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Physical activity and physical exercise in perinatal depression prevention: a Systematic review and Meta-analysis

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Abstract:

Objective: To assess the effects of exercise practice and physical activity (PA) on PND prevention in pregnant and PP women.

Methods: Systematic review of observational and intervention studies and meta-analysis. Participants: non-depressed women either pregnant or up to twelve months PP. Interventions/exposures: exercise practice or PA. Outcome measures: depression diagnosis/risk or measurement of depressive symptoms.

Results: We identified eleven eligible studies for inclusion: three randomized controlled trials (RCT) and eight prospective cohorts. The systematic review presented some evidence of moderate physical exercise in aquatic environment and regular exercise practice during gestation to produce a reduced risk of PND. The meta-analysis showed no evidence of the impact of exercise in PND: before and after intervention (CI95% [-0.30, 0.66]), with large heterogeneity [Q-test (p<0.01) and I² (93.4%)]; control group (CI95% [0.04; 0.42]) and intervention group (mean difference not statistically different); heterogeneity [control group: low (p=0.61; I²=0.0%); intervention group: high (p<0.01; I²=85.3%)]. About PA, the systematic review revealed some evidence for prevention of PND and the meta-analysis showed nonexistence of impact of PA in PND (CI95% [0.33; 1.41]); and large heterogeneity (p=0.02; I²=73.3%). Two RCT studies had unclear risk of bias and one a high risk of bias due to inadequate blinding. The quality of evidence for the other studies, using Newcastle-Ottawa nonrandomized scale was classified from good to poor.

Conclusion: According to current evidence synthesized in this review, there is no strong evidence of exercise or PA in the prevention of PND. Some studies reported lower perinatal depressive symptoms associated with higher exercise practice behavior. Some studies report lower perinatal depressive symptoms associated with PA. More studies are needed to evidence these findings: more RCTs, with larger samples, including non-singleton pregnant women, overweight and obese women, women in possible social risk, adapting the study to the population’s culture. Studies should englobe pre-conception, as well as more assessment times, both for PND symptoms and exercise/PA during pregnancy and in the PP period. As for the assessment of exercise and PA outcomes, more objective measures are needed, such as by using pedometers or monitors. About depression outcome assessment, clinicians should measure perinatal depressive symptoms and make PND definitive diagnosis, in order to accurately assess effective disease incidence’s decrease. Clinicians should recommend exercise practice to pre-pregnant women, pregnant women and PP women, as well as non-stressing PA as a way of improving health condition in general, but these recommendations still lack quality evidence concerning PND prevention.
Dr. Google: trends regarding vitamin D in Portugal

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Abstract:

Background & Aim: Google Trends is a website that quantifies interest in topics at the population level by analyzing all search queries for a specific term across time. It can be used as a research tool to analyze the interest of the general population in health-related topics. Vitamin D has attracted considerable interest in recent years: healthcare providers have reported large increases in vitamin D test requests and an increase in the use of vitamin D products. The aim of this study was to quantify public interest in vitamin D by analyzing the frequency of web queries via Google Trends compared to other vitamins in Portugal.

Methods: Google Trends shows how often search terms are entered in Google compared to the total search volume in a region. On June 2019, we queried Google Trends and downloaded the data for the search input “vitamin D”. We searched in Portuguese language within Portugal from January, 1 2004 to December 31, 2018 using the “health” query category. We compared the results with searches for “vitamin A”, “vitamin B”, “vitamin C”, “vitamin E” and “vitamin K”.

Results: In Portugal, searches for vitamin D topic in Google Trends increased from 2004 until 2018 with a peak in April 2017, apparently coincident with both a rise in media coverage and an increase in the public expenditure with vitamin D products (€ 1.1 million in 2015 to € 5.7 million in 2017). Since March 2015, vitamin D has the highest mean search volume compared to the other vitamins in Portugal.

Conclusions: Public interest in vitamin D, as assessed by Google search activity, did increase from 2004 to 2018 probably reflecting both the growing interest at scientific and population level. This increase reflected the public expenditure with vitamin D products even though there is a lack of high-quality evidence from intervention studies to support a causal role for vitamin D in health outcomes apart from osteomalacia and rickets, which are relatively rare in Portugal. Our study reinforces the need of training patients to find reliable health information, and to support them in their online searches. Moreover, this study aims to raise the discussion about the impact of mediatization on health issues.
An afternoon building the future – an educational practice report

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Abstract:

Background & Aim: Youngster’s health and well-being is now a priority on the research and policy agenda of many countries. Unfortunately, children access a range of often contradictory health information from diverse sources. Primary Health Care play a key role in the education of users from all age groups, at all levels of prevention. “Summer School – Exercise, Alimentation and Health” gathers several activities developed by a multidisciplinary team that includes physicians, nurses and nutritionists that aim to promote healthy lifestyles among children and teenagers. Taking advantage of the school holidays, multiple activities are offered for one week, such as different sports practice, food workshops and sessions about health-related subjects. Our intervention consisted in promoting different educational activities, demystifying and clarifying any doubts about the most common chronic diseases in paediatrics, providing knowledge about acting in urgent situations and collaborating in the elaboration of a small support guide to these activities. The main aim was to promote health literacy in children as well as generate a positive attitude to learn.

Method: An educational session was developed in July 2018, with a total duration of 3 hours, aimed at 30 children aged between 6 and 12 years. We addressed some of the most common chronic diseases in paediatrics such as asthma, type 1 diabetes and epilepsy, conveying basic notions about these diseases, their main symptoms and how to deal with a convulsive crisis or an asthma attack. The fourth session was a brief introduction to stroke and its main symptoms, because sometimes children are present when it occurs on their relatives. The main emphasis here was on the importance to quickly contact the emergency number and promote children’s active participation in their everyday lives.

Results: It was very gratifying to give our contribution to this activity developed in community since we believe that these small interventions turn into gains in literacy and education for healthier and more active lifestyles. The enthusiastic participation of youngsters in these initiatives and in our sessions, posing doubts and giving examples of their experiences, allowed not only to demystify some of the ideas they had about these diseases, but also to promote citizenship in health.

