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LETTER FROM ORGANIZING COMMITTEE**"Research on Multimorbidity in Primary Care"**

EGPRN, the European General Practice Research Network Meeting in
Tampere-Finland, 9-12 May 2019

Dear colleagues and researchers,

Multimorbidity is understood as coexistence of multiple health conditions in an individual. The number of people suffering from multimorbidity is rising driven by aging populations, but also by growing burden of non-communicable diseases and mental health problems. Multimorbidity is highly heterogeneous varying from multiple conditions in frail elderly to combinations of mental health disorders and substance use. Depending on definition it is estimated that every fourth adult and two in three of patients over 65 years of age are multimorbid. In primary care these estimates are even higher and multimorbidity is a norm among elderly adults.

Multimorbidity is associated with reduced quality of life, impaired functional status, worsened physical and mental health, increased mortality and increased use of health and social care services with associated costs.

There is a broad international consensus that the patient-centered comprehensive approach with continuity is the key element in the care of multimorbid patients. However, there are only few randomized controlled trials on the effectiveness of care model for multimorbid patients. In the largest recently published multisite cluster-randomised 3D trial, intervention, including all the essential elements of optimal care, had no effect on quality of care or various elements of illness and treatment burden, but it significantly improved patient-centred care (1).

In 2017 over 500 studies were published on multimorbidity based on PubMed search. However, we don't know yet which multimorbidity clusters cause the greatest burden and what are the determinants of these clusters? No long-term cohort studies regarding multimorbid patients have been published.

NICE guideline on Multimorbidity was published in 2016 (2). Chair of the guideline's development group, professor Bruce Guthrie from Dundee, UK will be the keynote speaker on Friday at EGPRN in Tampere. At the Tampere meeting, in addition to the keynote, we will have a chance to hear the latest research on multimorbidity in theme papers. Moreover, among others we will have a pre-congress-workshop regarding the congress theme. The Finnish national GP congress will be combined with EGPRN, and the Finnish participants will have a special opportunity to experience the EGPRN spirit in Tampere together with the national meeting.

On behalf of the Finnish Association for General Practice, Tampere University and the local organizing committee it is our great pleasure to welcome you to the 88th EGPRN meeting at Tampere in the beginning of May. We hope you enjoy the congress, northern daylight abundance and your stay in Tampere, Finland.

(1) Salisbury C et al. Management of multimorbidity using a patient-centred care model: a pragmatic cluster-randomised trial of the 3D approach. *Lancet* 2018; 392: 41–50.

(2) Multimorbidity: clinical assessment and management (NICE guideline)

<https://www.nice.org.uk/guidance/ng56>.

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Trends in multimorbidity and polypharmacy in the Flemish-Belgian population between 2000 and 2015

Tine De Burghgraeve, Marjan Van Den Akker, Bert Vaes, Geert Goderis, Gijs Van Pottelbergh, Séverine Henrard

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Keywords: trends; multimorbidity; polypharmacy; Belgium

Background:

Multimorbidity – the co-occurrence of two or more chronic diseases in a patient and polypharmacy – the prescription of five or more medications in one year are broadly recognized as important and interrelated phenomena. Time trends in the prevalence of multimorbidity and polypharmacy are scarce. The Flemish primary care-based Intego network offers an excellent opportunity to evaluate those trends.

Research questions:

The aim of this paper was to describe the time trends in the prevalence of multimorbidity and polypharmacy in Flanders (Belgium) between 2000 and 2015, while controlling for age and sex.

Method:

Data were available from Intego, a Flemish-Belgian general practice-based morbidity registration network. The practice population between 2000 and 2015 was used as the denominator, representing a mean of 159,946 people per year. Age and gender-standardised prevalence rates were used for the trends of multimorbidity and polypharmacy in the total population and for subgroups. Joinpoint regression analyses were used to analyse the time trends and breaks in trends, for the entire population as well as for specific age and sex groups.

Results:

Overall, in 2015, 22.7% of the population had multimorbidity, while the overall prevalence of polypharmacy was 20%. Throughout the study period the standardised prevalence rate of multimorbidity rose for both sexes and in all age groups. The largest relative increase in multimorbidity was observed in the younger age groups (up to the age of 50 years). The prevalence of polypharmacy showed a significant increase between 2000 and 2015 for all age groups except the youngest (0-25 years).

Conclusions:

For all adult age groups multimorbidity and polypharmacy are frequent, dynamic over time and increasing. This asks for both epidemiological and interventional studies to improve the management of the resulting complex care.

Anticholinergic burden and most common anticholinergic-acting medications in older general practice patients

Anticholinergic burden and most common anticholinergic-acting medications in older general practice patients
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Keywords: anticholinergic burden, aged, inappropriate prescribing

Background:

Anticholinergic burden from prescription of anticholinergic drugs in older adults has been correlated with cognitive decline, delirium, dizziness and confusion, falls and hospitalizations. Nevertheless, anticholinergic-acting medications remain commonly prescribed in up to a third of older adults in primary care population. We have no data on prescribing anticholinergic drugs in Slovenian older adults population on primary care level.

Research questions:

What is the anticholinergic burden in older adults in Slovenian ambulatory setting and which medications are most commonly involved that could be avoided by the physicians?

Method:

A cross-sectional study was conducted in 30 general practices in Slovenia. Data on prescribed medications was collected for randomly chosen adults over 65 years of age visiting general practice, who were taking at least one regularly prescribed medication. Anticholinergic burden was calculated using Duran's scale and Drug Burden Index.

Results:

Altogether, 622 patients were included, 356 (57.2%) female, average age 77.2 (± 6.2), with on average 5.6 medications. At least one anticholinergic medication was present in 78 (12.5 %) patients. More than half (N=41, 52.6%) of anticholinergic prescriptions were psychotropic medications. Most common individual medications were diazepam (N=10, 1.6%), quetiapine (N=9, 1.4%) and ranitidine (N=8, 1.3%).

Conclusions:

Though prevalence of anticholinergic medications was low compared to international research, the most commonly involved medications should be avoided according to guidelines on prescribing in elderly. The prevalence could potentially be overestimated due to exclusion of patients with no regular medication therapy. It would be probably clinically feasible to further decrease the anticholinergic burden of older adults in Slovenian primary care setting by avoiding or replacing these medications by safer alternatives.

Points for discussion:

How well do GPs know these medications?

What methodology (scale) could be used to calculate anticholinergic burden in population based on large scale data for the whole population from National Insurance Institute?

Could using retrospective data on prescribed drugs in multiple European countries enable us to find out whether people with greater amount of prescribed anticholinergic drugs are at risk for developing dementia?

Continuity of care is associated with patient satisfaction among multimorbid patients

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Keywords: Patient satisfaction, multimorbidity, continuity of care

Background:

Patient satisfaction is a major element in assessing quality of care. Continuity of care has a positive correlation with patient satisfaction. In Finland continuity of care has deteriorated during the last centuries.

Research questions:

Are healthy patients more satisfied with their health care services than patients with multiple chronic diseases? What are the factors associated with higher patient satisfaction? What is the role of continuity of care?

Method:

The data is part of Health and Social Support –study (HeSSup) based on a random Finnish population sample. A follow-up questionnaire in 2012 was answered by 13 050 participants. We divided participants into two groups based on their morbidity. The question was “Has a doctor ever told you that you have or have had following diseases or conditions“. The group of healthy participants (n=5044) had no chronic diseases. Participants with two or more chronic diseases were included in the multimorbidity group (n=2819).

Results:

In adjusted multivariate analysis having a named GP in primary health care was strongest associated with higher patient satisfaction in both groups, healthy OR 1.78 (CI 1.57-2.01) and multimorbidity OR 1.87(CI 1.58-2.20). Patients with multimorbidity and lower BDI-scale points were associated with patient satisfaction (OR 1.72, CI 1.33-2.24). Satisfaction among healthy was associated with self-assessment of good health-status (OR 1.41, CI 1.15-1.71). Age 65 or higher (ORs healthy 1.32, CI 1.12-1.56, multimorbidity 1.39, CI 1.16-1.66) as well as patients' proactivity contacting the named physician (ORs healthy 1.21, CI 1.07-1.37, multimorbidity 1.33, CI 1.10-1.60) were also associated with higher satisfaction.

Conclusions:

A named physician indicates continuity of care, which proved to have a positive correlation to patient satisfaction in both groups. Continuity of care should be considered planning treatment for patients with multimorbidity.

Points for discussion:

Importance of continuity of care among patients with multiple chronic diseases

Meaning of continuity of care for patients with different morbidities

Theme Paper / Ongoing study with preliminary results

INterprofessional follow-up of PATients with Cancer (SINPATIC study): an exploratory study of patients

William Mirat, Laura Moscovia, Matthieu Lustman, Sebastien Dawidowicz, Genevieve Picot, Audrey Lebel, Jacques Cittée, Emilie Ferrat

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Keywords: tumors -patients -general practitioners -case management -cooperative behavior

Background:

Oncology management is evolving with focus on a greater involvement of primary care professionals, including the general practitioner (GP). Interprofessional collaboration becomes a priority to optimize the cancer care of patients. To date, few studies and none French one investigated care pathway and collaboration from the patient perspective. These notions deserve to be better explored and understood.

Research questions:

What are, among patients with solid cancer, their perceptions of their care pathway, the roles of the different professionals involved in their care and interprofessional collaboration?

Method:

We conducted a qualitative study using semi-directed interviews among 10 adult patients with prostate, breast, chest or colorectal cancer between January to April 2018 in Paris and two suburbs. The sampling was purposive based on the following criteria: age, gender, living areas, cancer site, time after multidisciplinary meeting, final therapeutic decision, socio-economic status and setting (ambulatory or hospital). The verbatim was subjected to a mixed analysis: thematic of content using D'Amour model and inductive. This work is part of the SINPATIC study exploring also the perception of the oncologists and other organ specialists, the nurses of these patients.

Results:

Confrontation with cancer is complex step with a process of awareness, acceptance of care and of decision-making, a lack of clarification of professional roles but with actions attributed to the different actors; a cancer announcement "little by little" involving several actors; organizational and administrative difficulties; and an informal collaboration in inertia tending towards construction with chiefly a parallel follow-up organization, and sometimes shared between hospital and primary care.

Conclusions:

These results and the triangulation of the other actors will allow us to better understand the pathway of care and interprofessional collaboration for cancer patients and develop an intervention to improve the quality of life, of care and management of these patients.

Points for discussion:

How to improve collaboration

How to include better patients

Further development and validation of the Multimorbidity Treatment Burden Questionnaire (MTBQ)

Polly Duncan, Katherine Chaplin, Yvette Pyne, Muzrif Munas, Daisy Gaunt, Line Guenette, Chris Salisbury

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Keywords: Multimorbidity, treatment burden, questionnaire, patient reported outcome measure

Background:

Treatment burden is the ‘effort of looking after ones’ health and the impact that this has on everyday life’. This includes taking complex medication regimens and co-ordinating health care appointments. In order to assess the impact interventions on treatment burden, it is essential to have a valid patient reported outcome measure.

The MTBQ was developed and validated as part of the 3D Study, a trial for patients with multimorbidity, and demonstrated good content validity, construct validity, internal consistency reliability and responsiveness. Limitations included: (i) high floor effects; (ii) test-retest reliability not assessed; (iii) construct validity assessed using proxy measures; (iv) generalizability to non-trial populations. There are four other existing general measures of treatment burden, all of which have important limitations.

Research questions:

The purpose of this study was to:

- (i) Examine whether reversing the scale of the MTBQ reduced the floor effects
- (ii) Assess test-retest reliability
- (iii) Compare responses, construct validity and ease of completion with a comparator questionnaire
- (iv) Assess construct validity with non-proxy measures
- (v) Assess interpretability of the MTBQ in a non-trial population

Method:

UK patients aged 18 years or over with multimorbidity (three or more long-term conditions) from four GP practices with varying levels of deprivation were posted a questionnaire booklet with the MTBQ (original version or with the scale reversed); the Treatment Burden Questionnaire comparator; and questions about ease of completion. A follow-up questionnaire was posted one to four weeks later. Data collected from participant’s computer records included: demographics; list of long-term conditions; GP consultations and number of health professionals seen in the preceding 12 months; and medicines prescribed.

