. It is a challenge for the primary care to increase this percentage as the patients both have fewer obvious symptoms, and probably a better prognosis, at an earlier stage of their cancer.

# P17 Bone mineral density in primary care patients related to serum calcium concentrations - a longitudinal cohort study in Sweden

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## **Background**

Elevated calcium concentration is a marker for a multitude of illnesses, the most prevalent being primary hyperparathyroidism (pHPT). The possibility of multichannel biochemical analysis has led to the successful use of calcium analyses in screening for pHPT in primary care. PHPT is a condition that is difficult to detect as the symptoms are often subtle. It is a main risk factor for developing secondary osteoporosis, with low bone mineral density (BMD). Osteoporosis in pHPT is an indication for parathyroidectomy and measurement of BMD is included in the investigation of patients with elevated calcium concentrations.

The diagnosis of osteoporosis is a common and undertreated disease that is difficult to detect, because of the absence of symptoms before a fracture occurs. There is a lack of studies from primary health care regarding BMD in patients with elevated calcium concentrations.

#### Objective

To explore whether there is an association between BMD in patients with elevated and normal calcium concentrations and the prevalence of osteoporosis in the two different calcium groups.

#### Material/Methods

One hundred twenty-seven patients (28 men) with elevated, and 254 patients (56 men) with normal calcium concentrations, mean age 61.4 years, were recruited to a prospective case-control study in Tibro Primary Health Care Centre in Sweden. Eighty-six per cent of those alive participated in the follow up visit after ten years. Blood samples were drawn for analysis of the concentration of calcium, parathyroid hormone and the bone formation marker alkaline phosphatase, using standard laboratory analyses, and a dual energy x-ray absorptiometry (DEXA) measurement (Lunar Prodigy, Unilabs, Skövde) was performed for assessment of BMD.

#### Results

No correlation was found between calcium or parathyroid hormone and BMD. We found a negative correlation between plasma alkaline phosphatase and BMD, a tendency in the whole group that was significant in men. The group with elevated calcium concentrations had a higher proportion of patients with osteoporosis compared with those with normal calcium concentrations (p = 0.036).

#### Conclusion

# P18 STRENGTHENING THE MULTI-PROFESSIONAL DEVELOPMENT WORK IN THE HEALTH CENTERS IN FINLAND

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## **Background**

In Finland, there used to be a nationwide network of educated facilitators in primary health care. The facilitators were educated by the National Institute for Health and Welfare (THL). This nationwide education ended in the beginning of the 2010s. However, there continued to exist a need to improve the management procedures and there was also a lack of trained facilitators in the health centers. Therefore, we started to educate facilitators regionally.

## **Objectives**

Our aim is to educate GP and nurse/ physiotherapist pairs to improve the management procedures in their own workplace communities and in the entire organization. There is also a need to strengthen the regional network of facilitators in primary health care.

# **Materials**

The education is targeted at the health centers (n=30) within the special responsibility area of Tampere University Hospital (TUH). There were 24 GP and nurse/ physiotherapist pairs from 17 health centers participating in the courses arranged between the years 2013-2014 and 2015-2016. The third course with 12 participant pairs started in November 2016. The education is co-ordinated by the Centre of General Practice in Pirkanmaa Hospital District and planned and carried out with the experienced facilitators from the region (TUH).

# Results

The education of the facilitators includes seven face-to-face training days within the course of one year. In addition, GP and nurse/ physiotherapist pairs complete a development project in their own workplaces. Both the education

and the development projects are based on the PDSA-circle (Plan-Do-Study-Act). During the training sessions the participants learn how to improve management procedures together with the workplace community by using workshops and other improvement tools. One of the main themes in the training sessions is the concept of patient centered care and, therefore, the development project is done with patients. The participant pairs report the results of their projects by drafting and presenting an abstract and poster to the regional network of facilitators, including the directors. Past feedback from the participants has emphasized the significance of the networks within their own course and with the other facilitators in the region.

#### Conclusion

Via this education we have managed to strengthen the multi-professional development competence and to improve the procedures in everyday life in health centers. However, not all health centers in our region have yet educated facilitators. In the future, there are also challenges with the continuity of the development work and the turnover of the workers in the health centers.

## P19 Can self-filled questionnaire be useful tool in setting fibromyalgia diagnosis?

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## Background:

Fibromyalgia is a functional syndrome characterized by wide-spread pain and other symptoms including unrefreshing sleep and cognitive problems. According to recommendations, diagnosis should be made in primary health care and it should be based on patient history and clinical examination. Different diagnostic criteria have been developed to facilitate the diagnosis. In 2010 American College of Rheumatology published criteria based on history of self-reported wide-spread pain and additional symptoms (ARC-2010). However, in clinical practice patients have sometimes difficulties to understand these questions. Modified criteria questionnaires have also been developed. **Objectives**:

Aim of this study is to find out whether results from ACR-2010 criteria form filled by the patient day before appointment are similar as results from criteria form filled on GP's appointment.

#### Material/Methods:

Fibromyalgia-patients (ICD-10 code M79.7 or M79.0, M25.5, R52.3 and R52.9 and word 'fibromyalgia' in patient record) were identified from Nokia Health Center's electronic data base. In November 2016 208 patients were indentified and question forms, containing self-fill-ACR-2010 questionnaire, were sent. 49% (101) responded and GP's appointment was arranged for them. 3 patients did not show up. 15.11.2016 88 patients had visited clinic. GP performed clinical examination and ACR-2010 criteria form was also filled together with patient and GP. **Results and Conclusion**:

88 patients filled ACR-2010 criteria form together with GP and 91% (80) had score indicating fibromyalgia. 73% (64) of patients had filled ACR-2010 form as instructed before the appointment. 81% (52) had score indicating fibromyalgia in self-filled ACR-2010. From these patients 51 had also fibromyalgia according to ACR-2010 form filled with GP. 1 patient had fibromyalgia according to self-filled form only. 3 patients did not have fibromyalgia according to either and 9 patients had fibromyalgia only according to ACR-2010 filled by GP during appointment. Self-filled ACR-2010 questionnaire had 85% sensitivity and 75% specificity, when 'golden standard' was ACR-2010 form filled during the appointment. This study indicates that self-filled ACR-2010 criteria questionnaire might be useful tool for GP's, when they suspect that patient may have fibromyalgia, but they need more information to set the diagnosis.

## P20 The Cost-effectiveness of a Wound Care Team in Primary Health Care in Helsinki

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#### Background:

Definition of a chronic wound is a wound unhealed within 4 weeks. Chronic wounds are usually treated 2-3 times per week for months. It is the clinicians duty to set a diagnosis and a treatment plan which is then followed by the nursing staff.

Major causes of chronic wounds are pressure, diabetes, arteriosclerosis, skin cancers, venous insufficiency and vasculitis. In previous studies it has been shown that a multidisciplinary team is the most cost-effective way in treating chronic wounds. These these are lead by a specialist like a vascular or plastic surgeon or dermatologist but no GP mentioned. It has been counted in Helsinki area that costs of chronic wounds are approximately 7-14 million euros per year. This Wound Healing Team (WHT) was founded in September 2013 to prevent the rise of costs, concentrating on early diagnosis and shorter time of wound healing.

#### Aims:

To find out if a wound healing team lead by a GP making proper diagnose and treatment plan is cost-effective way in treating chronic wounds in primary care an to find out problems behind diagnostic delay.

#### Methods

Intervention in this study is a WHT led by a GP who is setting the diagnosis and the treatment plan for chronic wounds. Data consist of Patients treated by WHT from April 2016 until March 2017, follow-up one year. Primary outcome is wound healing. Data is collected from medical records: Consumed time and resources from appearance of a wound to first contact to primary care until end-point. Following diagnostic process and making treatment plan before and after WHT consultation. Secondary outcomes are limb amputation, wounds unhealed or a relapse of wound within a year or a patient died. Control group can be found from Helsinki University Hospitals registers, with certain diagnoses (venous ulcer, skin cancer, diabetic ulcer and vascular ulcer patients). Comparing these groups in time on ulcer healing, time and resource consumption before and after diagnosis, time of revascularization, decompression started, off-loading started or PAD with dermatologist consultation. To define cost –effectiveness of WHT we count treatment costs, personnel working hours etc. before and after diagnosis until wound-healing.

### Significance of results:

Population is getting older, prevalence of diabetes and obesity are increasing leading to wound Problems. This study is trying to rise up the significance of early diagnosis and treatment of chronic wounds among primary health care professionals. Quality of Life is diminished among these patients: they are having pain, shame and restrictions in daily life and economical loss. Chronic wounds also cause an economical burden for society. Covering materials and specialist care and interventions altogether with hospitalization are expensive.

## P21 Developing supervision of the post-graduate medical education in health centers in Finland

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## **Background**

In Finland further training of general practitioners (GP) in primary health care (EU-competence) includes minimum 9 months of training in health centers (HCs). Within the special responsibility area of Tampere University Hospital (TUH) the doctors in training (trainees) complete an electronic questionnaire to evaluate the HC as a learning environment. The most important questions are concerning the supervision. We have previously reported that the structures of the supervision have become better but special attention should be paid to the contents of supervision. In the education of the GP supervisors that has been our main target.

## Objectives

Our aim was to evaluate and develop the supervision of the post-graduate medical education in HCs and to develop the education of GP supervisors to become a better supervisor.

## Material and methods

We collected and compared two kinds of electronic questionnaire data: data of trainees in HCs in the special responsibility area of TUH between 2009 and 2016 (n=378 training episodes) and data of their GP supervisors in 2016 (n=88). Trainees completed the questionnaire after every working episode. We analyzed their responses in three time periods: 1.1.2009-31.12.2011 (n=152), 1.1.2012-31.12.2014 (n=128), and 1.1.2015-13.10.2016 (n=98). The supervisors answered the questionnaire in 2016. In the both questionnaires the claims were identical in scale 1= totally agree to 4= totally disagree.

## Results

In general 68-74 % of the trainees were partly or totally satisfied to the supervision, but the amount of totally satisfied increased from 28% to 43% between 2009 -2016. Of the GP supervisors 90% were satisfied (totally satisfied 41%). Concerning the *structures* of supervision the amount of totally satisfied trainees further increased: addressed personal supervisor 58->76%, time for tutoring 35->50%, planned supervision 14->22%, and use of logbook 9 ->20%. Correspondingly the numbers for the GP supervisors were 79%, 34%, 33%, and 28%. Also concerning the *contents* of supervision the amount of totally satisfied trainees increased: core competencies required of GPs 15 -> 21%, trainee's own learning needs 32 -> 44%, and getting feedback 22 -> 32%. In GP supervisors the corresponding numbers were 33%, 48%, and 43%.

## Conclusion

Positive development has further been occurred. The amount of totally satisfied trainees and the GP supervisors has increased. However we have to develop further the contents of supervision: build the main topic frames (core competencies required of GPs) and assessment tools for evaluation (trainee's own learning needs, getting feedback) together with GP supervisors. We may not forget continuous maintenance of the structures, especially use of the logbook.

## asymptomatic atherosclerosis for primary prevention; An interview study.

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#### Background:

To estimate CVD risk based on clinical risk factors is generally recommended bur not regularly performed by GP's. To improve and make information regarding patients risk more user-friendly, graphical presentations including colors and simple comparative information support physicians to relate information about risk and motivate patients. Making patients aware of their risk can encourage risk reducing actions. The degree of actual atherosclerotic disease can be visualized through ultrasonography of medium sized arteries. Increased carotid artery intima-media thickness and presence of plaque are early signs of atherosclerosis and are associated with myocardial infarction and stroke.

