

European General Practice Research Network (EGPRN)

Abstracts from the EGPRN conference in Riga, Latvia, 11–14 May 2017. Theme: ‘Reducing the risk of chronic diseases in general practice/family medicine’

Introduction to the theme ‘Reducing the risk of chronic diseases in general practice/family medicine’

The primary cause of death in Europe is chronic disease. Cardiovascular disease and diabetes alongside chronic obstructive pulmonary disease and cancer are among the four main chronic diseases. Premature death is a major consideration when evaluating the impact of chronic diseases on a given population and is used as an indicator in the global monitoring framework. During the EGPRN spring conference in Riga, Latvia, oral and interactive posters were presented alternately. Papers on ‘Screening Programme,’ ‘Prevention of Non-communicable Diseases,’ ‘Life Style Behavioural Changes’ and ‘Personnel Resources (Burnout Syndrome)’ were discussed among an international audience of family doctors and general practitioners.

KEYNOTE LECTURES

Reducing the risk of chronic diseases in general practice/family medicine

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Although chronic diseases are the most common and costly health problems, they are also the most preventable. Prevention is health promotion activities that encourage healthy living and limit the initial onset of chronic diseases but it also includes early detection

activities, such as screening at-risk populations as well as strategies for appropriate management of existing diseases and related complications. As general practitioners/family physicians, we spend most of our time caring for patients with chronic diseases but studies show that we achieve the standard of care for chronic diseases and preventive care for less than 50% of the patients.

Is our healthcare system designed to prevent chronic illnesses? Can the traditional physician–patient interaction, which is organized to respond to acute patient illness, be as effective in managing chronic diseases?

Studies of chronic disease prevention and management based on the Chronic Care Model (CCM) show promising results in reducing the healthcare costs, improving performance and health outcomes. CCM enhances the role of multidisciplinary primary healthcare. Although chronically ill clients value a single source of care for their multiple needs, the complexity of the same needs means that no single professional can provide the expert care. An interdisciplinary mix of primary care professionals, working in organized teams, has been shown to improve care for the chronically ill, and provide effective prevention. Cochrane Collaboration review confirmed that multicomponent practice changes in four categories led to the greatest improvements in health outcomes: increasing providers’ expertise and skill, educating and supporting patients, making care delivery more team-based and planned, and making better use of registry based information systems. Although full implementation of the chronic care model is highly demanding because needs involve the entire healthcare system and the community, many of the features can also be implemented in smaller practices.

State of the art of family medicine/general practice in Latvia

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Latvia is a country by the Baltic Sea populated by 1 969 000 inhabitants. It is called a 'green' country due to its forests and abundance of wildlife. About half of inhabitants above 15 years of age (45% women and 55% men) are sure that they are in very good or good health. Inhabitants are in general appreciating family medicine as 62% are fully and 28% are partly satisfied with their family physician. Representative studies on health behaviour of the Latvian population show that there is still a significant effort needed by both family physicians and patients to implement favourable lifestyle changes. For example, half of working-age people (54.6%) are overweight or obese and traditions of riding bicycles are still to be enhanced, as 77% report not riding bicycles at all. Latvians are still to be encouraged to accept preventive measures as coverage of cancer screening programmes is below 40% and human papilloma virus vaccination rates in 12-year old females do not exceed 45%. As both healthy life expectancy at birth (67.1 years) and the public spending on health as a share of GDP per capita (below 4%) is one of the lowest in the European region, effective primary healthcare (PHC) teams are essential in Latvia.

In clinical family medicine, Latvia has implemented an impressive change since 1993. It has switched from the Soviet polyclinic-based healthcare system with different specialists dealing with individual health problems of a patient towards a Western system based on a comprehensive patient-oriented approach of a family physician. Since then the number of family physicians in the country has grown from 0 to 1450. The opinion of family physicians is now considered as an effort of two powerful associations: Association of Latvian Family Physicians and Association of Latvian Rural Family Physicians. A total of 1329 physicians have public agreements with National Health Service (6.7 PHC physicians per 10 000 inhabitants) and on average 1530 patients are registered per physician. Most family physicians have their private practices supported by one or two nurses or physician's assistants. Primary healthcare paediatricians and internists form a minor part of PHC. E-medicine is being currently piloted. After trying different financing systems and models, Latvia has now stopped at mixed capitation model. Quality

criteria are set but seem to be non-motivating. In this set-up, the main challenge is to fit competencies of the family physician so well incorporated in the Wonca tree into the legislative and financial framework of Latvia.

As 54% of primary healthcare physicians are older than 55, education of young family physicians is crucial. The education system of a family physician in Latvia is like Lithuania and Estonia with six undergraduate years and three post-graduate years. Two universities (Riga Stradins University and University of Latvia) are training both undergraduate and postgraduate physicians. Family medicine is incorporated in the last year of the programme for undergraduates and there is a great intention to introduce basics of family medicine earlier. The prestige and number of medical students is growing every year in Riga Stradins University, e.g., during the academic year 2016/2017, a total of 315 students (including 116 international students) undertook a basic course in family medicine. Most students are satisfied with the course and a new perspective of problem-solving. On average 40 postgraduates are trained in family medicine each year since 2014 with most training in family medicine during the last year.

