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Patients rightly expect us to provide them with the best possible medical treatment. Therefore, we have increasingly used and refined the principles of evidence-based medicine over the past two to three decades in our research. In the recent past, the evidence published in scientific journals and elsewhere has started to grow at an unprecedented pace, now nearly doubling every four years. On average, a new medical article is published every 15 seconds. To a growing extent the evidence informing our clinical decision making comes from our very own setting. But there is not only a change in quantity: a growing number of today’s clinical trials also encompass patients’ preferences and include relevant details needed for implementation in clinical decision making.

However, increasing the quantity of evidence can in itself create a variety of new problems: health care professionals are challenged to remain up to date with new evidence like never before. Systematic reviews show that adherence to guideline recommendations in daily routine care varies widely from 20% to over 80%. Thus, despite rapidly growing knowledge, a varying share of patients are still likely to receive suboptimal treatments, inappropriate diagnostics, unsafe medications, and costly but ineffective care. Incorporating new evidence into daily practice already usually takes several years. This “evidence-to-practice gap” might even get bigger the more evidence there is.

At the same time, we still face an ongoing lack of evidence in other domains. This is partly due to the characteristics of research in primary care, e.g., varying organizational structures, practice team compositions, or different contexts caused by the health care system and its legal boundaries. Besides these contextual factors, research in primary care oftentimes deals with complex interventions and patients with very heterogeneous characteristics, which leaves us with many potential sources of uncertainty when we try to put together guidelines based on evidence in our field of research.

Fortunately, in the wake of digitisation, new and promising ways of combining and integrating evidence, e.g., learning health care systems, big data analysis and machine learning, are at our disposal. Nonetheless, closing evidence gaps is an ongoing challenge that is only in part solved by creating new or more evidence or combining more and more information. In fact, we still have to perform a constant assessment of evidence gaps, both in generating evidence and in translating evidence into practice. Ideally, this assessment is followed by a prioritisation of research questions and, in addition, existing evidence gaps should be addressed in trials in real-world conditions.

We cordially invite you to come to the 92th EGPRN meeting in Halle, Germany, to identify gaps in evidence and to discuss ways in which problems related to evidence gaps in general practice and family medicine could be researched and rectified.

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Cerumen Impaction Removal in General Practices: A Comparison of Approved Standard Products

Jean-Francois Chenot, Fritz Meyer, Rebekka Preuß, Aniela Angelow, Elisabeth Meyer, Simone Kiel

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Keywords: cerumen; cerumenolytic agents; ear irrigation; earwax removal; pre-treatment.

Background:
Ear irrigation is a commonly used method for removing earwax in general practice. There is no firm evidence if no pre-treatment is as good as pre-treatment with various standard preparations.

Research questions:
To assess the effectiveness of no pre-treatment compared to pre-treatment with commercially available cerumenolytics and to assess which preparation is best suited for pre-treatment.

Method:
This is a pragmatic observational study of patients with cerumen treated from a single GP with 3 different preparations or no preparation prior to standardized ear irrigation. Generalized linear mixed models with logit link function were performed to assess the effectiveness of pre-treatment with different preparations and no pre-treatment. The models were adjusted for age group (<70, ≥70) and sex.

Results:
A total of 168 patients (298 ears, 58 % female, median age 65 years) consulted for obstructive cerumen, some of them several times. The cerumen was successfully removed in 70% (208/298). Comparing any preparation to no preparation (aggregated comparison), the odds ratio for complete clearance was 1.35 (95% confidence interval: 0.69-2.65). Comparing the preparations individually, the odds ratio of the docusate-sodium-based preparation was 1.87 (95% CI: 0.79-4.42) indicating a higher effectiveness. Although, not statistically significant. Ear irrigation was less successful for patients aged ≥70 years (OR = 0.48, 95% CI: 0.23-0.98).

Conclusions:
The aggregated comparison indicates a slight trend toward a higher effectiveness of any pre-treatment compared to no pre-treatment. The effect-size of docusate-sodium-based pre-treatment indicates a higher effectiveness of cerumen impaction removal. Nevertheless, superiority could not be shown conclusively according to the statistical significance given the restricted sample size.

Points for discussion:
Should GPs remove earwax, is there an safety issue?

What is the next step after unsuccessful ear irrigation?
Goal-oriented care: a concept analysis

Dagje Boeykens, Pauline Boeckxstaens, An De Sutter, Lies Lahousse, Peter Pype, Patricia De Vriendt, Dominique Van De Velde

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Keywords: goal-oriented care, goal-setting, patient-centeredness, chronic conditions, multimorbidity, concept analysis

Background:
The healthcare system is faced by an ageing population, increase in chronic conditions and multimorbidity. Multimorbid patients are faced with multiple parallel care processes leading to a risk for fragmented care. These problems relate to the disease-oriented paradigm. In this paradigm the treatment goals can be in contrast with what patients value.
The concept of goal-oriented care is proposed as an alternative way of providing care. There is a need to translate this concept into tangible knowledge so providers can better understand and use the concept in clinical practice. The aim of this study is to address this need by means of a concept analysis.

Research questions:
How can goal-oriented care be understood for people with chronic conditions in primary care?

Method:
This concept analysis using the method of Walker and Avant is based on a literature search in PubMed, Embase, Cochrane Library, PsychInfo, CINAHL, OTSeeker, and Web of Science. The method provides eight iterative steps: select a concept, determine purpose, determine defining attributes, identify model case, identify additional case, identify antecedents and consequences, and define empirical referents.

Results:
The analysis of 37 articles revealed that goal-oriented care is a dynamic and iterative process of three stages: goal-elicitation, goal-setting and goal-evaluation. The process is underpinned by the patient’s context and values. Provider and patient preparedness are required to provide goal-oriented care. Goal-oriented care has the potential to improve patients’ experiences and providers’ well-being, to reduce costs, and improve the overall population health. The challenge is to identify empirical referents to evaluate the process of goal-oriented care.

Conclusions:
A common understanding of goal-oriented care is presented. Further research should focus on how and what goals are set by the patient, how this knowledge could be translated into a tangible workflow, and should support the development of a strategy to evaluate the goal-oriented process of care.

Points for discussion:
The balance between providing care based on clinical guidelines and providing care according to the patients' needs and preferences.

What is needed to convince professionals of apply goal-oriented care in their clinical practice?

'What matters to the patient?': what goals do patients set?
Non-pharmacological interventions to achieve blood pressure control in African patients: A systematic review

Monique Cernota, Eric Kröber, Tamiru Demeke, Thomas Frese, Sefonias Getachew, Eva Johanna Kantelhardt, Susanne Unverzagt

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Keywords: systematic review, Africa, hypertension, raised blood pressure, non-pharmacological interventions, randomized controlled trials

Background:
Prevalence of hypertension is still rising in many African countries. However, the awareness remains low, hindering adequate screening, treatment and adherence to lower the long-term risk of organ damage.

Research questions:
This systematic review aimed to evaluate evidence on non-pharmacological strategies to decrease blood pressure (BP) in hypertensive patients from African countries.

Method:
We performed a systematic review (CRD42018075062) and searched Medline, Central, CINAHL and study registers until June 23, 2020 for randomized studies on interventions to decrease BP of patients with hypertension in African countries. We assessed the study quality using the Cochrane risk of bias tool and calculated random-effects meta-analyses for non-pharmacological interventions on BP.

Results:
A total of 5564 references were identified, of them 24 studies with altogether 18,376 participants from six African countries were included. These studies investigated educational strategies to improve adherence of patients (12 studies) and their treatment by health care professionals (5 studies), individualized treatment strategies (2 studies) and strategies to change lifestyle via enhanced physical activity (4 studies) or modified nutrition (1 study). Nearly all studies on educational strategies stated improved knowledge and adherence of patients, but only three studies showed a clinically relevant benefit on BP control. All studies on individualized strategies (renin/aldosterone profile; chronotherapy) and lifestyle behavior change (e.g. training programs, reduced salt consumption) resulted in clinically relevant effects on BP.

Conclusions:
The identified studies offer effective low-cost interventions including education, task shifting strategies, individualized treatment and lifestyle modifications to improve BP control. All strategies were tested in African countries and can be used for recommendations in evidence-based guidelines on hypertension in African settings.

Points for discussion:
Available studies concentrate in urban areas of few African countries, which limits the generalizability of the results.

Internal validity might be restricted due to the partial unfeasibility of double-blinding.
Comprehensive Evaluation of Hypertension Management at the Primary Level in Slovenia: Lessons for the Future

Črt Zavrnik, Valentina Katka Prevolnik Rupel, Nataša Stojnič, Majda Mori Lukancič, Miriam Cerar, Zalika Klemenc-Ketiš, Antonija Poplas Susič

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Keywords: hypertension, integrated care, scale-up, primary care

Background:
Despite the subsequent tendency to focus on patient-centered integrated care of hypertension at the primary level in Slovenia, many patients with this disease are still treated suboptimally. There is an urgent need to gain a comprehensive overview of the current implementation of integrated care in order to improve it for the future.

Research questions:
The aim of this study is to analyse the weaknesses and strengths of the current hypertension management strategy at the primary level in Slovenia – the implementation of integrated care, the costs and the perspective of the stakeholders of what to scale up.

Method:
Three substudies were conducted. (1) The Integrated Care Package (ICP) Grid questionnaire assessed the current implementation of integrated care (identification, treatment, health education, self-management support, structured collaboration and care organization). (2) The qualitative study of 15 focus groups and 23 semi-structured interviews with stakeholders at the micro, meso and macro levels identified facilitators and barriers to scaling integrated care. (3) Hypertension costs (direct from medical records and out-of-pocket from the survey) were evaluated in a sample of 287 patients.

Results:
Implementation of integrated care using ICP Grid showed that the elements of self-management and structured collaboration were weakly implemented. Stakeholders identified the organization of primary health care as a facilitator; on the other hand, true teamwork and patient-centered care were constrained by hierarchy and a very heavily skewed medical approach. The total per capita cost of hypertension management was €269.00 per year, of which 22.8% was out-of-pocket costs.

Conclusions:
This study allows the formulation of a new roadmap for future (self-)management of hypertension at primary level in Slovenia. The implementation of some new interventions such as patient empowerment and their self-treatment, laic educators and the use of mHealth represent a possible solution to the above challenges.

Points for discussion:
Which interventions can facilitate patient-centered care for hypertension at the primary level?

How can we address the overburden on health workers?
Does multimorbidity predict the number of patient contacts: a matter of definition

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Keywords: multimorbidity; chronic condition; electronic medical record; practice visits; family practice; patient care management

Background:
Care for multimorbid patients is a characteristic feature in general practice. Earlier studies report a strong impact of multimorbidity on number of patient contacts, taken as an indicator of a GP’s workload. This association may be overestimated, due to an inflated definition of multimorbidity and lack of a time delimiter in definition.

Research questions:
Which impact does multimorbidity have on the number of patient contacts?
How much changes this association with the definition of multimorbidity?

Method:
The analysis is based on electronic medical records (EMR) of 236,038 patients from 142 practices over 14 years. We investigated the association between a patient’s annual number of contacts and four definitions of multimorbidity, ranging from a simple definition (‘two diseases’) to an advanced definition (‘at least three chronic conditions’). A time delimiter for multimorbidity was included and combined with operationalising the concept of ‘chronic condition’, allowing for patients to change annually between being a multimorbid patient and a non-multimorbid status. Mixed-effects multiple regression analyses were performed with patient contacts as criterion and four definitions of multimorbidity as separate predictors, controlling for patient and practice characteristics, with beta-coefficients and z-values as measures of effect.