## Objectives:

To explore how visualization of asymptomatic atherosclerotic disease affects GP's perception of patients' risk, communication with patients and GP's attitudes to and treatment of CVD risk factors.

#### Material and methods:

The study was a RCT with 3700 participants. An ultrasound examination of the carotids was performed and participants were randomized into two equal groups. In the intervention group, participants and their GP were informed the participants atherosclerosis, presented with a picture of the carotids, a graphical presentation of plaque in the form of a traffic light and a gauge in color to indicate vascular age. A text to explain the dynamic nature of atherosclerosis and to encourage a healthy lifestyle was included. Fifteen GP's who had received at least three ultrasound results were interviewed to explore their experiences from the study. The analytical process followed Qualitative Content Analysis.

## Results and conclusion:

Three categories evolved.

<u>Increased patient knowledge makes a difference</u>; The level of the discussion became higher when the patients had more knowledge regarding atherosclerosis and CVD. The consultation was more an issue of confirming and give feed-back than telling the patient what to do.

<u>This is real, not just a number:</u> The patients understood this information better, high risk based on ultrasound was considered more serious than when regular CVD risk calculation was used, "this was for real and not just a number". There was a concern that this information would scare patients and cause anxiety, some GP's had experienced this but additional information managed to comfort the patients.

<u>How to deal with the result – A passive to active approach:</u> A wide spectrum of how to deal with the information was found. Some GP's ignored the result while others were more prone to treat their patients actively when signs of atherosclerosis.

# P23 Systematic influences applied to maximize the participation rate in national cancer screening programmes

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# Background:

National screening programmes for breast cancer, cervical cancer and colorectal cancer are implemented in a number of countries. For the individual, such screening implies both possible benefits and possible harms. Despite this, national health authorities actively influence their citizens to participate in these programmes. The quality indicators by which the Danish screening programmes are evaluated are based on the participation rate, making the maximisation of the number of participants a primary focus.

## Objectives:

To explore which forms of systematic influences are being applied to maximize the participation rate in national cancer screening programmes.

## Methods:

Influences were initially identified via an evaluation of scientific literature that was subsequently presented to an international network of healthcare experts with the purpose of obtaining empirical examples of systematic influences.

## Results:

Twelve article were identified in the search and evaluation of literature. Eleven responses from the international network were obtained. This revealed the following examples of systematic influences: use of relative numbers,

misrepresentation of benefits vs. harms, opt-out-construction, explicit recommendations for the individual to participate in screening programmes and influences directed towards doctors and other health personal.

# Conclusion:

The bulk of evidence suggests that the types of systematic influences identified take advantage of an "autopilot state of mind" in the hope of influencing the potential screening-participant's choice. If this is true, the right of every citizen to make an informed choice may be compromised. Therefore, it is of the utmost importance that the citizen can easily resist the applied influences. This study raises two new areas to investigate: 1) Are the influences identified in this study easily resistible? 2) How do the media influence the citizens' participation through its depiction of cancer and screening?

In Spring 2017 we will conduct a qualitative study with the purpose of determining whether said influences are easily resistible. Results from this study will also be presented on the poster.

## P24 Physical harm of colorectal cancer screening - a systematic review

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## **Background**

Screening for cancer has become a popular prevention strategy, aiming to detect cancer on an earlier stage to reduce cancer mortality and morbidity. However, screening can also cause unintended harms. In the scientific literature, the harms of screening are underreported and asymmetrically presented compared to the benefits of screening. Moreover, the quality of reporting of harms is poor. Therefore, Harris and colleagues have proposed a taxonomy for the reporting of harms of screening suggesting four domains of harms: physical harm, psychological harm, opportunities lost and financial strain. They hypothesize three additional categories: health system strain, hassles/inconveniences and societal consequences. An eighth category, "work-related costs" is also suggested in an unpublished study.

Colorectal cancer (CRC) screening has been implemented in several countries. The absolute mortality reduction of the CRC screening programme is 0.13%. In contrast, the potential harms of CRC screening are poorly assessed. A recently published systematic review report on serious physical harm as bleeding and risk of perforation during colonoscopy. To our knowledge there are no systematic reviews investigating minor and other physical harms of CRC screening as well as the seven other types of potential harm of CRC screening suggested by Harris and colleagues

### Aim:

To conduct a systematic review of the unintended harms of colorectal cancer screening using Harris' proposed taxonomy to estimate the magnitude of harms of screening for colorectal cancer for all harm domains. Moreover, to investigate whether some people experience more harm than others as well as assess the overall quality of the reporting of harms and point to potential gaps in knowledge where further research is warranted **Methods:** 

To ensure a thorough appraisal of all available evidence regarding the harms of screening this systematic review will be conducted following the PRISMA guidelines and using the Cochrane handbook and checklists on the Equator network for critical appraisal of studies. The study protocol will be published on PROSPERO prior to data extraction to ensure transparency. A detailed search strategy has been developed with the help of an information specialist at the Copenhagen library to gather all available evidence concerning the 7 harm categories: Physical harm, financial strain, opportunities lost, hassles/inconveniences, work-related harm, health system strain and societal consequences. Psychological harm of colorectal cancer screening is not included in this review as a systematic review regarding this is in progress.All relevant databases will be searched with no restrictions regarding study design, language or date.

Results and Conclusions: Will be presented at the conference

# P25 Development and validation of an algorithm to identify cancer recurrence from Danish national patient registries.

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## **Background**

The prevalence of cancer survivors increases rapidly. In Denmark, the number has increased from 185,000 in 2005 to 270,000 in 2014. The Danish post-cancer follow-up programmes are currently under revision, and a central focus is how and where timely diagnosis of relapse is possible. Knowledge about the complete pathway to cancer recurrence is sparse, and research enhancing effective follow-up programmes and early detection of relapse is warranted. However, recurrence of cancer is not routinely registered in the Danish health registries. In order to perform systematic and comprehensive research, we need to develop a method to identify patients with cancer recurrence.

#### **Objectives**

To develop and validate algorithms to identify patients with cancer recurrence in Danish national patient registries.

#### Material/Methods

The study population is incident cancer patients diagnosed during 2008-2014 according to the Danish Cancer Registry. Patients successfully treated for lung, breast, colorectal, malignant melanoma, bladder, ovary, endometrial and head and neck cancer will be included in the study. Relevant time from primary cancer diagnosis or completion of cancer treatment to start of cancer recurrence surveillance will be specified. The following will serve as indicators of cancer recurrence: registration of relevant treatment codes and diagnosis codes and registration of malignant pathology.

Validation of the algorithms will be conducted by comparing the identified cancer recurrence cases from the algorithms with a gold standard, being either data from national clinical cancer databases or relevant cohort studies. Results

By the time of the congress, we expect to have results from at least one cancer disease ready for presentation with sensitivity and specificity of the algorithm to detect cancer recurrence patients and the proportion of patients developing recurrent cancer. Furthermore, we aim to have, at least preliminary, results for the time from diagnosis of primary cancer to relapse and the use of general practice prior to cancer recurrence diagnosis.

#### Conclusion

This study will enable systematic research on the role of general practice in the diagnostic route to cancer recurrence. This must include patient's symptoms, the diagnostic activity prior to diagnosis and the patient's and the general practitioner's evaluation and assessment of the diagnostic process. Such results are mandatory to develop qualified and efficient post cancer follow-up programmes in general practice.

## P26 Mortality trends in patients with incident type 2 diabetes and controls

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#### Background:

Mortality rates have decreased in the general population in Sweden and other Western countries during the last decades. Knowledge is limited about temporal trends in mortality of patients with incident type 2 diabetes compared with the general population.

#### Objectives:

The aim of this study was to study long-term trends of mortality compared to the general population among patients with debut of incident type 2 diabetes in 1991-2004.

## Material/methods:

The Skaraborg Diabetes Registry (SDR) was active 1991-2004 and includes patients with prospectively clinically diagnosed diabetes after investigation mainly in primary care, of which 7 461 adult patients with incident type 2 diabetes. Using data from Statistics Sweden, 37 271 randomly selected controls from the general population were matched according to sex, age, calendar year and municipal (up to 5 controls per patient). The patients and controls were followed until emigration, death or 31 December 2014 using data from the Swedish National Cause of Death Register. Initial survival analysis was performed using Kaplan-Meier curves and Cox regression. **Results:** 

The 1991-2004 diabetes cohort was split in an early 1991-1997 cohort (n=4 361) and a late 1998-2004 cohort (n=3 100). In the early diabetes cohort 3 089 deaths (70.8%) occurred during 54 812 person-years of follow up, and in the control group 13 199 deaths (60.6%) in 297 727 person-years. In the late diabetes cohort 1 275 deaths (41.1%) occurred during 35 717 person-years, and in the control group 5 342 deaths (34.5%) in 181 701 person-years. HR for all-cause mortality among patients in the late vs early cohort was 0.76 (95% CI 0.71-0.81, p<0.001) and 0.86 (95% CI 0.83-0.89, p<0.001) among controls when adjusted for sex and age. All-cause mortality HR among patients vs controls in the early cohort was 1.37 (95% CI 1.32-1.43, p<0.001) and 1.21 (95% CI 1.14-1.29, p<0.001) in the late cohort when adjusted for sex and age. The Cox regression assumption of proportional hazards was violated indicating time dependent HR. Preliminary results of this study were presented at the European Association for the Study of Diabetes meeting in 2016.

## **Conclusion:**

The risk estimates for all-cause mortality compared with the Swedish general population was lower for patients in the SDR with debut of type 2 diabetes in 1998-2004 than in 1991-1997. The difference could be influenced by dissimilarities in baseline characteristics. To address time dependency of HR, further modelling is planned using Poisson regression to calculate mortality hazard ratios in relation to calendar year and follow-up time after onset of type 2 diabetes. Updated results are expected in time of the 20th Nordic Congress of General Practice.

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#### Introduction:

In Denmark there are approximately 4400 men diagnosed with prostate cancer each year and nearly 1200 men dies of this disease yearly. The incidence of prostate cancer has increased for the past twenty years and make up 24 % of all cancer incidents in men. However, the mortality of prostate cancer has not changed in line with this increase. Empirical evidence shows that the increase in incidence of prostate cancer in Denmark without an increase in the mortality is mostly caused by opportunistic PSA screening in General Practice.

It is recommended that men? 60 year old diagnosed with prostate cancer and a Gleason score? 6 are monitored with active surveillance. This is due to the probability of this type of cancer metastasizing is very small as approximately 90 % of them is assumed to be overdiagnosed.

The purpose of active surveillance described above is to spare patients from sequlae due to possible overtreatment. The problem with this approach is that there can be severe negative psychosocial consequences with being overdiagnosed with prostate cancer.

In international literature a Canadian qualitative study from 2000 and an American qualitative study from 2005 has been identified. However, the Canadian study focused on developing a classification system and the US study explored the effect of a psychosocial intervention. There are several quantitative studies trying to examine whether men diagnosed with prostate cancer experiences psychosocial consequences. The problem with most of the quantitative studies is that they have used questionnaires with low content validity and they have not investigated the questionnaires' statistical measurement properties (psychometrics).