Research in family medicine has been slower, compared to other Baltic countries. Establishment of the Department of Family Medicine in Riga Stradins University in 2010 was a serious sign of changing attitudes towards family medicine. Now the department comprises 10 lecturers with only one assistant professor in family medicine. The main challenge is involvement of clinically active, competent physicians into academic and research environment. Capacity building in writing project proposals and publications is still essential. Postgraduates (residents) are a serious potential for further research activities. Latvia is ready to continue its journey towards academic family medicine, and hosting the EGPRN Riga Conference is another big step towards reaching this target.

PRIZE-WINNING POSTER

Beliefs and knowledge about sexually transmitted diseases in women having sex with other women

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Background: In France, lesbians do not feel concerned about prevention and screening of sexually transmitted diseases (STD). However, this population is equally at risk as heterosexual women and should benefit from the same prevention in primary care. The aim of this study was to identify their beliefs about STD to optimize their prevention.

Research question: What are your beliefs and knowledge about STDs among women having sex with other women?

Methods: A qualitative study by semi-structured face-to-face interviews has been conducted to theoretical saturation. Adult women having occasional or exclusively sex with other women were included. Transgender women were excluded. Verbatim transcripts were analysed with NVivo® software after data triangulation.



Results: Most women had heterosexual relations before. Protection means were globally known and used. Specific protection means for use between women were only discovered in a lesbian association but rarely used. They were restrictive. AIDS was the first cited STD. Knowledge of other STDs was limited or not known at all. The screening was often obtained in cases of pregnancy, hospitalization or case of doubt about a former partner. In couples, the risk of STD was not discussed at the beginning of the relationship but only when it became serious and stable. Women were questioning themselves about their risk but did not dare to ask their doctor because they felt embarrassed. They criticize the lack of prevention messages from their general

practitioner and gynaecologist due to the invisibility of their sexuality in prevention campaigns, which talks more often of homosexual men.

Conclusion: Early information at school, more presence of gay women in public prevention campaigns and more prevention messages delivered by GPs could improve STD prevention.

THEME PRESENTATIONS

Variation in physicians' decisions on antihypertensive treatment in oldest-old and frail individuals across 29 countries

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Background: In oldest-old (>80 years), few trials showed the efficacy of treating hypertension including mostly healthier individuals. The resulting lack of knowledge has led to inconsistent guidelines, mainly based on systolic blood pressure (SBP) and cardiovascular disease (CVD) but neglecting frailty as an important characteristic of many oldest-old patients.

Research question: To investigate clinical variation among general practitioners (GPs) across 29 countries in their decision to start antihypertensive treatment in oldest-old and to identify the role of frailty in that decision.

Method: Using a survey, we asked GPs if they would start antihypertensive treatment in cases of oldest-old varying in SBP, CVD and frailty. We invited GPs in Europe, Brazil, Israel, and New Zealand and compared percentages of cases that would be treated per countries. A logistic mixed-effects model was used to derive odds ratio (OR) for frailty with 95% confidence intervals (CI), adjusted for SBP, CVD, and GP characteristics (sex, location and prevalence of oldest-old per GP office, experience, and guideline adherence when treating hypertension in oldest-old). The mixed-effects model was used to account for multiple assessments per GP.

Results: The 29 countries yielded 2543 participating GPs: 52% female, 51% based in cities, 38% with >20 years of experience. Across countries, considerable variation to start antihypertensive treatment was found

ranging from 34 to 88%. In 24/29 (83%) countries, frailty was still associated with GP's decision not to treat hypertension when adjusted for SBP and CVD (overall OR: 0.53, 95%CI: 0.48–0.59; ORs per country ranged from 0.11–1.78).

Conclusion: In the participating countries, the decisions to start antihypertensive medication in oldest-old showed considerable variation. The frail oldest-old had an almost 50% lower probability of receiving antihypertensive treatment. Future hypertension trials should include frail patients to establish whether frailty is an important factor to consider when treating hypertension in oldest-old.

What are the challenges that family practitioners face in the management of chronic diseases? A European research protocol from the EGPRN Fellows

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Background: There is considerable variation in the way that chronic diseases are managed across Europe, in terms of the degree to which family practitioners (FPs) are involved, the degree of uptake by patients, the levels of interest and input from health policy makers and other stakeholders, the content of chronic disease management (CDM) programmes, and the quality of care in these programmes. Orientating health systems to address CDM through primary care is thought to improve health status and reduce healthcare costs.

Research question: What are the challenges that family practitioners face in the management of chronic diseases, and how do these compare across three European countries?

Methods: The EGPRN's Fellows worked together using email discussion and six mentored Skype meetings to study the background to this research question, choose and develop the methodology, and prepare a protocol for the subsequent study in their three European countries.

Results: The protocol describes a qualitative study that uses questionnaires with open-ended questions to assess the views of FPs in three European countries regarding the challenges that they face in providing

care for patients with chronic conditions. The study population consists of FPs working in primary health-care centres in Greece, Ukraine, and Turkey. The study uses maximum variation sampling, with sample size determined by data saturation.

Conclusion: This study has been designed to result in recommendations for improving the management of chronic diseases by FPs in three different countries. These may also be relevant in other European settings.