Conclusions: Health Education translates into social and economic gains and it must start from the earliest ages, ensuring that children do not passively absorb our messages but rather engage in critical and interactive health literacy. Addressing child health literacy early on is essential to maximize future health outcomes. Recognising children as active health literacy practitioners has important implications for policy and practice geared towards improving future generations well-being.
Use Antibiotics Wisely - A quality assurance project

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Abstract:

**Background & Aim:** Infectious diseases are one of the main reasons why people seek medical care. Antibiotics are a limited resource and nowadays there is a wrong and abusive prescription of these medication worldwide, which leads to ineffectiveness of the treatment and bacterial resistance. The inappropriate use of antibiotics can be divided in four categories. The first referring to diagnostic aspects, which is highly featured in rationalization campaigns, and the other three referring to the actual prescription.

In our clinical practice, after evaluation of our data, we concluded that there was an over prescription of quinolones. It was our aim to evaluate the antibiotic prescription in our practice and intervening so that it can be performed correctly and uniformly by the medical team.

**Methods:** Patients diagnosed with Acute Cystitis, Tonsillitis, and Otitis from our practice between April and June of 2018 were selected. The clinical files of these patients were consulted regarding the adequacy of the antibiotic prescribed to the diagnosed disease. It was set as quality standard for adequacy: Good > 70%; Sufficient 70-50%; Insufficient <50%. Afterwards it was carried out an educational intervention involving all practice physicians, with discussion of the initial results and distribution of updated antibiotic prescription guidelines for each disease. Finally, a reevaluation of the same period was performed in 2019.

**Results:** In the first evaluation, the most prescribed antibiotics were amoxicillin + clavulanic acid (28,6%), phosphomycin (26,6%) and amoxicillin (14,0%). In the reevaluation, the most prescribed antibiotic were amoxicillin (28,0%), phosphomycin (22,4%) and amoxicillin + clavulanic acid (19,6%). Regarding quinolones in the first evaluation they were an option in 4.2% of cases and in reevaluation in 1.9% of cases. The choice of antibiotic in the first evaluation in Otitis was adequate in 25% and 20% of cases in children and adults respectively and in reevaluation in 50% of cases in both groups. Regarding dosage, it was adequate in 0% of cases in the initial assessment in both groups, and in reevaluation in 100% and 50% of cases in children and adults respectively. In children with tonsillitis, the choice of antibiotic in the first evaluation was adequate in 25% of cases and in reevaluation in 65%. Regarding dosage, it was adequate in 25% of the cases in the initial evaluation and in 82% in reevaluation.

**Discussion & Conclusions:** Overall the quality of antibiotic prescription in our practice has improved, however there is still room for improvement in some aspects. Quinolone prescription decreased during the reevaluation period. So in conclusion, we must all do our part to use antibiotics wisely in order to prevent a major public health problem. Evaluating our medical practice in a constructive and continuous manner, based on the most current evidence, is one of the measures that can be taken.
Planning Strategies for Suicide Prevention In Primary Health Care

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Abstract:

**Introduction:** About 1000 people die every year due to suicide in Portugal, a number that has remained stable since the beginning of the 21st century. This could be caused by unchanging social, economic and cultural conditions, but it can also reveal a lack of investment in preventive strategies. However, data indicates that suicide and suicide attempts rates are increasing in the rural area where our primary care centre is located. Therefore, we decided to create a set of preventive strategies aimed at our community and healthcare professionals.

**Methods:** We formed a team of three medical residents of general and family medicine, one nurse and one psychologist to start devising preventive strategies that would be suitable to implement according to our population characteristics. We searched online for national and international associations for suicide prevention and their preventive strategies suggestions, guidelines, articles, books and flyers.

**Results:** Our centre is the only primary care centre in this region for a population of around 22,000 people. There is an elevated aging rate, an illiteracy rate higher than the national rate and a risk for poverty of 45%. Around 21% of the population lives alone. Although unemployment rates are low, job offers mainly consist of hard shift work in factories. Around 14% of the population has some sort of psychiatric disorder.

We used the guidelines created by the International Association for Suicide Prevention, as well as their plans for World Day for Suicide Prevention, as a guide and used some material from Brazilian Ministry of Health as supporting bibliography.

Thereby, we decided that on the level of primary prevention the more suitable ways to approach the community were giving interviews and/or writing an article in the local media (papers and radio station), distributing educational flyers and displaying informative posters at our facilities.

Regarding secondary prevention improvement, we decided to organise a lecture for all our healthcare professionals on the subject of suicide risk evaluation and management.

All of these actions will start on September 10th, which is the World day for suicide prevention, and they will be continued throughout the month.

**Conclusion:** We hope that our interventions will help raise awareness among the general population for suicide risk factors, warning signs and community resources for patients at risk. Also, we expect to improve our health practice regarding the management of patients at risk for suicide.
Yoga and Mindfulness Programs to Prevent Burnout among Healthcare Workers

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Abstract:

**Background & Aim:** Work-place burnout was recently recognized as a mental health concern. According to International Classification of Diseases (ICD-11), burn-out is a syndrome resulting from chronic workplace stress that has not been successfully managed. The key dimensions of this response are overwhelming exhaustion, feelings of cynicism and detachment from the job, a sense of ineffectiveness and a lack of accomplishment. Burnout has been associated with absenteeism, intention to leave the job and staff turnover and with adverse health outcomes, such as depression, musculoskeletal pain, type 2 diabetes, cardiovascular disease and premature mortality. Healthcare workers are among the occupations with the highest reported rates of work related stress. Besides the health outcomes on an individual level, burnout in healthcare workers also leads to poorer quality patient care, decreased empathy towards the patient, more medical errors and lower patient satisfaction.

This work pretends to explore the role of yoga and mindfulness programs as strategies to prevent burnout among healthcare workers.