#### Aim:

The aim of this study was to examine qualitative which psychosocial consequences men diagnosed with prostate cancer Gleason score? 6 who is under active surveillance experiences. The informants was divided into three sub groups. The first group was men <75 years who were followed in Active Surveillance. The next group was men with an expected remaining lifetime of 10-15 years typically >70-75 years, who were followed in Watchfull Waiting. The last group was men that clinically belonged to one of the previous mentioned groups, but who insisted on active treatment despite medical advice.

#### Methods:

Semi-structured qualitative interviews was conducted. The interviews was audio-recorded and transcribed. The interview data was read and coded using Strauss and Corbin's (1998) concept of open -, axial -, and selective coding, which identify core themes, generally shared in all interviews, forming the basis of the findings section. **Results and Conclusions:** 

Will be presented at the conference.

# P28 Management and organizational development in General Practice - how to make practitioners better managers

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#### Background

In recent years, General Practice in Denmark has seen great changes. There has been an increased focus on reorganization and delegation of daily and medical tasks. The changes require a great focus on cooperation and management, and in order to support General Practice, The Quality Unit for General Practice in the North Denmark Region has created a team, Team Nord-POL, which provides know-how and training in management and organizational development.

Team Nord-POL was established in 2015. It contains of five general practitioners and two consultants from the Quality Unit for General Practice.

Team Nord-POL is trained to support the work of management and organization in General Practice, and from August 2016, Team Nord-POL began to support and facilitate development-processes in different practices. The team completed a management program designed for general practitioners in 2016.

The North Denmark Region and the Organization of General Practitioners, PLO of North Denmark, are supporting Team Nord-POL financially.

## **Objectives**

To support General Practice with management and organizational development

To increase efficiency, well-being and job satisfaction in General Practice and to inspire the practitioners to continue their development and the improvement of their practices

#### Methods

To train and retain Team Nord-POL

To develop and facilitate workshops for groups of general practitioners

To develop and complete a management course for general practitioners once every year

To develop and facilitate processes in General Practice

## Results

Nord-POL is an offer to all general practitioners in the North Denmark Region, who want to develop their organization. Nord-POL offers consultancy in organization and management and implements activities for an entire practice or management alone.

After the first four months, the team received 10 tasks in General Practice, mostly concerning collaboration, teambuilding, and strategy-work. The experiences from the first tasks clearly show the need for an initiative like Nord-POL.

The first management course was conducted in 2016 with 19 participants. The evaluations from the course was very positive, and a second course is scheduled in March 2017.

#### Conclusion

Team Nord-POL offers help with communication, cooperation, team development and strategy-work to the individual practice. Team Nord-POL also offers management courses and individual coaching courses to strengthen the practitioners' personal development and leadership skills.

The general practitioners strengthen their ability to develop themselves and their practices, through Nord-POL's offer of management and organizational development. This has significant effect on how the practitioners handle changes now and in the future.

## P29 Differences in chemerin levels between healthy overweight people with and without signs of fatty liver

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## Background:

It is essential for a family physician to select people who would need immediate lifestyle changes to prevent a disease. There is evidence that fatty liver and chemerin is related to cardiovascular diseases risks, however, there is still a gap of knowledge regarding chemerin as an early marker of increased risk of hepatic steatosis and cardiovascular disease.

## Aim:

To find out if there is a relation between chemerin levels and presence of hepatic steatosis **Methods:** 

A trans-sectional study in Riga, Latvia included 123 clinically healthy individuals having body mass index (BMI) above 25 m²/kg and below 40 m²/kg and in age group 30-45 that visited primary care physician. Individuals underwent CT scan for signs of hepatic steatosis. All individuals were tested for chemerin levels using enzymelinked immunosorbent assay (ELISA) test. Person's correlation coefficient was analysed. Multiple linear regression was employed to check for effect and potential confounders. Independent samples t-test was employed to compare the means chemerin levels of the two groups: individuals with and without any signs of fatty liver **Results:** 

We observed that individuals with no signs of fatty liver had slightly lower chemerin levels (64.4±20.6 ng/ml; n=76) than those having signs of fatty liver (65.7±18.9 ng/ml; n=47). This difference (1.3 ng/ml, 95% CI -8.6;6.0) was not statistically significant t(121)=-0,35; p>0.5. Multiple linear regression (adjusted by age and gender) for hepatic density (F(3,119)=3.87, p=0.11; R²=0.89) established that only male gender is related to lower hepatic density (B=5.6; SE=1.6; t=-3.3; p=0.001; 95%ClforB -8.9,-2.3). We could not find any indication that hepatic density could be used to predict chemerin levels, or vice versa.

## Conclusions:

For individuals residing in Riga, Latvia presence of chemerin level cannot be considered as an indicator of fatty liver or vice versa. Further research is necessary to clarify the role of chemerin as a CVDs related risk factor.

P30 Systematic, continuing supplementary post-graduate education for general practitioners - initial experiences from the trial large-group training sessions in the capital region of Denmark.

## Heidi Mortensen

The capital region of Denmark, Hillerød, Denmark

#### **Background**

The concept of supplementary systematic post-graduate education for GP's is new in a Danish context. Up until recently, only physicians voluntarily choosing to procure further professionally relevant training were involved in such educational activities. It is worth noting that this field remains unaffected by the new initiative – Danish physicians are often well-disposed towards supplementary educational activities.

As for the content, nationally predefined themes have been drafted. These come with compulsory curricula as well as a compulsory use of cases in the didactic approach.

On a national scale, the new initiative amounts to upwards of 10.000 curricular days just within the compulsory supplementary post-graduate training field. Concurrent with the ongoing work to set all this in motion, the administrative capital region of Copenhagen is busy integrating the curriculum with the needs and expectations of relevant partners in the health-care segment, not least the hospitals.

## Objectives of the poster

Our purpose is to demonstrate how we, in the capital region of Copenhagen, have deployed a new form of supplementary post-graduate education for GP's. We wish to highlight how we have used large-group training sessions to impart new learning and knowledge to our participants, while ensuring a high level of satisfaction with both form and content.

Using large-group training as a didactical method introduces several logistical challenges into the equation. We will also be presenting possible solutions to these.

## Material and methods

The initial sessions were approved under a trial regimen, with the explicit purpose of testing the new method. Since the format and methods were all new, the process was documented and evaluated in a log book. A detailed script for the proceedings was written, and the training subsequently evaluated through participant-questionnaires, addressing both form, content and learning yield. Both participants, speakers/teachers and instigators participated in the evaluation process. There was even a national-scale evaluation to determine the administrative regions' experiences with the new curriculum.

#### **Results and conclusions**

The initial trials using large-group training sessions have been very well received. Our experience shows that it is indeed possible to put 128 physicians in a room, to actually teach them new things, and to ensure that they come home with substantial amounts of new knowledge, while also feeling content about the whole thing. A bonus to the whole endeavour has been to meet a group of GP's who have not previously attended supplementary post-graduate professional training. This means that we're reaching a group which hasn't been actively pursuing additional education before.

# P31 Is it feasible to bring the cancer patient, general practitioner and oncologist together in a shared video-consultation?

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**Keywords:** Cancer, randomised controlled trial, telehealth, shared care, continuity. **Background:** 

International guidelines underline the importance of strengthening the coordination and continuity of cancer care. The different roles of general practitioners and oncologists with regard to treatment, follow-up and rehabilitation during and after cancer treatment are often obscure to cancer patients. Healthcare seeking and support during and after cancer treatment may, therefore, be inappropriate, leaving patients feeling insecure and lost between care providers.

## **Objectives:**

The study aimed to design and evaluate a new way of communication and shared care that brings the patient, the oncologist and general practitioner together in a video-consultation in the early phase of chemotherapy. This presentation includes results from the pilot test and first part of the inclusion to a randomised controlled trial.

#### Material and methods:

The feasibility of the intervention was tested in a pilot study with 10 gastro-intestinal cancer patients at Department of Oncology, Vejle Hospital, Denmark. All patients were newly referred for chemotherapy with palliative or curative intention. The oncologist invited the general practitioner and arranged the consultation within three months from start of chemotherapy. These meetings were targeted: disease trajectory, medicine, comorbidity, late complications, rehabilitation, mental problems and agreements on who do what and when.

#### Results

Ten cancer patients, their general practitioners and four oncologists completed video-based consultations in the pilot study. We used an existing IT platform, which proved to be easy and reliable to use. Average duration of the consultations was 11.5 minutes (9-15 min). Although being an issue of concern, all logistics of the meetings were manageable.

The general practitioners reported that information about treatment and late complications from the oncologists and patients were very useful. Oncologists found the consultations overall useful and they lead to better information about comorbidity and clarification of the general practitioners role. The patients uncovered that information about their trajectory was particularly informatory and found that their general practitioner could be a great resource especially in regards to rehabilitation and mental problems.

# Conclusion:

It is feasible to bring the cancer patient, general practitioner and oncologist together in a shared video-consultation. Furthermore, it was confirmed that a shared consultation is relevant. From sample size calculation, we intent to include 270 patients and their general practitioners for the randomised controlled trial. We started the enrolment of patients in June 2016 with inclusion rates slower than anticipated.

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## P32 The efficacy of ACupuncture On Menopausal symptoms (ACOM study): A randomized study

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Keywords: Acupuncture, menopause, hot flushes, randomized trial.

## **Background:**

Around 75% of menopausal women experience hot flushes and 10-20% of postmenopausal women find it very distressing.

## Objective:

The aim of the ACOM study is to evaluate the efficacy of acupuncture on menopausal symptoms; in particular its efficacy on hot flushes.

#### Methods:

A randomised trial with 1:1 allocation to early (intervention) vs. late (control) acupuncture including women who suffer from moderate to severe hot flushes. The women receive one weekly treatment in five consecutive weeks in the predefined acupuncture points: CV-3, CV-4, LR-8, SP-6, SP-9. Acupuncturists are general practitioners educated in acupuncture.

Primary outcome is change in hot flushes from baseline to week 6 measured by the *hot flushes* scale from the MenoScores Questionnaire (MSQ). Secondary outcomes are change in other menopausal symptoms, in particular *day-and-night sweats* and *menopausal-specific sleeping problems*, also measured by scales from the MSQ. According to a power calculation a total of 48 were to be enrolled to detect a relevant clinical reduction in the primary outcome; 68 were to be enrolled to detect a relevant clinical reduction in the secondary outcomes. Both intention-to-treat and per-protocol analyses will be conducted; four or more performed treatments will be considered adequate adherence.

#### Results:

A total of 206 women have been screened and the preset enrollment number of 66 women was reached within 2.5 months. Preliminary baseline characteristics: Average age of the included women was 54.8 years. They had, on average, been bothered by hot flushes for 4.4 years. 76% were postmenopausal and had had no menstruation in the past year. 69% had previously tried acupuncture treatment. More baseline characteristics and preliminary results will be presented at the congress.

#### Conclusion:

In the ACOM study, we explore the potential benefits of acupuncture on moderate to severe menopausal symptoms.

## P33 Title: General Practitioners' experiences with a web-based resilience program in clinical practice.

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#### Background:

The Resilience Program (RP) is a generic intervention program which was developed in a large Danish Municipality in Denmark about 10 years ago.

Resilience means being able to handle the challenges of life, especially when the going is hard. The Resilience Program is a flexible (modular) web based low-cost and brief psycho-education program designed to support the development of resilience in vulnerable children, adolescents and families, as well as large scale mental health promotion for instance in schools, educational institutions and the workplace. The program is license free and can be used in any organizational context with low or high intensity. It can be used by professionals as well as a self-directed program for citizens. The program can be combined with any other interventions.