Statins for (almost) everyone? Validation of the 2016 US Preventive Services Taskforce (USPSTF) recommendations for primary cardiovascular prevention

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Background: Primary prevention treatment with statins is advised for high-risk patients but there is no consensus on how to ascertain risk. The American College of Cardiology and American Heart Association (ACC/AHA) issued recommendations based on the 'pooled cohort equations' calculator but were shown to overestimate risk in US cohorts. In 2016, the US Preventive Services Task Force USPSTF proposed a modification, narrowing the patient selection. These recommendations were not validated to date.

Research question: How well do the USPSTF recommendations perform in a contemporary non-US cohort?

Methods: A retrospective cohort using electronic health records. All patients eligible for primary cardiovascular prevention in 2005 in the Tel Aviv district of Clalit Health Services in Israel were identified. A total of 10 889 primary prevention patients were followed for 10 years (98 258 person-years). Predicted risk was compared to observed events.

Results: Average age was 60.3 years (SD: 9.4), and 69.1% were women. Outcome events were recorded in 1351 patients (12.4%). Both guidelines indicated low risk in 3594 (32%) patients and agreed for statin eligibility in 2483 patients (22.8%). Implementation of the USPSTF recommendations would result in a 26% reduction in patients newly eligible for statin treatment. The predicted-to-observed ratio was 1.0 and 0.98 among USPSTF and AHA/ACC statin-eligible patients, respectively. Discrimination of both models was poor—Harrel's $C = 0.63$ (0.62–0.65) versus 0.64 (0.63–0.66), $P = 0.26$ for

the USPSTF and the AHA-ACC, respectively. The USPSTF recommendations were less sensitive for detection of outcome events than the AHA/ACC recommendations (61% versus 75% respectively) but were more specific (68% versus 55%). Net reclassification improvement was of -0.01 .

Conclusion: Applying the USPSTF recommendations seems a reasonable approach to reduce statin over-treatment. Clinicians and policy makers should be aware of the implications of different models in real-life settings.

The obesity paradox among type 2 diabetes patients: Does being overweight necessarily confer a worse prognosis?

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Background: Overweight and obese type 2 diabetes mellitus (T2DM) patients are encouraged to lose weight, yet the association between body weight and morbidity and mortality had not been established yet. Recently, an inverted association between body mass index (BMI) and morbidity and mortality had been described, a phenomenon named 'the obesity paradox.'

Research question: To examine whether an obesity paradox exists in the context of morbidity and mortality of T2DM patients.

Methods: A retrospective cohort study included 45 years or older T2DM patients insured in 'Clalit Medical Services,' excluding patients with previously diagnosed cardiovascular diseases, CKD4–5 and cancer. The final cohort included 102 063 patients. Follow-up was seven years or until the patient's death. Outcomes measured were: incidence of ischaemic heart disease, CKD4–5 and all-cause mortality. Multivariable logistic regression was used in the analysis of kidney failure incidence. Cox proportional hazard regression was used in analysis of ischaemic heart disease and all-cause mortality incidence.

Results: Compared to normal weight diabetes patients, hazard ratios of incidence of ischaemic heart disease were 1.161, 1.232, 1.281, 1.246 for BMI 25.00–29.99, BMI 30.00–34.99, BMI 35.00–39.99 and BMI 40 and above, respectively. All results were statistically significant. Compared to normal weight diabetes patients, the incidence of CKD4–5 was significantly higher only

in the BMI category of 40 and above; HR 1.402, $P=0.001$. 7.8% of patients died during follow-up. Compared to normal weight diabetes patients, hazard ratio of all-cause mortality was 0.795, 0.811, 0.931, 1.403 for BMI 25.00–29.99, BMI 30.00–34.99, BMI 35.00–39.99 and BMI 40 and above, respectively. All results were statistically significant.

Conclusion: A direct association was found between BMI and ischaemic heart disease incidence. Overweight and obese T2DM patients were found at lower risk of mortality compared to their normal weight counterparts. The results of the study support the existence of an obesity paradox among T2DM patients in Israel.

Impact of intervention on the number of cervical cancer screens: A randomized controlled study [poster]

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Background: Despite the relative ease of prevention, cervical cancer remains a global women's health issue responsible for more than 270 000 deaths annually. The mortality rate in Latvia (8.2/100 000) is one of the highest among the EU countries. Increasing the uptake of screening is a way of controlling this disease through early diagnosis. Latvian cervical cancer screening coverage rate in 2014 and 2016 were 27.8% and 32.4%, with the lowest rates in Riga region. The minimum quality criterion for cervical cancer screening coverage to be fulfilled by GPs in Latvia is 36%.

Research question: To assess the effectiveness of telephone intervention as a strategy to increase the uptake of Pap smears in the framework of the national cervical cancer screening programme.

Methods: A prospective randomized controlled study was conducted, including 160 randomly selected women registered in two GP practices—one in Riga and one outside Riga. Cervical cancer screening non-participants were divided into control and intervention groups. Depending on the group, participants were invited to respond to the questionnaire at the start of the study or after four months. The intervention aimed to raise awareness of benefits of cytological screening and encourage women to reduce personal risk of developing cervical cancer. Statistical significance between group differences was assessed by Fisher's test.

Results: We found that women randomized in both GP practices in intervention group performed cervical cancer screening more often than women who did not participate in the telephone survey (30.6% ($n=15$) versus 7.4% ($n=4$), $P=0.004$, in a family practice in Riga and 32.1% ($n=17$) versus 5.9% ($n=3$), $P=0.001$, in a family practice outside Riga).