Results:
Annual percentage of multimorbid patients in general practice ranged between 74% (simple model) and 13% (advanced model). Multimorbidity had impact on patients’ annual number of contacts, but similar predictors were patient’s age and a practice’s average annual number of contacts. Differences in impact between the four models of multimorbidity were small.

Conclusions:
Multimorbidity seems to be less prevalent in primary care practices than usually is estimated, if a temporal delimiter is considered and advanced definitions of multimorbidity are applied. Multimorbidity influences a patient’s number of contacts and, thus, a GP’s workload. Practice characteristics, such as its appointment scheduling, have a similar impact on contact frequency as patient’s age or multimorbidity.

Points for discussion:
Which definition of multimorbidity do you prefer, and for what reason?

Strength and weaknesses of applying multimorbidity concepts in PHC?

How can we focus on ‘morbidity burden’ rather than on counting diagnoses in order to detect complex patients in primary care?
Regional management of the COVID pandemic in Germany: A nation-wide survey among general practitioners

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Keywords: general practice; pandemic management; pandemic preparedness

Background:
The COVID pandemic is a challenge necessitating pandemic management on all levels of the health care system. The current German national pandemic plan lacks detail for regional management. A revision is vital to general practitioners who play a key role, as 6 of 7 COVID patients in Germany are treated ambulatory. In Germany, different regional structures and processes, such as COVID practices, diagnostic centers, COVID taxis, and COVID home care teams, were developed to better serve the needs posed by the pandemic as well as to maintain regular patient care. International studies show that adaptable primary care is essential to meet pandemic demands and that implemented strategies in general practices have a high influence on local infection rates. The study is funded by the German Federal Ministry for Research and Education.

Research questions:
To identify the experiences of general practitioners across Germany with existing and new health care structures and processes during the pandemic.

Method:
The web-based questionnaire addresses general practitioners’ experiences with regional pandemic management: newly implemented structures and processes, both for patient care and general interactions, communication and cooperation with partners in the health care system, usage and need for pandemic information, personal burden, own capacity for pandemic decision-making, and lessons learned. The questionnaire is pretested among general practitioners from two primary care teaching institutions. The survey is distributed nationwide among German general practitioners. For assessment, standardized instruments such as the net promoter score, adapted to include topics of pandemic plan and clinical governance frameworks are applied.

Results:
The survey will be conducted in February 2021. Results will be available at the congress.

Conclusions:
The results will be used to support the revision of the German national pandemic plan.
COVID-19—What do we miss?

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Keywords: COVID-19, GP, cardiovascular

Background:
COVID-19 (SARS-CoV-2 virus) is a novel coronavirus which emerged in Wuhan, China in December 2019 and became pandemic in March 2020. COVID-19 symptoms are nonspecific and their severity can vary. Most common symptoms are fever, dry cough and tiredness. COVID-19 mainly affects the respiratory tract from mild symptoms to bilateral pneumonia and acute respiratory distress syndrome. Due to a global inflammatory response and endothelial damage, COVID-19 may predispose to cardiovascular disorders. GPs are first line doctors, so it is of great importance to diagnose including complications and make a proper decision about the treatment.

Research questions:
Recognition of cardiac coronavirus complications in general practice

Method:
Study of several cases with cardiac coronavirus complications in outpatient cardiology clinic. Patients were diagnosed positive for COVID-19 and treated by GP according to established protocol.

Results:
Along with the most common symptoms, all of the patients complained anxiety, emotional instability and depressive thoughts. On 8-9th day of disease’s onset occurred chest discomfort, heaviness, daggers, palpitations and arrhythmias. Those were interpreted by GP as panic attacks and psycho-emotional disorders and treated with sedatives. Because of no effect on the cardiac symptoms even acceleration and worsening, patients sought for consultation with cardiologist on 30-40th day. In cardiology clinic an ECG and echocardiography were performed which findings revealed pericarditis with pericardial effusion. A proper treatment was prescribed and parents were followed with regular checkups for 1 month by cardiologist.

Conclusions:
COVID-19 is a multisystem disease which leads to various symptoms and could affect cardiovascular system. GP being a front line doctor and gate keeper should be familiar with possible cardiac coronavirus complications, suspect and recognize their development. It would reflect to an early diagnose and treatment so to avoid further severe complications. More case reports, discussion and collaboration between GPs and cardiologists are needed for better results.
Perceptions on Multi-Issue Consultations in an Irish Primary Care Setting

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Keywords: "Primary care" "consultation" "multiple-issues" "General practice"

Background:
Consultations involving multiple issues are a common feature of general practice (GP), which have implications for both doctor and patient in terms of time allocation, structuring of the consultations, and safely addressing and following up on all issues involved.

Research questions:
This research project was a basic descriptive study in which the perceptions and attitudes of both doctor and patients were explored in relation to consultations involving multiple issues.

Method:
All GP trainers and GP trainees of the fourteen Irish National Training Schemes were invited to complete an anonymous online survey. Patient participants were recruited from the waiting rooms of two Dublin based practices. The data from both surveys were then collated and analysed to identify any patterns that emerged.

Results:
The results of the doctors’ survey showed the perception of a high incidence of consultations involving multiple issues (mean number of issues per consultation 2.52). The majority of doctors (65%) favoured a policy of capping number of issues per consultation, but only 7% of practices had such a practice policy in place. A variety of strategies were used in multi-issue consultation by doctors. The majority of doctors (65%) indicated their management of these consultations was influenced by whether the patient was a private or public patient. These consultations were found to adversely impact upon doctors’ time management, stress level, and act as a source of concerns regarding clinical safety. The patient survey indicated the average number of issues brought to the consultation was 1.37 and the average number of issues patients felt it was reasonable to address in a consultation was 2.29. “Being able to address all issues brought on the day” was ranked highly important by patients.

Conclusions:
Multiple issues consultations are a common feature of the GP consultation and a common source of stress for doctors.

Points for discussion:
How common are multiple issue consultations?
How do multi-issues consultations impact GP’s
What are the strategies that can be used, and are used, in this type of consultation.
Skills in National Core Curriculum: National Survey of General Practitioners in Turkey

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Keywords: general practice, core curriculum, national survey, practical skills

Background:
Views and competency levels of general practitioners (GPs) are essential in the way of developing undergraduate medical curriculum. There is no nationwide study conducted to understand what GPs think about practical skills in National Core Curriculum for Undergraduate Medical Education (NCC) in Turkey.

Research questions:
1. What are GPs’ views on the minimum level of competency required in a GP about skills listed in the NCC?
2. What skills do GPs feel most and least competent?
3. Is there any difference between newly graduated and experienced GPs’ competency levels?

Method:
This is a cross-sectional study carried out between 01/10/2017 and 01/09/2018. 27652 primary care physicians who work in Turkey were surveyed about the 136 skills listed in NCC. The participants rated the minimum required competency level for every skill on 0–4 level and stated whether they felt themselves competent in these skills. Descriptive statistics and Chi-Squared Test were performed.

Results:
4117 (14.9%) participants answered.
The most selected category was:
• “Level3—Should be able to do the skill in cases which are frequent and not complex” for 123 (90.4%) skills,
• “Level2—Should be able to do the skill according to the guidelines in a state of emergency” for 10 (8.1%) skills,
• “Level4—Should be able to do the skill even in complex cases” for 3 (2.2%) skills.
The skills that are felt most competent were:
• Taking blood pressure (85.2%) 
• Hand washing (84.0%)
• Writing a prescription (83.0%)
The least competent were:
• Pericardiocentesis (11.6%)
• Pleural puncture (13.5%)
• Lumbar puncture (16.4%)
For 47 skills, the percentage of the 0-5 years’ graduates who did not feel competent is significantly lower than 5+ years’ graduates.

Conclusions:
Self-perceived competency levels vary among skills but surgical procedures constitute the weakest part. GPs are more incompetent in the skills that they rarely perform, therefore they need continuing education.

Points for discussion:
What continuing medical education methods could be used to keep GPs fresh in terms of the skills that are rarely performed?
The effect of COVID-19 pandemic on depression and anxiety occurrence among primary healthcare workers: results from a pilot study

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Keywords: COVID-19, pandemic, anxiety, depression, healthcare workers, primary care

Background:
Coronavirus disease 2019 (COVID-19) pandemic has had a profound negative effect on the population's mental health. Healthcare workers (HCW) are among the high-risk group to face mental and physical consequences associated with exposure to the COVID-19 related stressors.

Research questions:
The study aimed to evaluate the prevalence and risk factors associated with depression and anxiety episodes among HCW during COVID-19 pandemic in the primary healthcare centre (PHC) and nursing home (NH).

Method:
A cross-sectional survey among 36 PHC and 33 NH HCW was performed in December 2020. Depression, anxiety, and COVID-19 coping strategies were assessed with PHQ-9, GAD-7, and brief COPE questionnaires, respectively. Additionally, exposure to twenty-two COVID-19 related stressors was assessed on a 5-point Likert scale. An independent samples t-test, chi-squared test, ROC analysis, and logistic regression model were used for statistical analysis.

Results:
The prevalence of depression and anxiety was 30.4% and 20.3%, respectively. Significantly higher levels of depression (45.5 % vs. 16.7%, p = 0.009) and anxiety (30.3% vs. 11.1%, p = 0.048) were observed in NH compared to PHC group. Independent predictors of depression were high school education (OR 7.68, 95% CI 1.77-33.33, p = 0.006) and exposure to ≥7 COVID-19 stressors (OR 4.81, 95% CI 1.27-18.20, p = 0.021).

Independent predictors of anxiety were high school education (OR 9.93, 95% CI 2.14-46.08, p = 0.003), years of service (OR 0.95, 95% CI 0.90-0.99, p = 0.034) and exposure to >10 COVID-19 stressors (OR 6.38, 95% CI 1.71-34.01, p = 0.021).

Conclusions:
COVID-19 pandemic is associated with significantly higher levels of depression and anxiety in NH compared to PHC HCW. High school education and exposure to a higher number of COVID-19 stressors were independently predictive of depressive and anxiety episode.

Points for discussion:
What might be the reasons for a higher prevalence of depression and anxiety among NH than PHC HCW?

Which strategies should be introduced at the start of the pandemic to alleviate the physical and mental burden on the HCW?
Impact of Covid-19 Confinement Measures on Chronic Diseases Managed in Primary Health Care.

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Keywords: confinement, digital health, chronic disease, primary health care, covid-19.

Background:
To contain the spread of the first wave of the COVID-19 pandemic, home lockdown for 10 weeks was enforced in Spain. This confinement measure has had a direct impact on health care organisation, as well as on lifestyles and multiple social behaviours. These aspects may have influenced on the health of citizens, especially those with chronic pathologies.

Research questions:
Have patients with chronic diseases with prevalence higher than 5% and their clinical follow-up from Primary Care worsened after home closure?