Clinical question: For healthcare workers, does the use of yoga and mindfulness programs reduce the risk of burnout compared with placebo? The MESH terms used were “Professional Burnout”, “Mindfulness”, “Yoga” and “Health Workers”. To evaluate the level of evidence and the Strength of Recommendation the authors used the taxonomy Strength of Recommendation Taxonomy (SORT) from American Family Physician.

**Results:** After the initial search, fifty three studies matched the MESH criteria and three of them were selected after reading the title and abstract, as they meet the research objectives. Two studies were randomized control trials with study quality level two, and one case study with study quality level two.

The studies showed that the use of yoga or mindfulness-based programs as part of continuing professional education resulted in better self-care, lower levels of emotional exhaustion and lower levels of depersonalization with statistically significant change in reducing burnout. There is some evidence that suggests that organisational interventions produce longer-lasting effects than individual approaches. This studies present as main limitation the small groups of participants. This subject requires further investigation.

**Conclusions:** Yoga and Mindfulness can represent a strategy to prevent burnout among health professionals. Although further investigation is required to measure mid to long-term effects on prevention of burnout in healthcare workers, specially well designed studies with larger number of participants.
Influenza vaccination during pregnancy: what’s the evidence?

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Abstract:

**Background & Aim:** Pregnancy is a critical period in a woman’s life for several reasons, including the increased susceptibility to infections caused by alterations in the immune system. The World Health Organization recommends seasonal influenza immunization for pregnant women in countries that are starting or expanding their seasonal vaccination programs, because of the vaccine’s safety and efficacy. However, this recommendation is not universally accepted and is being challenged in some countries. It’s our objective to review the available evidence regarding the pros and cons of influenza vaccination during pregnancy.

**Method:** Research in Pubmed and Google Scholar for results in English and Portuguese, published in the last 10 years, including the keywords “pregnancy”, “vaccination”, “influenza”, and “efficacy”, and the equivalent Portuguese descriptors.

**Results:** Many countries recommend influenza vaccination for women that will be pregnant during the influenza season. Although live attenuated vaccines are contraindicated during pregnancy, due to the hypothetic risk of foetal transmission, immunization using inactivated influenza vaccines is possible and safe in this population. Clinical trials and observational studies mention rates of seroconversion varying between 44-72%, suggesting that some factors may interfere negatively with its efficacy. There is, however, limited evidence demonstrating the efficacy of vaccination in the prevention of serious episodes of influenza requiring hospitalization. Maternal antibodies can protect the baby up to 6 months; theoretically, it is stipulated that maternofoetal transmission of antibodies is more pronounced on the 3rd trimester, but this has not yet been proven in practise. A significant number of studies have demonstrated the vaccines safety for the mother and baby. The number of vaccine-associated pregnancy complications has not increased; however, it is important to note that evidence may be biased due to study limitations, namely that most have been conducted in the 2nd and 3rd trimesters of pregnancy. Despite great heterogeneity between sources, data shows general improvement of health at birth, seen through the decrease of babies with low weight and number of serious infections in the first months; on the latter, this decrease is not always statistically significant.

**Conclusion:** Influenza vaccination during pregnancy seems cost-effective and safe for the mother and baby; however, further research is needed, because the available studies have small samples and heterogeneous methodology. Possible changes in vaccine formulations must be kept in mind and there is a need for constant surveillance on safety and efficacy. In Portugal, most low risk pregnancies are followed in a Primary Care setting; therefore, Family Medicine doctors must be aware of the evidence regarding immunization (benefits and harms) in order to provide adequate counselling and improve mother and child outcomes.
Evidence of education interventions for the elderly in reducing NSAID use: a systematic review

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Abstract:

Background & Aim: Oral non-steroidal anti-inflammatory drugs (NSAIDs) are one of the most widely prescribed potentially inappropriate medications (PIMs) used in Portugal, namely in the elderly. Most of the prescriptions are for musculoskeletal pain. While there are already deprescribing algorithms for other common PIMs (e.g. proton pump inhibitor and benzodiazepines), there is no NSAID deprescription algorithm or strategies commonly used. The purpose of the review was to identify and summarize the effect of interventions aimed at reducing potentially inappropriate use of NSAIDs.

Method: We searched for systematic reviews, meta-analyses, randomized controlled trials (RCT), cohort studies, case-control studies, original studies and guidelines in the Cochrane Library, MEDLINE, EMBASE, ISI Web of Knowledge and reference lists of articles, with the last update in May 2019. Participants: older adults (≥65 years) taking NSAIDs. Interventions: written information and/or educational interventions with the aim of reducing the NSAID use. Outcomes: primary outcome was the use of NSAIDs (patient’s report and/or prescription data); secondary outcome was the effect on health and well-being (SF-36 and EQ-5D questionnaires). Two of the authors independently screened titles and abstracts for inclusion or exclusion. Any disagreement between them was resolved through discussion. Whenever full results not available we contacted the authors. Data on interventions, participants, comparison intervention, and outcomes were extracted from the included studies. Risk of bias and quality of evidence were assessed using Cochrane Risk of Bias Table and GRADE, respectively.

Results: 3 RCT, 1 pilot RCT, 1 cross-sectional study and 1 quasi-experiment were included from 343 evaluated references. The interventions varied from brochures about NSAIDs to counselling one-on-one and group educational sessions. We found two studies for each health professional (doctor, nurse or pharmacist) intervention. Some reviews were identified, but these either concerned population or PIM in general. In general, the studies showed that the interventions reduced the use of NSAID (either stopped taking oral NSAIDs or reduced dosage by ≥50%). One study showed a greater discontinuation of prescriptions of PIM after 6 months [RR=0.35 (0.10-0.55)]. Others study showed that when presented with a less effective but safer alternative, the patients switch preferences to the safer, albeit less effective option. One common substituted for NSAID was acetaminophen.