Conclusion: Telephone intervention improves compliance to cervical cancer screening programme, but still within four months after intervention does not reach the minimum screening coverage rates indicated in Latvian GP quality evaluation criteria.

Which GPs training methods will increase colorectal cancer screening? A systematic review

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Background: Colorectal cancer (CRC) is the third most common cancer in western countries. Faecal tests are used to detect precancerous and asymptomatic preclinical CRC. Faecal tests are prescribed in France by general practitioners (GPs), the screening rate is insufficient in most countries to achieve a shift in mortality.

Research question: Which training methods for GPs are available and efficient to increase the number of CRC screening test effectively used by the patient?

Methods: Systematic literature review following the PRISMA guidelines. PubMed, Scopus, Cochrane, BDSP and grey literature were searched, using searching terms related to CRC screening and training method. Every study interested in training method to GPs and CRC screening were included. Training method and efficiency were collected within the publications or with an additional search for each study.

Results: A total of 1112 records were found, 32 studies were included. Training methods were: academic detailing, visit targeting physician's behaviour, visit targeting communication training, educational academic seminar and seminar targeting communication training. Three methods increased CRC screening rate, seminar targeting communication (from 10.9 to 12.2%), visit

targeting physician's behaviour (8.8%) and academic detailing with quality improvement (from 4.9 to 5.66%).

Promoting the physical health of people with severe mental illness

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Background: Mental illness can act as a barrier to accessing and obtaining effective medical care, and is associated with increased medical morbidity. People with serious mental illness have higher morbidity and mortality from chronic diseases than the general population, and this results in a significantly reduced life expectancy. The vast majority of the gap in life expectancy is accounted for by physical illness. There is also evidence that people with mental illness are further disadvantaged as they are less likely than the general population to be offered, or to access, regular health screening. There is evidence to suggest that the physical health needs of people with serious mental illness are often 'unrecognized, unnoticed or poorly managed.'

Research question: What are the barriers and facilitators experienced in accessing and engaging in health services related to the care of the physical health of people with a severe mental illness?

Methods: The aspect presented here involves qualitative semi-structured interviews with service providers (general practitioners [GPs] and general practice staff, psychiatrists and members of the community mental health teams) and patients.

Results: Preliminary results indicate that the physical health of people with a severe mental illness is not currently addressed regularly by the primary care team or the patient's GP or the mental health team. Factors associated with this include patient attendance and adherence and time constraints in consultations. A barrier to GPs having a role in this in an integrated model is the present funding approach, which does not adequately 'incentivize' such activities.

Conclusion: Improving physical health for this patient group takes considerable time, needs to be introduced step by step and requires sustained effort. The evidence from this work could form the basis for innovation and change in practice and service delivery for people with a severe mental health illness.

Modifiable risk factors for non-communicable diseases in Latvia and Sweden [poster]

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Background: It is estimated that non-communicable diseases (NCD) accounts for 63% of global mortality and thus 14 million people died at a premature age, i.e. younger than 70 years old. The WHO global action plan is focused on a global decline of the contributing factors of NCD. Individual approach to risk reduction could be better to reduce the NCD prevalence and death from NCD.

Research question: Aim is to investigate the prevalence and difference of the individual modifiable NCD risk factors in Latvia and Sweden.

Methods: This pilot study included a collection of questionnaire data about NCD risk factors (smoking habit, physical activity and dietary patterns) from 50 voluntary patients from Sweden and 50 from Latvia. Systolic and diastolic blood pressure (SBP, DBP), pulse, body mass index (BMI) were taken for all patients. Data from the two countries were compared using SPSS programme.

Results: Comparing patients' objective indicators between the two countries there were no statistically significant differences in patient age, SBP, DBP, and pulse, but Latvian median BMI was statistically significantly higher than Swedish (27.21 [24.2;29.7] and 24.1 [22.1;27.2]; $P=0.002$). There is no significant difference in smoking and physical activities between countries ($P=0,085$ and $P=0,063$). Analysing dietary habits, we found that Latvians eat less vegetables and fruits and do not restrict sugar and fat intake ($P=0.048$; $P=0.005$, $P=0.030$). There was no difference between fibre intake and salt restriction ($P > 0.005$).

Conclusion: Our pilot study showed the difference between patient habits and dietary patterns in these countries. There are different ways to improve patient health in the various countries. Further investigation is indicated to find out the main problems in each country to set more precise goals to reduce NCD risk per national lifestyle habits.

What are the challenges that family practitioners face in the management of chronic diseases? A European research protocol from the EGPRN fellows

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Background: There is considerable variation in the way that chronic diseases are managed across Europe, in terms of the degree to which family practitioners (FPs) are involved, the degree of uptake by patients, the levels of interest and input from health policy-makers and other stakeholders, the content of chronic disease management (CDM) programmes, and the quality of care in these programmes.

Research question: What are the challenges that family practitioners face in the management of chronic diseases?

Methods: Possible approaches to this qualitative study include surveys of FPs, one-to-one interviews, and focus group interviews. The EGPRN's three Fellows are working together to study the background to this research question, choose and develop the methodology, and prepare a protocol for the subsequent study in their three European countries. They will also evaluate the newly developed EGPRN Fellowship model.