Results:

Data collection will complete by March 2019 and the full results will be available by May 2019.

Conclusions:

There has been considerable international interest in the MTBQ and this is an important study to further develop and validate it’s use.

Points for discussion:

How might the Multimorbidity Treatment Burden Questionnaire be used in clinical practice?

Why is it important to use non-proxy measures to examine construct validity of the Multimorbidity Treatment Burden Questionnaire?

What are the implications of high floor effects?

Theme Paper / Ongoing study with preliminary results

Complex Multimorbidity - Prevalence and Workload

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Keywords: multimorbidity, complexity, epidemiology, general practice

Background:

Primary care in some countries are under a context of accountability, scrutiny, measurement, pay-for-performance and market based principles, promoting a disease centred rather than a person-centred care. Despite this context, patients frequently present multiple chronic conditions, with frequent and complex needs.

Research questions:

What is the prevalence of complex multimorbidity and its associated workload in a rural primary care unit?

Method:

We analysed all 7410 patients registered in one rural health practice in the western region of Portugal, using data from the electronic health records database. For each patient, we extracted all chronic diagnoses and defined patient with complex multimorbidity as those with at least one chronic condition from at least three different body systems. We also extracted the number of patient encounters during 2018, defined as any service provided by the health unit to a particular patient.

Results:

Complex multimorbidity had a prevalence of 24.1% (1587 registered patients), being higher in patients aged 50 years old or older (51.0%). There were 7.4% of these patients with 10 or more chronic diseases. Two patients have 19 and one patient has 20 chronic diseases. Patients with complex multimorbidity were responsible for 11,096 of the total of 17,569 contacts (63.2%). In 2018, patients with complex multimorbidity had on average 7.0 contacts, while patients without complex multimorbidity had on average 1.1 contacts.

Conclusions:

A significant proportion of patients in this rural, western Portugal, primary care unit have complex multimorbidity and they account for most of the workload in this unit. While differences in age and socio-demographic position still need to be factored in, it is clear this unit needs to adapt its activities and allocate more resources to this population. While this is a single unit study, most likely the entire healthcare system needs to refocus into complex patients with multiple chronic diseases instead of single disease approaches.

Points for discussion:

Is multimorbidity classic definition useful?

How can we best identify patients with more intense and complex needs?

How to change primary care organization in order to meet complex multimorbidity patients' needs?

Factors associated with unplanned hospitalisations and emergency department visits among elderly people with multimorbidity and polypharmacy in primary care: the FOPAS cohort study

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Keywords: Hospitalisation, Emergency, Elderly, Multimorbidity, Polypharmacy, Primary Care

Background:

Unplanned hospitalisations and emergency department visits among elderly represent a major burden for care system. Several risk factors have been described: undernutrition, depression, fall. But their potential role has not been assessed in a large cohort of elderly patient with multimorbidity and polypharmacy in primary care.

Research questions:

Our aim was to identify factors associated with unplanned hospitalisation and / or emergency department visit among elderly people with multimorbidity and polypharmacy in primary care.

Method:

We conducted a national prospective cohort of people aged 75 years and older, polymedicated (at least 5 drugs) and followed by their GP. Patients were recruited between April and June 2016 and followed for 6 months. Data collected at baseline were social (age, sex, occupation, social coverage, environment and lifestyle) and medical (history of unplanned hospitalisation and fall, comorbidities, prescribed drugs, frailty criteria). Unplanned hospitalisation and / or emergency department visit were evaluated at 6 months of follow-up. Logistic regression models were performed to explain the composite outcome : unplanned hospitalisation and / or emergency department visit.

Results:

194 MG included 1 883 patients, of whom 60.2% were women, on average 83.4 years old. During follow-up, 257 (13.7%) patients had unplanned hospitalisation, 179 (9.6%) had emergency department visit, and 346 patients (18.4%) presented one and / or the other event. Factors independently associated with composite outcome were older age (ORa=1.03[95%CI:1.00-1.05]), living alone (ORa=1.40[1.06-1.85]), presence of an informal caregiver (ORa=1.75[1.25-2.44]) or professional (ORa=1.45[1.10-1.93]), existence of a long-term condition (ORa=1.57[1.08-2.28]), a recent history of fall (ORa=1.44[1.09-1.90]) or hospitalisation (ORa=2.25[1.61-3.15]), and presence of comorbidities: depression (ORa=1.64[1.12-2.39]), undernutrition (ORa=2.43[1.11-5.34]), chronic obstructive pulmonary disease (ORa=1.64[1.10-2.44]), respiratory failure (ORa=2.79[1.57-4.98]).

Conclusions:

This work has identified many risk factors for unplanned hospitalisation and / or emergency department visit among elderly people with polypharmacy in primary care.

Points for discussion:

Several factors have been associated with composite outcomes

Freestanding Paper / Finished study

Role of Educative Family Health Centers in Family Medicine Residency Programme of Turkey

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Keywords: primary care, residency, field training, family medicine, community oriented medical education

Background:

It is realistic to acquire proficiency in the field during the course of Family Medicine training, which is a primary care and community-oriented clinical specialty. The establishment of the Educative Family Health Centers (E-FHC) is a step towards achieving this. In this study, it was aimed to reveal the expectations, thoughts, experiences and suggestions of the residents, specialists and trainers related to the E-FHCs that have been established so far.

Research questions:

What is the role of E_FHC in Family Medicine Residency Programme?

Method:

This is a mixed methodology study that used qualitative and quantitative designs together. The whole population was reached in 9 institutions which has E-FHCs in Turkey. A quantitative questionnaire consisting of 50 questions was applied to residents who served at E-FHC for at least 3 months. The qualitative part of our research was carried out by taking 30 minutes of in-depth interviews with 16 trainers who worked at E-FHC for at least 3 months; transcripts were extracted, codes were determined for theme analysis. Analysis was performed and $p < 0.05$ was considered statistically significant

Results:

The response rate was 89%. 88.8% of participants were satisfied with working at E-FHC; 96.2% agree that E-FHCs are important. The average scores of the physicians working in the units where population was 2000 patients and more, were significantly higher than those with less population ($p < 0.01$, $p = 0.01$, respectively). The codes obtained as a result of interviews with trainers were collected in topics like importance of E-FHCs in residency programme, field and non-field education, experiences during the establishment and operation of E-FHCs, emotions of trainers in the process and discipline of Family Medicine.

Conclusions:

E-FHCs are in the beginning of the road and need to be developed. It is necessary to construct well equipped and staff supported E-FHC where trainers should be able to perform role model practices.

Points for discussion:

Are there any field training centers during residency programme in your country?

What is your opinion/advise for functionality of E-FHCs?

Freestanding Paper / Ongoing study with preliminary results

Quality of primary care (QUALSOPRIM) study: Professionals' Insights into the Patient Perspective: A Qualitative Study in the Field of quality of primary care.

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Keywords: quality of primary care; multimorbid patients; multidisciplinary health professionals

Background:

The management of multi-morbid patients requires a global approach combining the interventions of several health professionals in a coordinated care pathway to enhance quality of primary care (QOPC). Multi-professional structures are the privileged places for this pathway and professionals show a growing interest in this multidisciplinary approach. Simultaneously quality approach is part of the specifications of these structures. In absence of a validated tool to measure QOPC it seemed necessary to collect their description of QOPC. This description will be added to patients and caregivers point of view to design and validate a tool for QOPC.

Research questions:

What are the aspects of primary care that are relevant for QOPC for health professionals?

Method:

Qualitative study using semi-structured interviews of health professionals, supporting patients requiring coordinated multi-professional care, within multi-professional structures. Recruitment was purposive to assess completeness on age, gender and profession. Analysis was carried out using a grounded theory based blinded thematic analysis with a couple of sociologist and GP researchers.

Results:

The sixty professional interviews allowed to identify one hundred and seventy two specific aspects of QOPC. Their categorization highlighted eleven dimensions of care that are accessibility, availability, continuity of care, holistic approach, medico-technical care, inter-professional communication, professional-patient relationship, information and support, care coordination in the structure, care organization on the territory, and the fitting-out of the premises.

Conclusions:

The analysis rediscovered and explored all the dimensions of the existing quality assessment tools for primary care. New aspects of care are emerging, regarding to those highlighted with patients analysis: especially with regard to professional interaction and coordination. We will summarize the information collected with patients, caregivers and health professionals in order to establish a scale of assessment of QOPC.

Points for discussion:

link between local organization and aspects highlighted

specificities related to health professionals

degree of concordance with patients' point of view

Research on multimorbidity-the time for paradigms change

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Keywords: multimorbidity, research, family practice, paradigms change

Background:

Medical science is all about associations. We are educated to use a set of well defined statistical methods and linear regression models, to describe these associations. These methods, however, were shown less fruitful in research on multimorbidity. The reasons are phenomena associated with multimorbidity, such as overlapping, non-linearity and networking, for which the standard analytical methods and approaches do not provide an appropriate framework.

Research questions:

Is there a need to change the methodological framework, to facilitate research on multimorbidity? How to do that?

Method:

A review of clinical medicine papers, focus of which was placed on phenomena such as non-linearity, overlapping and interdependency. A review of methods within the concept of Big data analytics. A systematization of some challenging questions and barriers in research on multimorbidity, based on the own experience.

Results:

Family medicine has a potential as the central point for integrated research on multimorbidity. This potential include the availability of non-selected patients with multimorbidity, a multitude of data being collected at one place and the possibilities of patients monitoring over time. New solutions in digital health technologies open new areas for data collection and communication with patients. To realize this concept, some paradigm changes should take place in family medicine, including new approaches in research, health care system organization, organization of electronic health records and education of primary physicians. Are we ready for these changes?

Conclusions:

Facilitating research on multimorbidity should go via paradigms change.

Points for discussion:

Where we are in research of multimorbidity?

Is it possible to enlarge the scope of these research?

Are we ready for paradigm changes?

GPs' gut feelings sense of alarm is valuable in dyspnoea and chest pain

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Keywords: gut feelings, family medicine, general practitioners, diagnostic reasoning, decision making, problem solving, chest pain, dyspnoea, intuition

Background:

Dyspnoea and chest pain are symptoms shared with multiple pathologies ranging from the benign to life-threatening diseases. Gut feelings such as the sense of alarm and the sense of reassurance play a substantial role in the diagnostic reasoning process of general practitioners (GPs), also in the case of dyspnoea and chest pain. A validated Gut Feelings Questionnaire (GFQ) enables us to determine the presence or absence of a GP's sense of alarm or sense of reassurance.

Research questions:

The aim of the study was to estimate the diagnostic test accuracy of GPs' sense of alarm distinguishing life and non-life-threatening pathologies when confronted with dyspnoea and chest pain.

Method:

Prospective observational study in general practice. Patients aged between 18 and 80 years, consulting their GP for dyspnoea and/or chest pain, were considered for enrolment. These GPs had to complete the GFQ immediately after the consultation. Life-threatening and non-life-threatening diseases have previously been defined according to the pathologies or symptoms in the ICPC2 classification following a nominal group procedure. The index test was the sense of alarm and the reference standard was the final diagnosis at 4 weeks.

Results:

25 GPs filled in 235 GFQ questionnaires. The positive likelihood ratio for the sense of alarm was 2.12 [CI95 = 1.49; 2.82], the negative likelihood ratio was 0.55 [CI95 = 0.37; 0.77]. When a GP experienced a sense of alarm when a patient consulted him/her for dyspnoea and/or chest pain, the post-test odds that this patient has, in fact, a life-threatening disease was about twice as high as the pre-test odds.

Conclusions:

The sense of alarm is valuable in the context of low-level signs of diseases related to dyspnoea and chest pain.