Conclusion: Interventions using educational outreach, on-site education given alone or as part of an intervention package done by GPs, nurses or pharmacists may reduce inappropriate NSAID use, but the evidence is of moderate or low quality due to risk of bias. Another limitation is the short follow-up period (3-6 months). Further studies are needed to evaluate the effectiveness and implementation of these interventions in the Portuguese context.
Dental caries in preschool children at the Cluster of Health Centres of Gondomar, Portugal

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Abstract:

Background: Dental caries is the most common chronic disease in childhood, affecting 60% to 90% of school-aged children worldwide. In Portugal, 45% of 6-year-old children have at least one decayed tooth. Until this age, children are eligible for free basic dental services for the treatment of serious disease identified by their family doctor; preventive dental care is not covered. Thus, the role of family doctor in the prevention and early diagnosis of these diseases is of particular importance.

Aim: To determine the prevalence of dental caries and its associated factors in preschoolers at the Cluster of Health Centres of Gondomar.

Methods: This study was conducted in a subsample of the birth cohort Generation XXI, a cohort of 8647 people born between 2005 and 2006 in the public maternities of Porto. Children that at the age of 4 were registered as a patient with a Primary Care practice in the municipality of Gondomar were eligible (n=878). The dental assessment was performed by dentists. The data on the interest variables were collected by interviewing the parents or grandparents. Descriptive and analytical analysis was performed using SPSS.

Results: The prevalence of dental caries was 20.6%. A positive association was found with: history of maternal unemployment (OR 1.921 [1.096-3.366]), routine consultations with a pediatrician (OR 2.549 [1.007-6.454]), past appointment with a dentist (OR 2.283 [1.187-4.492]) and toothaches (OR 10.581 [4,651-24,069]). A favorable outcome was associated with: higher maternal education (OR 0.878 [0.802-0.961]) and routine consultations in a private practice (OR 0.421 [0.183-0.967]). Routine consultations with a family doctor was not found to be a protective factor.

Conclusions: Although the prevalence of dental caries was not as high as previously reported, our results report to a younger age. The mother plays a pivotal role in her child’s (oral) health as it’s culturally accepted that she is the main caregiver during early childhood; as such, adverse socioeconomic factors like lesser education and unemployment may compromise the adequate implementation of and access to preventive dental care. As toothache is the most common result of dental caries, preschoolers who suffered from dental pain have had dental caries. Similarly, reverse causality is the most likely explanation to the association with dentist appointments and routine consultations with a pediatrician. The other associations are more puzzling. Are doctors in private practices in better conditions to deliver effective preventive counseling? Are family doctors incorporating oral health into general health promotion during routine appointments with preschoolers? Do they lack the time? Do parents have adequate health literacy to understand their doctor’s advice? Raising awareness of family doctors to this problem and allocating sociodental resources to families with higher risk of childhood caries is essential to tackle this public health problem.
Abstract:

**Background:** Although prostate cancer is the second most prevalent cancer in men and among the main causes of cancer-related death, it is also known that in many cases it grows slowly and does not impact survival, making routine screening controversial. Most society guidelines settle that prostate cancer screening should not be ordered prior to shared decision making that weighs the benefits and risks and takes into account the patients’ opinion and it is appropriate only in men with risk factors and a life expectancy superior to ten years. Prostate specific antigen (PSA) blood test is the most suggested screening method, however is widely known that it is not specific for prostate cancer and it could be high in men with ongoing benign conditions. Before the uptake of PSA, screening was based only on digital rectal examination (DRE). Nowadays DRE is not recommended as single screening test due to its lack of sensitivity and specificity, but it still shows up in most guidelines, if the patient agrees with its performance, ever associated with PSA and the combination of both methods is still commonly used in some countries.

**Aim:** Review the role of DRE on prostate cancer screening.

**Methods:** Bibliographic research using MeSH terms “prostatic neoplasm”, “digital rectal examination” and “early detection of cancer”, on MEDLINE, Pubmed, UpToDate and Cochrane Library, for publications in English and Portuguese, published between January 2009 and June 2019.

**Results:** DRE performed by primary care physicians has an estimated sensitivity of 51%, a specificity of 59%, and a calculated overall positive predictive value of 41%, but there is a meaningful heterogeneity across studies. Furthermore the majority of patients with cancer detected by DRE alone are not candidates for curative therapy. Although DRE and PSA may be complementary, studies show limited utility of DRE as an adjunctive test.

**Conclusion:** Even though routine performance of DRE by primary care clinicians is not recommended due to the considerable lack of evidence supporting its efficacy, some specialty society guidelines include DRE either to evaluate an elevated PSA, or as option along with PSA testing for prostate cancer screening.
Potentially inappropriate medication use in elderly in a primary care unit in Portugal

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Abstract:
Background & Aim: Inappropriate medication prescribing is a significant problem among older adults that may contribute to increased morbidity and mortality. Drugs might be considered inappropriate or potentially inappropriate in old age because of the higher risk of intolerance related to adverse pharmacodynamics or pharmacokinetics, drug-disease interactions and drug-drug interaction.

The main aim of the study was to assess potentially inappropriate medication in elder population (aged 85 years and older) in our health care unit.

Methods: The study was designed as an observational retrospective study, including adult patients aged 85 and older, that had at least one medical appointment in the last 24 months. A random sample of 50% of this population was selected and medical records of SClinic® and PEM® platform were consulted. Chronic medication prescribed in the last 12 months was evaluated. Recently updated AGS Beers criteria 2019 was used the primary tool to classify medication as potentially inappropriate, taking into account general health status including present chronic diseases, past events and drug-drug interactions.

Results: From the 429 patients that fulfill inclusion criteria, 215 patients were randomly selected. Average age of this sample was 88.6 years old (SD 3.0; maximal age of 100 years old), with a predominance of female patients (60.9% vs 39.1%).

The obtained results showed that 67% of the patients have, at least one potentially inappropriate chronic medication, prescribed in the last 12 months. The number of potentially inappropriate drugs varies between 1 and 7. Among the main therapeutic categories are benzodiazepines (32.1%), proton-pump inhibitors in prolonged treatment (29.3%), antiplatelet drugs for primary prevention of cardiovascular disease (18.1%), antipsychotics (8.8%) and antidepressants (4.2%).

Even if not included in Beers criteria, it was interesting to observe that 42.8% of this patients were prescribed with statins.