Results: The Fellows will present their study protocol, and their evaluation of the EGPRN Fellowship.

Conclusion: An understanding of how FPs think their role in CDM could be improved, and the barriers that they face in this, is key to addressing the policy issues necessary to provide high-quality and affordable healthcare for people suffering from chronic disease. This study will result in recommendations for improving the management of chronic diseases by FPs in three different countries, and these may also be relevant in other European settings.

FREESTANDING PRESENTATIONS

Medical decision-making strategies in general practice vs. the emergency department: A comparative analysis

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Background: Quality and underlying cognitive mechanisms of medical decision-making have been the subject of many studies, most of them conducted in a rather artificial environment. Few studies have investigated different diagnostic or judgement approaches of physicians' cognition in their natural working environment.

Research question: What medical decision-making strategies do general practitioners (GPs) use in comparison to physicians working in the emergency department.

Methods: Twelve German GPs were videotaped during their consultations. A total of 134 consultations contained diagnostic episodes and were analysed. GPs reflected after each patient during a partly standardized interview on their diagnostic reasoning. In the USA, 16 emergency physicians based at two tertiary care hospitals were observed during 171 consultations and their reflections recorded. Unit of observation was the physician-patient interaction. Transcripts of interviews and observational notes were coded and analysed qualitatively by two independent raters.

Results: Emergency physicians more often considered severe conditions, and showed much more willingness to order further diagnostic tests, even if pretest probability was conceived to be low. Patients in the emergency department were hardly able to influence the decision-making process, nor did they make diagnostic suggestions as much as they would in the setting of the GP's office. Patients in the emergency department would not receive assurance as often as in general practice. Emergency physicians apparently considered themselves rather as 'distributionists' than diagnosticians. Opposed to GPs they also presented a more directive style of interviewing, with large accumulations of routine questions and rarely used open questions or active listening.

Conclusion: There are differences between the two specialties, regarding self-perception (role in their respective environment), relationship to patients, style

of interrogation and gathering information as well as the use of given cognitive and material resources. Both groups are adapted to the specific features of their working environment.

Gut feelings of patients: Do they influence their general practitioner's diagnostic reasoning?

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Background: General Practitioners (GPs) recognize two kinds of gut feelings (GFs) in their diagnostic reasoning: a sense of alarm and a sense of reassurance. GFs arise from the interaction between a GP's knowledge and experience, and information about the patient, and can be measured by a validated questionnaire. But what about the GF of patients? Research suggests that patients' GFs also matters in predicting serious health problems and in the diagnostic reasoning of their physicians. The feeling of parents that there is something wrong with their child appeared to be a strong predictor of a serious disease. However, an instrument assessing patients'GF is lacking. Therefore, we aim to compose and validate a GFs questionnaire for patients. We made a first step by exploring the experience of GPs and practice nurses with their patients' GFs.

Research question: What phrases and expressions do patients use in their communication when they experience a GF? What is the significance of patients' GF for GPs and practice nurses? What kind of action do they take after acknowledging a patient' GF?

Method: We interviewed GPs ($n = 12$), practice nurses ($n = 16$) and practice secretaries ($n = 5$) in single and in group practices in the Netherlands and Belgium. A thematic content analysis of the verbatim text was performed.

Results: We found that the participants recognized patients' GFs. We collected many different wordings and expressions used by patients to express their GFs. We found some indications that a patient's GF influences a GP's decision-making process. Participants often took their patients' GF seriously, particularly when expressed by a parent or care provider about their child.

Conclusion: Because of their knowledge and experience, the GF concept of GPs seems to be richer than the patients' GF concept but not fundamentally

different. Now we can carry on with interviewing individual patients about their GF.

Common practice: Out-of-pocket prescriptions for benzodiazepine and Z-drugs. But why?

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Background: Medication addiction has become a chronic problem and therefore benzodiazepines and Z-drugs should only be used short-term. It is estimated that in Germany 50% of these drugs are written as out-of-pocket prescriptions mainly by general practitioners (GPs). This enables patients to buy the medication but no claim is forwarded to the insurance. Therefore, patients carry the entire costs and it is almost impossible to include the dispensed amount in any statistic. It is unclear why GPs choose this method since all indicated medications could be written as regular prescriptions and should be covered by the insurance. Without an indication, no prescription should be issued.

Research question: Why do primary care physicians choose out-of-pocket prescriptions for benzodiazepine and Z-drugs? What aspects influence the decision?

Methods: In this qualitative study, semi-structured interviews were conducted with seven females and eight male GPs so far. The interviews were audiotaped, transcribed and analysed with grounded theory. In addition, the discussion of a quality circle about the topic was taped and analysed.

Results: The preliminary results show that some GPs understand out-of-pocket prescriptions as a tool to minimize the patient's drug intake by creating a barrier through the financial burden. It also assigns the responsibility for the consumption and possible addiction to the patient addressing the doctor's ambivalence between helping and fulfilling the patient's wish/needs and avoiding the drug and responsibility. Other physicians were unclear about the current guidelines and therefore opted to give out an out-of-pocket-prescription—mainly because they feared the insurance companies would penalize them.