Points for discussion:

A main limitation of this study was the low number of participating GPs. How do you deal with the involvement of GPs into research in your country?

Are there research opportunities to use the GFQ in your country?

Multimorbidity-Effect of multi morbidity on duration of stay in community ward

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Keywords: Multimorbidity

Background:

With increase in age multi-morbidity tends to go up. Multi-morbidity has a significant effect on the quality of life in a patient. Multi-morbidity is an important factor in frailty. Electronic Frailty score uses multi-morbidity to score the level of frailty in a patient.

Research questions:

Is there an effect on the length of stay of a patient as a result of multi morbidity in an intermediate care ward

Method:

It is a retrospective cohort study looking at patients who were admitted in the intermediate care wards in the month of December and January 2019 comparing patients with different degrees of multi-morbidity. first group having 1-2 morbidities, the second group 3-5, the third group 6-10 and the fourth group >10. Comparing the duration of stay in these four groups and see if there is an effect of multi-morbidity on the outcomes.

Results:

I am aiming to complete the study by the time of the conference with the aim of presenting the results at the time of conference.

Conclusions:

This study could help to gain better understanding of the effect of multi-morbidity in the context of hospital stay. It can either prove or disprove the notion that multi-morbidity has a significant impact on the health costs.

Points for discussion:

Freestanding Paper / Almost finished study

Frequency and form of controls over primary health care physicians in Slovenia

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Keywords: primary care, insurance, financial control, seek live control, prescription control

Background:

The control of primary health care practitioners' work differ between healthcare systems. In Slovenia the formal regulation is conducted by the Health Insurance Fund (HIF), Health Inspectorate, and Ministry of Health. The Slovenian medical chamber conducts the professional supervision. This study aims to evaluate the pattern of control and sanctions of primary care practitioners.

Research questions:

Frequency and form of controls over primary health care physicians in Slovenia

Method:

600 Slovenian primary care practitioners participated in the study of the Association of General Practice / Family Medicine of South-East Europe (AGP / FM SEE in 2017). The quantitative data were analyzed by the use of the Pearson's chi-squared test, correlation and descriptive statistics. We collected qualitative data from GPs' comments and opinions in addition. Textual material was analyzed by qualitative methods.

Results:

This study covers 52% of the of the primary care practitioners in Slovenia. 49% of the public sector and 52% of the private sector had participated in the survey, 462 female and 138 male practitioners. The majority were of age 50-59. 430 were specialists in family medicine. Out of 600 primary care practitioners, 207 were sanctioned for various reasons, males more often than females. Practitioners that are more likely to be sanctioned are: older practitioners, specialists of family medicine, those working in rural areas and individual contractors. Financial penalties of those, who work in a health center, were usually covered by the health center. Specialist of family medicine are more often victims of a verbal violence at work as a consequence of following the HIF rules, especially those of age 25 - 39 and 40 - 49.

Conclusions:

Sanctions of primary care practitioners vary regarding their characteristics and organizational aspect of work. Individual contractors and rural practitioners are more prone to sanctions.

Points for discussion:

Criteria of quality assessment or bureaucratic approaches

Financial sanctions- examples from abroad

Poster / Ongoing study with preliminary results

Focusing school doctors' health checks – early prevention of multimorbidity?

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Keywords: school health services, children, screening

Background:

School nurses check all primary school children annually in Finland. In addition, school doctors examine all children at ages 7 and 11, regardless of the children's health risks. Consequently, school doctors have insufficient time for effective care of identified problems and multidisciplinary work at all age groups. No validated method for screening children for doctors' assessments exists.

Research questions:

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

Method:

We conducted a prospective, multicenter observational study in four urban municipalities in Finland. We recruited a random sample of 1013 children of said ages from 21 primary schools in 2017–2018. Parents, nurses and teachers filled a study questionnaire to identify any concerns about each child. Doctors, blinded to the questionnaires, checked all children and completed an electronic report including advices, referrals and recalls. The doctors, parents and children assessed the benefit of the appointments. We assessed the study questionnaires to determine the need for a doctor's evaluation and compared the need to the benefit gained.

Results:

The participation rate was 75%. The doctors considered 41% and the parents 83% of the health checks beneficial. In total, 210 out of the 1013 children (21%) had no determined need for an appointment, although the doctor considered examining 42 (20%) of them as beneficial. Of those 42 children, only a few had problems that actually required doctor's expertise to be recognized.

Conclusions:

At least one fifth of school doctors' routine health checks may be omitted using the study questionnaires. We will analyze further all the health checks that doctors, parents and children considered beneficial.

Points for discussion:

How is the labor divided in school health services in your country?

How would you increase the timeliness of health checks by school doctors and the effectiveness of school doctors' work?

Poster / Finished Study

Evolocumab Versus Ezetimibe in Addition To Statins For Secondary Prevention Of Major Adverse Cardiovascular Events In Patients with Type 2 Diabetes and Hypercholesterolemia

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Keywords: evolocumab, ezetimibe, MACE, diabetes

Background:

Evolocumab, a PCSK9 Inhibitor and Ezetimibe, were both proven to significantly reduce the incidence of major adverse cardiovascular events (MACE) in type 2 diabetes patients with established CV disease and LDL cholesterol >70 mg/dL treated with statins. However, the addition of either Evolocumab or Ezetimibe to current statin treatment regimens may be a significant burden on healthcare systems.

Research questions:

To compare the cost of MACE Prevention with combination of statins with either Ezetimibe or Evolocumab.

Method:

We performed a cost-minimization analysis of Evolocumab and Ezetimibe for preventing MACE (Stroke, Myocardial Infarction and CV death). Hazard ratios for prevention of MACE were extracted from the published data of the IMPROVE-IT and FOURIER trials. Drug costs are based on 2017 US National Average Drug Acquisition Costs.

Results:

In the FOURIER trial, 12,135 patient-years treatment with Evolocumab resulted in the prevention of 91 MACE. In IMPROVE-IT 14,754 patient-years with Ezetimibe resulted in the prevention of 118 MACE. The annual cost of Evolocumab and generic Ezetimibe and is \$14,513 and \$389 respectively. Therefore, the cost of the drugs needed to be utilized to prevent one MACE would be \$1,935,014 for Evolocumab (95% CI: \$1,237,952-\$4,951,806) and \$48,576 for Ezetimibe (95% CI: \$30,739-\$89,144).

Conclusions:

The addition of Ezetimibe to statins for preventing CV death in type 2 diabetes patients with established CV disease seems to be a major cost-saving strategy compared to Evolocumab with statins. These results should be considered in the context of other drug-specific and individual patient factors.

Points for discussion:

How should the clinician consider medical treatment in an era of financial constraints ?

How important are financial issues and drug costs in clinical decision making ?

Poster / Finished Study

Atopic Eczema in Adulthood and Risk of Depression and Anxiety: A Population-Based Cohort Study

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Keywords: atopic eczema, atopic dermatitis, depression, anxiety, population-based

Background:

Atopic eczema is a common and debilitating condition associated with depression and anxiety, but the nature of this association remains unclear.

Research questions:

To explore the temporal relationship between atopic eczema and new diagnoses of depression/anxiety.

Method:

A matched cohort study using routinely-collected electronic records from the UK Clinical Practice Research Datalink, linked-hospital admissions data. We identified adults with atopic eczema (1998-2016) using a validated algorithm, and up to five individuals without atopic eczema matched on date of diagnosis, age, sex and general practice. We estimated the hazard ratio (HR) for new depression/anxiety using stratified Cox regression to account for age, sex, calendar period, Index of Multiple Deprivation, glucocorticoid treatment, obesity, smoking and harmful alcohol use.

Results:

We identified 526,808 adults with atopic eczema who were matched to 2,569,030 without. Atopic eczema was associated with increased incidence of new depression (HR 1.14; 99% confidence interval [CI] 1.12-1.16), and anxiety (HR 1.17; 99% CI 1.14-1.19). We observed a stronger effect of atopic eczema on depression with increasing atopic eczema severity (HR [99% CI] compared to no atopic eczema: mild 1.10 [1.08-1.13]; moderate 1.19 [1.15-1.23]; severe 1.26 [1.17-1.37]). A dose-response association, however, was less apparent for new anxiety diagnosis (HR [99% CI] compared to no atopic eczema: mild 1.14 [1.11-1.18]; moderate 1.21 [1.17-1.26]; severe 1.15; [1.05-1.25]).

Conclusions:

Adults with atopic eczema are more likely to develop new depression and anxiety. For depression, we observed a dose-response relationship with atopic eczema severity

Poster / Ongoing study with preliminary results

Characteristics of Patients Receiving Long-Term Home Nursing Care and the Role of the Nurse

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ludmila.marcinowicz@umb.edu.pl**Keywords:** Long-term Home Nursing Care, Multiple morbidity, Nursing procedures**Background:**

Long-term Home Nursing Care (LTHNC) in Poland provides at-home care for chronically ill or disabled persons as part of the national health insurance programme. To qualify, patients must have a functional status of 40 points or less on the 100-point Barthel scale and be referred by a physician. Each patient is visited by a nurse at least 4 times a week.

Research questions:

(1) What patient demographic is served by LTHNC? (2) What is the functional status of LTHNC patients? (3) What illnesses and disabilities are seen in patients referred to LTHNC and are there sex differences? (4) What nursing procedures are usually performed?

Method:

Retrospective descriptive study design and document research were used. We collected data from the medical records of 233 patients receiving LTHNC at the Non-Public Health Care Centre OMNI-MED in Bialystok (Poland) from 31 December 2017 to 31 October 2018.

Results:

Of the 233 patients who received LTHNC in the 10-month study period, 75% were women and 74% were aged 75 or above. The mean Barthel score at the beginning of LTHNC was 9.53, and the mean number of diseases per patient was 3.39 (range 1 to 11). The prevailing diagnoses in women were: decubitus ulcer (12.6%), hypertension (8.9%), heart failure (6.1%), polyarthrosis (4.2%) and dementia (3.9%); in men they were: decubitus ulcer (14.1%), heart failure (7.7%), hypertension (6.5%), flaccid hemiplegia (4.7%) and dementia (4.1%). The most frequently performed nursing procedures were measurements of pulse, arterial blood pressure and temperature. Other common nursing procedures were: help with breathing exercise, drug administration and non-excisional debridement of wounds.

Conclusions:

Elderly women with multiple morbidities were the main recipients of LTHNC. Monitoring of vital signs and providing care assistance were the primary nursing activities. This information can be used when planning at-home nursing care.

Poster / Ongoing study no results yet

Adolescent Depression Associated With Parental Depression: Screening, Prevalence and Secondary Prevention From the AdoDesP Survey (Adolescent Depressed Parents on Primary Care): Research

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Keywords: depression, adolescent, general population, primary care

Background:

Identifying and preventing depression in adolescents is difficult. A parental depression is a recognised risk factor for adolescents' depression. 20% of adults' patients in primary care have a depression. Primary care could, then promote indirect access for identifying adolescent depression at an early stage from the meeting of depressed parents. This could overwhelm problems of coordination between primary care and mental health care, which can disrupt screening and management of adolescent depression.

Research questions:

Does the screening and secondary prevention of adolescent depression found while using their depressed parents in primary care using a coordinated mental health care pathway more efficient than screening and secondary prevention in regular care

Method:

A randomized, cluster controlled trial. General Practitioners in Finistere are recruited to identify depressive parents according to the Hopkins Symptom Checklist-25(HSCL 25). Their teenagers are then screened by a scale of depression: Adolescent Depression Rating Scale (ADRS). If the depression is proven, the teenager will be oriented, according to a randomization towards coordinated or routine care. A follow-up of the depression will be carried out at 6 months and 12 months, with the Children's Depression Inventory (CDI).

Results:

no result yet

Conclusions:

Points for discussion:

How are depressive adolescents in your countries taken care of?

How is care coordinated with psychiatry in your countries?

What do you think about the AdoDesP method?