Besides chronic prescription, it was verified that 33.0% of the patients had at least one nonsteroidal anti-inflammatory drug prescription in the last 12 months.

Conclusions: Our results confirmed that inappropriate drug use is a common problem in older persons in this health care unit. The identification of major therapeutic categories of inappropriate medication in this health care unit is of outmost importance to arouse clinicians awareness for improving medication therapy and, in some cases, to consider deprescribing or nonpharmacological options. A comprehensive approach to medication use in older adults is desirable, in order to improve medication safety and effectiveness and ultimately to improve patient outcomes.
Benzodiazepines deprescribing: letter-moved

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Abstract:

**Background & aim:** Currently the consumption of benzodiazepines (BZD) has been excessive worldwide, especially in Portugal. The national and international guidelines recommend its use in specific situations and for a short period of time. Simple interventions in the form letter, one-time consultation or self-help information, may reach good discontinuation rates while demonstrating a favorable cost-benefit ratio. The aim is to evaluate the effect of a simple intervention type (letter) on elderly chronic consumers of BZD.

**Method:** Cross-sectional and analytical study. The study population belonged to a Family Healthcare Unit and was non-compliant with the performance indicator that defines the proportion of users aged at least 65 years without prolonged prescription of anxiolytics, neither sedatives nor hypnotics.

Upon identification of the population, a personalized letter was sent and signed by the user’s family doctor with information on the risks of chronic BZD consumption. The number of prescriptions in diazepam equivalents 10 mg and number of patients' visits in which the motive was BZD deprescribing were evaluated on months 2, 4 and 6.

**Results:** By now, in total, 200 letters were sent from each family doctor. There was a peak of patients' visits in the first two months that has decayed, with more than 3 patients/day in the first two weeks. Approximately 5% of patients had a reduction of 50% or 75% in their daily BZD intake. At this time, after month 4, 48 patients show no consumption of BZD for two consecutive months. New data will be available at the conference.

**Conclusions:** Quaternary prevention allows us to deprescribe harmful drugs that have no meaning in the health status of a patient at certain moment. BZD and sleep disturbance in the elderly are two common problems that seem to have merged into a "epidemic". A letter from a family doctor, a center piece in healthcare for many patients, can be life-changing and have some significant power. However, there's a need for longer follow-up and deepen patients' perceptions.
Statin on primary prevention of cardiovascular disease: patients at low to moderate cardiovascular risk, is it enough?

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Abstract:

Background & aim: Cardiovascular diseases (CVD) such as ischemic heart disease and stroke are the leading causes of death and morbidity worldwide - 17 million deaths annually, 30% of all deaths per year. Dyslipidemia is a risk factor for fatal and nonfatal cardiovascular events. Statins are the first-line therapy in LDL lowering targets. The use of statins in high cardiovascular risk patients is well documented, however, the use in primary prevention of cardiovascular events in patients without a history of CVD is controversial. The aim is to evaluate the benefits of statin therapy on primary prevention on cardiovascular events.

Method: We performed a narrative review of publications related to the use of statin in primary prevention of cardiovascular events. Pubmed, The Cochrane Library, University of York Centre for Reviews and Dissemination databases were searched for clinical guidelines, narrative reviews, systematic reviews and meta-analysis using a combination of the following keywords: “primary prevention” and “hydroxymethylglutaryl-CoA reductase inhibitors”. The search was limited to English, Spanish and Portuguese documents published on the last 10 years. The Strength Of Recommendation Taxonomy (SORT) was used to evidence Level assignment (LE) and recommendation strength (SR).

RESULTS: We got one systematic review with meta-analysis which we’ve attributed a Level 1 and five guidelines ranked from recommendation strenghts of A to C. The risk of bias was low among the studies. The systematic review has showed significance in primary and secondary endpoints, however, the number needed to treat for MACE is nearly 1:200.

CONCLUSIONS: The use of statins in primary prevention of patients with low to moderate CV risk and LDL <120mg / dL has no evidence of significant benefit (SR B). Some limitations: no evidence for LDL levels ≥120 mg/dL; lack of evidence at young ages; short follow-up duration.
POSTERS
Exercise impact on prevention of type 2 diabetes macrovascular complications: a systematic review and meta-analysis

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Abstract:

**introduction:** Type 2 Diabetes Mellitus (DM) is a heterogenous group of disorders characterized by various grades of insulin resistance, decrease of insulin secretion and increase of glucose production. Macrovascular complications of DM are similar to cardiovascular events in non-diabetics, however, they have a higher incidence on people with DM. Mortality and events by coronary disease are up to five times higher in patients with DM and the impact of chronic hyperglycaemia is unclear on these cases. Exercise lowers the incidence of cardiovascular events in general population, however its role on patients with Type 2 DM isn’t completely enlightened. The objective of this systematic review is to describe the impact of exercise as a isolated factor, on prevention of macrovascular complications in patients with Type 2 DM and summarize results of original articles published during the last ten years.

**Methods:** To elaborate this systematic review, we performed a literature search on December 2018 on Pubmed and Embase. We used MeSH terms and Emtree equivalent terminology, with the following filters “English”, “Portuguese”, “Randomized Controlled Trials” e “Ten years”. The selection of the studies was done by summaries and after that by reading of the full text by two independent reviewers and the final results were analysed on a cumulative meta-analysis.

**Results:** After the literature search we performed a screening of 400 articles. In the end only two articles were eligible. On these two studies included on meta-analysis (I2 = 46%), the intervention group showed a lower incidence of macrovascular events than the control group, yet without statistical significance (p = 0.310). However, a cumulative meta-analysis demonstrates the benefits of physical exercise in the prevention of macrovascular events (OR = 0.29; p = 0.048). The quality across the studies was classified as moderate.

**Conclusion:** At six weeks and four months of follow up of people with Type 2 DM, the prevention of macrovascular events was proven in an intervention group by exercise therapy, with evidence of moderate quality. There is few information available regarding the subject of this work, suggesting the implementation of new studies with a long term follow-up of people with diabetes, on exercise therapy, without atherosclerotic cardiovascular disease.