Conclusion: Current guidelines need to be simplified and readily available. Future studies should focus on the patient's view of out-of-pocket prescriptions since

financial costs may not increase the value of the medication but lessen it by putting hypnotics in one class with over-the-counter medications.

PAPRICA study (problematic use and addiction in primary care)—evaluation of polydependency screening test in primary care setting: A systematic review

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Background: Addictive behaviour with or without drugs is still a major health concern. This phenomenon is growing over the years. An efficient screening in primary care settings is encouraged but the lack of a screening approach that fits easily into clinical workflows has restricted its broad implementation. A valid and feasible tool to improve a wide screening in busy primary healthcare needs to be developed.

Research question: Examine polydependency screening tests in primary care setting.

Methods: A systematic review of the literature was performed through the following sources from inception to the 31 of December 2016: PubMed, PsycINFO and The Cochrane Library. We followed three items: screening, dependence and primary care. Selection criteria were: studies that examined the diagnostic accuracy of test to identify two or more dependencies in primary care settings, or that examined their feasibility. We restricted the results to 'journal article.'

Results: A total of 1409 papers were selected, 42 studies were included. The comparability of the studies was limited by inaccuracies bias in method, heterogeneity of the population and settings. Eleven questionnaires were validated in primary care to screen polydependence. The ASSIST was the only validated test to screen drug use and related problems, and developed in many countries. The length of the ASSIST (80 questions) may preclude its use in settings where brevity is critical. Shorter screening questionnaires were validated but they only focus on quantification and their psychometrics properties were less performant. No screening test for dependence with and without substance was validated in primary care.

Conclusion: Some tests to screen polydependence are available, but their use in primary care is limited. A

brief assessment of addictive vulnerability is preferable as many tests about different substances use disorders. A transversal tool adapted to primary care constraints, screening dependence with and without substance is obviously required.

Patients' compliance with faecal occult blood test in Latvia [poster]

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Background: The compliance to faecal occult blood test (FOBT) in Latvia is 10.9%. Despite the evidence based benefits, some negative psycho emotional effects of screening methods have been recognized. Therefore, patients' acquirement and risks need to be assessed before examinations that are done to improve the health of the population.

Research question: To study the reasons for patients' cooperation or unwillingness to perform the test.

Methods: A qualitative research, individual interviews were used to obtain the data. In total, 30 respondents were randomly selected. Patients who did agree to complete the test were repeatedly interviewed.

Results: During the first interview 14 persons (47%) agreed to be interviewed, however, they refused to do the FOBT. Reasons for the rejection were 'lack of time', 'inadequate lifestyle,' 'unwillingness to see the doctor without complaints' and 'uselessness' of the test. Out of 30 interviewed patients, 16 (53%) agreed to do the FOBT. After three weeks, only four participants (13% of the studied group) did perform the test and responded that their motivation was interest about their health and confidence in their general practitioner. Those 12 out of 16, who agreed but did not perform the test, reported that the reason for non-compliance was 'lack of time' ($n=11$) and contraindications ($n=1$). Out of 30 selected individuals 47% ($n=14$) were women, 53% ($n=16$) were men; 77% were employed and 23% were retired; 56% of respondents wished to get FOBT by mail and 44% at the clinic.

Conclusion: The main reason for not performing the FOBT in the studied group was a lack of time in individuals both willing and unwilling to perform the FOBT. Reasons for cooperation are interest about their health and confidence in their general practitioner. In healthy people, time factor seems to be a

priority to understanding the necessity of the cancer screening.

Determinants of heart failure decompensation in patients attended in primary care [poster]

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Background: Most knowledge about the main causes of heart failure decompensation comes from the hospital setting. Evidence coming from primary care is scarce.

Research question: To determine the distribution of determinants which contribute to cardiac decompensation in patients attended in primary care setting.

Methods: HEFESTOS is a multinational collaborative cohort study aimed at knowing the main determinants related to a heart failure decompensation attended in primary care setting and those related to the prognosis of these patients at short term. In this abstract, we are presenting a descriptive analysis of the most common determinants of decompensation.

Results: A total of 344 patients were included. Women represented 55.8% and mean age was 81.9 (8.4) years. Potential causative factors for decompensated heart failure were identified in 82.8% of cases. More than one factor was identified in 36.9% of patients. Non-compliance with fluid or salt restriction was the most commonly identified factor, present in 32.6% of cases. Respiratory infection was found in 31.1%, and lack of adherence to the drug treatment was found in 24.4% of patients. Other factors related to decompensation were acute episode of a pre-existing atrial fibrillation (11.6%), taking contra-indicated drugs (9.1%), worsening renal function (5.2%), anaemia (4.7%), inadequate diuretic therapy (3.2%), coronary disease (3.2%) and others (2.4%).

Conclusion: The more common factors related to the heart failure decompensation were non-adherence to the prescribed measures and respiratory infections. An adequate management of stable patients would prevent a high number of decompensations.

Assessing preceptor performance in family medicine residents using the one-minute preceptor model

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Background: The one-minute preceptor is a robust model for clinical teaching that includes a series of discrete 'microskills: getting a commitment, probing for supportive evidence, teaching general rules, and giving feedback.'

Aim: A rating tool based on this model was developed and used to study preceptor behaviour when supervising family medicine residents.