Method:
Study design: Observational study with data extracted from the primary care electronic medical records of a Spanish Health Region (Aragon).
Period: Data was collected during 6 months before lockdown (14/09/19-14/03/20), during confinement (14/03/20-03/05/20) and 6 months (03/05/20-03/11/20) and 12 months (03/11/20-03/05/21) following confinement.
Participants and sample size: All patients over 16 years-old with at least one active episode of any diseases with prevalence higher than 5% and some clinical parameter to assess their follow-up from Family Physicians.
Variables: sex, age, copayment, episode (coded with International Classification of Primary Care) and their clinical parameters. Selected pathologies and clinical parameters were: Diabetes (glucose concentration(mg/dl), glycated haemoglobin(%); arterial hypertension (systolic blood pressure(mmHg), diastolic blood pressure(mmHg)), dyslipidaemias (total cholesterol(mg/dl), C-HDL(mg/dl), C-LDL(mg/dl), Triglycerides(mg/dl)); hypothyroidism (TSH(ȝU/mL) and free T4(ȝg/dL)); and chronic renal disease (creatinine(mg/dl)). BMI will also be checked before and after lockdown.
Analysis: Descriptive analysis and means comparison at pre-post lockdown with Wilcoxon or t-student test for repeated measures of clinical parameters.

Results:
A total of 732,585 patients were included, 54.1% were women, the mean age was 56.7 years (SD 18.6 years) and 67.17% (95%CI:67.06%-67.28%) of the sample had an income of less than 18,000 euros. Information of clinical parameters and conclusions will be presented at the congress.
A Qualitative Study to explore access and barriers to integrated care among vulnerable patients with diabetes mellitus in Belgium.

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Keywords: Diabetes Mellitus Type 2 - financial aspects - psychosocial aspects - qualitative research - barriers to care

Background:
Effective interventions for control of diabetes are available, but do not reach vulnerable populations. Also in Belgium, they risk being excluded from care, partly because of socio-economic exclusion and compounding health problems that concur in reducing people’s ability to cope with disease. The aim of this study is to examine why some People With Diabetes (PWD) do not benefit from integrated care in its current form in Belgium.

Research questions:
1) what is the variation in care and support experienced and available, by PWD and what is the influence of other context and patient-related factors? 2) Wat are incentives and barriers to care and self-management for PWD? 3) What are core drivers of out of cost for their disease?

Method:
A qualitative study design is used. Patients, purposively selected by a continuum sampling strategy, were included. An inductive thematic analysis, using semi-structured interviews was used. Interviews were audio-recorded and transcribed verbatim.

Results:
7 themes were mentioned by PWD: (1) financial aspects, (2) supporting assistive devices (3) the care process, (4) psychosocial aspects, (5) lifestyle, (6) quality of care, (7) distance to care. On the one hand, the results show that related factors can impede the care for the patient’s condition to an important extent. On the other hand, patients also report several aspects that can affect their well-being in a positive way.

Conclusions:
Vulnerable people experience multiple barriers to care and self-management, even in a high income country like Belgium. Whereas some relate to the patient context, others are linked organizational care elements.

Points for discussion:
Financial barriers
The importance of informal caregivers
The influence of psychosocial aspects
Quality of Life in People With Lymphedema

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Background:
The prevalence of lymphedema is 1.15 / 100,000 inhabitants, but this figure is higher among those affected by certain types of cancer.

Research questions:
The objective of this study is to analyze the quality of life in people with lymphedema.

Method:
72 people with a diagnosis of lymphedema were recruited. The study variables were sex, age, type of lymphedema (primary or secondary), part of the body affected (upper or lower limb). The SF-36 questionnaire was also administered (physical function, physical role, body pain, general health, vitality, social function, emotional role, and mental health). A comparison analysis was performed according to sex, type of lymphedema, and part of the body affected.

Results:
66 women (91.7%) and 6 men (8.3%) took part in the study, with a mean age of 53.20 years (SD: 11.5), 40.3% had primary lymphedema, and 45.8% have affected one or both upper extremities. The mean of the SF-36 questionnaire was 112.38 (SD: 21.66). There were no significant correlations between age and SF-36 scores. There were no significant differences according to sex and the affected limb, but there were in relation to the type of lymphedema, being lower the quality of life (body pain, general health, social function and emotional role) in people suffering from a lymphedema in the lower limbs.

Conclusions:
It is necessary to delve into factors that may be related to a low quality of life in people with lymphedema.

Points for discussion:
Why people suffering from a lymphedema in the lower limbs have lower quality of life?

What factors could be involved in this result?

What other questionnaires could be used?
Poster / Finished study

“What should medical students learn to be prepared for rural practice? Qualitative analysis of expert interviews with German rural physicians”

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Keywords: medical education, rural curriculum, rural physicians, rural teaching content

Background:
As a contribution to counteracting an increasing physician shortage in rural areas the German universities of Leipzig and Halle-Wittenberg have developed a new teaching project called MiLaMed. Besides targeted advertisement and financial support for all kinds of rural clerkships, new interdisciplinary teaching content addressing rural care has been longitudinally implemented into undergraduate education. Due to a lack of literature describing specific learning content and learning-goals to prepare students for rural practice expert interviews with rural physicians were conducted during the process of curriculum development.

Research questions:
What are the particularities of rural (compared to urban) medical care? Which key competencies should medical students acquire to be prepared for rural practice and which specialties should be involved in a rural curriculum?

Method:
Qualitative content analysis of 19 semi-structured telephone interviews with 19 rural physicians (15 general practitioners (GPs), 4 other specialists).

Results:
Most interviewees reported that a reduced access to medical specialists due to low specialist density, geographical distances, and partially poor infrastructure is a major point shaping the characteristics of rural practice. As a consequence, GPs typically deal with an expanded spectrum of tasks and patients of any age, and the interface and communication between GPs and specialists is of particular importance. Networking and communication skills, problem-solving abilities, delegation of tasks, telemedicine, and sound knowledge and skills regarding diagnostics and treatment were named as key competencies students should acquire. Besides GPs particularly dermatologists, pediatricians, and orthopedists should support a rural curriculum.

Conclusions:
A rural curriculum should address the key competencies highlighted by the study participants including innovative approaches for rural care like telemedicine and delegation. The most relevant disciplines should be involved following an interdisciplinary curricular approach highlighting the interface between generalist and specialist care. The results guided the development of the MiLaMed curriculum.

Points for discussion:
1. In your experience, is there any other difference in rural compared to urban medical care that should be taught in a rural medical curriculum?
2. Is there any experience in building up a rural curriculum in the audience? What subjects are being taught? What is the main focus compared to the regular curriculum?
3. Based on your understanding of rural medicine: Which important aspects were not mentioned in our study?
Primary care for patients with coronary heart disease during the COVID-19 pandemic in Germany
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Background:
To reduce the risk of infection with COVID-19 in high-risk populations, interventions in the disease management program (DMP) for coronary heart disease (CHD) could have been suspended. Clinical data showed a decrease of acute myocardial infarction (AMI) cases since March 2020 but an increase of severe AMI cases, indicating that symptomatic patients might have suspended/delayed a hospital visit during the pandemic. Data on the extent and impact of delayed primary care for DMP-CHD patients is absent.

Research questions:
We investigate if the coronavirus pandemic affect primary care for DMP-CHD patients.

Method:
The data were collected in Germany between 10/2020 - 01/2021. In total, 20 GPs agreed on participation and completed a questionnaire. 1295 DMP-CHD patients have been recruited and received a patient questionnaire. 745 patients returned the questionnaire to date. The patient questionnaire assessed demographics, health behavior, medical history, dealing with risk of infection, consultation of medical services and CHD-symptoms during the epidemic, and psychological well-being.

Results:
427 questionnaires were analyzed (mean age: 74,1 years; 29 % female). GPs reported no reduction in DMP-CHD appointments in the 1. and 2. quarter of 2020 compared to 2019. Patients that suspended DMP-CHD appointments reported fear of getting infected with COVID-19 as a main reason. Since March 2020, 11,2 % of the patients reported CHD-related symptoms. These patients exhibited higher state depression scores compared to patients without symptoms. Importantly, of patients with CHD-related symptoms, 31,3 % did not consult a medical specialist. They reported being more concerned about the coronavirus than patients that consulted a medical specialist.

Conclusions:
The study is ongoing. Our results obtained to date suggest that sufficient medical care for patients with CHD has been provided during the COVID-19 pandemic. The fear of infection with COVID-19 might facilitate the CHD-patients’ decision not to consult a medical doctor. A correlation between depressive and CHD-related symptoms was observed.

Points for discussion:
How can we use the results of the study to improve primary care for high-risk populations with chronic diseases in the second year of the pandemic?

Compared to previous years, is there any evidence/available data that CHD-related symptoms increased in 2020?

Since the outbreak of the pandemic, did you observe an increasing percentage of patients who did not visit a specialist despite having CHD-related symptoms?
COVID-19 as a case study of the tension between politics and science, evidence and practice, healthcare and economics.

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Keywords: COVID-19, EBM, politics, economics, healthcare

Background:
In 2019, a novel coronavirus and the threat of a global pandemic was met by unprecedented measures recommended by public health organisations, but influenced by major political pressures. The social, economic, political and healthcare policy impacts of such measures was not always in line with prior healthcare policy and the available scientific literature. A review of the assumptions which drove such policy decisions, and the empirical evidence on the effectiveness of such measures is both timely and essential.

Research questions:
1. To review available literature on the effectiveness of public health measures to control the COVID-19 pandemic
2. To review empirical evidence of the effect of such measures on mortality and morbidity during 2020 and beyond
3. To reflect on the interaction between politics and science, evidence and practice, healthcare and economics

Method:
A review and presentation of the highest level evidence available on the effects of public health interventions, and especially lockdowns and vaccination programmes, and their benefits and harms.

Results:
A review of the evidence available and a discussion of the interaction between evidence and practice in a broad context.

Conclusions:
The critical review and discussion of available and emerging evidence on the effectiveness of such unprecedented measures undertaken in an exceptional pandemic will throw light on how evidence, science and healthcare may and did interact with politics, policy, social factors and economics, thus informing future decisions in such situations.

Points for discussion:
1. Discussion of the evidence for and against lockdown measures,
2. Discussion of the effects, harms, benefits and costs of lockdown measures,
3. Discussion on the optimal interaction between science, politics and economics.
Willingness of German general practitioners to participate in long-term research networks

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Background:
General practitioners (GPs) have a pivotal role in primary health care. Although transferability of medical research outcomes from in-patient to out-patient settings is limited, research initiated and run by GPs is scarce while little is known about GPs readiness to commit themselves to research and research networks.

Research questions:
Investigate GPs’ willingness to participate in medical research and in research networks, and assess motivating participation factors and barriers.

Method:
Recruitment to a multicenter cross-sectional survey among German GPs located close to the universities Halle-Wittenberg and Leipzig was based on public available Statutory Health Insurance GP-listings of Saxony and Saxony-Anhalt (survey roll-out September 7th 2020). Descriptive statistics, group comparisons, and logistic regression predicting participation willingness in research networks were performed using IBM Statistics 25.

Results:
The response rate was 37.1% (336/905). While 57.1% of the GPs were interested to participate in medical research, 33.9% could also imagine playing an active role in a research network. Interest in participation in a research network was positively associated with male sex, younger age, being involved in teaching undergraduates and having previous experiences with medical research. On average, GPs were willing to dedicate about 1.5 h/week to research without being financially rewarded. This time doubled when payment was offered. Main motivators were improving patient care, giving a more realistic picture of GP care, and doing research on topics within their own interest areas. Most GPs were not afraid of reduced earnings; however, time was seen as the main barrier for participation. A reliable contact person at university enhances attractiveness of research. Polypharmacy, chronic diseases, drug safety and adverse drug reactions were elected most important research topics.