**Keywords:** Type 2 Diabetes Mellitus, Exercise, Exercise Therapy, Cardiovascular Diseases, Cerebrovascular Disorders, Vascular Peripheral Diseases
Learning Good, Basic and Tolerant practices

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Abstract:

**Background/aim:** LGBT is term used to define a group of people described as the sexual minority, which includes lesbians, gay, bisexual and transgender people. Their world prevalence remains unknown, but there is data suggesting that in the USA there are more than 9 million people identifying as homosexual or bisexual. This means that there is a relevant probability for primary care professionals to contact with LBGT patients. Lack of education in medical school on this specific topic results in health professionals being frequently unable to identify and address the needs of this population. The aim of this work is to review the current information on LGBT population specific needs and how to address them on primary care, while reflecting on how to increase this patients’ adhesion to preventive health care.

**Method:** Classic review of the theme of primary care for LGBT patients, based on a Pubmed research with the MeSH terms Sexual and gender minorities and Primary health care.

**Results:** The adaptations primary care needs to improve the attendance of this subgroup of patients can be grouped in three categories: creating a welcoming environment, knowing local resources that help and promote socialization, and addressing LGBT patients’ needs. These specific needs include assessing for mental, eating behavior and substance use disorders, offering appropriate screening services and screening for intimate partner violence.

**Conclusions:** As the research on this subject grows, a variety of changes seem to be necessary to offer equitable and informed care, as health care should be.
The Effects of Exercise on Non-Specific Chronic Low Back Pain - an Evidence-Based Clinical Review

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Abstract:

Background & aim: Low back pain (LBP) is one of the most significant causes of disability worldwide and is an important reason for work absenteeism. Furthermore, it has a substantial impact on daily functioning. Chronic LBP (CLBP) is defined as a pain that persists for more than 3 months. In most cases of CLBP the etiology is not clear and the term “nonspecific” is thus used. Multidisciplinary biopsychosocial rehabilitation has been recommended for CLBP. Physical exercise is a nonpharmacological integrative pain management treatment to reduce the use of chronic analgesic medication. With this based-evidence review we aim to evaluate the effects of exercise on health-related quality of life (HRQoL), disability and body pain in CLBP patients compared to the usual care alone.

Method: A research was performed by two independent reviewers in order to reduce the bias. The inclusion criteria were: 1 – Population: adults with 18 or more years of age with nonspecific CLBP; 2 – Intervention: functional and exercise training programs; 3 – Control group: Individuals without intervention programs; 4 – Outcome: improvements in physical function, body pain, vitality, physical component scale and general health perception. We included meta-analyses, systematic reviews and random controlled trials (RCT), published in English in the last 2 years, with the MeSH terms “exercise” and “chronic low back pain”. We searched two databases: MEDLINE and Cochrane Library. We used the Strength of Recommendation Taxonomy (SORT) scale to address the quality and consistency of evidence as well as to rate the levels of evidence and recommendation force.

Results: We obtained 62 articles total. After reading the title or the abstract we excluded 46 articles. From the remaining 16 articles, only 8 answered to the study question: 6 RCT and 2 meta-analyses. Various types of exercise showed significant improvements in physical function, body pain, vitality, general health perception and vitality – level of evidence 1. Most of these studies showed that physical exercise can be a rehabilitation strategy for individuals with CLBP enhancing functional resistance training and reducing disability.

Conclusions: CLBP is a common health problem with high levels of recurrence and disability. Exercise may be a viable nonpharmacological treatment with minimal side effects that has been found to provide a small, but significant effect on function and pain (A-level recommendation). However, it is not clear which type of exercises are the most advantageous in multidisciplinary biopsychosocial rehabilitation. There are still many questions that need to be answered. Future research should focus on the effects of different types of physical activity on specific populations (men or women, according to their age group, different rates of disability and pain, etc..) and the time-course effects of a specific training regime.
Ultrasound screening of ovarian cancer in low risk women - an Evidence Based Review

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Abstract:

Background & aim: Europe has the highest rate of ovarian cancer in the world, resulting in 42,700 deaths annually. Its symptoms (like persistent abdominal distension, early satiety and/or loss of appetite, pelvic or abdominal pain, increased urinary urgency and/or frequency) can often be misattributed to other conditions, like gastrointestinal diseases (most often with irritable bowel syndrome). Because of this, 60% of the ovarian cancers are diagnosed at a late stage (Stage III or IV) with significant implications for the success of treatment. For all this reasons, clinicians often question themselves if they should perform routine ultrasonography or measure the CA 125 parameter in low risk women as screening of early stages of this cancer. It is important to notice that a patient is considered high risk only if it has personal or family history or known or suspected genetic predisposition to ovarian cancer. The aim of this evidence-based review is to collect formal and reliable recommendations on the topic of screening of low risk women for ovarian cancer.

Methods: It was performed a Evidence Based Review, based on Guidelines and Systematic Reviews. It were used the MeSH terms “ultrasonography ovarian cancer” and “ovarian cancer screening” searched in the following databases at 5th June 2019: National Guideline Clearinghouse, Guidelines Finder, Canadian Medical Association Infobase, Cochrane Library, Bandolier and PubMed.

Results: The search provided 153 results, that were subjected to selection based on the title, abstract and in some cases the full reading of the articles. At the end there have been selected 5 guidelines to be subjected to detailed reading and appreciation: NICE Ovarian Cancer Overview – Detection in Primary Care (2019); US Preventive Services Task Force JAMA – Screening for Ovarian Cancer (2018); American College of Radiology Ovarian Cancer Screening (2017); Royal Australian College of General Practitioners – Guidelines for Preventive Activities in General Practice (2016); British Columbia Guidelines – Ovarian, Fallopian Tube, and Primary Peritoneal Cancers (2014).
All of the selected guidelines recommended to don’t perform any pelvic ultrasound (suprapubic ou endovaginal) or measurement of CA 125 in low risk women as screening for ovarian cancer, whether in pre or postmenopausal state. Two of the guidelines suggested that the risks of performing this screening outweighs the risks because the false positives that may occur may submit multiple women to unnecessary surgeries, with the risks that may accrue.