Methods: An experienced clinical teacher observed multiple resident-preceptor encounters daily for two weeks and scored each microskill on a scale of one to five. A summary mean score for each preceptor was assigned on each microskill based on the encounters observed. In addition, observations were recorded regarding resident reactions during precepting.

Results: Eighty-five encounters with 14 different preceptors were observed. Highest scores were for getting a commitment and teaching general rules. Preceptors gave positive feedback more often than corrective feedback. In shorter and simpler cases, preceptors did not execute all the microskills. Residents appeared satisfied with the guidance they received. Curiously, many residents stood throughout their presentations while faculty often appeared pressed for time.

Conclusion: The one-minute preceptor model provides a framework for describing precepting encounters through direct observation. Based on observations at this site, faculty may benefit from additional support in giving feedback, particularly corrective or negative feedback. Although residents and faculty appear to feel time-constrained, compared to other settings they have the relative luxury of dedicated precepting time and might be able to take better advantage of it.

What attitudes do medical students have towards cancer-screening? [poster]

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Background: General practice is a cornerstone of preventive medicine. However, recent studies found pre-screening discussions insufficient. As a starting point for educational interventions, we assessed medical student's attitudes towards screening.

Methods: We conducted a mixed-method study. First, we aimed at exploring medical students' attitudes toward cancer screening. Thus, we used a qualitative approach with guided interviews. We started with a deductive coding tree, augmented codings with emerging themes and finally compared them cross-case. To gain representative information, we then conducted a questionnaire study in different semesters. Besides previous screening experiences, we assessed attitudes towards various screening tests.

Results: We conducted 14 face-to-face interviews. Overall, attitudes towards cancer screening were positive. Students differentiated between affective and structural attitudes. While structural attitudes constitute objective information (mortality), affective attitudes comprise emotions (fear of cancer). Although affective information seems to dominate student's views, this has scarcely been discussed during their courses. Data collection of the questionnaire will be completed until the conference. Currently, we have a response rate of 75% and 200 full data sets. We see an overall positive attitude toward screening tests. However, comparing early to later semesters, some screening tests are rated more negatively. This was the case for controversial tests (PSA, ovarian cancer) as well as for established tests. Only attitudes about skin cancer screening and Pap smear remained equally positive.

Conclusion: We combined a qualitative with a quantitative approach to triangulate information on student's attitudes about screening. As expected, controversial screening tests were rated more negatively in older semesters. However, this was also the case for tests in national screening programmes. The findings suggest a lack of knowledge about screening benefits and harms. One educational approach based on our qualitative

study could be to include effective attitudes into education to start from student's point of view.

Acculturation effects in PLUS: Programme for learning and development in Swedish healthcare [poster]

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Background: With a shortage of medical doctors, the functioning of the Swedish healthcare depends increasingly on the recruitment of foreign-trained doctors (FTD). To facilitate the introduction of FTD into the healthcare system, the region of Western Sweden (Västra Götaland Region-VGR) established the introduction course PLUS. PLUS was based on principles for adult learning with considerable time for reflection and supervision in a group with experienced colleagues.

Research question: What improvements did participants describe after completing PLUS? How did PLUS 'feel' for them? In which way does participants' acculturation process affect the experience of PLUS?

Methods: An applied cultural analysis was conducted in autumn 2014, based on three months of qualitative ethnographic fieldwork using methods such as participant observation and semistructured in-depth interviews. The applied cultural analysis focused on the participant's experience of the programme.

Results: PLUS was perceived as a critical breaking point for participant's acculturation in the Swedish healthcare system. Participants gave multiple meanings to the programme—as source of knowledge, network, and answer to workplace-related challenges but also raised questions concerning effectivity of discussions, duration, as well as the influence on career opportunities. The pedagogical tool of discussions was perceived as a less effective learning tool.

Conclusion: Participants in stable workplace and family situations were more satisfied with the programme, whereas participants who perceived their situation as less stable experienced PLUS as another destabilizing momentum. Adult learning turned out to be the major cultural challenge for participants in PLUS, highlighting the importance of the soft facts in acculturation and workplace introduction. Participants felt more secure in their professional role, more familiar with Swedish

healthcare and better integrated into their healthcare team. It was concluded that this should lead to improved patient security and better working environment for the physician as well as his/her coworkers.

Factors influencing speciality choice in final year medical students: Are students with intended career choice in family medicine different to other students? [poster]

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Background: Students in the final year of their medical study think about their future career—most of them already have an idea about their future specialty.

Research question: We would like to know which factors influence the choice of most frequent specialties and compare the characteristics of those whose intended career choice is family medicine to those who are going to choose other popular specialties.

Methods: A questionnaire was distributed to the final year medical students at the beginning of their rotation from family medicine in the academic year 2015/16 at the Medical Faculty Ljubljana, Slovenia. Basic demographic data, data about their future career choice and factors that might influence future career choice were obtained. We compared the characteristics of students who chose the most popular specialties (frequency more than 5%).

Results: Of the enrolled 205 students; 132 (64.4%) were female students. Seven (3.4%) of the students did not mention any specialties. Most frequently mentioned specialties were family medicine (10.7%), gynaecology (9.8%), paediatric (9.3%), psychiatry (8.3%), general internal medicine (7.8%), general surgery (6.3%) and neurology (5.9%). Students who were going to choose family medicine were more likely to mention smaller tendency for mobility, respect role-model and compatibility with family life and prefer working in outpatient settings. While also mentioned by those who chose family medicine, long-term relationship was mentioned by students whose career choice is psychiatry or paediatric, and holistic approach was also mentioned by students with interest in internal medicine.