The program is based on evidence from the cognitive sciences, especially research on *mentalising* including findings from neuroscience as well as established experiences from parent training programs and social learning research (in line with the NICE guidelines). Evidence from these domains is transformed into small knowledge and inspiration modules expressed in easy to understand everyday language which include good stories and short games. The program is practical, informing participants about resilience and mentalising, contains reliable information about thoughts, feelings and the brain and provides inspiration about common challenges and problem solving. The Resilience Program is typically introduced to target groups in short lectures and courses. It can be found in Danish, English and Greenlandic version here: http://www.robusthed.dk and http://myresilience.org/
On the website sub site 'about us' one can find background research articles and research protocols.
In general practice the program is suggested to be useful in families with mental or somatic disease, children with anxiety, pain conditions, ADHD, behavioral problems or other signs of impaired wellbeing as well as in patients suffering mental or somatic disease

## Objectives:

the objective was to examine general practitioners' experiences of using the resilience program in daily practice after a short introduction to the program.

## Material/Methods:

Twenty GPs were offered a four-hour course in the RP. Three months later they were all invited to a focus group interview. Data were analysed by thematic text analysis and results were mailed to participants for feedback.

#### Results and Conclusion:

Results about strengths and difficulties in using the program in GP as well as advice about needed modifications of the program will be presented. Specific patient populations or clinical situations where the RP was specifically useful in GP will be presented.

## P34 Psychiatric diagnosis in primary care patients with increased depressive symptoms

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## Background:

Depression is a disorder that causes significantly disability and therefore screening of depression has been recommended among primary care patients. Beck's 21-item Depression Inventory, (BDI-21) is commonly used depression tool for screening and measuring the seriousness of depression. Psychiatric comorbidities with depression have shown to be frequent.

#### Objectives:

The aim of the present study was to describe and analyze the features and psychiatric diagnoses and comorbidities of primary care patients who have been screened for increased depressive symptoms (DS).

## Methods:

The data of this study was enrolled between 2008 and 2011 in the area of hospital district of Central Finland. The study subjects were primary care patients aged ? 35 years, with DS (BDI-21 ? 10). The psychiatric diagnosis was based on a diagnostic Mini-International Neuropsychiatric Interview; M.I.N.I. delivered by a trained study nurse.

Of the 705 study subjects 617 (88%) had at least one psychiatric diagnosis. The most common diagnoses were depression (63%), generalized anxiety disorder (GAD) (48%) and panic disorder (23%). Suicidal behavior or thoughts occurred in 39% of the subjects. Age was inversely associated with the psychiatric diagnosis in M.I.N.I. Ten percent of the subjects had both depression and GAD diagnosis but also other psychiatric comorbidity was common. **Conclusion:** 

This study suggests that most of the patients with DS in primary care screened for depression have psychiatric disorder. Although depression is the most common diagnosis there are simultaneously several many other psychiatric comorbidities as well. Therefore, the diagnostic assessment of primary care patients screened with BDI should be reconsidered.

Keywords: Primary care, depression, Beck's Depression Inventory

## P35 From consulting towards tutoring - expertise and tools for guidance with process education.

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## Background:

Being a GP is a demanding work. Junior colleagues need guidance and monitoring, which has traditionally included mainly clinical consultations. In Finland, all doctors registered in Specific Training of General Medical Practice or Specialist Training Programmes have a compulsory nine-month period of training in an approved health centre. The training period in health centre includes guidance with an appointed personal tutor (a senior colleague) on a regular basis. In Tampere University Hospital District, an approved tutor is required to have completed the Specialist of General Practice Programme. In addition, an approved tutor must complete "Being a Tutor Colleague in Primary Health Care" training which is coordinated by The Centre for General Practice at Pirkanmaa Hospital District (PETE). PETE has offered the training of tutor colleagues from year 2007. During years 2012-2013, the former module-based training programme has been reformed into a process-based programme, lasting one year. **Objectives:** 

The aim of this study is to evaluate whether the reformation of the tutor training programme has been successful. **Material/Methods:** 

114 GP specialists have participated in the reformed tutor training programme during years 2012-2016. The

contents of the tutor training programme are concentrated on 1) the specific contents of guidance during the health centre training period 2) orderliness of the guidance and 3) assessment and giving feedback for the students (junior colleagues). The training programme includes 5.5 course days. The course days consist interactive studying in pairs or groups. The tutor trainees get familiar with versatile learning methods both in theory and practice. Between course days, the tutor trainees study pedagogic theories, keep learning diaries and complete assignments. In addition, the tutor trainees guide their own students in health centres.

The evaluation of the reformed programme is made by using written feedback from the GPs who have participated the programme after the reformation.

#### Results:

The feedback after the reformation has been positive. The participants experience to get advice and useful tools for guiding junior colleagues in individual and group sessions. During the programme, the participants feel that their professional identity as GPs has been strengthened.

#### **Conclusions:**

The reformation could be evaluated as successful. At present, the tutor training programme achieves its goals. More detailed feedback will be shown in the poster. In the future, contents of the tutor training programmes could be remodeled due to upcoming national changes in the Specialist Training Programmes.

### P36 How to avoid weight stigma in encounters in general practice

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#### Background:

Weight stigma has a negative impact on the patient-physician relationship that in worst-case can result in patients avoiding the healthcare system.

People exposed to weight stigma are at higher risk of physical and mental health problems and weight stigma can contribute to social isolation, unhealthy lifestyle, low self-esteem and sometimes depression.

## Objective:

To summarize research findings on patients' experiences of weight stigma in the encounter with health professionals.

#### Methods:

A systematic search was conducted in the electronic databases PubMed, PsycINFO, EMBASE, and CINAHL. The review is based on a final set of seventeen articles including both qualitative and quantitative studies. The articles were identified and sorted according to Link and Phelan's theoretical definition of stigma consisting of its co-components: Labeling, stereotyping, separation, status loss and discrimination.

## Results:

Patients find labeling words as obese, overweight, fat and chubby used by health professionals undesirable to a varying extent. Weight and unhealthy weight have been found to be the most appropriate terms to use. Patients feel that health professionals stereotype them as unhealthy and unintelligent. Separation in "us" and "them" occur, as the overweight patients' feel dehumanized when compared with pathologic creations and not treated as a complex individual. Patients perceive status loss as health professionals give derogatory and humiliating comments on weight. Structural discrimination is witnessed by patients in the waiting room when furniture, medical tools, and illustrations are only able to fit small patients. Patients experience individual discrimination when their medical problems are ascribed to body size and the consequence is that they are not treated.

# Conclusion:

Patients experience weight stigma in the shape of labeling words used by health professionals as conventional medical terms, imposed prejudiced human characters, lack of the patient-centered method, degrading comments and discrimination. Health professionals need to develop their awareness of weight stigma and its negative influence on the patient-physician encounter.

# P37 Gender differences in prevalence of depression and anxiety in coronary patients from Ukraine and Europe by EUROASPIRE IV results

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## Background:

It is known that anxiety and depression can increase the coronary heart disease (CHD) risk, trigger the development of CHD, double the risk for medication non-adherence and contribute to worse clinical outcomes. In patients with stable CHD symptoms of anxiety and depression predict greater risk of major adverse cardiac events. Gender factor is of great importance because prevalence rates for depressive disorders in the general population tend to be higher in women than in men. The evaluation of gender differences of anxiety and depression in European patients with CHD, including Ukrainian patients, is necessary to improve secondary cardiovascular prevention measures in

## Europe.

## Objectives:

To determine the gender differences in prevalence of depression and anxiety in CHD patients from Ukraine and Europe by analyzing the results of EUROASPIRE IV survey.

#### Material/Methods:

In EUROASPIRE IV study undertaken at 24 European countries, including Ukraine, symptoms of depression and anxiety of male and female patients <80 years old were assessed at least 6 months after hospitalization due to CHD using the Hospital Anxiety and Depression Scale (HADS). HADS scores ?7 were interpreted as normal, 8–10 – as mild depression and ?11 – as moderate/severe depression.

#### Results:

Data from 7589 European patients (24% women, mean age  $64,1\pm9,6$ ), including 175 Ukrainian patients (27% women, mean age  $59,8\pm9,8$ ), were available for current analysis. Anxiety symptoms (HADS?8) were more common among women and in Europe (40%) - more common than in Ukraine (28%) (p?0,05). Male patients in Europe (22%) and Ukraine (20%) had similar anxiety prevalence rates. Symptoms of depression (HADS?8) were also more prevalent in female patients, but more in Ukraine (40%) than in Europe (31%) (p?0,05), while male patients in Ukraine (27%) and Europe (20%) (p=0,05) showed relatively lower prevalence rates of depression symptoms. The prevalence of mild anxiety among Ukrainian patients was 18% (in European patients – 15%), moderate/severe anxiety – 7,5% (in European patients – 11%). In Ukraine mild and moderate/severe depression was observed in 20% and 10% of patients, respectively, in Europe – in 15% and 8% of patients, respectively. **Conclusion:** 

The results of this survey show that in Ukraine and on average in Europe both anxiety and depression were more prevalent among female CHD patients. Anxiety symptoms were more common among European women, and depression symptoms - among women in Ukraine. Ukrainian patients showed higher prevalence rates of mild anxiety, mild and moderate/severe depression than European patients.

# P38 Use of beta-blockers and risk of serious upper gastrointestinal bleeding: a population-based case-control study

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#### **Background**

Some studies indicate a reduced risk of serious upper gastrointestinal bleeding (UGIB) for users of beta-blockers, but the association remains to be confirmed in larger studies and characterized with respect to differences among beta-blockers.

# Objectives

We aimed to assess whether beta-blocker use decreases the risk of UGIB.

## Material/Methods

We conducted a register-based, population-based case-control study in Denmark. We identified cases with a first validated discharge diagnosis of UGIB during 1995-2006. Controls were selected by risk-set sampling in a ratio of 10:1. We estimated crude and adjusted odds ratio (ORs) of the association between current beta-blocker use and the risk of UGIB by using conditional logistic regression and further, stratified by selective and non-selective beta-blockers, respectively.

## Results

We identified 3,571 UGIB cases and 35,582 controls. Use of beta-blockers was not found to be associated with a decreased risk of UGIB (adjusted OR 1.10 95% CI: 1.00-1.21). The association remained neutral after stratification by selective and non-selective beta-blockers, and by single beta-blocker substances. Similarly, we found no association between current beta-blocker use and the risk of UGIB within different subgroups.

## Conclusion

We found no association between beta-blocker use and UGIB.

## P39 The structure of tutor training program for GP specialists

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#### **Background**

The Centre for General Practice at Pirkanmaa Hospital District organizes training for GP specialists supervising the doctors in post-graduate training. The training includes an orientation day and after that the actual training program, which lasts one year. During the training the GPs participate in five close-up days (1+1+2+1) and make pre- and intermediate tasks while working in their practice with their own trainees.

#### Material/ Target group

All the GP specialists in the area of Tampere University Hospital (TUH) who supervise the post-graduate doctors in the health centers of the district.

## The aim of the training:

Guarantee high-quality, equal and systematically evaluated supervising to the whole area to learn how to utilize the general principles of the GP/WONCA-tree when supervising to get information of learning processes and adult education as well as to encourage to use different kinds of working and evaluating methods when supervising to learn how to make supervising goal-directed, planned and interactive the goals will be defined with the participants according to their needs and expectations to learn how to evaluate your own role as a supervisor

#### Requirements of the training:

The training is an yearly workshop. The participants are required to participate the local training periods perform preliminaries and intermediate tasks get acquainted with the set books and other learning materials. The questionnaire data shows that the amount of satisfied trainees and the GP supervisors has increased. Results will be presented in the congress.