Conclusions:
A substantial number of GPs is willing to participate in research. Our study provides helpful insights in barriers and motivators, and may be useful to consider when building new research networks.

Points for discussion:
Have you investigated GPs’ willingness to participate in research and what were your results?

Are other countries currently building up research networks?

Is there any interest to pool data and/or findings and compare outcomes?
Clinical presentation of Bulgarian patient with possible COVID-19

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Keywords: COVID-19, primary care; symptoms, presentation

Background:
After its emergence SARS-CoV-2 has infected > 93 million people and lead to > 2 million deaths worldwide (WHO, January 2021). There is currently no definitive treatment, the effect of the vaccines is still not quite well established, and it seems that heard immunity will not be achieved in a year. Early detection and isolation of the infected together with the personal prevention are still in action. On this background there is still not enough research results about symptoms of COVID in primary care, compared to hospital care.

Research questions:
What is the expert opinion of GPs and specialists in the outpatient care about the initial manifestations of COVID, the most common symptoms, complications and how they evolve with time?

Method:
Web-based questionnaire with several answers suggested and option for free text comment, 10 days duration (23 November - 02 December 2020), completed by 703 physicians, 94% (n-661) GPs, who present 16% of Bulgarian GPs, providing care to approximately 1 million people.

Results:
The most common manifestations according to the proportion of the physicians who voted are: fever (91%); weakness/malaise (80.7%); headache (78%); loss of taste and/or sense of smell (71.6%); myalgia (66.7%); cough, mostly dry (56.9%); sore throat (51.8%). Diarrhea, nausea and vomiting, difficulty breathing, or shortness of breath are significantly rarer, indicated by 24.9-16.1-11.1% of participants, respectively. Ageusia/anosmia are quite specific for COVID, usually occur after day 3 of the onset of complaints vote 59.5% of participants, on 2-3 day (37%) or day 1 (3.6%). As the only first symptom are pointed fever, weakness, headache, ageusia/anosmia by 74.4-64.1-50.8 and 46.1%, respectively. 56.1% claim that fever duration is 5-10 days and 29.2%-3-5 days usually 37.5-38.0°C (72.4%). Worsening may happen after 8 (46.5%) or 5 days (46.1%) of onset.

Conclusions:
Ageusia/anosmia and prolonged fever may strongly support the presence of uncomplicated COVID in primary care.
Intra-articular and soft tissue corticosteroids injections and risk of infections

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Keywords: corticosteroids, infections, intra-articular injection

Background:
Intra-articular injection of corticosteroids was first reported in 1951. Since then, this treatment has become a common office-performed procedure for the treatment of articular and peri-articular inflammatory conditions and for pain control. There are reports of few systemic adverse events mainly hypothalamic-pituitary-adrenal axis suppression and transient elevation in blood glucose level in patients with diabetes. There are no reports regarding infection as a possible adverse event.

Research questions:
To assess the risk of infection after intra-articular or soft tissue steroid injections.

Method:
An historical prospective cohort study.
Participants: 7,088 individuals that met the inclusion criteria entered the study.
Intervention: The participants were self-matched and we analyzed the incidence of infection for three periods. We defined the exposure period as the 90 days that followed the injection, and two 90 days control periods.
Primary outcome: occurrence of the following infections; cellulitis, herpes zoster, influenza, osteomyelitis, pneumonia, septic arthritis, sinusitis, and urinary tract infection using the visit diagnosis field in the patient’s electronic medical record.

Results:
Self-matching analysis using conditional logistic regression showed significantly increased odds for the combined incidence of cellulitis, pneumonia, herpes zoster or urinary tract infection in the post exposure period compared with the control periods: OR 1.21, CI 1.05 to 1.32. For patients treated with betamethasone as opposed to methylprednisolone the odds ratio for infection were OR 1.4 CI 1.16 to 1.68, and OR 0.99 CI 0.65 to 1.49 respectively. The increased rate of infection appeared twenty days after the exposure date and peaked between 21-30 days.

Conclusions:
Intra-articular and soft tissue injections of betamethasone are associated with increased rates of infection that occur from three weeks after exposure. Further research should assess if methylprednisolone infections are safer.
Integrating primary and secondary care to enhance chronic disease management: A scoping review.

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**Keywords:** chronic disease; integrated care; primary care; secondary care; scoping review;

**Background:**
In Ireland, as in many healthcare systems, health policy has committed to delivering an integrated model of care to address the increasing burden of chronic disease. But implementing this model is difficult as integrating primary and secondary care is a considerable challenge.

**Research questions:**
What does the literature tell us about ensuring optimal integration between primary and secondary care in chronic disease management?

**Method:**
A scoping review framework comprising an iterative six-stage process (Arksey & O’Malley, 2005; Levac et al., 2010) was used to conduct the study. A search was conducted of ‘PubMed’, ‘Cochrane Library’ and ‘Google Scholar’ for papers that (a) were published between 2009-2019, (b) were written in English, and (c) documented integration in countries with similar (i.e., two-tiered) healthcare systems to Ireland (e.g., EU countries, Canada, Australia).

**Results:**
Twenty-two studies were included. These (a) reported research from various countries (most commonly UK, Australia, the Netherlands), (b) adopted a range of methodologies (most commonly randomised / non-randomised controlled trials, case studies, qualitative studies) and (c) studied patients with numerous chronic conditions (most commonly diabetes, COPD, Parkinson’s disease). No studies reported on interventions addressing the needs of whole populations. Interventions to enhance integration included multidisciplinary teams, education of healthcare professionals, and e-health interventions. Reported intervention benefits included swifter transitions between primary and secondary care, the maintenance of patient-centred integration philosophies, improved patient quality of life/self-care ability, and positive relationships between healthcare professionals. Mixed findings were reported regarding interventions’ impact on patients’ clinical outcomes and cost-effectiveness.

**Conclusions:**
Interventions to enhance integration between primary and secondary care in chronic disease management are promising. Future research is needed to examine how such approaches may improve outcomes for wider populations rather than patients with specific chronic disease conditions only.

**Points for discussion:**
Ireland’s integrated care strategy for chronic disease management.

The study findings’ implications for chronic disease management programmes.

Directions for future research.
Lack of glycemic control measures, a new risk factor for the development of cardiovascular disease in patients with type 2 diabetes

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Keywords: Type 2 diabetes mellitus. Hemoglobin A1c. Cardiovascular disease.

Background:
Several studies focused on the relationship between glycated hemoglobin (A1C) levels and type 2 diabetes mellitus (T2D) complications. Many studies rate patients according to their A1c levels and complications and/or mortality. However, there isn't a clear categorization and neither an individualized study of those patients who don't have registered glycemic controls in their follow up.

Research questions:
Is it possible that T2D patients with lack of glycemic controls in their follow up, are those with higher cardiovascular risk?
The aim is to analyze whether the lack of glycemic controls in the diabetic patient implies a greater risk of cardiovascular events and mortality.

Method:
Observational analytical cohort study using a database of 25,895 patients with T2D, older than 30 years included in electronic medical records, with a maximum follow-up of 5 years (January 1, 2008 to December 31, 2012). Data were collected and checked with other registries. The main variable was the A1c value or its absence. The characteristics of patients and concomitant diseases were also analyzed.

Results:
Mean age 63.5 years (range 30-94), men 55.7%, follow-up 4.45 years, BMI 30.6, DBP and DSP 79.4 and 139.8 mmHg respectively, HDL-c and LDL-c 48.8 and 119.2 mg/dl, total cholesterol and triglycerides 199.2 and 157.9. Associated pathologies: atrial fibrillation 1%, hypertension 79.4%, dyslipidemia 77.6%, heart failure 6.4%, PAD 6.3%. Total events 2839 (12.9%). A Kaplan Meier curve was performed. Patients without an A1c assessment have a longer survival at the beginning of the period and a lower survival at the end of it. The whole period was divided into three time windows to which was applied the Cox multivariate regression model. Showing the longer period (> 4.25 years), HR 2,581 (95% CI 1,676-3,935), overcoming the rest of the groups.

Conclusions:
T2D Patients who don't perform glycemic controls, are at higher cardiovascular risk, overcoming patients with poor glycemic control.

Points for discussion:
Lack of clinical follow up linked with poor metabolic control

Lack of clinical follow up linked with increased cardiovascular disease

Lack of clinical follow up linked with increased mortality
Impact of COVID-19 in coronary heart disease follow-up in primary care

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Keywords: Coronary Disease, COVID-19, Follow-Up Studies, Sex

Background:
The monitoring of coronary heart disease (CHD) is carried out mainly by Primary Care. During the COVID-19 pandemic, the normal follow-up was delayed.

Research questions:
Has the COVID-19 pandemic affected the cardiovascular monitoring of CHD in men and women?

Method:

Results:
151 patients were enrolled (aged: 72.2 ±13.2, 65.6% male), 72.2% had hypertension, 66.2% had BMI >26 Kg/m², 64.9% had dyslipidemia and 41.1% were diabetic. There were no differences in comorbidities between sexes except for hypertension, predominantly in women (83%, p=0.037).
The median HbA1c% was 6.5% (IQR 5.9-7.6), mean total cholesterol (TC) was 146 mg/dl, HDL-c 46.4mg/dl, LDL-c 74.5, mean BP was 129.4 / 72.3mmHg before lockdown. We found differences between women and men in TC 154.4 vs141.6 mg/dl (p=0.024) and HDL-c 53.2 vs 42.8md/dl (p<0.001)
In the second cut: mean TC 140.2mg/dl, HDL-c 46.5mg/dl, LDL-c 71.6mg/dl. SBP was 130.7/ 70mmHg. The same differences in women vs men were observed: TC 153 vs 133mg/dl (p=0.036) and HDL-c 51.5 vs 43.7 (p=0.02)

Conclusions:
Patients kept similar cardiovascular monitoring despite the pandemic during the first 9 months. Women had higher TC and HDL than men.

Points for discussion:
New hypothesis around the results

Methodoly

Possible explanations
Randomized controlled trials on prevention, diagnosis, and treatment of diabetes in African countries - a systematic review

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Keywords: Diabetes mellitus, Africa, systematic review, randomized-controlled trial

Background:
The epidemiological transition from infectious to chronic diseases leads to novel challenges in African health systems. The prevalence of diabetes mellitus (DM) is increasing dramatically. Undiagnosed and undertreated DM leads to numerous complications including end-organ damage and death.

Research questions:
Our objectives were to collect the best locally generated evidence on DM interventions, identify knowledge gaps, and determine underexplored research areas.

Method:
Design: A systematic review and meta-analysis of randomized controlled trials (RCTs).
Participants and setting: African patients in primary, secondary and tertiary prevention, diagnosis and treatment DM type 1 (DM1), type 2 (DM2) and gestational DM (GDM).
Outcome: All-cause mortality, glycemic control, complications, quality of life, hospital admission, treatment adherence and costs.