Effect of time elapsed from the onset of heart failure decompensation symptoms to primary care consultation

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Keywords: heart failure; decompensation; primary care

Background:

Early identification of Heart Failure (HF) decompensation is crucial in order to properly treat a potential severe clinical situation and avoid hospitalizations and death.

Research questions:

Can the delay in consulting to General practitioner affect the prognosis of heart failure patients?

Method:

HEFESTOS is an European cohort study aimed at knowing the main triggers and the prognosis of some factors related to the heart failure decompensations attended in primary care.

We collected sociodemographic and clinical variables as well as time elapsed since the onset of the symptoms perceived by the patient. The outcome for this analysis was the hospitalization and the length of stay in the hospital as a consequence of a decompensation

Results:

We analyzed a total of 515 patients with HF. Mean age was 84.0 [78.0; 87.0] years old and 56.1% were women. Median of time elapsed since the onset of symptoms was 7.00 [3.00; 12.0] days. A total of 159 patients were hospitalized during the first month after the decompensation. We did not find statistical relationship between the delay in the consultation with the primary health care and the hospitalization ($p=0.603$) or the length of hospital stay (r Spearman=0.05, $p:0.5$)

Conclusions:

Patients with HF wait one week to consult with their general practitioner. It could not be established any relationship between the time elapsed since the onset of the symptoms and the consultation with the GP and the hospitalization or the length of stay in the hospital.

Points for discussion:

It is possible that more severe patients go directly to the hospital .

Poster / Study Proposal / Idea

What influences medical students' choice of family medicine as a career? A research protocol from the 2018/2019 EGPRN Fellows.

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Keywords: General Practice, Medical Students, Career Choice

Background:

Family medicine (FM) is a multidimensional field of medicine; it deals with prevention, screening as well as diagnosis and first-hand treatment of many acute and chronic health problems. Nevertheless, in many countries the number of medical students who choose (FM) as a career has decreased. Studies indicate that medical students' career preferences are associated with their ultimate career choices, and that in many countries these are important determinants of the distribution of specialities. Many factors are known to influence medical students' career speciality decisions: student demographics and biographical characteristics, medical school characteristics, students' perceptions of speciality characteristics, and student-held values and attitudes. Although in some European countries there has been extensive research on these factors, in some Mediterranean countries limited data are available.

Research questions:

What are the attitudes and factors that influence medical students' choice of FM as a career speciality?

Method:

This study will use a questionnaire with a mixture of closed and open-ended questions. The appropriate methodology and study protocol will be informed by a literature review in preparation for the subsequent study in the Fellows' three Mediterranean countries (Italy, Turkey and Greece).

Results:

The three EGPRN Fellows will present their study protocol, with a particular focus on discussion of the methodological aspects learned during the EGPRN Fellowship.

Conclusions:

This study will provide information about how medical students make decisions on speciality choice and how it varies in three Mediterranean countries. It will identify the attitudes of 'millennial' medical students with respect to our discipline, focusing on three countries in which FM has a poorer academic background and is still in organizational development.

Determining these factors will allow us to decide how to make the FM more attractive to medical students in our countries, and help with planning to reduce the shortage of these healthcare professionals.

Points for discussion:

Are there other EGPRN countries which also lack this information?

How might Italian, Turkish and Greek medical students' responses compare with those of other countries?

Poster / Ongoing study with preliminary results

Inhaled corticosteroid use among adult Finnish asthmatics

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Keywords: asthma, medication, adherence

Background:

In Finland asthma is usually diagnosed and treated within the primary care setting by general practitioners at municipal health care centers and doctors working at occupational health services. The basis of medical treatment of asthma are inhaled corticosteroids. To our knowledge, register-based studies about asthma medication use in Finland are scarce.

Research questions:

This is descriptive study about inhaled corticosteroid use among adults with asthma.

Method:

Study population origins from The Health and Social Support Study 2012, which is part of a nationwide cohort study among adult Finnish population. The participants were inquired whether a doctor had told them they have or have had asthma. The asthma group comprised 1141 individuals which equals 8.9% of all respondents and thus is similar to the previous knowledge of asthma prevalence in Finland. Registers of The Finnish Social Insurance Institution (SII) were used to study filled prescriptions during 2011. We checked from the registers individuals who had purchased inhaled corticosteroids (ICS) alone or combined to long-acting beta2-agonists (LABA). The proportion of days covered (PDC) by ICS during 2011 was calculated based on the ATC/DDD system of WHO and information on the prescriptions i.e. name and strength of the substance, number of doses in the inhaler and number of inhalers purchased. As recommended for adherence studies, PDC 80% or more was considered good.

Results:

According to the register 674 (59%) of the asthma patients had purchased ICS in 2011. Among 21% of these patients, PDC was at least 80%. Among more than half of the asthmatics (62%) PDC was below 50%. There was no difference between genders.

Conclusions:

Regular use of inhaled corticosteroids among adult asthma patients is considerably low in Finland. Adherence to treatment should be evaluated at every patient consultation.

Poster / Finished study

Relationship between omentin and chemerin levels and metabolic indices of obesity within one year in non-morbid overweight and obese adults

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Keywords: omentin, chemerin, overweight, obesity

Background:

Overweight is a condition that could lead to both diabetes and cardiovascular diseases. About half of EU adult population is overweight, including 16% being obese (21% in Latvia). Correlation of serum chemerin and omentin with indices of insulin resistance and lipids has been described, however, information on association between changes in these parameters is scarce.

Research questions:

To examine relationship between changes in chemerin and omentin levels with changes of insulin resistance and lipid levels in clinically healthy overweight and obese individuals within a year.

Method:

We used data from our randomised controlled study with 123 clinically healthy individuals with a BMI above 25 m²/kg in the age group of 30 to 45. All participants received a consultation for lifestyle changes to support weight loss. All group showed slight weight and waist circumference decrease after 1 year. Biochemical parameters (lipids, fasting glucose, insulin) and cytokines (omentin, chemerin) were assessed at baseline and after 1 year.

Results:

We found correlation between changes in chemerin and insulin ($r_s=0.21$; $p=0.019$). There was a positive correlation of TG/HDL-C ratio changes with chemerin changes ($r_s=0.18$; $p=0.047$) and negative with omentin changes ($r_s=-0.21$; $p=0.018$).

Multiple linear regression revealed significant relationship in chemerin changes when insulin ($B=0.6$; 95%CI 0.1, 1.0; $p=0.016$) or TG/HDL-C ratio ($B=3.6$; 95%CI 0.3, 7.0; $p=0.035$) differences are included in the model while controlling for age and gender.

For omentin changes only gender stayed as predictor of weight ($B=22.8$; 95%CI 7.3, 38.0; $p=0.004$), insulin ($B=23.1$; 95%CI 7.7, 38.4; $p=0.004$) and TG/HDL-C ratio ($B=23.1$; 95%CI 7.9, 38.2; $p=0.003$) changes, when adjusted by age.

Conclusions:

Results imply that chemerin changes are associated with changes in insulin and some lipids. Male gender rather than changes insulin and lipids is associated with omentin changes.

Points for discussion:

The role of chemerin and omentin in early selection and monitoring overweight individuals to prevent diabetes and cardiovascular disease is still ambiguous

Screening of Diabetic Retinopathy in Southwest Finland

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Keywords: Diabetes, Retinopathy

Background:

Approximately 500 000 people suffer from diabetes in Finland, a number which is predicted to increase within the next decades. Good treatment of diabetes decreases the risk of diabetic retinopathy. The goals of the treatment are adequate glucose balance, blood pressure and prevention of metabolic syndrome. Every patient with diabetes should regularly be screened for diabetic retinopathy. Timely and efficient treatment of retinopathy significantly decreases the risk of visual impairment.

Care chain for diabetic retinopathy was agreed in Southwest Finland in 2006. A centralized archive for fundus photographs was created in Turku University Hospital. In Southwest Finland there are 15 health centres organizing screening for diabetic retinopathy. The photographs and information on glucose balance, hypertension and duration of diabetes have been stored in the same archive.

Research questions:

What is the coverage of retinopathy screening in patients with diabetes and what is the incidence of retinopathy in them? What is the glycaemic balance in patients with diabetes? What is the relationship between the illness time, glycaemic balance, hypertension and the established retinopathy?

Method:

Imaging service is organized by 2M-IT corporation. The photographs and additional patient data are sent electronically to an ophthalmologist and stored in the archive of Turku University Hospital. The ophthalmologist evaluates the photographs and gives an opinion and instructions for further treatment. The statements of the ophthalmologist are stored in the archive and sent electronically to the doctors in the health centres and forwarded to the patients. The data can be compared regionally and longitudinally from 2006 to 2018. Statistical analyses include regression, clustering and time series analysis.

Results:

No results yet.

Conclusions:

The results of this study will provide information whether retinopathy screening is carried out equally in the whole region of Southwest Finland and how the improved glycaemic balance affects the incidence of retinopathy regionally and also over time.

Points for discussion:

Are there differences in the incidence of diabetic retinopathy and glycaemic control in different health centres?

The screening of diabetic retinopathy in Southwest Finland differs from that carried out elsewhere in Finland, because it is centralized and an ophthalmologist evaluates all photographs. Is the coverage and quality better?

Whether the risk of visual impairment has decreased?

Poster / Ongoing study with preliminary results

Educating Nursing Home Staff to Improve Residents' End-of-life Care and to Reduce Burdensome Hospitalisations - Baseline Findings and Feasibility of a Randomised, Controlled Trial

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Keywords: Nursing home, end-of-life, hospitalization, Quality-of-life, palliative care

Background:

Developing end-of-life care in Nursing Homes (NHs) has become a topic of growing interest. It has been shown that hospitalizations of NH residents, most with severe cognitive impairment, provide limited health benefits, are burdensome and present risks for serious complications.

Research questions:

In this cluster-randomized educational trial we examine whether staff education in palliative care will 1) improve the residents' health-related quality of life (HRQoL), 2) reduce unnecessary hospitalizations compared to control group in usual care. Secondary endpoints include symptoms and proxies' satisfaction. Baseline findings and feasibility are presented here.

Method:

We recruited 340 NH residents in Helsinki. In the wards of intervention arm, staff was given a four-afternoon educational intervention which included basics on good palliative care, advance care planning, good symptom management, communication skills, tailoring care at the end-of-life, supporting relatives and challenging situations in end-of-life care. Sessions were based on constructive learning theory and strongly relied on resident-cases presented by instructors and participants. At baseline, we gathered demographics, diagnoses, previous hospital visits, MMSE, physical functioning and MNA. Symptoms, 15D and PWB to assess HRQoL and proxies' satisfaction with care are all assessed at baseline and at 6 and 12 months from intervention.

Results:

Mean age of participants was 84y, 76% were females. The intervention and control groups did not differ in respect to demographics, terminal diseases, comorbidities, nutritional status, MMSE, proxies' satisfaction or medications. There were differences between the two groups in advance planning, symptoms, and physical functioning. 102/180 staff members completed the educational intervention. The sessions had lively discussions and the participants gave an overall score of 4.6/5 for the education.

Conclusions:

We have randomized nursing home wards in this palliative care education trial with success and completed staff education with very positive feedback.

Poster / Finished study

Research on multimorbidity using general practitioners' electronic patient records

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Keywords: routine data; electronic patient record; secondary data analysis; general practitioner

Background:

Data for primary care and health services research are urgently needed, but not easily available in Germany due to lack of a central collection point and to limited access from privacy protection and technical barriers.

Research questions:

How to define multimorbidity when doing research using GP's electronic routine data? Are multimorbid patients frequent attenders?

Method:

Two routine data sets from electronic patient records, of one general practice, 1994 until 2017, and from 166 practices, 1994 until 2007, were analyzed on annual base.

Multimorbidity was defined from leading 3 characters of patient's ICD codes and from first letter representing ICD chapter, respectively.

Difference in days between two consecutive practice contacts yielded inter-contact intervals (ICI). Patient's median annual ICI allowed for attribution to lowest 10th resp. 5th percentile as „frequent attender“.