Conclusions: There is enough evidence to suggest that shouldn’t be performed screening for ovarian cancer with pelvic ultrasound or CA 125 measurement in low risk women. However, the prevalence and mortality of this type of cancer in the later stages of the
disease also suggests that another form of screening is highly needed such that the disease can be detected in earlier (and as such, with better prognosis) stages.
Overdiagnosis In Cancer Screening – What Do Austrian Medical Students Know About It?

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Abstract:

Background: Overdiagnosis is one of the main risks in cancer screening. This means that cancers are diagnosed which would never lead to any harm in a patient’s lifetime, as they won’t progress or even regress spontaneously. As these cancers cannot be distinguished from harmful cancer, overdiagnosis usually leads to overtreatment. Therefore, patients must have the possibility to make an informed decision whether to be screened or not. Information by highly educated physicians is a prerequisite. Therefore, we evaluated the knowledge about the risk of overdiagnosis in cancer screening of medical students in Graz.

Methods: We designed an online survey. An invitation was sent in March 2016 via e-mail to 2,495 medical students of the Medical University of Graz, Austria. This survey included 11 questions on screening statistics in general as well as 10 specific questions on overdiagnosis in breast and prostate cancer screening. 482 (19.3%) students completed the survey.

Results: Asking about the potential harms of screening coming to their mind, 45,9% of the students stated radiation due to mammography, 27,9% false positive results, 20,5% colon perforation due to colonoscopy and 7,4% false negative results in general. Only 6.3% of the students named overdiagnosis as a potential harm of screening. However, 57.4% of the students could identify examples of overdiagnosis out of four scenarios, though 31.7% misinterpreted an example of misdiagnosis as overdiagnosis.

Most of the students could answer the questions about risks and benefits of breast cancer screening correctly. However, the benefits of prostate cancer screening were overestimated whereas its risk of overdiagnosis was mostly underestimated. Most of the students would recommend breast cancer screening (86.7%) and prostate cancer screening (78.5%) to their patients.

Conclusion: Our results show that there is a high need to educate medical students – as well as physicians - about the risk of overdiagnosis. Only well-informed physicians can support their patients making an informed decision about whether to be screened or not.
Influenza vaccination in patients with established heart disease – How are we doing in Portugal?

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Abstract:

**Background & aim:** Cardiovascular disease (CVD) is the number one cause of death globally. In secondary prevention, influenza vaccination reduces significantly the number of cardiovascular deaths, so it seems to be a cheap, safe and effective additional prevention strategy for patients with CVD. Portugal clinical guidelines, as in many other guidelines, recommends annual influenza vaccination for patients with congenital heart disease, hypertensive cardiopathy, chronic heart failure and ischemic cardiopathy. However, patients with heart disease and less than 65 years old are not eligible for free vaccination, and there is little awareness, both among health professionals and in the general population, for the importance of influenza vaccine as an integral part of management and prevention of CVD.

With this study we aim to know how many patients with heart disease that are not eligible for free vaccination are being vaccinated against influenza and how this number differs from the general population.

**Method:** Data on 2018/2019 vaccination season was extracted from BI-CSP platform. We selected patients with congenital heart disease (ICPC-2 code K73), heart failure (ICPC-2 code K77) and ischemic heart disease (ICPC-2 code K74, K75, K76). We excluded conditions that are eligible for free vaccination: having at least 65 years old, diabetes mellitus (T89, T90) and chronic obstructive pulmonary disease (R95).

**Results:** In Portugal there are 7,897,721 individuals with less than 65 years old. Of them, 281,254 was vaccinated against influenza in 2018/2019 (3,6%) and, at least, 61,6% of the influenza vaccine prescription was made by primary care physicians. There are 64,050 patients with congenital heart disease, chronic heart failure or ischemic cardiopathy, of which 7,954 received the prescription for influenza vaccine (12,4%). The vaccination rate varies based on the Regional Health Administration (ARS), with higher rates in ARS Norte (16,8%) and lower in ARS Algarve (4,2%).

**Conclusion:** Patients with heart disease have higher influenza vaccination rates, which demonstrates some understanding of its importance for secondary prevention of CVD in this group. However, the number of vaccinated patients remains very low, which reveals the need for greater awareness of health professionals and the general population for this subject.
Problem-Solving Decision-Making scale - translation and validation for the Portuguese language: a cross-sectional study

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Abstract:

Background: The shared medical decision has been the advocated consultation model, mainly in Primary Health Care. Though, not all patients want the same degree of participation. It is important to access patients and their families’ preferences in order to provide care accordingly. The Problem-Solving Decision-Making scale (PSDM) is an instrument that allows to evaluate this preference of roles.

Objective: To translate and validate the PSDM instrument into the Portuguese language.

Methods: We conducted a cross-sectional study, through the application of a questionnaire in face-to-face interviews to a representative sample of the Portuguese population residing in mainland Portugal, aged not less than 20 years. In an initial phase, we translated the PSDM from English to Portuguese. Then, we applied the questionnaire to a sample of 301 people to proceed with the validation of the PSDM in Portuguese.

Results: In order to evaluate the content validity, the principal component analysis (PCA) method was applied, confirming the existence of 2 components: problem-solving (PS) and decision making (DM), with an explained variance of 65.9%. For internal consistency, three different techniques were used, applied to the 2 components resulting from the PCA, and in all of them the items presented very good internal consistency (PS Cronbach’s alpha=0.931 and DM Cronbach’s alpha=0.951).