Results:
Out of 3584 identified publications, we included 60 eligible studies conducted in 15 countries 75% were conducted in urban health care settings, including 10,112 participants. We included eight studies on DM1, six on GDM, two on pre-DM, 37 on mainly DM2 including seven on DM related complications. The design of the studied interventions was heterogeneous with a focus on educational strategies. The other studies investigated the efficacy of nutritional strategies including food supplementations, pharmacological strategies and strategies to enhance physical activities. Seven studies included interventions on DM-related complications.

Conclusions:
Research activities increased in recent years. Available evidence is still not representative for all African countries and rural areas. We detected a lack of evidence in primary health care and locally implemented pharmacological Interventions. The identified studies offer a variety of effective approaches as a basis for local guidelines in DM care adjusted to regional circumstances.

Points for discussion:
Implication for further locally feasible research

Implications for improving diabetes control in Africa
Experiences of individuals affected by Covid-19: A qualitative study among patients from German family practice settings

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Keywords: Covid-19, ambulant, GP, family practice, holistic, experience, qualitative study

Background: General Practitioners accompany a wide range of patients affected by Covid-19. The experience of these patients can contribute to a holistic understanding of what Covid-19 means to affected individuals and to identifying possibilities to improve patient-centred prevention, treatment, care and follow-up.

Research questions: The study aimed at investigating the course of disease and its consequences, individual disease perceptions, barriers to diagnosis and treatment as well as patients' behaviour, wishes and expectations.

Method: This study was part of a country-wide mixed-methods study, consisting of anonymous quantitative surveys and qualitative interviews conducted by phone. Survey recruitment was organized through General Practitioners. Adults patients that had gone through symptomatic Covid-19 were eligible to participate. Patients interested in qualitative interviews then directly contacted the study team. Content analysis aligned to Kuckartz was performed on interview transcripts.

Results: 24 interviews were conducted among (14/24) women and (10/24) men across all age-groups. Disease onset ranged from March to December 2020 and disease severity from mild to critical. Participants came from rural, semi-urban and urban areas. Participants described challenges during the diagnostic process and insecurities about test results. Distress was associated with living alone, fear inducing media reports and exaggerated media consumption, stigma and quarantine-related access barriers to clinical monitoring and hospital admission. Family support, access to a garden, a positive mindset and creative individual solutions were perceived facilitators. Constant contact persons within the health care system were perceived beneficial. Emerging themes related to doubts on long term complications and follow up, immunity, managing guilt of having infected others, as well as to discrepancies between perceived and objective disease severity.

Conclusions: Our study identified several barriers and facilitators experienced by Covid-19-patients that should be taken into account when designing measures for patient-centred care and follow-up.

Points for discussion: perceived severity

quarantine-related access barriers

post-disease checkup possibilities & limitations
Cardiovascular combined target in type 2 Diabetes: sex and socio-economic status differences in primary care.

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Keywords: Type 2 diabetes mellitus, sex, primary healthcare, healthcare disparities, observational study

Background:
Few patients with type 2 diabetes (T2D) can achieve the combined target: HbA1c ≤ 7%, blood pressure ≤ 140/90 mm Hg, LDL <100 mg/dl. Patients with suboptimal control are at risk of more complications especially low socio-economic status (SES) patients and in women.

Research questions:
Are there differences in achieving combined target control by sex and socio-economic status in T2D?

Method:
Observational, retrospective study based in patients with T2D between 40-75 years in primary care in Madrid (n: 68,535) during 2017-2018.

Primary outcome: combined control (HbA1c ≤ 7%, BP≤ 140/90 mm Hg, LDL<100 mg/dl).
Secondary outcome: Sociodemographic factors, cardiovascular risk factors, micro and macrovascular complications. Descriptive, bivariate analyses and multilevel logistic regression models were performed.

Results:
The mean age was 62.7 years, women: 43.2%. Low SES: 41%. Women had more hypertension (67.2%), and dyslipidaemia (62.7%). Men were more obese (51.1%) and smokers (21.8%).

The optimal combined target was reached by 10% of patients (women: 9.3% vs men: 11.2%, p<0.001), Those in lowest SES obtained better combined targets than those in highest SES (men: 13.4% vs 11.1%, women: 10.6% vs 9.5%). Women had worst combined targets regardless of the SES. Multilevel analysis was performed to analyse the effect of sex and SES: being female (AOR: 1.26, 95%CI: 1.19-1.34), belonging to the lowest SES (AOR: 1.09, 95% CI: 0.77-1.54) and having retinopathy (AOR: 1.44, 95% CI: 1.18-1.75) was associated to suboptimal combined target.

Complications were more frequent in men, men in the highest SES had more coronary heart disease (CHD) and strokes. Women in the lowest SES had more CHD, strokes and retinopathy.

Conclusions:
Optimal combined control target was seldom achieved, men and patients in lowest SES were the ones who achieved it most.

Points for discussion:
Is realistic to reach combined target in T2D?
Which target should we prioritize when we can’t achieve all the targets?
How COVID-19 has affected general practice consultations and income – General Practitioner cross sectional population survey evidence from Ireland

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Keywords: general practice, consultation method, COVID-19

Background:
General practice is at the forefront of Ireland’s COVID-19 response, as it is in many European countries. With rapid changes to the delivery of primary care, this study sought to add evidence to the gap in knowledge on how the pandemic is affecting general practice.

Research questions:
The primary objective was to understand the changes to consultations in general practice in Ireland.

Method:
This study employed a cross-sectional online survey instrument to obtain consultation rates and mode of delivery within general practice in Ireland. The survey was sent to the members of the Irish College of General Practitioners before the pandemic hit in February 2020 and again during the initial response in June 2020. The anonymous responses from each survey were collated and analysed using SPSS V25. We used descriptive statistics, t-tests to compare means and chi-square tests for categorical variables where appropriate.

Results:
In the survey before the arrival of COVID-19 in Ireland, 526 practices responded (32% of all practices in Ireland). In the second survey, during the initial COVID-19 response, 538 practices responded (33% of all practices in Ireland). For GPs, consultations via telemedicine (including telephone and video) increased from 10% to 57% of daily consultations whilst face-to-face consultations dropped from 87% to 41%. Overall, 80% of practices reported a reduced profit after the onset of the COVID-19 pandemic and 77% reported decreased attendance from patients with chronic conditions.

Conclusions:
The way general practice is delivered in Ireland has dramatically changed since the onset of the COVID-19 pandemic. Practice profits have decreased along with non-COVID related patient attendance. More research as the pandemic progresses is needed to understand the long-term impact of COVID-19 on general practice and how to prepare for future outbreaks.

Points for discussion:
Is this what we expected in terms of reduced attendance from specific groups?

Will telemedicine remain king as infection control measures ease?

What has happened in your country?
Associations of chronic medication adherence with emergency room visits and hospitalization

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**Keywords:** medication adherence, chronic medication use, ER visits, hospitalizations

**Background:**
Good medication adherence is associated with decreased healthcare expenditure; however, adherence is usually assessed for single medications.

**Research questions:**
We explored associations of adherence to 23 chronic medications with emergency room (ER) visits and hospitalizations.

**Method:**
Individuals aged 50-74 years, with a diagnosis of diabetes mellitus or hypertension, treated with at least one antihypertensive or antidiabetic medication during 2017 were included. We determined personal adherence rates by calculating the mean adherence rates of the medications prescribed each individual. Adherence rates were stratified by quintiles. We retrieved information about all the ER visits, and hospitalizations in internal medicine and surgery wards during 2016-2018.

**Results:**
Of 268,792 persons included, 50.6% were men. The mean age was 63.7 years. Hypertension was recorded for 217,953 (81.1%); diabetes for 160,082 (59.5%); and both diabetes and hypertension for 109,225 (40.6%). The mean number of antihypertensive and antidiabetic medications used was 2.2±1.1. In total, 51,301 (19.1%) of the cohort visited the ER at least once during 2017; 21,740 (8.1%) were hospitalized in internal medicine wards; and 10,167 (3.8%) in surgery wards during 2017. Comparing the highest adherence quintile to the lowest, odds ratios were 0.64 (0.61, 0.67) for ER visits, 0.56 (0.52, 0.60) for hospitalization in internal wards; and 0.63 (0.57, 0.70) for hospitalization in surgery wards. Odds ratios were similar for the three consecutive years 2016-2018.

**Conclusions:**
Better medication adherence was associated with fewer ER visits and hospitalizations among persons with diabetes and hypertension. Investing in improving medication adherence may reduce health resources and improve patients' health.

**Points for discussion:**
chronic care and medication adherence
what is the role of family physician in medication adherence
Use of Epinephrine Autoinjectors in patient with Hymenoptera venom allergy and food anaphylaxis among 8 italian Gps

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Keywords: anaphylaxis; urgency; empowerment

Background:
Anaphylactic crisis caused by an allergy to hymenoptera venom or foods is hard to prevent, but can be treated by the patient, if he is equipped with certain drugs and in particular the epinephrine autoinjectors with specific training.

Research questions:
A) Evaluate the prevalence of food-related and hymenoptera venom anaphylaxis in patients
B) Evaluate the frequency of request for appropriate tests and drugs; and the prescription of epinephrine and the corresponding training for the use of the autoinjector.

Method:
8 GPs from the italian Netaudit group (www.netaudit.org) extracted ECRs with icd9 codes of anaphylactic shock by hymenoptera venom and food allergies from their records.
For the patients extracted we evaluated whether the diagnosis corresponded to the criteria of a Consensus article and checked presence of the tests, drugs and prescriptions of epinephrine, according the guidelines.

Results:
8 GPs participated with a total of 11162 in office.
21 Patients / 11162 (prevalence 0.19%) are positive for the chosen criteria; 6 females and 15 males, with variability in the number of cases per GP (minimum 1; maximum 7; median: 2).
Of these 21 cases: 10 have food allergies; 8 to the hymenoptera venom; 3 to both
The allergology consultation was requested in 16 out of 21 cases; The tryptase test (useful for excluding mastocytosis in allergies to hymenoptera) in 3 cases
Corticosteroid and antihistamines were administered in the majority of cases.
The prescription of epinephrine autoinjector is present in 7 of 21 cases. The information-education (intra-hospital or from the GP) on the use of autoinjector was present in 7 of the 21 ECR

Conclusions:
The prevalence of findings seems lower than that of the literature. There is a great work for improvement both in the variability of the recording of cases in the record, and in the role of Gp’s management for the avoidable consequences of anaphylaxis

Points for discussion:
a) How much coding system different from the ICD9 can help in the classification of these anaphylaxis?
b) How does the reimbursement of fast adrenaline vary in the European Countries?
c) How to improve collaboration between GPs, emergency rooms and allergologists?
COVID-19’s impact on primary care and related mitigation strategies: A scoping review.

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Keywords: COVID-19, pandemic, primary care, telemedicine, public health

Background:
There is limited evidence documenting COVID-19’s impact on primary care. This is concerning because primary care is where most patients with COVID-19 infection and/or concerns are likely to be treated, and where the pandemic’s long-term consequences will be managed.

Research questions:
How has COVID-19 impacted primary care and what strategies mitigate these impacts?

Method:
This study used a six-stage scoping review framework developed by Arksey and O'Malley (2005). The search process was guided by the Joanna Briggs Institute three-step search strategy and involved searching the PubMed, Embase, Scopus, CINAHL Plus, and Cochrane library databases. The review is reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Review. A thematic analysis approach proposed by Braun and Clarke was used to interpret the findings.