Conclusion: Most of the graduates of medical faculty would like to work as physicians. There is some overlap

of factors influencing career choice between students with intended career choice in family medicine and other clinical specialties, mainly with those who would like to choose psychiatry or paediatric.

De-identifying GP routine data for secondary health services research

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Background: European parliament's recent legislation allows for scientific health data analysis while adhering to fundamental privacy protection laws.

Research question: Real world primary care data, when being prepared for research, are examined for potential violation of effective de-identification.

Methods: Electronic routine data, 2010 to 2012, from a medium-sized group practice were extracted via a mandatory software interface. Direct identifiers, e.g. patient's name or insurance number, were removed. We examined resulting raw data for quasi-identifiers, such as patient's gender, birth date, postcode and others. Typically, effective anonymity is assumed if frequency of unique data values meets $k=5$, better $k=30$. Frequency analyses of single variables and their combinations were performed and repeated for modified variables.

Results: Out of 12 600 registered patients, 3811 patients including 2114 females (55.5%) had at least one practice contact during the three-year observation period. Date of birth fell short of a critical $k=5$, but patient's age in years and age decade were sufficient for $k=30$, except for age under 10 and above 90 years. Distribution of patient's postcode, even when truncated, was highly skewed. A total of 1382 ICD10 code entities were found, with $K=5$ in 543 (39%) and $K=30$ in 194 codes (14%), respectively. Of 744 ICD codes, truncated to leading three positions, 414 (56%) and 186 (25%), respectively, could be considered sufficiently anonymous.

Conclusion: Patient's gender or age if over 10 or less than 90 years, both indispensable in health services research, are not critical as quasi-identifiers in a general practice population. Patient's postcode or locality information should be discarded. Especially diagnoses for rare diseases may cause an anonymity breach in secondary routine data utilization. Effective anonymity is a dynamic construct depending on the

specific research question, required variables and factual data distribution.

Organization of locum GPs in Europe [poster]

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Background: The prevalence of burn-out in general practitioners (GP) ranges between 5 and 12%. One of the recommendations to prevent burn-out is to facilitate the temporary replacement of GPs by locum GPs, which seems to be difficult to organize. The aim of this project is to make an inventory of the organization of locum GPs in European countries.

Research question: How do various countries in Europe organize the replacement of GPs by locum GPs and what lessons can be learned?

Method: A qualitative inquiry in (up to now) 26 countries was done, using a semistructured email questionnaire, sent to key stakeholders covering 20 items regarding five different themes: the existence of locum GPs, the organization, the financial structure, quality control and available literature. If there were any uncertainties or additional information was needed, extra information was gathered by email. Using a thematic analysis, we looked for strengths, weaknesses, differences and similarities.

Results: Preliminary analysis shows that there is a lack of existence of replacement pools in Europe. In 20 of the 26 countries locum GPs do exist. In three countries locum GPs organized themselves as a professional group. Locum GPs are paid by the hour, a day-part or a monthly salary and in two countries per patient contact. In five countries, the locum GPs do not have the same social rights as the other GPs. Nine countries have no monitoring of quality and only 13 countries mention that locum GPs should fulfil the same criteria as the other GPs.

Conclusion: There is a large variety in the organization of locum GPs in Europe. The results of this project will enable drafting a first set of recommendations for future innovations regarding the organization of locum GPs in Belgium and possibly other European countries.

Hypertensive crisis: analysis of 16 384 cases documented in GP practices across Romania

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Background: Hypertensive crisis is a severe increase in blood pressure that can lead acutely to target organ damage, including stroke.

Research question: To evaluate the importance and the clinical presentation of cases with hypertensive crisis presenting to GP practices across Romania.

Methods: We identified 14 469 unique patients with hypertensive crisis documented by Romanian GPs using the icMED medical informatics system. This system enables doctors to explicitly code a hypertensive crisis/emergency. Coding was possible since 01 February 2013 and 16 364 episodes of hypertensive emergency were coded until 01 September 2014 (352 episodes were documented retrospectively before the

start date). Cases coded only as hypertension, with additional information in the medical record suggesting a hypertensive crisis, were not included in this study.

Results: Most patients were older (mean age at first episode: 64.6 years, SD =13.57) and females (61%). Clinical symptoms were recorded for 8953 cases (55%). The most common presenting symptoms were headache (3299, 20%); vertigo (2701, 17%); thoracic pain/angina (580, 4%); palpitations (352, 2%); dyspnoea (306, 2%). The BP was recorded for 2827 episodes (17%). Systolic BP was ≥ 180 in 2087 cases (74%) while diastolic BP was ≥ 120 in 444 cases (16%). Furosemide was administered in 273 episodes, captopril in 149 and nifedipine in 11 cases: acute medication was not documented in the remaining cases.

Conclusion: Hypertensive crisis is an essential condition in the GP practice, although it lacks a specific ICD10 code. However, GPs have accepted to use an internal code for this condition, even though the completed medical information was not available for all cases. Improving documentation remains an open issue. Further analysis will focus on all 57 543 cases recorded until the end of 2016.