# P40 Type of diabetes mellitus as a predictor of thromboembolism and bleeding in patients with atrial fibrillation: a nationwide cohort study

## Mia Vicki Fangel

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#### **Background**

Atrial fibrillation is the most common sustained tachyarrhythmia and the prevalence is increasing as the population ages. Atrial fibrillation is an important cause of stroke, and the risk of stroke is higher in patients with concomitant diabetes mellitus. Diabetes mellitus is incorporated in the guideline-recommended thromboembolic risk stratification tool, the CHA2DS2-VASc score. According to guidelines, anticoagulation therapy should be considered for men with a CHA2DS2-VASc score of 1 and women with a score of 2, balancing the expected stroke reduction, bleeding risk, and patient preference. Consequently, all patients with diabetes mellitus are hereby potential candidates for life-long anticoagulant treatment. This simplistic approach to stroke risk stratification neglects the diversity of the diabetes population. For example, patients can have type 1 or type 2 diabetes mellitus, diseases which have different distributions of cardiovascular risk factors and different duration of disease at the point of atrial fibrillation diagnosis. Our hypothesis is that the risk stroke and anticoagulation related bleeding is higher in patients with type 1 than type 2 diabetes mellitus.

## **Objectives**

To examine whether the type of diabetes mellitus is a predictor of thromboembolism and anticoagulation-related bleeding in patients with atrial fibrillation.

#### Materials/Methods

This cohort study will be based on data from Danish nationwide registries. Patients above 18 years of age with a diagnosis of diabetes mellitus and an incident nonvalvular atrial fibrillation diagnosis in the period January 1, 2004 to December 31, 2014 are considered eligible. Patients with a diagnosis of mechanical heart valves, mitral stenosis, cancer, an invalid civil registration number, inconsistent death information, or immigration within 1 year before entrance in the study, will be excluded. Cox regression analysis will be used to estimate hazard ratios for the primary outcome thromboembolism and the secondary outcome all cause death. In the subgroup of patient receiving anticoagulation therapy hazard ratios for bleeding risk will be estimated. The analyses will be adjusted for the individual components of the CHA2DS2-VASc score and for anticoagulation therapy status.

## Results

The study is ongoing and results will be presented at the conference.

## Conclusion

The current guidelines for stroke risk assessment offer no clear recommendation for patients with atrial fibrillation and diabetes mellitus. This study explores whether diabetes mellitus type can serve as an easily obtainable stroke risk marker for patients with atrial fibrillation. If so, stroke risk stratification can potentially be refined by subgrouping patients according to their diabetes mellitus type.

# P41 Rethinking Care in the Clinic: Tending to Dimensions of Medial Encounters in Every Day Life for Elderly with Multimorbidity

## **Background**

Throughout the world the number of elderly people with multimorbidity (more than two chronic or long-term diseases at once) is rising. Patients with multimorbidity are more frequently hospitalized and more often receive conflicting advice from health care providers. Also, the burden of symptoms, treatments, self-care and mortality increases with the number of diseases. As multimorbidity occurs more often among people with low socioeconomic status and low levels of education, medication regimens can be too demanding, potentially resulting in suboptimal adherence. This paper suggests that their everyday medical encounters should led to a rethinking of the concept of care **Objectives** 

To explore elderly multimorbid patients' everyday medical encounters and how these affects their notion of treatment plans and concepts of care

#### Methods

Five women and five men age 65-78 with multimorbidity living in a socially deprived area of Denmark was followed during 18 months of ethnographic fieldwork. The fieldwork consisted of observations and several in-depth, semi-structured interviews at the home of the patient, as well as interviews with their GP, family and other relatives. Data were analyzed following grounded theory and thematic analysis.

### Results

Three keyfindings in regard to rethinking care in the clinic: (1) Healthcare needs to be customized to everyday life: "I can only do one thing or the other. So I choose to be the good wife and cook and bake even though my arthritis really gets worse from it but that's how I can remain a wife and not just a patient" (Carol, 71, multimorbid). If it does not fit to everyday life, many will drop out of treatments which can result in further diseases. (2) Care in the clinic means a close relationship with the doctor, preferably knowing ones GP for a longer period of time (3) Healthcare goes beyond biomedical care. Whereas many of the study participants do not fully live up to the expected self-care set by their doctors (ie. Not taking medicine, not exercising, not following guidelines for diet) they had a more broaden approach to self-care. Johnny would rather ride his electric scooter than go for the suggested walk. He explained that the walk would take all of his energy for the day and that he preferred to ride the scooter and spend the energy on having a beer with his pals.

#### Conclusion

Caring for multimorbidity depends on the patients following treatments for their diseases. Yet these require daily actions are in practice based on individual values and beliefs. Following this point, by rethinking the concept of care together with patients, we might optimize allocation of resources in a coordinated, timely and efficient planning of self-care

Keywords multimorbidity, care, elderly, everyday life

# P42 An offer of support to general practices who are to be accredited as a part of The Danish Healthcare Quality Model

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#### Background

General practice in Denmark is to go through quality accreditation from 2016-2018. General practice is to be surveyed by two surveyors based on a standard set. The standard set includes 16 standards and 64 indicators developed by The Danish Institute for Quality and Accreditation in Healthcare.

The Quality Unite for General Practice in The North Denmark Region offers a course to support general practice's accreditation process. The course has been carried out during 2015 and 2016. The last course in this round will be held in 2017.

# Objectives

The purpose of the course is to ensure that participants are prepared for the accreditation process and readily organized for the survey session.

#### Method

The course includes an introduction meeting, four modules and a follow-up meeting. Introduction meeting: Two hours introduction to accreditation. Modules: A 3-hour module consists of a plenary introduction to the given module, two parallel sessions about four standards and a plenary closing session. Follow up café meeting: Two hours where the participants ask questions about their specific process.

#### Results

Accreditation status for general practice in The North Denmark Region per 9<sup>th</sup> January 2017:
Accreditation decisions: 37; Accredited: 22; Temporarily accredited: 13; Accreditation in process: 2
At the introduction meeting in 2016 the participants where asked via an online survey if they were motivated to begin the process when the introduction meeting began and at the end of the introduction meeting. Results:
Not at all motivated: Before: 37 %; After: 12 %; A little/ Somewhat motivated: Before: 51 %; After: 54 %; Very motivated: Before: 12 %; After: 34 %

Another online survey is carried out among participants. The survey begins mid-January 2017. The results are expected during spring to be ready for Nordic Congress in June. The survey include five questions:

What are your function in general practice? Doctor; Nurse; Secretary; Other.

How has the course enabled you to make a plan for accreditation? Very well; Well; Less well; Badly.

How has the course enabled you to prepare for the survey-visit? Options as above;

How has the course contributed to your understanding of accreditation standards and indicators? Options as above: Have you been able to convert practical examples in the sessions to your own practice? Options as above.

#### Conclusion

It is not possible to attribute the number of accredited general practices to the course because some chose not to participate in the course. It is to provide context to this topic. The results of the survey carried out during the introduction meeting seems to present a motivational factor in the introduction meeting. We look forward to see the results of the survey carried out from January to April 2017.

# P43 Learning from Adverse Events in General Practice in The North Denmark Region to Strengthen Patient Safety

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## **Background**

The topic of Patient Safety has gained momentum in Denmark since 1999. Danish Patient Safety Database is a databased established to collect data and analyse adverse events enabling health care practitioners to learn from adverse events strengthening patient safety.

Concerns about repercussions are a barrier keeping many health care practitioners from reporting adverse events. Consequently missing the learning potential in discussing and analysing adverse events both for the health care practitioners involved in an adverse event and for the health care system as a whole.

In order to share the learning potential of specific adverse events and supporting a learning culture short learning articles based on reported adverse events are produced. The learning articles include a short description of the event and what knowledge can be drawn from the event. The learning articles are published on a weekly basis in a newsletter targeted general practice.

## **Objectives**

The objectives of producing and publishing learning articles is to support a learning culture from adverse events and strengthen patient safety amongst general practitioners in The North Denmark Region.

#### Material/Methods

Presenting learning potential of specific examples of adverse events

Sharing the learning potential in specific adverse events with general practitioners across the region

Supporting openness to admitting to and talking about adverse events

Placing the learning potential of adverse events on the agenda

#### Results

According to analysis of number of clicks in the newsletter targeting general practice in The North Denmark Region, the learning articles are consistently among the three most popular elements.

Some general practitioners express that, they discuss the weekly learning articles in their staff meeting to strengthen patient safety in their practice.

# Conclusion

It remains unclear to which extent the learning articles has contributed to a change towards an open learning culture regarding adverse events.

However, there is no doubt that, many health care practitioners read the learning articles to strengthen patient safety. Additionally it seems the learning articles has provided a safe way of talking about how to improve patient safety in environments where talking about adverse events one's own can be difficult. Being able to discuss adverse events openly in a solution-oriented manner is a step on the way in developing a learning culture within patient safety.

# P44 Initial experience with the Shared Medication Record (SMR) at transition from primary to secondary care.

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#### Background:

The Shared Medication Record (the SMR) has been implemented in primary as well as in secondary care in Denmark. The SMR keeps a record of all prescription medication. At transition of care, the goal is to reconcile the

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SMR. At hospital discharge and transition to primary care, audits are regularly undertaken with special reference to whether the SMR has been reconciled. There is only limited knowledge of reconciliation of the SMR in primary care prior to elective referrals to secondary care.

#### Method:

A total of 50 consecutive referrals from 50 different practices to an outpatient cardiology department have been audited with focus on whether the SMR has been reconciled prior to referrals to secondary care.

#### Results:

For 8 patients medication had been reconciled in the SMR as part of the referral to secondary care. For 7 patients medication had been reconciled in the SMR less than three months prior to the referral, for 16 patients medication had been reconciled in the SMR less than 12 months prior to the referral, for 16 patients medication had been reconciled in the SMR more than 12 months prior to the referral, and for three patients medication had never been reconciled in the SMR.

#### Conclusion:

The numbers show that medication reconciliation in the SMR at elective referrals to hospital has not yet become a normal routine with general practitioners. Implementation of new technology, IT and routines is time-consuming, and therefore, if changes are wanted, it is necessary to allocate sufficient funds for implementation at future collective bargaining agreements. Education and improved IT systems may also be helpful tools for further implementation in primary health care.

### P45 Effect of genetic information on health behavior among hypertension patients

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## Background:

The feasibility and utility of incorporating genetic risk prediction for common chronic diseases in primary care practice are largely still unknown. We examine whether genetic information elicits health behavior changes in those at risk for chronic diseases, and compare predicted and reported effects. Effective treatment of hypertension contributes to reducing the disease load of cardiovascular diseases (CVD) which is the leading cause of death in Estonia. It is important to educate patients to improve lifestyles and adhere to medications in order to prevent complications. Informing patients about their personal genetic risk scores to develop such complications might affect adherence to medications and lifestyle improvements. The feasibility and utility of incorporating genetic risk prediction for common chronic diseases in primary care practice are largely still unknown.

We conducted an open-labelled controlled cluster-randomized intervention study in collaboration between the Estonian Genome Center, University of Tartu and general practitioners. 240 men with newly diagnosed primary hypertension visited a medical center five times over one year. In addition to the standard cardiovascular disease risk evaluation participants received genetic risk information for hypertension-related diseases. Participants filled in surveys about the expected effect of genetic risk information (predicted), about the immediate reaction to receiving genetic information, and at the end of the study to examine the long-term effects (reported).