Results:
Thirty-two studies from 18 countries and six continents were included, 13 reported original research, three were reviews, and 16 were case reports reporting healthcare systems’ experiences of dealing with the pandemic. Themes concerned (a) the COVID-19 pandemic’s impact on primary care service provision (reduced capacity of/access to care, quality of care) and patients (poorer outcomes in comorbid patients, poorer mental health outcomes), (b) the impact of the rapid transition to telemedicine due to COVID-19 on primary care (ensuring care continuity, reduced healthcare opportunities), and (c) strategies to mitigate the impact of COVID-19 on primary care (infection prevention and control measures, alternatives/modifications to traditional service delivery or workflow, government policy responses, and education).

Conclusions:
The COVID-19 pandemic has considerably impacted on primary care and various strategies to mitigate this impact have been described. Future research examining the pandemic’s ongoing impacts on primary care, as well as strategies to mitigate these impacts, is a priority.

Points for discussion:
Primary care’s role during the COVID-19 pandemic.

The themes that emerged.

The COVID-19 pandemic’s evolution and the need for ongoing investigation of its impact on primary care.
Integrating Hepatitis C Care for opioid substitution treatment patients: Feasibility, Clinical and Cost Effectiveness

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Keywords: primary health care; hepatitis C; integrated HCV care; people who inject drugs

Background:
Hepatitis C is a common infection, often not diagnosed or treated and therefore associated with potentially preventable chronic liver disease. As many people who inject drugs (PWID) are unaware of their infection, new strategies to reach such individuals are necessary, including testing strategies to increase the number diagnosed and improved care pathways to ensure those diagnosed are successfully linked to HCV evaluation and treatment.

Research questions:
The aim of this study was to examine feasibility, acceptability, clinical and cost effectiveness of an integrated model of HCV care for opioid substitution treatment (OST) patients in general practice.

Method:
A pre-and-post intervention design with an embedded economic analysis was used to establish the feasibility, acceptability, clinical and cost effectiveness of a complex intervention to optimise HCV identification and linkage to HCV treatment among patients prescribed methadone in primary care. The ‘complex intervention’ comprised General Practitioner (GP) / practice staff education, nurse-led clinical support, and enhanced community-based HCV assessment of patients. General practices in North Dublin were recruited from the professional networks of the research team and from GPs who attended educational sessions.

Results:
Fourteen practices, 135 patients participated. Follow-up data was collected six-months post-intervention from the clinical records of 131 (97.0%) patients. With regards to clinical effectiveness, among HCV antibody-positive patients, there was a significant increase in the proportions of patients who had a liver fibroscan 17/101 (16.8%) vs 52/100 (52.0%); p<0.001, had attended hepatology/infectious diseases services 51/101 (50.5%) vs 61/100 (61.0%); p=0.002, and initiated treatment 20/101 (19.8%) vs 30/100 (30.0%); p=0.004. The mean incremental cost-effectiveness ratio of the intervention was €13,255 per quality adjusted life year gained at current full drug list price (€39,729 per course), which would be cost saving if these costs are reduced by 88%.

Conclusions:
The complex intervention has the potential to impact on patient care, improving access to assessment and treatment in a cost effective manner.
What GPs need to know about paediatric COVID-19: CME curriculum

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**Keywords:** children, COVID-19, SARS-COV-2, General practitioners, continuing medical education

**Background:**
The COVID-19 pandemic has become perhaps the biggest global health crisis in recent history - especially in the absence of a safe and effective antiviral treatment. The growing number of published scientific studies has shown that the course of the disease in majority of affected children is not so severe, but there are some very worrying facts.

**Research questions:**
What GPs need to know about paediatric COVID-19 in order to ensure better care for their paediatric patients?

**Method:**
For the development of the named above curriculum we have combined elements of five methods for curriculum development (traditional, thematic, programmed, classical, and technological). The methodology was focused mainly on defining needs, selecting appropriate for GPs content and creating teaching materials, incl. “teaching with cases”.

**Results:**
We have developed 20 hours curriculum about paediatric COVID-19 for GPs. After defining the emergency need of such an education, a national project on COVID-19 was developed. In the frame of this project specialists in clinical virology, infections diseases, paediatrics and general practice were involved. Based on currently published international and national data and research the following topics were selected: SARS-COV-2, clinical virology and immunology, focused on children; COVID-19 pathophysiology in relation to child growth and development; respiratory pathology; cardiovascular pathology, multisystem inflammatory syndrome; neurological and psycho symptoms etc.; COVID-19 therapeutic options; short term and long-term evaluation of children during COVID-19 pandemic. The final step (Implementation and Evaluation of the curriculum) will be finished hopefully to the end of this 2021 year.

**Conclusions:**
The CME paediatric COVID-19 course for GPs will contribute to (1) better understanding the varieties of underlying immunology mechanisms and clinical course of paediatric COVID-19 patients in General practice; (2) to acquiring more knowledge and skills to manage COVID-19 paediatric patients; (3) betimes to recognize emergencies, incl. multi system inflammatory syndrome and other life threatening conditions.

**Points for discussion:**
1. Do GPs need training how to speak with parents of COVID-19 paediatric patients, having in mind the controversial info in massmedia?
2. What kind of support is needed for GPs to provide better care for paediatric COVID-19 patients?
3. How this kind of training help GPs research to provide “evidence based” decisions about paediatric COVID-19 patients applicable in General Practice?
Patients’ Satisfaction and Perception about Quality of Health Care in an Urban Primary Health Center of Athens, Greece

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Keywords: Patient satisfaction, Urban Primary Health Center, Primary healthcare services, patient waiting time

Background:

Research questions:
The aim of this study was to investigate patient’s perceptions and satisfaction for services provided by an Urban Primary Health Center (UPHC) in Athens, Greece.

Method:
A questionnaire-based cross-sectional study was performed among 400 patients visiting the UPHC during November and December 2019 to assess the utilization and the satisfaction of services.

Results:
A total of 400 patients answered the questionnaire, 59.8% were female, 47.3% aged >60 years, 70% were inhabitants of the municipality where the UPHC belongs, 31.4% were employed and 40.5% were retired. The reason for visiting the UPHC was in 33% drug prescription, in 26.5% chronic disease monitoring and prescription, in 19.5% emergency care, in 8.8% follow-up examination and in 8.5% preventive care. Visiting the UPHC without making an appointment beforehand stated 65% of the patients. An overall good satisfaction with the primary care services stated 94.3% of the patients. Higher satisfaction is observed regarding the services provided by the medical (4.45/5) and nursing personnel (4.42/5), whereas lower satisfaction was observed with the waiting time for consultation (2.3/5).

Conclusions:
The study revealed an overall high satisfaction in patients receiving primary care services at the UPHC. However, there are areas that need improvement, such as waiting time for consultation. This study helped us to identify the problems and formulate strategies to improve the waiting time and the queuing system for walk-in patients.

Points for discussion:
Have other members carried out such a study in order to analyze and improve if needed the quality of primary care services in an urban primary health center?
Identifying the obstacles to colonoscopic screening of first-degree relatives with a family history of colorectal cancer. Where do GPs stand?

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Keywords: colorectal cancer; screening; general practice; compliance

Background:
Colonoscopic screening allows early detection of colorectal cancer and adenomatous polyps. Screening family members around an index case is essential to reduce morbidity and mortality of this cancer which is the third most common cause of cancer mortality worldwide. General practitioners have an important role to play in this strategy.

Research questions:
What are the obstacles to implementing colonoscopic screening in first-degree family members? What do GPs feel is their role in this screening strategy? What could help GPs inform their patients of their high risk and the importance of screening?

Method:
As part of the COLOR3 research program in Poitou-Charente, France, GPs of first-degree relatives were sent a leaflet informing them of their patients family history and the importance of discussing colonoscopic screening with them. The GPs were then contacted by an sociologist who anonymously evaluated their knowledge of the screening strategy, their motivation to implement it, their capability of doing so and their appreciation of their role.

Results:
Few GPs expressed ease at implementing colonoscopic screening for first-degree relatives. They described a lack of communication between relatives, between specialists and the referent GP and a lack of time to update family history at each visit, as being the main brakes to discuss this screening with patients. Some also argued that it was not their place to convince patients to participate in screening strategies.

Conclusions:
Referent GPs are not well equipped to discuss familial screening for CRC around an index case. This study shows that information does not flow well from the initial diagnosis down to the relatives and their care-givers. This study also shows that sending an information leaflet alone is not sufficient to help the referent GP.

Points for discussion:
How important is the taboo around CRC? Making it harder to discuss than other screening programs.

What role should GPs have in the screening strategy?
Priorities in integrated care: A scoping review.

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Keywords: care coordination, Integrated healthcare systems, integration model, priorities, review

Background:
Fragmentation is a feature of many healthcare systems and can lead to adverse effects on the quality of care and health outcomes. Further, as evidenced during the COVID-19 pandemic, these issues are amplified when populations and their healthcare demands increase. It is commonly believed that an integrated care approach may solve many of the problems associated with fragmented healthcare systems. However, despite integrated care’s growing popularity, its priorities are unclear.

Research questions:
What are the priority areas when developing and implementing integrated care models?

Method:
A scoping review was conducted using Arksey and O’Malley’s 2005 six-stage framework. Twenty-one papers were selected for review. The studies spanned numerous geographical locations, encompassing several study designs, and a range of populations and sample sizes. Integrated care priorities were identified qualitatively using a thematic analysis approach.

Results:
Overall, the findings show that while no one integrated care model fits all health systems, four priority areas should be considered when designing and implementing policy and care models. These areas are (i) communication, (ii) coordination, collaboration, and cooperation, (iii) responsibility and accountability, and (iv) a population approach. Multiple elements were also identified within these themes, all of which are required to ensure successful and sustained integration. These elements included education, efficiency, patient-centredness, safety, trust, and time.

Conclusions:
The identified priority areas should guide policymakers when planning and implementing future integrated care models. Meanwhile, future research should evaluate the implementation of these priorities in integrated healthcare settings.

Points for discussion:
Challenges facing integrated healthcare systems.

Solutions to overcome these challenges.

Future directions for research, policy, and clinical practice
Doctor–patient consultations in C-19: rapid development and deployment of a virtual patient to support providers breaking bad news

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Keywords: C-19 Consultations Virtual patient Breaking Bad News

Background:
The C-19 pandemic has affected vast numbers of patients, relatives, carers and health care workers, and added complexity to communication between these groups, many need to adapt fast.
Challenges:
No personal continuity with patients
Loved-one/Carer can be remote from hospital
Verbals & non-verbals affected by PPE
IT - remote connection via phone, tablet, etc.
Often news of transfer to ITU, sudden deterioration
Doctors and front line staff can be stressed by breaking bad news

Research questions:
Can a virtual patient which allows practice and feedback assist doctors in breaking bad news in this context?

Method:
The intention was to rapidly upskill staff. This virtual patient was device agnostic, so anytime, anywhere interaction was possible.
It is developed on a game platform, the participant plays the doctor role and is given their own feedback.
It is confidential, with real time feedback and coaching.
It is based on the Cambridge Calgary Guide (Silverman 2013) and the SPIKES protocol for Breaking Bad News (Baile 2000)
So it presents a best practice, Patient centred approach
For the doctor or staff member it presents them with an opportunity for active learning, role play and feedback.