Association of frequent attender status with several levels of multimorbidity was calculated as odds ratio, with 95% confidence interval.

Results:

8,471 patients, 58.1% female, from one practice and 316,439 patients, 55.4% female, from 163 general practices, had an overall median annual number of 4 truncated ICD codes per patient (IQR 2 to 7) and of 2 (1 to 5), respectively. Median number of ICD chapters per patient was 3 (1 to 5) and 2 (1 to 4).

Odds ratio of 10th and 5th percentile frequent attenders' association increased monotonously with number of ICD codes and of ICD chapters in both data sets

Additional numeric and graphical results from variation in defining multimorbidity and frequent attendance, overall and on annual base, are presented at EGPRN meeting.

Conclusions:

Multimorbid patients and frequent attenders can be identified from GP's electronic patient records. Multimorbid patients are frequent attenders, association increases with annual number of chronic conditions. For comparable results and check on external validity, consensus to reach uniform definition of multimorbidity is needed, as well as representative data samples.

Points for discussion:

In your country, do you have access to GP's routine data for primary health care or health services research?

What is needed for a comprehensive and sustainable health data research management?

Can we reach consensus on definition of multimorbidity?

Attitudes and knowledge of family physicians regarding patients with multimorbidity in the Republic of Croatia – Pilot Study

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Keywords: multimorbidity, polypharmacy, drug interaction, chronic therapy audit

Background:

Multimorbidity is defined as any combination of chronic disease with at least one additional condition, bio-psycho-social factor or somatic risk factor. Care for such patients requires special skills and knowledge, as well as a proactive, individualized approach in order to improve their quality of life and reduce overtreatment.

Research questions:

To investigate whether the length of service in family medicine (FM), the number of elderly patients (over 65 years) in care, residency in FM or specialty in family medicine (FMS) correlate with the physicians knowledge about adequate care for patients with multimorbidity.

Method:

A questionnaire (21 questions about the attitudes and knowledge of family physicians about multimorbidity management) was available online from December 1st to December 21st, 2018 from social networks and sent to the family medicine practitioners' e-mail addresses. The answers were statistically processed with SPSS program.

Results:

Out of 174 respondents, 137 (78.7%) were female and 37 (21.3%) were male. Ninety two of them all (52.9%) were FMS, 55 (31.6%) were without specialization (FM), 20 (11.5%) were FM residents, and 7 (4%) were complementary specialists (e.g. school medicine). Multimorbidity was correctly defined by 73 (49.6%) of the respondents, significantly more among FMS compared to others ($\chi^2=7.417$, $p=0.025$). Years of service in FM (over 20 years) were significantly associated with frequent checking for potential drug interactions ($\chi^2=12.92$, $P=0.005$) and treatment revisions in patients receiving two or more drugs ($\chi^2=11.71$, $P=0.008$). Higher number of elderly patients in care did not increase the checking rate for potential interactions ($\chi^2=1.99$, $P=0.574$).

Conclusions:

Management of multimorbidity pertains to the domain of family medicine. Specialization in family medicine and clinical experience markedly improve the understanding and treatment of multimorbidity, particularly concerning rational therapy (e.g. awareness of interactions, control of polypharmacy).

Points for discussion:

Study design, questionnaire, online research

Poster / Finished study

Vulnerable and diabetes patients' perspectives on the advantages of patient education in primary care centre: a qualitative study in France

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Keywords: patient education as topic, vulnerable population, primary health care, diabetes mellitus

Background:

Primary care has a main role in management of diabetes mellitus (DM) type 2, including prevention of complications which are more prevalent among vulnerable population. Patient Education (PE) provides training to patients for self-management of the chronic disease. Mostly realized in hospitals, attendance to PE can be low for vulnerable population, due to their low mobility in the society. Hence, a PE program in the primary care centre in a deprived area was performed.

Research questions:

To explore the perspectives of type 2 DM patients on the advantages of PE realized in the primary care in a deprived area.

Method:

A qualitative study, with individual interviews, was performed with 19 type 2 DM patients who attended to PE sessions in 2017 in primary care. Thematic analysis was used to analyse the data.

Results:

Among patients, geographical proximity of primary care centre was an important component that facilitate access to PE sessions. Also, information of the program was spreading better by professionals, with an easier access to the information for patients, permitting a wide recruitment. The relationship of the patients with the professionals was a motivation to participate. Finally, exchanging with other patients from the same district helped them to create new social relationships.

Conclusions:

Realising PE in primary care help patients in access and attendance. Primary care teams should be encouraged and supported by policy-makers and health legislators to develop PE in their districts and improving care of patients with chronic disease.

Points for discussion:

Do you have patient education program in your own country in primary care?

What are advantages and disadvantages of it?

How can PE in primary care improve the health care access of individuals?

Poster / Finished study

Analysis of multimorbidity patterns in accordance with different prevalence cut-off points

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Keywords: chronic conditions, multimorbidity, cut-off points

Background:

The term multimorbidity widely refers to the existence of multiple medical conditions in a single individual. The identification of multimorbidity patterns seem to be implicitly dependent on the prevalence of the included diseases in the analysis. However, no previous study has analysed the identification of multimorbidity patterns explicitly based on the prevalence of the diseases.

Research questions:

Is there any difference in multimorbidity patterns related to cut-off points applied in disease prevalence?

Method:

A cross-sectional study was conducted based on data from public primary care services electronic health records in Catalonia, Spain, in 2012. We extracted data on demographics and ICD-10 chronic diagnoses for patients aged ≥ 65 (60 SNAC-K chronic diseases). Principal component analysis of categorical and continuous variables for dimensionality reduction and machine learning techniques were applied to the identification of disease clusters in a fuzzy c-means analysis. Sensitivity analysis with different prevalence cut-off points (no filtering, 1% and 2% prevalence for chronic diseases), were conducted.

Results:

The most prevalent chronic diseases were: hypertension (71.0%), Dyslipidaemia (50.9%), Osteoarthritis and other degenerative joint diseases (32.8%), Obesity (28.7%), Diabetes (25.1%) and anaemia (18.3%). The number of optimal clusters was the same for the three different prevalence thresholds: no filtering, $\geq 1\%$ and $\geq 2\%$ filters. Eight multimorbidity patterns were identified using fuzzy c-means algorithm, one non-specific (high prevalence diseases) and 7 patterns encompassing different anatomical systems: blood, cardiovascular-circulatory, digestive, genitourinary, musculoskeletal, nervous-mental systems.

Conclusions:

The different cut-off points (prevalence filters) applied to obtain multimorbidity patterns, allowed to identify common nuclear diseases that remain independent of the prevalence of the diseases. We selected the higher prevalence (2%) to obtain the patterns because they had more clinical representativeness.

Points for discussion:

Which diseases are likely to be included in the analysis of multimorbidity

Need for consensus of cut off point for diseases

Common nuclear diseases which remained independent of their prevalence

Poster / Finished study

A study of expressed and unmet healthcare needs of the population of Brasov County Romania, in relation with family doctors.

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Keywords: health need, family doctor, Romania

Background:

In the context of a Health Needs Assessment project commissioned by Brasov County Council to the University, a multidisciplinary team from Transylvania University, comprising family doctors, public health specialists, sociologists, economists have done a complex health needs assessment at all levels of Healthcare from the region. In this paper we present only the section of the analysis related to family medicine.

Research questions:

Is the population of County Brasov covered with essential services at the FD's office in comparison with international standards?

Method:

We developed a 34 items questionnaire aimed to inquire about perceived health needs, expressed needs and unmet healthcare needs in the population of Brasov County Romania.

1200 questionnaires were distributed in the adult population of Braşov county, considering a mapping of all type of communities. It was a self-administered questionnaire the location of delivery were family physicians' offices and local councils.

Data was analyzed with SPSS.

Results:

We evaluated the access to the family doctor (FD), Health problem not resolved after FD encounter, constancy in being registered with FD, availability of a FD in the community, presence of a second doctor in the community, availability of out of hours services led by FD's, opening hours, knowledge about patient's history, time spent at consultation, span of diseases that can be addressed, availability of preventive services.

The lowest scores are noted with the following services: Pap smear at the FD's office (46,3%), blood draw (63%), electrocardiogram (56%), out of hours services in the area (58,6%).

Conclusions:

Family doctors are perceived as an accessible and reliable health resource, where most health problems can be solved. Important services like Pap smear testing is not done in many FD offices and this is an important public health problem. It is important to use this information at various levels to implement the necessary changes.

Poster / Ongoing study with preliminary results

Assessment of digital services for complex patients in primary care, an EIP-AHA Reference site case study

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Keywords: primary care, digital services, complex patients, EIP-AHA

Background:

The evolving digital service landscape in primary care provides an opportunity to address the previously unmet needs of the complex patients. Health center Zagreb – Center (HCZC), a primary care institution coordinating the effort of over 100 family medicine teams in Zagreb, Croatia has been a lead partner of the City of Zagreb reference site of the European Innovation Partnership on Active and Healthy Ageing (EIP-AHA) since 2016. EIP-AHA brings together relevant stakeholders to facilitate the development and adoption of innovation in healthcare. In 2018, HCZC has co-developed and implemented several new digital services in integrated care domain, usable by family doctors.

Research questions:

The aim was to assess the performance of digital services of HCZC in terms of potential to meet the needs of complex patients and to identify service gaps in integrated care delivery.

Method:

In this case study, a vignette-based tool with personas representing different age groups and levels of complexity of health needs, developed by the WE4AHA project, was used. Four personas described as “complex” with 14 total described needs were included. Digital service to patient need matches were weighted for “usefulness” to the persona on a scale 1-3 each (1-lowest, 3-highest). Scores of all services addressing a single persona need were added to get the final score.

Results:

HCZC services scored low on 8/14 of the complex persona needs. The needs most well addressed in all 4 studied personas were those of chronic disease and therapy management.

Conclusions:

The results could reflect that services are designed to predominantly follow up the physical components of chronic diseases, while the integrated/biopsychosocial health care approach has not been yet adequately implanted in digital solutions. Large service gaps exist in integrated care delivery, highlighting the potential areas for future improvement through the development of new services or strengthening partnerships for coordinated health and social care.

Points for discussion:

How can technology improve doctor-patient communication and relationship?

What assessment tools could further estimate the overall health benefit of using digital technology in primary health care?

Is it appropriate to use persona vignettes to describe health and social needs of the population?

Poster / Ongoing study with preliminary results

Differences in SCORE screening parameters between males and females in Latvia

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Keywords: SCORE, cardiovascular risk, screening

Background:

According to World Health Organisation, Cardiovascular diseases are the leading cause of death globally. Systematic Coronary Risk Evaluation (SCORE) system has been developed in order to assess the risk of it in the next 10 years.

Research questions:

How does the SCORE screening parameters differ between sexes?

Do the doctors see any advantages to this screening program?

What problems have the doctors discovered using this screening program?

Method:

Patients in target age groups were selected and SCORE protocol issued by health ministry was used to determine the cardiovascular disease risk. The data collected has been analyzed using IBM SPSS Statistics 23 (Kolmogorov-Smirnov Test (K), Mann-Whitney U (M), Pearson Chi-Square (C), Fisher's exact test (F), and $p < 0.05$ was considered as statistically significant).

Results:

This is an ongoing study. 22 males and 31 females have been included in this study. There were no differences in age distribution (K, $p=0,991$) and smoking status (C, $p=0,086$) for both sexes. Statistically significant difference was found for systolic blood pressure (M, $p=0,032$) with mean of 128,32 (SD=18,82) mmHg for women and 141,29 (SD=22,38) mmHg for men. In this study body mass index (M, $p=0,313$), waist circumference (M, $p=0,055$), total cholesterol (M, $p=0,732$) and fasting glucose levels (M, $p=0,493$) did not differ between genders. Although statistically significant difference was found in overall SCORE results (M, $p=0,001$) with lower risk for female subjects (1,37% (SD=1,75%) versus 4,63% (SD=5,28%)), only the low risk group showed difference in gender distribution (8 women versus 0 men; F, $p=0,015$).