#### Results:

Methods:

At the start of the study the participants had a positive attitude and optimistic expectations towards the impact of genetic risk predictions on their medication adherence (88%) and health behavior (92%). A majority (95%) thought sufficient amount of information was included in the report and considered the information received understandable (98%) and informative (92%). The preliminary results show that at the end of the study, 67% reported positive changes in their everyday habits.

## Conclusions:

The results remain to be analyzed relative to the specific risk information received. However, the participants predicted response to genetic risk information is more optimistic than the reported response.

## P46 Headache Caused by Hypotensio Cerebri - a case report of a rare condition with a common symptom

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#### Introduction

Headache is a common symptom. Every third dane will within a lifetime have contacted their general practitioner (GP) due to this symptom. Although many cases do not lead to a GP-consultation, it still counts for a large number of contacts in primary care.

The lifetime prevalence of headache is 99% for women and 93% for men. Prevalence studies estimated that 50-

75% of adults aged 18-65 years worldwide have had a headache in the past year.

Often, a headache can be categorized as primary, with no underlying reason - i.e. migraine, tension type headache and cluster-headache. Only about 2% of the Danish population suffers from a secondary headache, and less than 1% of patients with headaches has a serious or life threatening underlying cause.

Here we present a case report of a severe secondary headache with a rare cause, but with a simple and effective treatment option.

#### Case

A 42-year old male, diagnosed with Multiple sclerosis (MS) in 2003 and otherwise healthy, sought his GP in spring 2016 with a positional headache lasting for several weeks. No trauma prior to the headache. Neurological and physical examinations was without positive findings. Blood-pressure was within the normal range and there were no irregular blood test findings.

In 2003, in the proces of diagnosing MS, the patient had a lumbar puncture (LP) performed. He then experienced a postural headache, witch was linked to dural leak and was cured with a blood-patch. When describing his symptoms, he felt the same kind of headache as in 2003: severe headache when sitting or standing up and a relief when lying down. He also described nausea and vertigo, but had no phono- or photofobia.

Symptomatic treatment was initiated, with paracetamol and morphine. After multiple contacts to the GP and out-of-hour doctors, he was admitted to the Dpt. of Neurology at Aalborg University Hospital. He got a magnetic resonance imaging (MRI) of the cerebrum, which showed bilateral hygromas. An additional MRI of the spine showed leak of cerebrospinal-fluid around the location of the LP performed in 2003. He was treated twice with a blood-patch and fully recovered.

#### Discussion

Headache is a very common condition, leading to many contacts to the GP. More than 99% are primary, but it can be fatal to miss the symptoms of a secondary headache. BOX:

## Red flags:

- Thunderclap headaches (sudden and severe headache)

Headache with atypical aura (lasting >1 hour og including motordeficit)New headache in a patient with cancer og HIVHeadache accompanied by fever or neurological deficitsProgressing headache over weeksNew headache in persons <10 years old and > 40 years old

# P47 Motor development and language skills at 18 months for children with and without a history of infantile colic - The Danish National Birth Cohort

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#### Background

Infantile colic is characterized by excessive crying during the first months of life and is generally considered benign. However, transient developmental delays have been observed in infants and toddlers with infantile colic.

## **Objectives**

To compare the motor and language development in toddlers with and without a history of infantile colic at age 18 months.

## Material/Methods

We studied 49,249 toddlers from the Danish National Birth Cohort. Data on crying during the first months of life and on motor and language development were collected through computer - assisted maternal interviews when the child was 6 and 18 months respectively. We defined infantile colic by the modified Wessel's criteria. For children with and without a history of infantile colic, we compared the age at sitting alone and at walking (t-test), the proportion of children who can perform specific motor and cognitive tasks (chi2 test), and the number of words spoken (t-test).

3,846 children were identified as having infantile colic. Children with a history of infantile colic were slightly older when they could sit (mean difference 0.1 months [confidence intervals 0.0 - 0.1], p=0.01) and walk (0.1 months [0.0 - 0.1], p=0.03) by themselves and could not climb up a staircase alone at 18 months more often (3.6 vs. 2.9%, p=0.03) than children without a history of infantile colic. The number of words spoken was similar in the two groups.

## Conclusion

Compared to peers, children with a history of infantile colic were slightly slower to reach developmental milestones as sitting and walking alone, had slightly poorer motor skills, but had similar language skills at the age of 18 months.

#### P48 A large scale intervention study on targeted prevention of lifestyle related diseases: The TOF project

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#### **Background**

Approximately half of the Danish population leads an unhealthy lifestyle, which significantly increases the risk of lifestyle related disease (eg. COPD, CVD and type2-diabetes). Worldwide several preventive programs have been tested with varying results. Some studies showed that systematic screening of the general population does not improve clinical endpoints above and beyond those associated with opportunistic screening. On the other hand two recent systematic reviews of general practice health checks suggest that people at high risk of lifestyle related disease may benefit from targeted health checks.

The present abstract describes a planned large-scale intervention study focusing on selective and targeted prevention of lifestyle related disease (Early Detection and Prevention - In Danish: Tidlig Opsporing og Forebyggelse (TOF)).

## **Objectives**

The objective of the study is to undertake early and systematic detection of citizens with unhealthy lifestyle and risk of lifestyle related disease and to offer targeted and coherent prevention initiatives in the primary health care sector. **Material/Methods** 

The study will be conducted in ten municipalities in the Region of Southern Denmark, with participation of up to 346 general practitioners (GPs). The study will focus on 30-59 year-olds, thus comprising up to 200000 citizens, and it will be carried out as a clustered stepped-wedge randomized controlled trial over a two-year period.

The intervention consists of the following four components:

An electronic survey on lifestyle-related risk factors; An estimation of the individual's risk of disease based on validated algorithms, synthesizing individual lifestyle survey information with EPR data; A digital support system comprising, among other features, a personal health profile with separate interfaces for the patient, the GP, and the municipal health professional; Individually targeted health checks and health dialogues in general practice and/or health dialogues with municipal health professionals.

The intervention has been developed with the combined efforts of four central stakeholders: a) The Research Unit of General Practice, University of Southern Denmark, b) The Region of Southern Denmark, c) The Association of General Practitioners in the Region of Southern Denmark, d) 10 municipalities.

Evaluation of the study will be conducted by a multi-disciplinary research team, and will focus on:

Health lifestyle effects; Economic effects; Process evaluation; Effect on inequality in health; Evaluation of the digital support system.

# P49 Patients' experiences of a computerised self-help program for treating depression - a qualitative study of internet mediated cognitive behavioural therapy in primary care

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## Objective.

The objective of this study was to explore primary care patients' experiences of internet mediated behavioural therapy (iCBT) depression treatment.

#### Design

Qualitative study. Data was collected from focus group discussions and individual interviews.

**Setting.** Primary care.

## Method.

Data was analysed by systematic text condensation by Malterud. **Subjects.** 13 patients having received iCBT for depression within the PRIM-NET study. **Main outcome measures.** Analysis presented different aspects of patients' experiences of iCBT.

**Results.** The informants described a need for face-to-face meetings with a therapist. A therapist who performed check-ups and supported the iCBT process seemed important. ICBT implies that a responsibility for the treatment is taken by the patient, and some patients felt left alone, while others felt well and secure. This was a way to work in privacy and freedom with a smoothly working technology although there was a lack of confidence and a feeling of risk regarding iCBT.

**Conclusion.** ICBT is an attractive alternative to some patients with depression in primary care, but not to all. An individual treatment design seems to be preferred, and elements of iCBT could be included as a complement when treating depression in primary care. Such a procedure could relieve the overall treatment burden of depression.

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#### **Background**

Antibiotics are the most commonly used drugs among children. Despite a restrictive policy on the use of antibiotics in Denmark, with guidelines clearly dictating v-penicillin as first-line treatment for most infections, these guidelines are not always followed. As such, this contributes to the spread of antibiotic-resistant bacteria.

## **Objectives**

We aimed at evaluating trends in prescribing patterns of antibiotics among children 0-4 years in Denmark, with emphasis on choice of first-line treatment and switching patterns between different types of antibiotics.

#### Materials/Methods

We identified all children ?4 years, who filled a prescription of antibiotics from 2000-2015 according to the nationwide Danish National Prescription Registry. We estimated the overall incidence rate of antibiotic treatment and choice of first-line antibiotics over time. Further, we estimated the cumulative risk of early switching, defined as switching within 0-3 days after initiating therapy, as early switching is most likely attributable to unsuccessful treatment attempts due to poor taste of the drug rather than a lack of response to treatment.

#### Results

We identified 3,481,684 single treatment episodes issued 998,825 children from 2000-2015. The overall incidence rate of antibiotic use was stable both among children aged 0-1 years (approx. 880 per 1000) and among children aged 0-4 years (approx. 610 per 1000) until 2011. Hereafter a pronounced decrease was observed in both age groups to 559 per 1000 and 364 per 1000 in 2015, respectively. Throughout the study period, amoxicillin and phenoxymethylpenicillin were the most frequently used first-line antibiotics (44% and 39%, respectively). The minority of those who received amoxicillin and phenoxymethylpenicillin switched to another antibiotic within the first three days (1% and 4.7%, respectively), however, when switching from phenoxymethylpenicillin, amoxicillin was second-line antibiotic in 64% of early switchers.

#### Conclusion

Early switching between antibiotics was uncommon, though considerably more frequent among first-line users of phenoxymethylpenicillin. Initiatives should address the extensive use of amoxicillin as first-line treatment.

## P51 NYGP - YOUNG NORDIC GENERAL PRACTITIONERS A new network of young GPs within the NFGP

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# **BACKGROUND**

At the Nordic Congress of General Practice in Gothenburg in 2015, a group of young GPs and GP trainees from different Nordic countries came together and discussed the need for a forum where they could communicate with each other across borders. We face many of the same challenges in our countries and it only seemed as a natural next step to share our knowledge, ideas and experiences in order to improve the quality of our education and the further development of general practice. From October 14th to 16th 2016, a group of 14 young GPs and GP trainees from Denmark, Sweden, Norway, Finland, Iceland, and the Faroe Islands met in Iceland to found the Nordic Young General Practitioners network – the NYGP. This was made possible with generous financial support from the Nordic Federation of General Practice (NFGP).

## **AIMS**

To establish a framework where Nordic young GPs (both trainees and newly established GPs) and medical students interested in general practice can come together in a friendly environment to build long lasting personal and professional friendships and to work together to formulate viable solutions to the challenges that general practice face in our countries. The NYGP network aims towards becoming the scientific and social melting pot of ideas, attitudes, knowledge, skills, and experiences in the Nordic countries. The shared values are participation, cohesion and commitment – like an extended family. We seek to keep every member clinically competent and at the same time building confidence through mentoring, nurturing, and facilitation.

#### **METHODS**

The very first step has been taken this spring, where the NYGP has arranged the first Nordic Pre-Congress of General Practice (NPCGP). The ambition is to continue to arrange Pre-Congresses each second year and in relation to this, facilitate clinical educational experiences in the shape of practice visits. In addition, NYGP plans to arrange Nordic Seminars of Primary Health Care every other year to stimulate continuous professional development

in Nordic general practice.RESULTSSo far we have established the first ever pre-congress in relation to the Nordic Congress of General Practice.