Results:
So far it has been used by a wide variety of postgraduate front line staff and evaluation shows that:
94% felt that content was engaging
91% reported that it was realistic.
It was highly recommended and further evaluation is ongoing and will be reported.

Conclusions:
A virtual patient developed on a game based platform for breaking bad news remotely in the C-19 pandemic has been evaluated as useful for upskilling frontline staff.

Points for discussion:
Can you feedback on any improvements you would find useful?
Can you see other uses of this?
Analysis of COVID-19 complicated vascular cases from General Practice perspective

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Keywords: COVID-19, COVID-19 associated coagulopathy, thrombophlebitis, embolism and arterial thrombosis, psychosis

Background:
To date, sufficient evidence has been accumulated on the link between COVID-19 and a vast spectrum of vascular pathology, incl. vascular inflammation and the development of coagulopathies, which can lead to thrombocytopenia, hypercoagulation and thrombosis, as well as bleeding. These pathological changes themselves can not only lead to respiratory and oxygenation disorders, further aggravate the patient's respiratory status, but also to a number of other complications (neurological, psychosis etc.). In the early recognition of these conditions GPs could play a very important role.

Research questions:
In what extent analyzing complicated cases contributes to better understanding by GPs of the complex pathology and timely referral of COVID-19 patients for specialized treatment?

Method:
Ongoing study on COVID-19 patients with combined COVID-19 infection (incl. typical pulmonary involvement) and vascular pathology; analysis of cases; teaching GPs with cases

Results:
Several cases of patients with COVID-19 and thrombophlebitis, arterial embolism and arterial thrombosis, incl. consequent emergency situations and operations are analyzed from General practice perspectives. Among them: (1) 66 years old patient with multimorbidity, after COVID-19 pneumonia with embolism and thrombosis of a.ilia. (2) 71 years old patient with COVID-19, atrial fibrillation, diabetes mellitus type 1, essential hypertension, embolism and thrombosis of upper limbs arteriae. (3) 51 year old patient with COVID-19 pneumonia, essential hypertension, phlebitis and thrombophlebitis (DVT) of lower extremities and psychosis, developed during the course of the disease.

Conclusions:
Collecting and analyzing such type of complicated cases of patients with multimorbidity and COVID-19 contributes to: (1) better understanding the varieties of combinations of symptoms in COVID-19 patients especially focusing on severe vascular pathology early recognition in General practice setting in order to send such patients timely for hospitalization. (2) raising awareness of GPs regarding some COVID-19 condition as psychosis.

Points for discussion:
1. The role of some clinical tests incl. d-dimer for early detection of COVID-related vascular events
2. Psychosis in COVID-19 patients with CAC and vascular pathology
3. Short-term and long-term observation of COVID-19 patients in General practice during and after recovery

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Keywords: quality improvement, health balanced scorecard, cervical cancer, breast cancer.

Background:
Evaluation is key to quality improvement. The adoption of tools, such as the Health Balanced Scorecard (HBSC), can help in the monitoring of the performance of a healthcare system or unit. HBSC is adjustable to the needs of every health unit and assists clinicians in goal setting, strategy implementation and outcomes assessment. Certain clinical indicators (CI) are chosen for the evaluation.

Research questions:
Is cervical and breast cancer prevention effective in Vari Health Center (VHC), Greece?

Method:
Data were collected from all women of the list of a family doctor (F.D). Performance index (PI) was measured for all these women. The number of women on the list of an F.D. of VHC, who should have undertaken the pap test and mammography, was set as a denominator. For the determination of the numerator the data were obtained from the electronic personal health record (EPHP) with the written consent of patients. These 2 P.I. are included in HBSC of VHS. Data were processed with SPSS 21.

Results:
Data were obtained from 146 women of the list of a family F.D. of VHC, which should have done past test and mammography. 10 of them had done mammography and none of them had done pap test.

Conclusions:
The HBSC assists clinicians in assessing the quality of gynecology cancer (G.C.) prevention. G.C. prevention is very poor in VHC. There will be an effort for personal invitation for all the women of the F.D. list.

Points for discussion:
IMPLEMENTATION OF CANCER SCREENING GUIDELINES IN CLINICAL PRACTICE
Primary Healthcare Professionals' Preparedness during the first wave of the COVID-19 pandemic in Greece

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Keywords: COVID-19, pandemic, preparedness, primary care

Background:
It is commonly suggested that Primary Healthcare Professionals (PHPs) face difficulty in applying research evidence into practice and that their clinical practice is not up-to-date. The gap between theory and practice could be detrimental especially in the case of pandemics.

Research questions:
This study investigates the level of preparedness knowledge of public PHPs, during the first wave of the COVID-19 pandemic in Greece.

Method:
A mixed methodology study was conducted by the Aristotle University of Thessaloniki Primary Health Care Research Network (AUTH.PHC.RN). PHPs participating in the quantitative cross-sectional during the first wave of the COVID-19, filled in a web-based 18 item questionnaire. Knowledge level was assessed by the use of scenarios and data were grouped for the development of a scoring system. Associations with demographic data were analyzed. The qualitative study, based on semi-structured interviews, was conducted after the first wave of the pandemic with a different group of PHPs. Interview transcripts were analyzed by thematic analysis.

Results:
The response rate was 68.3% (444 out of 650 invited participants, representing 6.18% of public PHPs). Participants having more working experience, have less preparedness knowledge (p:0.046) and participants in a high-risk group, have less knowledge (p:0.022). 1st line physicians have more knowledge than other 1st and 2nd line PHPs (p<0.001). Females have less knowledge compared to males (p:0.015). Interviewed PHPs (n=33) reported that during the pandemic, they familiarised themselves with hygiene and safety protocols and gained clarity on infection prevention strategies and invaluable experience in practicing their profession under special circumstances.

Conclusions:
During the first wave of COVID-19 in Greece, PHPs working at first line were more flexible in promptly implementing new guidelines and protocols in their practice. Training in the use of new protocols in primary care could improve the thorough and faster implementation of new evidence in daily practice.

Points for discussion:
The way Primary Care could rapidly respond to new situations.

The way Primary Care can put into practice new emergency protocols and safety guidelines.
A new data collection project for studies of the process of diagnosis in primary care: collecting data on reasons for encounter and diagnoses in episodes of care in Europe.

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Keywords: EPR, ICPC, primary care, family medicine, diagnosis, data analysis, learning healthcare systems

Background:
For many years the Transition Project has been unique in collecting data on reasons for encounter (RfEs, including symptoms and complaints) and diagnoses in an episode of care (EoC) model, allowing the study of incidence and prevalence of both, and especially relationships between RfEs and episode titles.

Research questions:
1. To establish a formal collaboration led by EGPRN to re-vitalise the routine collection of practice-based data on RfE and EoCs
2. To develop and implement a data collection tool which interfaces with existing electronic medical record (EMR) systems, which can alternatively stand-alone as a basic EMR
3. To collect and analyse data on RfE, interventions and diagnoses collected with ICPC in an EoC model, to empirically inform the epidemiology of primary care
4. To make such data available for research into the process of diagnosis and the development of diagnostic decision support systems

Method:
The steps to develop such a system and the software to analyse and publish such data will be explained, based on the prior published experiences of the authors.

Results:
A successful outcome of the presentation would be the creation of a formal collaboration between EGPRN, MIPC and partner academic and software organisations to present a formal project plan to EGPRN in the immediate future.

Conclusions:
This proposal is expected to potentially raise the profile of EGPRN as a repository of high quality data from primary care, and a major partner in the future development of diagnostic decision support systems and learning healthcare systems in primary care.

Points for discussion:
1. Discussion of the utility of such empirical data for primary care and family practice in Europe,
2. Discussion of the utility of analysis of diagnostic data from different populations,
3. Discussion on the formalisation of such an academic collaboration.
Monitoring the clinical course and baseline characteristics of COVID-19 patients in Primary Health Care in Greece: An ongoing study.

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Keywords: primary health care, pandemic response, covid-19, distance monitoring

Background:
Primary care can play an important role in the COVID-19 pandemic response by making an early diagnosis of COVID-19 infection in the community, reducing the demand for further hospital services and preventing further community transmission of the infection.

Research questions:
The study’s main objective is to evaluate the health progress of confirmed SARS-CoV2 cases with mild clinical presentation who were treated exclusively by primary care physicians and of close contacts with COVID-19 patients who were monitored during their quarantine.

Method:
This retrospective cohort study will be implemented by medical students as field researchers. It will be conducted in a semi-urban COVID-19 referral Health Centre in Northern Greece that faced heavy morbidity rates during the second pandemic wave. Anonymized data from patients' medical records will be used to investigate risk determinants and the baseline characteristics of the COVID-19 patients in the community. Patients’ and close contacts data collected during regular distance monitoring throughout the whole quarantine period will be assessed regarding patients’ symptoms and clinical findings, risk factors, morbidity, duration and severity of symptoms and final outcome.

Results:
Currently, the study is at the recruitment stage. The primary outcomes will be related to monitoring the clinical course of patients with mild COVID-19 infection and that of close contacts of confirmed cases, assessing the risk factors of the disease and presenting the demographics of these patients. The analysis will be performed in order to associate the clinical course of patients with predictors for disease burden or comorbidity.

Conclusions:
As this is an ongoing study, we aim to present crucial aspects of distance monitoring of patients with mild COVID-19 infection thus strengthening primary care services in implementing their role in the pandemic response and exploring their contribution to monitoring post-COVID-19 complications as a follow-up study is also planned.

Points for discussion:
pandemic response in low capacitated primary health care settings
Automatic ABI measurements in primary care - agreement with patients’ symptoms and examination

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Keywords: ankle-brachial index, peripheral artery disease

Background:
Peripheral artery disease (PAD) increases cardiovascular risk even in asymptomatic patients. Accurate and efficient diagnostic tools for PAD patients are needed. Recently there have been attempts to establish a reliable method of automated ankle-brachial index (ABI) identification. This raises a question whether such methods can be feasible in primary care.

Research questions:
Do automatic ABI measurements provide new information about patients at risk of PAD?

Method:
Cross-sectional study performed at a primary care office on patients over 60 years old. Physical examination aimed at PAD diagnosis and Edinburgh questionnaire was performed as well as an automatic ABI measurement. Automatic ABI measurements were taken with use of Dopplex Ability Automatic ABI System. Incidence of lack of pulse on posterior tibial artery, PAD suspicion based on the Edinburgh questionnaire and incorrect ABI results were compared.

Results:
Initial results of the study are presented, with 42 patients included at this point. 54.76% of patients had an abnormal ABI result (ABI lower than 0.98, higher than 1.3 or an incorrect pulse volume waveform). Normal ABI ranges for Dopplex Ability were established in this study based on publication by Lewis et al. When establishing ABI ranges at 0.9-1.3, only 40.48% of patients had an abnormal ABI result. 73.91% of patients with an abnormal ABI result had posterior tibial pulse present and Edinburgh questionnaire negative for PAD symptoms. This accounted for 40.48% of all the patients.

Conclusions:
Automatic ABI allows to include more patients into PAD suspicion group, including patients with no typical changes in physical examination or characteristic symptoms.
Impact of the Covid-19 pandemic on burnout syndrome in family doctors

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Keywords: burnout syndrome, covid-19, family doctors

Background:
Doctors of all specialties are more or less susceptible to professional burnout syndrome. Many of the factors that contribute to its progression have long been known: the psychological atmosphere in the work collective, responsibility for the result of work, work overload, age (especially for doctors aged 20 to 40), intense perception of professional responsibilities.