Conclusions:

SCORE screening includes the assessment of such parameters as age, systolic blood pressure, total cholesterol and fasting glucose levels, as well as body mass index, waist circumference and smoking status. In this study differences between the sexes were found only for systolic blood pressure and total SCORE result with lower values for female subjects in both parameters.

Points for discussion:

The efficiency of using SCORE screening in general practitioners office.

The advantages and disadvantages of SCORE screening protocol issued by Latvian Health Ministry.

Poster / Finished study

How does quitting smoking affect weight, metabolic measures and the risk of developing Diabetes Mellitus

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Keywords: Diabetes mellitus, smoking cessation, weight gain

Background:

Smoking and obesity are both significant risk factors for morbidity, and therefore targets for health promotion and preventive medicine measures. Most people who stop smoking end up gaining weight. Studies have shown that smoking is related to increased insulin resistance and higher cholesterol levels. However, there is a controversy as for the risk of developing diabetes after smoking cessation.

Research questions:

What is the relation between smoking cessation, weight gain and the risk of developing diabetes?

Method:

The study was conducted in the Central District of "Clalit Health Service" (CHS) in Israel.

3641 smokers were identified as having purchased Varenicline in the years 2010-2012. Those diagnosed with diabetes before cessation and those having incomplete records, were excluded. The study was conducted on the remaining 2371 patients.

Study variables - smoking status, weight, glycosylated hemoglobin, fasting glucose and lipid profile - checked before taking Varenicline, and compared 1, 3 and 5 years after treatment.

Results:

At the end of the study period, 1569 patients continued smoking and 802 quit smoking. The five-year follow up shows a significant difference in weight gain between the two groups. Those who continued smoking showed no weight gain, while quitters gained an average of 3.3 kg ($p < 0.001$). The lipid profile of those who quit smoking improved.

The risk of developing diabetes was higher in quitters - after five years, 6.6% of smokers developed diabetes and 7.5% of quitters. Among quitters who gained more than 5 kg, 16% were diagnosed with diabetes.

Conclusions:

Smoking cessation associated with weight gain of over 5 kg, was found with increased risk for developing diabetes. Several studies concur that the beneficial effect of smoking cessation on cardiovascular risk is greater than the risk of gaining weight. Nonetheless, this findings emphasize the importance of monitoring weight gain and glucose levels among patients who quit smoking.

Points for discussion:

Interestingly, one third of quitters did not gain weight, and one out of 5 actually lost weight. This could be encouraging to smokers who want to quit but are concerned about weight gain. Further research of this group could help to gain insight as to why they did not gain weight, potentially benefitting future smokers who are attempting smoking cessation.

Poster / Ongoing study with preliminary results

Quantitative and thematic analysis of gut feelings' text notes

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Keywords: Gut feelings, thematic analysis, text notes

Background:

GPs use gut feelings (GF) during a patient visit to pace their decisions. A 'sense of alarm' (SA) means that intervention seems necessary to prevent imminent serious health problems, and a 'sense of reassurance' (SR) implies that a GP feels secure about whether and what therapy needs to be started. We don't know how these senses are captured in patient's electronic clinical records (ECR).

Research questions:

Are there differences regarding the extent of the text and the subjects treated when the physician has a SA and when the physician has a SR?

Method:

Review of text notes of 73 patients included in a broader study about GF. Presence of SA or SR was determined using the GF Questionnaire. We collected number of words used by the GPs in their annotations: complete annotation and its parts (anamnesis, examination, action plan)

Thematic analysis: Two different researchers read separately the text notes, coded the expressions used and assigned the codes to categories. They met and agreed with the codes and categories selected.

Results:

29 SA, 44 SR.

- GPs tend to use more words when having a SA than when having a SR in all the sections of text notes, although differences are bigger in anamnesis and examination.
- GPs write more details about examination and investigations requested when there is a SA.
- GPs report more data about treatment when they feel a SR.

Conclusions:

When having a SA GPs suspect possible serious consequences. So they try to gather more data from clinical interview and physical examination. Or same data are actually collected but GPs need to leave record of their actions more frequently when having a SA.

GPs with a SA tend to perform broader patient's examinations (physical and vital signs), to request more diagnostic procedures (tests, investigations or referrals), and to propose fewer treatments.

Points for discussion:

Do GPs act differently depending of their gut feelings?

Poster / Finished study

Assesment of 0-24 Months Old Childrens' Mothers' Knowledge Level on Routine Vaccination Program

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Keywords: childhood Immunization, vaccination, awareness

Background:

Vaccination is the most effective and reliable way to prevent infectious diseases. It can also be considered as a human right. Yet anti- vaccination is gaining importance globally. We aimed to evaluate knowledge and attitude of mothers on vaccination.

Research questions:

- What are the obstacles facing vaccination programs.

Method:

A survey, consisting of 28 questions about demographic characteristics, knowledge about vaccinations and attitudes of mothers were given to 180 mothers whose children, between 0 to 24 months, were consulted at out-patient clinics.

Results:

Ninty point six % of mothers said vaccines were necessary and 45.6% said infectious diseases would be more serious in case of non vaccination. Eighty-five % of the participants were aware about possible side effects of vaccines, 81% mentioned fever as a side effect. Their information about vaccines was obtained from a medical doctor by 61.1%,

Eighty- three point three % of the vaccines were done in family medicine clinics and 66.7% of the vaccines were given by nurses. Fifty-eight % mentioned measles as a name of a vaccination, while 3.3% diphtheria and with 3.3% whooping cough was the least frequently mentioned.

Fifty-six point one % of the mothers did not know about the extra- paid “out of routine schedule” vaccines and of those who knew 94.9% of the respondents had heard about the rotavirus vaccine. Seventy-eight point three % had not received extra- paid vaccines with 60.2% giving lack of knowledge as a reason for not having them.

Conclusions:

Majority of mothers still believe that vaccination is necessary. Some variables such as parental age, education level, occupation, income level, number of siblings affects vaccination percentage. Promoting childhood vaccination especially by the media and health professionals might increase vaccination percentage of the population.

Points for discussion:

What can be done in primary care especially in the cultural context to increase the vaccination percentage.

What can be done in primary care to overcome anti vaccination?

Poster / Ongoing study with preliminary results

Preliminary data of the CORap study (Gut Feelings Prognostic Value in Primary Care)

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Keywords: Gut feelings, serious diseases, cancer

Background:

GPs have Gut Feelings (GF) during patient visits: a sense of reassurance (SR) when the GP feels that everything about a patient fits or a sense of alarm (SA) when the GP is concerned about a possible adverse outcome. We don't know the prevalence of GF in GPs consultations, how these GFs affect GPs' decisions, or their prognostic value regarding serious diseases or cancer.

Research questions:

Prevalence of GF in the patients contacts with GPs

GF relationship with patient (sociodemographic and clinical) and GP characteristics (sociodemographic and professional)

Validity of GF to predict severe disease and cancer.

GF relationship with request of tests, investigations, and referrals.

Method:

Prospective observational, study of diagnosis validity.

Patients with a new reason for encounter

48 work days, 26 GPs

Existence of SA/SR determined using the GFQuestionnaire.

GPs' variables: age, gender, trainer, rural/urban, years of experience, language

Patients' variables: age, gender, country, language, type of visit, red flag symptoms

Follow-up: Incident diagnosis of severe disease and cancer, requests (investigations, tests, referrals, visits)

Results:

287 patients: 80 SA, 191 SR, 6 undetermined

Serious diagnosis: 15 2mo later, 32 6mo later

GF prevalence: 281/287: 97.91%

No differences in prevalence of SA/SR regarding: gender (GP,patient), country (patient), language (patient), patient-GP know each other before, language (consultation), type of visit, environment, age (GP)

More SA: longer visits, some symptoms (anemia, anorexy, asthenia, weight loss), having at least one red flag symptom, ex-GP trainers.

6mo after SA patients have: more GP visits, lab tests, referrals to specialists, visits to the hospital E.R., primary care procedures (drug administration, wound healing, vital signs checked...)

PPV of SR: 98.49% 2 months later, 94.47% 6 months later

PPV of SA: 14.63% 2 months later, 24.39% 6 months later

Conclusions:

Bigger sample size is needed

High prevalence of GF, with little differences regarding studied variables (sample size issue?)

Good PPV

Points for discussion:

Can GFs help GPs diagnosing rare events like serious diseases and cancer?

Can GFs help GPs to pace their decisions, avoiding unnecessary tests for healthy people, and speeding diagnosis for ill people?

Poster / Ongoing study with preliminary results

Usage habits of peroral, over the counter analgesics in the adult population of Latvia

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Keywords: Analgesics, ibuprofen, aspirin, acetaminophen, habits, demographics

Background:

Analgesics are among the most used medications worldwide. Forms of aspirin, ibuprofen and acetaminophen are freely accessible in pharmacies without doctors prescription. This leads to the possibility of a doctor being unaware of the use of those medications, which can have serious side effects or cross-reactions with other drugs, during treatment.

Research questions:

The aim of this study was to evaluate usage rate of ibuprofen, aspirin and acetaminophen in the adult population and seek demographic groups of most active use.

Method:

Self-made questionnaires were used to acquire data from persons of age greater than 18. Questionnaires were provided in three general practitioners practices and through internet environment. The data were processed and analyzed using MS Excel and SPSS software.

Results:

644 valid questionnaires were collected. Mean age of population was 33.79 ranging from 18 to 78 years of age. 84% of the population were female, 16% male. During period of year most used medication was ibuprofen (81.8% of respondents), followed by acetaminophen (47.4%), aspirin (22.5%), and aspirin/acetaminophen combined medications (15.4%). There was a significant difference of frequency use of ibuprofen and acetaminophen-related to age groups. Age groups of 18-27; and 28-37, had lowest percentages of ibuprofen and acetaminophen none users. Female were associated with higher consumption of ibuprofen than men ($p < 0.05$), but no associations within other medication groups were found. Active smoking and high alcohol consumption was associated with a higher rate of ibuprofen usage. ($p < 0.01$). Physical activity or BMI had no significant impact to use of any analgesics.

Conclusions:

Ibuprofen and acetaminophen recording highest usage rates in population sample were only ones showing a significant difference between usage rates in different demographic groups, being used more frequent in younger populations. Ibuprofen also was used more by the female population. Alcohol use and active smoking had an impact on higher use of non-prescription analgesics.

Multimorbid patient quality of life assessment and the factors affecting it.

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Keywords: Multimorbidity; Depression; Quality of life

Background:

In general practice 65-75% of appointments are compiled by people who have two or more chronic illnesses - multimorbid patients. Even though the number of multimorbid patients is substantial, the number of scientific studies that are focused on examining problems and disease influencing factors associated with these patients is small.

Research questions:

The aim of the study is to evaluate the subjective assessment of the quality of life of multimorbid patients, as well as to study possible factors affecting quality of life.

Method:

The study included patients aged 40 to 80 in the GP Practice in Latvia. Patients were divided into study and control group (with none or one disease). All participants filled out a questionnaire created by the authors, a short form of quality of life enjoyment and satisfaction questionnaire (Q-LES-Q-SF) and a short depression assessment questionnaire (PHQ-9).

Results:

There were 118 patients with the mean age of 63.60 years (SD 11.91). Q-LES-Q-SF questionnaire score was higher for the control group (52.77, SD 7.73) compared to the study group (46.62, SD 7.72, $p < 0.05$). Positive Spearman's correlation between patient age and number of illnesses was obtained (0.47, $p < 0.05$). No correlation was found between patient age and Q-LES-Q-SF questionnaire results. Patients with controlled bronchial asthma had a higher score (46.50) in Q-LES-Q-SF questionnaire compared to patients with non-controlled bronchial asthma (38.60). Patients who had no signs of depression in Q-LES-Q-SF questionnaire had the score of 52.84 points (SD 7.53), patients with signs of moderate depression had 41.44 points (SD 6.19, $p < 0.05$).