## CONCLUSIONS

It is our firm belief that a closer collaboration between the Nordic young GPs and GP trainees can only be seen as an advantage for the individual as well as for General Practice as a whole.

## P52 Relationship of weight and vitamin status, electrolytes and full blood count in the capital area of Iceland

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#### **Background**

Several studies show that obese patients in several countries have a suboptimal vitamin and mineral status compared with people of a healthy weight. Studies show that a common vitamin deficiency associated with obesity is low concentrations of 25-hydroxvitamin D which is associated with an increased risk of diabetes and other cardiovascular risk factors and depression. Furthermore, bariatric surgery is used with increasing frequency. However, bariatric surgery may induce malabsorption and result in nutritional deficiencies. The combination of a low preoperative vitamin concentration and the malabsorption that often follows bariatric surgery may render these patients prone to severe vitamin deficiencies.

#### **Objectives**

None of these studies covers the population in Iceland. Icelanders are among the most obese in Europe and the most obese in Northern Europe. Obesity is still increasing, thus general practitioners have to deal with obese patients. Obese patients have often a suboptimal vitamin and mineral status which could accentuate the risk of chronic diseases. This study aims at investigating whether a suboptimal vitamin and mineral status applies also for obese patients in comparison with people having a healthy weight living in the capital area of Iceland.

## Material/Methods

Adult, non-pregnant patients are recruited from a Primary Health Care at the Capital Area in Iceland. A questionnaire is used to ask among others about chronic diseases, medication, and food supplements. Blood samples are taken and analysed for the following vitamins and minerals are analysed: Albumin, CRP, vit. D, Ferritin, TSH, vit. B12, Folic acid, fasting blood glucose, Na, K, and haemogram. It is expected that 120 patients take part in this study. The obtained data will be statistically evaluated.

#### Results

Collection and analysis of data are ongoing. First results will be presented at the conference.

### Conclusion

The study will show whether obese patients in the capital area of Iceland have a suboptimal vitamin and mineral status compared with people of a healthy weight. If this is the case, this study may improve the awareness among GPs about a suboptimal nutritional status of obese patients. As future work, it would be worthwhile to find out whether the vitamin and mineral status can be improved as part of obesity treatment (even if the patients are not reducing weight). Such an obesity treatment might in particular take the individual nutritional deficiencies of each patient into account. Furthermore, the study may increase the awareness that patients undergoing bariatric surgery may have nutritional deficiencies which may be even amplified by the bariatric surgery.

# P53 Trends in incidence of atopic eczema: A prescription database surveillance among Norwegian preschoolers

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# **Background**

Atopic eczema is an itchy inflammatory skin condition which affects the quality of life in children and their parents and are frequently encountered in general practice. The incidence of atopic eczema in Norway has not previously been surveyed through a national-wide database. The Norwegian Prescription Database is a complete registry covering all dispensed medical prescriptions of the entire population in Norway. The prescriptions serve as a proxy for atopic eczema in this analysis.

## **Objectives**

This study intends to describe alterations in incidence of atopic eczema among children aged 0-6 years during 2009-2015 in Norway.

## Material/Methods

Atopic eczema refers to a chronic inflammatory disease. Patients with atopic eczema were defined by dispensed prescriptions of disease-specific medication consisting of topical steroids/calcineurin inhibitors or/and disease-specific diagnoses for "Atopic eczema" encoded as ICD/ICPC.

When describing time-trends in incidence, an event was defined as a patient who not previously had received disease-specific medication. Incidence was calculated both as crude and standardized estimates (direct method),

using the figures of total atopic eczema events per calendar year as the numerator and the total actual size of the child population the same year as the denominator, respectively to age and sex. The magnitude of incidence trend was performed using Poisson regression.

#### Recults

During this 6-year time-period 30,957 patients out of 368,803 children met the inclusion criteria. The incidence ratio of atopic eczema per year did not deviate significantly between 2009 and 2015 and was thus considered stable. The incidence rate of atopic eczema peaked between 0 and 1 years of age (both sexes) and then declined with increasing age. Boys were significantly more affected by atopic eczema compared to girls, especially for age 0-1 and 1-2.

#### Conclusion

This study implies that the incidence in atopic eczema during the last six years in Norway are stable. This corresponds to similar trends in other Northern countries. In this study, there are significant gender and age disparities which need to be further evaluated.

## P54 Working multiprofessionally towards better health outcomes among patients with chronic diseases.

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#### **Background**

In City of Hämeenlinna Health Services we had lack of time for high risk /multi-sick patients and no knowledge of their health outcomes. Therefore, as an intervention, in 2012 a special chronic care unit (CCU) was established for patients, who have at least two health related risks and long-term diseases that are not in balance, and also for "health care overusers".

## Material, methods

Patients treated in CCU and whose SCORE could be counted both 0-12 months before CCU treatment and after at least one year follow-up period were included in the study.

These selected patients got a named care coordinator nurse (coordinator) to support their self-care. At the beginning a self-care plan was made for all patients. Patients are in a center role in making the plan and they define, what is the most important health related problem in their life at the moment and what would be the main focus and aim to head for next. Then with their coordinator patients decide which are the best possible ways to achieve these desired health outcomes and what kind of support they want and need from public health care. Physician is responsible for the medicinal care and therefore fills in the patients care plan with medically relevant facts about the medication and laboratory controls etc.

The coordinator supports the patients in self-care making sure, that they are heading towards their goals. The self-care plan is updated regularly. If problems occur, a multi-professional team is available for consulting. In addition to traditional doctors or nurses appointments new ways of supporting the patients in their self-care have been invented such as group gatherings for smokers or patients trying to loose weight and digital health services. **Results** 

The average SCORE decreased from 4,5% to 4,1% in an average four years follow-up. Best results were achieved in systolic blood pressure and total cholesterol. Smoking on the other hand did not decrease as hoped. The age of patients was from 45 to 65 years at the beginning, average 55.9 yrs. Latest results from year 2016 will be presented in the final poster.

## Conclusion

Measuring the health outcomes is important to evaluate the effectiveness of health care and to recognize the areas in patient care that need to be improved. Due to this study the personnel also get valuable feedback from their work. The defect of this study is the lack of randomization. It would be interesting to compare the results to the results of a same kind of patient material treated the usual way.

# P55 Evaluating the Health Conditions for Elderly Drivers - Guidance for General Practitioners in The City of Hämeenlinna Health Service.

# Eeva Helena Pohjakallio

City of Hämeenlinna Health Services, Hämeenlinna, Finland

#### Background:

In Finland, assessment of driving ability belongs to the general practitioner's missions. An extended assessment of driving ability is done for every 70 year old and thereafter at interval max. 5 years.

## Objectives:

Due to increase of the number of elderly, primary care physicians are forced to take a stance on the heath conditions for driving in elderly more and more. Aging causes not only the changes brought on by age, but often also other diseases and changes in cognition.

## Methods:

In Hämeenlinna health center we introduce a multi-disciplinary approach. The operating model includes instructions for driving ability assessment. Its purpose is to increase the multi-professional co-work in estimating the health criteria for a driver's license. In the model, our emphasis is a so-called "prepared appointment" which means the cooperation between nurses and doctors and especially evaluating the changes caused by aging. Results: The purpose of these guidelines is to streamline the reception event, and to improve road safety and to harmonize practices within the health center.

## P56 Efficacy and safety of palliative drug treatment in dying patients - a systematic review

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## **Background**

Dying patients commonly experience pain, dyspnea, anxiety, restlessness, and death rattle. Palliative care guidelines recommend opioids, anticholinergics, antipsychotics and benzodiazepines for symptom relief yet little is known about their efficacy and safety in the last days of life.

## **Objectives**

We aimed to review the literature related to efficacy and safety of palliative drug treatment in dying patients. **Methods** 

We conducted a systematic search of the literature published before December 2016 using the databases PubMed/MEDLINE, Embase, CINAHL, PsycINFO, Cochrane, ClinicalTrials.gov, and SveMed+. Articles containing original data on outcome measures relevant to symptom control, adverse effects, or survival in adult populations were included. Titles and abstracts were screened, and full texts assessed for eligibility by two authors independently, after which included full text articles were evaluated on methodological quality.

## Results

Of 4583 unique titles identified, 12 studies met the selection criteria. Five studies assessed anticholinergics for death rattle, providing no evidence that any anticholinergic drug is superior to placebo. The five studies examining drug treatment for dyspnea, anxiety, or terminal restlessness provided some evidence to support the use of morphine and midazolam. Two studies examined opioids for pain, providing weak support for morphine, diamorphine and fentanyl patch. Eight of the studies also included safety outcomes, revealing no important differences in adverse effects between the interventions and no evidence for midazolam shortening survival.

### Conclusion

There is a lack of evidence concerning efficacy and safety of palliative drug treatment in dying patients. Consequently, minimal guidance for clinicians on treatment options is provided by studies in this population so far.

# P57 Impact of interventions towards elderly patients with polypharmacy on emergency admissions and quality of life.

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### Background and objectives:

Elderly patients with polypharmacy have an increased risk of hospitalization and a poorer quality of life (QOL). In the development of new evidence-based guidelines for clinicians dealing with elderly patients with polypharmacy, patient-reported outcomes such as QOL should be examined. Thus, the aim of this systematic review is to examine the impact of interventions towards elderly patients with polypharmacy on emergency admissions and QOL.

## Methods:

This systematic review is based on a literature search in PubMed. The search was based on a combination of the following MeSH terms: Polypharmacy, general practice, intervention studies, hospitalization, activities of daily living and QOL. Studies that examined the effect of interventions in general practice toward the elderly (?60 years) patients with polypharmacy (?4 drugs) using an intervention and control group, and with emergency admissions and QOL as outcome measures, were included. The studies were selected by screening of title, abstract and if relevant, review of the entire article. The risk of bias in the included studies were assessed by systematic review and use of "The Cochrane Collaboration's tool for Assessing risk of bias". Whenever possible, data from the individual studies were used to calculate a common power estimate and its 95% confidence interval.

#### Results:

Six studies involving 2.870 participants were included in the analysis. They all examined interventions with pharmacist-led medication review. The effect of the intervention was measured on emergency admissions and QOL, using validated questionnaires as SF-36, EQ-5D and EQ-VAS. 1.496 participants were included in the analysis of

emergency admissions with 0.43 emergency admissions per person/year in the intervention group and 0.49 in the control group, corresponding to an absolute risk reduction of 6 %. Four studies with a total of 1.615 participants also examined QOL. QOL was similar in the intervention and control group when measured by EQ-5D, while the intervention group had a slightly greater decrease in QOL measured with the EQ-VAS and SF-36. None of the differences in QOL were statistically significant.

#### Conclusion:

The interventions were pharmacist-led medication reviews. They found a non-significant reduction in emergency admissions and no significant difference in QOL in the intervention group compared with the control group. In general, the studies had small study populations and were heterogeneous in relation to the intervention intensity, duration and time to follow-up. Furthermore, a more stringent definition of the older patient with polypharmacy is needed in future studies to show a clearer clinical effect.

### P58 Mental health disorders and frequency of contact in Norwegian general practice

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## Background:

Mental health disorders are highly prevalent in the community. International surveys find a higher prevalence of mental health disorders than any other class of chronic conditions, with more than one third of the population meeting criteria for a mental health disorder during their lifetime. Primary care is a central arena for the delivery of mental health services. The general practitioner often meets patients in an early stage of symptom development, and evidence shows that the continuity of health care provided by a general practitioner may prevent development of illness and premature death.