Research questions:
How did the COVID-19 pandemic, lockdown and vaccine problems affect burnout?

Method:
Online questioning of family doctors using the Maslach Burnout Inventory (MBI). The procedure takes no more than 10 minutes, it is quite simple

Results:
The results will assess the impact of the Covid-19 pandemic on the emotional state of primary care physicians, and will also provide relevant data on the prevalence of professional burnout syndrome.

Conclusions:
The Covid-19 pandemic is most likely to have a negative impact on primary care physicians and hasten the burnout process. The results will increase efforts to provide psychological assistance to family doctors.

Points for discussion:
Has the Covid-19 epidemic affected the psychological state of family doctors?

How to provide psychological support to family doctors?

Free online consultations for family doctors who are under increased stress and need psychological help as an effective prevention tool
Expanding role of family physician’s team in early cancer detection for multimorbid patients

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Keywords: multimorbidity; early cancer detection; primary care; family physician's team

Background:
Cancer (Ca) is ranked number 10 among patients with Multimorbidity (MM) in Lithuania. MM negatively affects patients’ participation in Ca screening, provides a challenge to timely diagnosis and is associated with advanced stages of Ca. Primary care is crucial for timely diagnosis but complexity of symptoms, especially in MM patients, result in delayed or reluctant approach in pursuit for Ca diagnosis. Therefore, a progressive and holistic approach is necessary for early Ca detection and management in MM patients.

Aiming to provide better quality and accessibility of care to patients with MM, “Telelispa” project, funded by EU, will be carried out in the period of 2020-2022 in Lithuania with one of the research objects being to evaluate family physician’s team (FPT) progressive and holistic approach benefits and capabilities in early Ca detection.

Research questions:
How FPT’s progressive and holistic approach to early Ca detection may affect the diagnosed stage of Ca?

Method:
385 patients with MM and 385 in control group from 7 different primary health care settings (urban and rural) will be included in the “Telelispa” project, which is based on Chrodis Plus. Holistic evaluation for MM patients will be performed by FPT, consisting of family physician and a case manager, as follows:
• complete audit of performed national Ca screening programs: prostate, cervical, colorectal and breast Ca.
• expanded evaluation of risk factors and family history of Ca and physical examination, including teledermatoscopy.
• review or assigning tests if not done per year (based on country’s Family medicine norm): blood analysis (for anemia), chest X-ray and abdominal ultrasound for possible corresponding Ca.
• FPT’s progressive and holistic approach will be assessed by comparing diagnosed Ca stages with control group and national average stages of corresponding Ca

Results:
Ongoing project. The results of the project will be used for a set of recommendations.

Conclusions:
Ongoing project.

Points for discussion:
What national guidelines do other countries have for early Ca detection in primary care?

How progressive and holistic approach can affect the landscape of early Ca detection?
Quality of Life Assessment in primary care during COVID-19 pandemic using EuroQol

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Keywords: Quality of Life, Primary Health Care, COVID-19

Background:
COVID-19 global pandemic has caused an impact over physical and mental health population. Thus, multiple restrictive measures were initiated, such as social distancing and home confinement, and a huge reorganization of health care, both in primary care and hospital settings.

There are different studies on COVID-19 focused on its clinical presentation, management in intensive care units, treatments, etc. It was found that there wasn't many publications about the quality of life assessment in general population. To analyze how it has changed due to COVID-19 pandemic can give us the necessary tools to anticipate the needs of our population and prevent the worsening of their health status.

Research questions:
Our main aim is to quantify quality of life changes in our health center population in the context of COVID-19 pandemic along one year after the Spanish alarm state.

Method:
Prospective cohort study, randomly selected patients out of those assigned to the Vilanova de Arousa Health Center (10.000), that meet the criteria. A semi-structured telephone survey will be performed, including EQ-5D-5L and sociodemographic data, three times between June 2020 to August 2021.

Descriptive analyzes of the main study variables will be carried out, both demographic and related to EQ-5D-5L and to the semi-structured survey. Qualitative variables will be presented as frequency and percentage and quantitative variables as mean and standard deviation. Differences by sex and age groups will be analyzed. P is considered significant if <0.05.

For the statistical analysis of the variables related to quality of life at the beginning, during and at the end, the McNemar and Wilcoxon statistical tests will be used for the categorical and quantitative variables respectively, as they are repeated measures.

Results:
Ongoing study, there are no preliminary results yet. The data from the first two interviews will be presented.

Conclusions:

Points for discussion:
What’s your perception about the impact that this pandemic had over Primary Care and the Health Systems? Is this study applicable to your Health Care Center? What results do you think we are going to obtain?
The Initiative of German Practice-Based Research Networks – DESAM-ForNet

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Keywords: Practice-Based Research Networks, general medicine, primary care, research infrastructure

Background:
In the GP’s office, people of all ages receive longitudinal care for a wide range of medical conditions. However, there is a lack of well-founded answers for many relevant questions in general practice. Research results generated in controlled specialty settings are only partially transferable to patients in real-world practices. Doctors and their patients need better evidence – and clinical researchers need a vehicle to carry out research in primary care. Practice-based research networks serve as a bridge connecting the university and the general practice setting to find relevant evidence and to improve population health.

Research questions:
To strengthen the role of family medicine in Germany, the Federal Ministry of Education and Research (BMBF) is funding 6 regional primary care research networks with one coordination office, joined within the Initiative of Practice-Based Research Networks – DESAM-ForNet. The funding period is limited to five years, and it is unclear what will happen afterwards. However, it is hoped to establish common standards within the Initiative to allow cross-network collaboration and to build a sustainable research infrastructure.

Method:
The 6 participating networks and the coordination office have been planned as autonomous projects. The challenge to develop a mutual base in research processes (as interoperability of the IT-infrastructure and common criteria for research readiness) is addressed in regular meetings and working groups. A steering committee as a central decision-making body for all matters of the Initiative has been implemented.

Results:
With common standards and interoperability between networks, a sustainable foundation for practice-based research will be created. The Initiative aims to accredit and qualify a total of 1700 research practices by the end of 2024.

Conclusions:
With the German Initiative of Practice-Based Research Networks – DESAM-ForNet, we want to establish a sustainable infrastructure in the general practice setting enabling research that really matters to GPs and their patients.
Feasibility study of a competence-based teaching method (Toolbox GP) on the learning success of medical students and satisfaction of supervising physicians: How to integrate Entrustable Professional Activities into general practice teaching

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Keywords: Elective general medicine/general practice, clerkship, medical students, medical education, teaching medical students in primary care, Entrustable Professional Activities, undergraduate medical education

Background:
Motivating medical students to go into primary care is crucial in ensuring a sufficient supply of future General practitioners (GP). Unfortunately, students often find clerkships in general medicine underwhelming. The quality of activation can vary greatly and has a significant impact on students’ interest in primary care. The concept of Entrustable Professional Activities (EPA) might help to offer motivating and competence-based medical education. EPAs comprise two complementary parts: 1) professional activities based on everyday medical work and 2) the level of supervision. This linking of activity and supervision level creates a performance-based operationalisability of medical education.

Research questions:
Is a Toolbox GP based on EPAs a feasible method to improve the teaching situation and student satisfaction in general practices?

Method:
Our teaching intervention “Toolbox GP” was developed under consideration of standardized learning/teaching contents for GP based on the concept of EPAs and is a format that allows maximum flexibility to the situation in teaching practices. Six GP teaching practices of the Institute of Family Medicine of the University Hospital Bonn and six medical students of the Rhenish Friedrich Wilhelm University of Bonn will be invited to test the new toolbox teaching concept for two weeks. Evaluation is planned using semi-standardized questionnaires and the think-aloud-method to optimize the teaching method.

Results: The piloting will be conducted during the next weeks. Results are expected to be available at the congress.

Conclusions:
The results of this feasibility study will be used to prepare a future implementation study of a comprehensive EPA-based teaching concept for GP practices including didactic workshops for supervising physicians, a toolbox with GP-specific tasks for medical students, and additional online learning materials.

Points for discussion:
How can teaching interventions be implemented and measured in GP practices?

What are the most effective methods for conducting faculty development for supervising general practitioners?
Post-Covid: implications on patients lives

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Keywords: post-covid; symptoms; quality of life

Background:
COVID-19 affected primary care in terms of organization and healthcare response. Family doctors felt a need to rearrange and find ways of redefine consultations. There was a clear impact on patients mental health, family relations and newly physical long-term effects. There’s a need to understand how patients are re-inserted in their daily routine and how are they managing it.

Research questions:
How do patients’ quality of life and community comeback are being done?

Method:
Retrospective cohort study; population enrolled in portuguese COVID19 platform "TRACE-COVID" defined as "healed" at 60 and 90 days post-discharge; randomized sample; anonymous questionnaire (it included demographic variables as age, sex, and schooling and others; persisting symptoms (from physical to psychological), quality of life, work adaptation, past medical problems, COVID19 disease evolution, discharge date (need to extension), among others.

Results:
Awaiting

Conclusions:
Not for now
Predicting and preventing long-term invasive ventilation - a project presentation of PRiVENT

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Background:
Specialised weaning treatment proved to successfully wean patients who had failed spontaneous breathing trials and would otherwise depend on continuous invasive ventilation. Therefore, PRiVENT will develop a prognosis model to detect patients at risk of long-term invasive ventilation offering expertise to wean those in non-specialised clinics. The study commences in July 2021 and is funded by Germany’s innovation fund (01NVF19023).

Research questions:
Does the PRiVENT-intervention raise the chance to wean patients at high risk of long-term invasive ventilation?

Method:
PRiVENT is a prospective, interventional, unblinded, non-randomised multicentre study with a partially parallel control group using healthcare claims data from AOK BW. Inclusion criteria are invasive ventilation for ≥96 hours, ≥30 years of age and at least 1 comorbidity, excluding neuromuscular diseases.

The prognosis model will be set up by clinical expertise, literature review and healthcare claims data. Four weaning-centres will cooperate with 40 ICUs within Baden-Württemberg. Knowledge and therapy recommendations will be exchanged in interprofessional weaning boards and weaning councils to treat ≥1,500 high-risk patients. Discharge and quality management, e-learning, and publicity work will complement the intervention.

The primary endpoint will be investigated using a mixed logistic regression model incorporating random effects to control for the clustering effect of centres. Secondary endpoints will be analysed descriptively. Further, health economic analyses and process evaluation will be conducted.

Results:
The PRiVENT-intervention is expected to identify patients’ risk for long-term invasive ventilation, to wean those at risk and, conversely, decrease the number of ventilated patients.

Conclusions:
If the study demonstrates to prevent long-term invasive ventilation, the PRiVENT-intervention may be integrated into standard health-services. Thereby, improving patients’ and relatives’ quality of life, reducing costs in outpatient care, closing knowledge gaps, and strengthening the role of special therapists and interprofessional teamwork.

Points for discussion:
1. From a GPs’ perspective, how could transition from inpatient to outpatient care be improved in these patient groups a) successfully weaned vs. b) requiring invasive ventilation)?

2. How could GPs best get involved and contribute to better care of ventilated patients?
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