Conclusions:

Quality of life scores were lower in multimorbid patients, compared to patients with one or none disease. These results were affected by how well the diseases were managed, their current level of pain and symptoms of possible depression.

Well-being and depression in International Medical Students

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Keywords: International students, Depression, PHQ-9, Warwick-Edinburgh, Well-being

Background:

Depression contributes greatly to morbidity in Primary Care, affecting 5-10% of patients presenting to their GP. The incidence of depression in medical students is known to be higher than that of the general population. Stressful life events affect well-being, may cause an increase in depressive symptoms and even precipitate the onset of major depression. Moving abroad to participate in a rigorous study programme is a stressful life event experienced by all international medical students. The aim of this study is to examine well-being and determine the prevalence of depression in international medical students at Rīga Stradins University in Latvia.

Research questions:

What is the prevalence of depression in international medical students? How is this related to well-being?

Method:

Over 230 international medical students completed a paper version of a survey which included The Patient Health Questionnaire - 9 (PHQ-9) and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). Data was processed using IBM SPSS Statistics 21.00. This is an ongoing study.

Results:

The PHQ-9 revealed the prevalence of moderately severe or severe depression warranting treatment was 5.6% and 2.6% respectively. When moderate depression scores of 10 or more points on the PHQ-9 were included, the overall prevalence of depression was found to be 32%. High depression scores were significantly negatively correlated with well being scores.

Conclusions:

The overall prevalence of depression in international medical students is very high. Universities accepting international students should ensure that they have structures in place in order to provide accessible and effective care for their students. Primary care physicians treating international students should consider screening them for depression.

Points for discussion:

What programmes are in place in your home countries to support students studying abroad?

What are the most effective programmes to improve mental health in medical students?

Poster / Ongoing study with preliminary results

Reasons of bad adherence to scientific researches among young general practitioners and its improvement

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Keywords: scientific researches, primary care, young general practitioners, problem resolving, improvement

Background:

General practice/family medicine is an academic and scientific discipline, with its own research, evidence base and clinical activity orientated to primary care. But the image and popularity of scientific researches in primary care are not high.

Research questions:

The aim of the study was to analyze the reasons of bad adherence to scientific researches among GPs and effectiveness of interventions for its improvement.

Method:

The survey was conducted among 28 young GPs and PhD students in family medicine about their adherence to scientific research, barriers and needs for making it more effective. The statistical analyses was provided with Excel 2007, SPSS.

Results:

Young GPs mentioned the main problem for their scientific work is lack of knowledge and experience in medical informatics, conducting systematic review, statistical analysis, writing an effective article and design of research, lack of financing for research and sometimes lack of awareness of supervisor in mentioned questions. The reason was this information wasn't included in curriculum before 2017 year. Since 2017 after renew of PhD curriculum, this problem was resolved particularly, the lack of understanding of design and methods of statistical analysis were remained. EGPRN trainers were invited to provide few trainings for young GPs interested in scientific work with description of European and Wonca recommendations for research in primary care. The survey showed that first training allowed young GPs to understand better international approaches for planning, conducting research and writing articles and thesis, the importance of ICPC-2 use and the adherence and awareness improved. But for better results the training for supervisors is also needed as additional financing state programs for young researches in family medicine.

Conclusions:

The special education or training in standard approaches for conducting research in primary care are needed for young doctors and PhD students as well as their supervisors for better adherence and conducting research.

Points for discussion:

What problems do you have in conducting research?

How you resolve it?

How to increase the engagement of GPs to scientific activity?

Poster / Ongoing study with preliminary results

Multimorbidity among Finnish university students, especially among students suffering from mental illness according to the Finnish Student Health Survey in year 2016

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Keywords: Multimorbidity, student health care, mental illness, mental health, somatic illness

Background:

The research about the incidence of multimorbidity among young adults is sparse. Multimorbidity is known to cause a risk for mental disorders. An increase of mental disorders among Finnish university students has been reported previously.

Research questions:

The aim of this study is to describe the state of multimorbidity among Finnish University students in Finland in 2016. The specific interest is focused on the students having mental illness.

Method:

The study is a cross-sectional cohort study. The material derives from the Finnish Student Health Survey conducted in 2016. The survey is a nationwide survey conducted every four years since the year 2000. In 2016, the sample included 5004 students from the universities of applied sciences and 4996 students from academic universities.

To evaluate the state of multimorbidity, the respondents were asked accordingly: "Do you suffer from a chronic, long-term or frequently recurring illness, handicap or injury diagnosed by a physician, dentist or psychologist, which has shown symptoms or required treatment over the past 12 months?" The questionnaire included 29 disease category answer options. Multimorbidity was defined as having at least two disorders.

Results:

There were altogether 3110 students, who returned the questionnaires. 983 (32%) of these students suffered from at least two chronic conditions. 490 (16%) of the respondents had at least one mental illness and 1844 (59%) somatic illness. From the students having at least one mental illness, 417 (85%) were categorized as being multimorbid, while the same number among students having a physical illness was 965 (52%).

Conclusions:

This study describes the state of multimorbidity among Finnish University students in 2016. The majority of students suffering from mental illness were categorized as being multimorbid. Multimorbidity is needed to take into consideration when organizing health care services for university students.

Points for discussion:

What is the validity of these results? What kind of bias could have interfered with these results?

What could be the mechanisms behind this phenomenon of students suffering from mental illness being multimorbid?

What could be the clinical relevance of these results?

Poster / Finished study

Assesment of the needs and expectations of inhabitants of İstanbul - Pendik county from primary care services.

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Keywords: Primary care, satisfaction

Background:

Family Health Centers in Turkey are the mainstones of primary care services and many satisfaction surveys have been carried out at these centers. Yet the necessities and expectations of all inhabitants on this subject is something of general concern.

Research questions:

What are the needs and expectations of the inhabitants getting health service in primary care?

Method:

The survey was given to 182 patients in 21 streets belonging to 10 Family Health centers that were chosen randomly in Pendik, Istanbul. The survey consists of three parts. The first which is formed by demographic data including; age, gender, education level, the number of residents at home, total family income. The second part consists of a revised form of "EUROPEP Family Medicine Satisfaction Scale" with four subject headings: "Medical doctor- patient relation", "Health service", "Information and reinforcement" and "easy accessibility".

Results:

"Making one feel that there is plenty of time during the consultation" was the number one priority with 29.2%. Meanwhile "Being able to tell about all of the problems" was also a front runner with 24.4 %. Among male participants, "Listening to you" was the highest with 27 %. "Offering fast service for emergency situations" statement is the highest preference with 29.1 %. "Having a spacious and clean center" was highest condition expected (94.5%) followed by the statement "the centers should be in walking distance" (93.9%).

Conclusions:

Offering a rapid service in emergency situations was of main concern also with educational and informative lectures being given at these centers. So an emphasis should be given to both service and training wise for emergency situations and to community health education as well.

Points for discussion:

What can be done to improve the satisfaction received from health centers bot locally and countrywide?

Should we find other ways of measuring productivity other than/ in addition to patient satisfaction?

Poster / Finished study

Can we apply light therapy in chronic insomnia? a systematic literature review and meta-analysis

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Keywords: insomnia, light therapy

Background:

GPs and patients expect alternative therapeutics in the management of chronic insomnia. Light therapy not only influences the synchronicity of the circadian system in a 24-hour day, it also directly contributes to the regulation of sleep, wakefulness, mood, and cognitive and mnesic processes.

Research questions:

Our aim was to identify possible practical applications of bright light therapy in chronic insomnia, focusing on the light parameters (time of day, intensity, duration, spectrum) to be chosen according to the type of insomnia.

Method:

We conducted a systematic literature review according PRISMA criteria using the databases Medline, PsycInfo and Web Of Science. Eligibility of studies were based on population criteria, adults suffering from insomnia, and intervention with at least light therapy.

Results:

Twenty-three studies with a total of 685 participants were included, of which 9 had a low, 10 an intermediate, and only 4 a high level of proof. Characterization of participants' insomnia was mostly incomplete, and a majority of studies lacked light parameters. Objective sleep data showed an improvement in 10 studies (either sleep latency, sleep efficiency, WASO or several). All except 3 studies presented an improvement in at least one subjective measure. A shortened total sleep time was observed in 2 studies, with BLT was applied in the evening. Phase shift was observed as expected. Compliance for BLT was rarely clearly reported. Evening red light seemed to induce sleep when intensity was more than 150 lux. Meta-analysis of before-after comparison showed an improvement of sleep latency in the morning exposure to light, and reduced WASO regardless of the time of exposure.

Conclusions:

Bright light therapy could be an interesting treatment for chronic insomnia, with few side effects and the only treatment of insomnia with an alerting diurnal effect. Important factors, such as the adequate timing, light intensity and target insomniac population still need to be determined.

One-Slide/Five Minutes Presentation / Ongoing study no results yet**Physical activity prescription**

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Keywords: green prescription, physical activity, fitness, PA, exercise prescription

Background:

Physical activity (PA) has many positive health effects on many physiological, cognitive and mental conditions, including mortality reduction. Even so, many physicians do not attribute much importance to this lifestyle, and only a minority of them recommends it to their patients. Studies worldwide have compared verbal recommendations versus written recommendations (prescriptions) and found a clear advantage for written prescriptions in many indices - duration and intensity of activity, physical measures, quality of life, economic burden to the medical system and more.

Research questions:

The main purpose of this study is to check whether a written prescription for physical activity will lead to a more significant improvement in weekly physical activity time than a verbal recommendation.

Method:

Healthy patients aged 18-65 will be randomly divided and given either a written prescription for physical activity, or a verbal recommendation. Changes in physical activity 3 months from intervention will be compared using subjective questionnaires, and objective physical fitness tests.

Results:

Improvement in the length and frequency of physical activity in the written prescription group compared with verbal recommendation.

- Improved physical fitness.

Conclusions:

As a member of the lifestyle society of the Family Physicians Association, it was important for me to show other doctors the importance of physical activity, and the importance of investing in physical activity prescriptions no less than any other prescription medication.

Points for discussion:

Why do we write prescriptions for medications and not physical activity when the last has greater therapeutical effects, cheaper, less adverse effects...?

We should guide physicians on the subject and the importance of medical recommendation (verbal or written) for physical activity.

After the study, if the prescription for physical activity seems to be advantageous, we will promote the implementation of such a prescription in the National Medical information systems.

Attachments

- One Slide : [Physical activity recommendation.pptx](#)

Health time consumption by multimorbidity patients

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Background:

Multi-morbidity (MM) is currently one of the major challenges facing health systems at the international level and tends to occupy a considerable part of the daily activity of physicians around the world. It is important to think about the medical approach to dealing with patients with multi-morbidity in order to maximize the quality of the services provided by national health services, and thus to secure a better quality of life for these patients. There are only 2 studies quantifying medical consultation times for patients with multi-morbidity so more studies are needed to support decisions and to help resources management in order to provide these patients the best quality care possible. So, it is relevant to study the impact on the time required for medical consultation of patients with MM.

Research questions:

Is the average consultation time spent on patients with MM higher than that for a patient does not meet MM criteria? Is the GP consultation time proportional to number of chronic diseases? What is the impact of this in a GP annual schedule?

Method:

An observational study to assess the time spent of patients with multi-morbidity criteria and without multi-morbidity. Calculation based on the average number of MM patients seen by a regular GP in one year time (data extracted from informatic sources).

Results:

We expect to find a superior medical consultation time for patients with multi-morbidity and calculate the average yearly time consumption by these patients in order to understand the impact of this consultations on medical total available schedule time.

Conclusions:

Finding a longer consultation time will be important to rethink and adapt the GP lists to be able to give better medical care to patients with MM, enabling agendas to have specific times dedicated to these patients and enough time for every task required.