## Objective:

To examine the prevalence of mental health diagnoses and related frequency of visits compared to other groups of somatic illness in Norwegian general practice.

#### Material/Methods:

A cross-sectional study of all patients between 16-65 years of age who had contact with their general practitioner during 12 consecutive months in six general practice facilities in Groruddalen, Norway. We have extracted data from electronic medical records including information of age/sex, frequency of contact, diagnoses, prescriptions and referrals to specialized health care from a total of 30 general practitioners and approximately 19.000 patients.

## Results and conclusions:

The data is currently being analyzed. Results and conclusions will be presented at the congress according to outcome measures described below.

**Outcome measures:** The main outcome measures will be prevalence of mental health diagnoses according to sex and age group. We will then analyze frequency of visits from patients who received a mental health diagnosis compared to frequency of visits from patients given a diagnosis of other groups of medical diagnoses in the same time period according to the ICPC-II diagnostic system used in Norwegian general practice. The main hypothesis is a significant higher number of contacts from patients with mental health issues than other areas of disease during 12 months of contact registration.

P59 Title: Leadership challenges in primary care clinics. Use of structured methods to support changes. Improving quality of care in the GP clinic by using leadership methods.

Gitta Trier

Lægerne i Lundtofte, Lyngby, Denmark

## Background:

In Denmark, general practice is built on small private clinics, owned by the GPs . The clinic "Lægerne i Lundtofte" consist of 3 part time GPs, 3 part-time nurses, and covers 4200 patients. To increase the quality of medical treatment and to improve the physical and mental to the benefits of patients, staff and doctors by means of the clinic working systematically with organisation and development.

# Objectives

Accepting new actions by nurses and patients required time-consuming efforts by the GPs explaining the reason for change. The nurses had ideas about how to improve routines and templates, but the clinic had no room for discussing the ideas. In 2015 the GPs completed training in leadership. This included various structured methods for leadership. The GPs wanted to explore if they could integrate changes more effectively by using structured leadership methods.

#### Methods

May 2016, the 3 GPs made a SWOT analysis (strengths – weaknesses – opportunities - threats) and concluded that the hour 8-9 a.m. where the GPs conducted telephone consultations should have another purpose. The change

must increase the quality of treatment of patients, be within the applicable agreement and improve the work environment in the clinic.

Afterwards the 3 GPs participated in a training program, 2 meetings with other GPs The training subject was organisation of changes in primary care. The GPs spared with other GPs in the process of making changes. The GPs were recommended the PDCA- circle (plan-do-control-act). Afterwards the clinic had a 3-hour meeting with their nurses. The clinic used Lemniskaten, a work tool that leads everyone to consider the imminent change divided into 4 phases: Facts, analyses, ideas and plan for action.

January 2017 the GPs went to the second meeting and spared again with other GPs. March 2017 starts implementations of the change including patients.

#### Results

Using SWOT analysis gave an overview and made it easier for GPs to agree. Participating in the training that included sparing with another GP clinic was helpful. The work tool Lemniskaten with the nurses gave everyone ownership in the project. The PDCA circle is an effective tool to implement and evaluate changes.

#### Conclusion

Using structured methods to support analyses seem to be useful and make changes into a smaller challenge. The employees were part of the planning process, which we suppose will make the implementation smoother. The challenge is to implement the methods into the daily life in the clinic. We will continue working with the integration of these and other methods in the management of our clinic.

## P60 Centralization of the accreditation process to enhance quality and efficiency

Jesper Lundh

General practice, Fredensborg, Denmark

#### **Background**

As part of the Danish Healthcare Quality Programme, general practice has since 2015 been accredited. Together, PLO - the organisation of Danish GPs, DSAM - the Danish scientific society for Family Medicine and the Danish Regions have developed a set of accreditation standards with a total of 16 standards. IKAS - The Danish Institute for Quality and Accreditation in Healthcare, is the highest authority and oversees the accreditation programme. They have trained GPs and general practice staff as surveyors, who visits individual general practices, usually of four to five hours duration, as part of the programme. One year prior to the visit the individual practice is informed about the visit. They then have a year to develop a set of individual standards. When the visit is over, and if the general practice is approved, a new visit will be scheduled after three years.

#### Aim

To increase the professional, organizational and patient perceived quality

To increase patient safety

To measure quality and ensure that it improves if it is found to be inadequate

To increase health care across primary and secondary health care

## Methods

A series of initiatives has been implemented with the intention to enhance quality and efficiency of the accreditation process in the Health Care system:DAK-E - the Danish quality unit has set up a website that provides an overview and structure of the administrative process. This includes a tool for electronic management of documents which the GP, general practice staff and surveyors have access to.

IKAS has developed an electronic handbook concerning the set of 16 accreditation standards.

The Quality Improvement Committee for general practice in the Capital Region has employed organisational consultants that may support the individual general practice in several ways. They offer general courses on how to get started with the process and also offer more specialised courses related to selected parts of set of 16 accreditation standards. There is a telephone helpline where GPs and general practice staff can get answers to more specific questions. One of the standards deals with emergency situations and cardiac arrest.

## Conclusion

The centralized accreditation process has proven to enhance the synergy effects and drive the quality agenda in the Danish General Practice.

GP trainee Louise Charlotte Jansen

GP Jesper Lundh

## P61 Improving patient care through implementing Municipality practice consultants

Jesper Lundh

General practice, Fredensborg, Denmark

## **Background**

The reason is that there will be more joint continuity of patient care. There is an aging population with an increase in the prevalence of chronic diseases. Municipalities will have more rehabilitation pathways for patients with chronic diseases. The change in the healthcare system with decommissioning of several smaller hospitals and construction

of highly specialised hospitals with fewer beds will lead to patients being discharged before their treatment is finished. This will result in additional and more complex joint continuity of patient care.

#### Aim

To ensure that patient care lives up to good clinical practice.

## Specific objectives

That General Practice and the Municipality have a common understanding of each other's organisation.

To ensure that the joint electronic platform communicates according to mutual agreements.

To ensure quality and develop cooperation concerning the Shared Medical Card.

## Methods and results

There are in all the municipalities a joint municipal medical committee whose task is to promote cooperation. There are four annual meetings where agreements concerning this corporation are made. To coordinate this work, Copenhagen Municipality has hired two part-time General Practitioners who focus primarily on chronic diseases and organisation of nursing homes from having multiple General Practitioners to having their own doctor. This will be done by sending newsletters, network meetings for nursing home doctors, participation in joint local collegiate meetings, developing the quality of the electronic communication, journal audit of correspondence/referrals/discharge summaries and courses for newly recruited General Practitioners.

#### Conclusion

To ensure good continuity of patient care in the Copenhagen Municipality it has been decided to assign Practice Consultants, whose key agenda is to strengthen the medical cooperation between the municipality and general practice.

GP Esben Hall-Andersen

GP Jesper Lundh

### P62 Ethnic Differences in Iron Deficiency and Anaemia in early Pregnancy

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## Background:

There is no consensus in Europe as to whether iron status should be examined in early pregnancy or whether iron supplementation should be routinely recommended. National guidelines differ and very few seem to reflect today's multi-ethnic context in Europe. This study contributes information about iron status in a multi-ethnic group of pregnant women which may help to form new guidelines and to identify groups with particularly high prevalence of "at-risk" women.

#### **Objectives:**

To explore ethnic differences in iron deficiency (ID) and anaemia in pregnant women Material/Methods DESIGN: Cross-sectional data. SETTING: Primary antenatal care in Oslo. SUBJECTS: 823 healthy pregnant women were included in the study. Ethnic origin was defined by the participant's country of birth or the participant's mother's country of birth if the participant's mother was born outside Europe or North-America. MAIN OUTCOME MEASURES: Iron deficiency was defined as ferritin ≤ 15 mcg/L and anaemia as Hb ≤ 10.5 g/dL. Results:

792 had valid primary outcomes measures. Mean gestational week was 15. 59% were of ethnic minority origin. Preliminary results show that the prevalence of ID was 48% (229/466) among ethnic minority women and 17% (56/326) among Western Europeans. Among ethnic minority women the median value of ferritin was 16.0 (IQR 9–29). Among Western Europeans median ferritin was 31.5 (IQR 18–55). Preliminary results show that the prevalence of anaemia was 9% (41/466) among ethnic minority women and of iron-deficiency anaemia 6% (33/466). 2% (6/326) of western women were anaemic and 1% (2/326) had iron-deficiency anaemia. The mean Hb was 11.8±1.0 (11.8–11.9) among ethnic minority women and 12.3±0.9 (12.2–12.4) among Western Europeans. Preliminary results show that the highest prevalence of both ID and anaemia was found among women from South Asia (53% and 11%) and Sub-Saharan Africa (57% and 14%). The results were all highly significantly different (P<0.01). Conclusion The prevalence of ID was three times higher and of anaemia five times higher among ethnic minority women compared to Western Europeans, with women from South Asia and Sub-Saharan Africa at highest risk.

P63 Cardiovascular risk factors in the young, a study of Icelandic college students. Positive trends for males over a seven-year period.

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## Introduction:

In recent years, there has been a growing concern over the increase in cardiovascular risk factors related to life

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style, such as obesity, hypertension, type 2 diabetes and physical inactivity in adolescents and young adults. The aim of our study was to investigate the prevalence of cardiovascular risk factors in young people aged 18-22 years in two colleges in the municipality of Akureyri, Iceland. Results of two investigations with a seven-year interval were compared. After the first investigation both colleges adopted a health promoting policy.

#### Methods:

Students aged 18-22 years, in two colleges in Akureyri Iceland were invited to participate in the Young Icelanders Study. The first part of the study was performed in 2010 and the second part in 2017. On physical examination blood pressure, weight, height, waist-and hip circumference were measured according to the World Health Organization (WHO) standards. Blood glucose, total cholesterol, HDL-cholesterol and triglycerides were measured and LDL-cholesterol calculated according to the Friedewald formula. Body mass index (BMI) values for normal weight (18,5-24,9), over weight (≥25-29,9) and obesity (≥30) and waist cut-off values (<88 cm for females and <102 cm for males) for increased cardio-vascular risk were determined according to WHO.

#### Results:

In 2010, 270 students participated (65% females, 35 % males) and in 2017, 282 students participated (61% females, 39 % males). Males with BMI ≥30 were 18% in 2010 and 9% in 2017 (p=0,055). Males with waist circumference >102 cm were 14% in 2010 and 4% in 2017 (p=0,008). Females with BMI ≥30 were 8% in 2010 and 14% in 2017 (p=0,144). Females with waist circumference >88 cm were 26% in 2010 and 21% in 2017 (p=0,459). In 2010 males with BMI≥30 had significantly lower HDL-cholesterol and significantly higher triglycerides, blood glucose and systolic blood pressure compared with those with BMI <30. In 2017, the only significant difference for the different male BMI groups was a lower HDL-cholesterol and higher LDL-cholesterol values. In 2010, the only significant difference in females was higher blood glucose in the BMI≥30 group compared to BMI<30 group and in 2017 the only significantly difference was a lower HDL in the BMI≥30 group.

#### Conclusion:

For males, there is a positive change with significantly fewer with waist circumference above the WHO cut off value and trend towards less obesity (BMI>30). No such change was seen for females and a considerable number still have waist circumference above the WHO cut-off value. Obese individuals of both sexes have an unfavourable lipid profile with lower HDL already at a relative young age.