Points for discussion:

Is the time usually allocated in the doctor agenda to deal with every patient enough for a MM patient?

Should the consultation time be defined based on the number of chronic diseases?

Should the GP lists be adjusted based on number of chronic diseases in order to have time for every patient consultation needs?

One-Slide/Five Minutes Presentation / Ongoing study no results yet**Do Patient Oriented General Practitioners / Family Doctors (GPs/FDs) with Internal Locus of Control have Lower Level of Burnout in Management of Multimorbidity?**

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Keywords: General Practitioners / Family Doctors (GPs/FDs), burnout, locus of control, patient-centred care, multimorbidity

Background:

Burnout has been widely studied among general practitioners / family doctors (GPs/FDs) in primary health care settings (PC). It is associated with negative consequences for providers and patients. Reviews demonstrate associations between burnout and different situational factors as well as individual characteristics of the GPs/FDs. The increasing prevalence of multimorbidity represents a major challenge to GPs/FDs. This is due to the patients' comprehensive needs and the intensity of interventions that lead to an overload in PC. Nevertheless, the adoption of a patient-centred approach is considered as a solution for providing efficient care for multimorbidity patients. However, little is known about the relationship in between, burnout and locus of control and the patient centeredness among GPs/FDs.

Research questions:

Is the level of burnout of GPs/FDs associated with their locus of control?

Is the level of burnout of GPs/FDs associated with their patient centeredness for multimorbidity patients?

Method:

A cross-sectional survey including GPs/FDs, using a validated instrument developed on the basis of the relevant literature. Inclusion criteria - full-time GPs/FDs, working either in state employment (including academic or educational work) or private practice, or both. The comparison will use Maslach Burnout Inventory – (MBI-HSS) for assessing the level of burnout syndrome, the internal-external locus of control scale for evaluation of the locus of control and Shared Decision Making Questionnaire (SDM-Q-Doc) for measurement of shared decision-making related to a multimorbidity case. The data will be processed by SPSS 19 version, applying descriptive statistics, correlation analysis, ANOVA, regression analysis and structural modeling at the level of significance $p < 0.05$.

Results:

The hypothesis is that GPs/FDs who are more patient oriented to multimorbidity patients and with an internal locus of control have lower level of burnout.

The results from a pilot study will be presented at the conference.

Conclusions:

Not applicable at the moment

Points for discussion:**Attachments**

- One Slide : [BO_LOC_PCC_MM.pptx](#)

One-Slide/Five Minutes Presentation / Ongoing study no results yet**The impact of gender and multimorbidity on the management of type 2 Diabetes Mellitus**

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Keywords: type 2 Diabetes Mellitus, multimorbidity, sex

Background:

Differences in complications for type 2 diabetes mellitus (DM) and multimorbidity are correlated to patient's sex and the physician's gender. Women reach less the recommended objectives by the guidelines. Patients with low socio-economic status (SES) have higher rates of multimorbidity

Research questions:

Do women with low socio-economic status have poorer management of type 2 DM in Primary Care (PC)? Does GP gender influence the variability of care to type 2 DM patients?

Method:

Retrospective observational multicentric study in patients with type 2 DM. Exclusion criteria: patients with gestational diabetes, Mody, type 1 DM. Data collection was conducted in primary care in Madrid area during 2014-2018.

Study 1:

Population: Diabetic patients from Madrid city.

Variables:

- a) Primary outcomes: Patients with a controlled glycemic level of HbA1c of $\leq 7\%$ and less than 75 years old or $\leq 8,5\%$ and older than 75 years old.
- b) Secondary outcomes: Sociodemographic factors (age, sex, SES), lifestyles (smoking, alcohol, diet, exercise), health promotion, immunizations, micro and macrovascular complications (nephropathy, retinopathy, peripheral artery disease, stroke, coronary syndrome and chronic kidney disease), comorbidities (hypertension, hypercholesterolemia, obesity, COPD, anxiety, depression, dementia, heart failure), treatment and use of services.

Study 2:

Population: Diabetic patients and GP from 11 clinics in the Madrid area

Variables:

- a) Primary Outcome: The same as in study 1.
- b) Secondary Outcomes: The same as in study 1 plus GP's characteristics (age, sex, years of working with the same population, postgraduation year, postgraduate education, mentor, clinical workload)

Results:**Conclusions:****Points for discussion:**

What is the impact of gender and multimorbidity on type 2 DM in PC?

Does the gender of the doctor have any impact on these patient management?

Which has greater impact on these patients: their gender or the lower SES?

Attachments

- One Slide : [EGPRN Tampere 1slide 5minutes.pptx](#)

Feasibility, validity and reliability of Suuntima Customership Navigator Tool in Finnish primary health care

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Background:

The most vulnerable patients who most need health care services, often lack them while those whose capability to seek for services is good also reach them better. Patients' coping in every-day life should be an objective when planning individual care and health services, and patients' condition and values should be examined, as the patient is considered as the expert of his own life.

Customership Navigator Tool is a web-questionnaire for patient and health care professional. It is based on questions about health status and values of the patient. CNT helps to categorize patient to one of the four different customerships: self-acting, community, co-operation or network customership. The result helps the professional to coordinate and the patient to utilize appropriate health services e.g. individual or group appointment, peer groups or online-services. The customership doesn't guide patient's medical treatment.

Diabetes is one major chronic condition worldwide and also in Finland, where total cost of diabetes care was 1304 million euros in 2007.

Research questions:

(1.) To examine feasibility of CNT at nurse's appointment with diabetic patients at health centre, (2.) to study validity. (3.) and reliability of CNT (4.) and to characterize patients in four customership groups.

Method:

This mixed method study is based on CNT reports, questionnaires for nurses (n=14) and diabetic patients (n=300), interviews, medical parameters of diabetes, and WHO-DAS 2.0, EQ-5D, WBQ-12 and DTSQ examination.

COSMIN and quality criteria for measurement properties of health status questionnaires is used as methodological frame of reference. The theoretical background and the process of developing CNT is described. Validity of CNT is evaluated using e.g. factor analysis. Cronbach's alpha is used to evaluate the internal consistency of CNT.

Research hypothesis is that patients in net-work customership group are older, have more illnesses and use health care services more than patients in other customership groups.

Results:

None yet.

Conclusions:

Points for discussion:

Attachments

- One Slide : [CNT_Riihimies.pptx](#)

The immigrant family doctors: The challenges of immigration and the impacts on Primary Care

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Keywords: primary care, family doctor, immigrant

Background:

The immigration of doctors have been increasing in recent years. In Germany, the number of EU-national doctors increased eight times between 1991 and 2014. In the UK, the number of doctors from outside of EU who apply to work has doubled from 2017 to 2018. This mobility brings some consequences to the doctors who immigrate and to the healthcare systems.

Doctors migrating to work in a country different to where they originally trained face multiple and complex barriers and stressors. These challenges, varying from cultural and language barriers to system specific problems, have an impact on physician retention and quality of care.

The lack of strategic plans to achieve professional integration of immigrant family doctors (IFD) across the WONCA Europe region makes the process more difficult and stressful. An understanding of challenges faced by IFD, however, is needed to develop adequate support structures.

For this reason, a group of IFD by WONCA gathered to survey the needs of the IFD in Europe, following in the world, and also to identify the impacts on primary care.

Research questions:

What are the challenges experienced by immigrant family doctors in different European countries? How do these challenges affect the personal and professional practice of immigrant family doctors?

Method:

A mixed method study with a sequential path, quantitative and qualitative, was planned. A questionnaire and a semi-structured interview guide will be developed by the authors to collect data. The study population will include WONCA Europe member countries and convenience sampling will be applied. For the analysis of data, SPSS and NVivo softwares will be used.

Results:

This is a study in development phase.

Conclusions:

The immigrant family doctors bring healthcare workforce to the countries they immigrate. However, possible challenges should not be neglected. Identifying the challenges and their impact on IFD will facilitate development of strategies to overcome them.

Points for discussion:

What are the points should be included in the questionnaire?

Is this a relevant topic for you based on your observations/experiences?

Attachments

- One Slide : [One Slide Template.pptx](#)

The relation between the somatization and fatigue as the chief complaint

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Keywords: somatization, medically unexplained symptom, fatigue, primary care

Background:

Somatization is a syndrome that consists of physical symptoms that can not be explained by the end result of a medical condition, but cause functional loss in the person. Because of these medically unexplained symptoms (MUS) and their repetition despite their treatment, patients visit physicians frequently so they cause the physicians to become desperate and frustrated. On the other hand fatigue is a common presenting complaint in Primary Care and lead to high rates of test ordering with normal results mostly. Guidelines emphasize the importance of strengthening the doctor-patient relationship and taking into consideration the patient's symptoms, recognition, giving possible information to the patient and empathy for the healing of these.

Research questions:

Which patterns make family physician to diagnose MUS in the patients who visit Primary Care office with fatigue as a chief complaint? Which laboratory tests are chosen for differential diagnosis and why? Which variables affect the family physicians to provide a therapeutic approach or a referral to a patient who is diagnosed somatization/MUS?

Method:

All patients over 18 years of age visiting the Marmara University Family Medicine Center will be informed about the study and if they accept they will be included. Patients with any neurologic or psychologic diseases, acute infections, using any psychiatric medication, with any destructive, progressive, immunologic disease, malignancy, hypothyroidism and uncontrolled diabetes will be excluded. After the history taking and physical examination of the patients, laboratory tests will be ordered and Turkish version of the Patient Health Questionnaire–Somatic, Anxiety, and Depressive Symptoms (PHQ-SADS) will be delivered. Patients will leave the office and complete the questionnaire in the waiting room. A researcher other than the physicians will collect the completed questionnaires.

Patients' diagnosis, PHQ-SADS scores, laboratory tests and other independent variables will be analyzed statistically. Significance testing should be applied. Patients' records will be analyzed qualitatively.

Results:

Conclusions:

Points for discussion:

What are the limitations of the method?

Are physicians' characteristics be accepted as independent variables?

Which qualitative method is appropriate to analyze the patient records?

Attachments

- One Slide : [Fatigue.1S5M.pptx](#)

One-Slide/Five Minutes Presentation / Study Proposal / Idea**Does Time Restricted Feeding (16:8) reduce metabolic risk factors in pre-diabetic individuals who suffer from obesity more than the Caloric Restriction diet**

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Keywords: intermittent fasting, time restricted feeding, pre-diabetes, obesity, diet

Background:

The pre-diabetic condition is a significant risk factor for both progression to type 2 diabetes and to the development of cardiovascular disease.

The increased risk is associated with glycemic index disorders and a higher rate of high triglycerides, low levels of HDL, elevated blood pressure and obesity.

"Intermittent Fasting" is a method that has gained great popularity in the last decade. There are 2 subcategories of Intermittent Fasting:

1. ALTERNATE DAY FASTING: Fasting of 1-4 days a week and free eating on days not defined as "fast days"
2. TIME RESTRICTED FEEDING A daily fast of between 14-20 hours and free eating during hours that are not defined as "fast hours".

Studies have shown that "intermittent fasting" is an effective diet method for improving a number of metabolic risk factors such as blood lipids, fasting glucose, insulin levels, insulin sensitivity, inflammatory factors and weight loss.

Research questions:

Is Time Restricted Feeding more effective in reducing metabolic risk factors in pre-diabetic individuals who suffer from obesity, than the calorie restriction diet

Method:

controlled randomized study

Study population: Pre-diabetic patients, between the ages of 20-65, who suffer from obesity, without comorbid morbidity. the study population will be chosen from the pre-diabetes registrar of Maccabi Health Services.

intervention:

The study group: will undergo 3 months of Time Restricted Feeding with intervals of 16: 8 (8 hours eating period, 16 hours fasting period).

The control group: will undergo 3 months of intervention with the CALORIC RESTRICTION diet, which is the current method of intervention for these patients.

The intervention in both groups will be performed by Maccabi Health Services dietitians.

Results:**Conclusions:****Points for discussion:****Attachments**

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