Conclusions: The validation of the Portuguese scale was in agreement with what is in the literature. The scale can be divided into 2 components: the problem-solving (PS) component and the decision making (DM) component. Through the statistical analysis we can also conclude that the translated scale has a good internal consistency and can therefore be used in future studies.
Violence against the elderly: how to recognize and how to deal with

Authors name: Sofia Rodrigues; Liliana Portela; Ricardo Araújo; Andreia Ribeiro; Vera Esteves
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Abstract:

Background and aim: With the aging of the population, violence against elderly people is especially important, raising some ethical and legal issues. The health professional must be informed and warned for the early detection of cases. Certain characteristics of the person, community and society should alert us to the possibility of violence. The approach during an appointment should always guarantee patient safety, and there should be availability and openness of the multidisciplinary team to support the elder as well. Bearing in mind that we are leading with frail patients, professional secrecy does not apply in order to ensure protection and safety of the elder patient.

Our aim is to review signs suggestive of violence in the elder and what should be the approach of the family doctor based on ethical and legal issues.

Method: Classic review, with bibliographic research in scientific journals, Directorate-General of Health (DGS) website, Equipas para a Prevenção da Violência em Adultos (EPVA) book, ethics commissions and Portuguese legislation, World Health Organization between 2009 and 2019 in Portuguese, with the terms "violence", "elderly", "professional secrecy "and" primary health care".

Results: Violence against elderly people is defined as "a single, or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person". Elder abuse can take various forms such as financial, physical, psychological and sexual. It can also be the result of intentional or unintentional neglect. There are risk scenarios such as dependency of the victim on the aggressor, burnout of the caregiver or financial problems that must be taken into account when approaching a patient in a situation of fragility as is the case of the elderly ones. It is essential that the family physician has the sensitivity to approach and screen for signs of violence, using a space with privacy, formulating open questions that give the patient an opportunity to express himself, assuming an active listening posture and transmitting security in reporting the confidentiality of the information. However, facing a fragile patient, whenever we suspect that the patient may be in danger we must inform him and report the situation, always ensuring his security. It is a complex subject that poses some ethical issues in clinical practice, however it should not be ignored given the great impact and danger it may have on the patient’s life.

Conclusions: Violence against elderly people is a frequent and often unnoticed situation. It is extremely relevant to know the legislation, ethical issues and medical confidentiality, so that we can adapt our practice, in a well-founded manner, ensuring the safety not only of the patient, but also of the health professional.
Thiazides and the risk of developing skin cancer – an evidence-based clinical review

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Abstract:

Background & aim: Diuretics are one of the most frequently prescribed class of drugs for the treatment of hypertension, a high prevalence disease with a steady growth in incidence over the last few years. Recent studies showed an association between the use of thiazides, a group of well-known photosensitizing drugs, and a higher incidence of lip cancer and nonmelanoma skin neoplasms. Therefore, it urges to understand if people undergoing treatment with this type of drugs are at a greater risk of developing skin cancer. The aim of this review is to access the risk associated between thiazide use and the development of skin neoplasms.

Method: We performed a systematic review of all articles obtained after a double reviewer search on MEDLINE, using the MESH words “thiazides” and “skin neoplasms”. As for the search criteria, we looked for clinical trials, meta-analysis, randomised controlled trials and systematic reviews published in the last 5 years, in English, and obtained a total of 7 articles. From the 7 articles obtained, 1 was immediately excluded due to being written on a different language. Based on the review of article titles and abstracts we identified and retrieved 3 potentially eligible papers for detailed review based on full text-review. Data extraction was performed using Microsoft Excel®.

Results: All 3 articles fully reviewed showed an association between the use of thiazides and the development of skin neoplasms. Two of the three articles were retrospective case control studies, and both found a relation between high doses of hydrochlorothiazide (≥ 50mg) and the development of nonmelanoma skin cancer. The remaining article included was a cohort study, and it showed that people using thiazides are at a higher risk of developing skin cancer, including melanoma. Following the classification “Strength of Recommendation Taxonomy” (SORT), we classified all articles with a level of evidence 2.

Conclusions: We conclude that evidence points out to a higher risk of developing skin neoplasm on patients undergoing treatment with thiazides, particularly high dosage hydrochlorothiazide (force of recommendation B). Therefore, education and awareness of all health professionals plays a key role. Several other antihypertensive drugs with similar efficiency and indications to thiazides are available and should be considered first, particularly on patients with other risk factors for the development of skin cancer.
Preventing and detecting alcohol-related problems: A Research Protocol on Family Doctors knowledge and conduct.

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Abstract:

Background & aim: Alcohol abuse is the third leading cause of preventable morbidity and mortality worldwide, with Europe being the region with the highest levels of consumption. Early detection of alcohol abuse is essential for preventing health problems and social risks associated to these behaviors, both on the patients and on their families. Primary Health Care represents the entry point into the Health Care System, therefore, Family Doctors must be able to detect their patients abnormal drinking behaviors in order to properly help them. One of the main tools to evaluate drinking behaviors and alcohol related problems is the Alcohol Use Disorders Identification Test (AUDIT), a screening tool developed by the World Health Organization and validated in many countries, including Portugal. Brief interventions are a type of practice that aims to identify a potential or already existing problem, such as alcohol abuse, and motivate the patient to change his behavior. The main aim of this protocol is to evaluate the knowledge of both specialists and residents of Family Medicine about early detection and brief intervention in excessive alcohol consumption. Our secondary aim is to evaluate the difficulties and limitations in their clinical practice that might be delaying the referral and correct orientation of these patients.

Method: This protocol drafts into an analytic observational cross-sectional study. The population will comprise specialists and residents of Family Medicine. Variables will be sociodemographic, knowledge about standard drink, recommended limits, screening tools, difficulties in clinical practice and perception about the problem. Data will be collected through a questionnaire consisting of 11 multiple-choice and 1 open-ended questions. These questionnaires will be published online through institutional e-mails, forums and online Family Medicine related communities. Consent will be asked, and the final sample will consist of all fully answered obtained questionnaires, with consent given. Statistical and inferential analysis will then be performed.

Results: Some of the main barriers, through the professionals point-of-view, that we expect to find in the detection and orientation of patients with abusive alcohol behaviors are: restricted time of consultation, refusal/denial from the patient, unawareness of the existence of alcohol use disorder screening tools and difficulties in patient referral to Secondary Care Services.

Conclusions: We aim to draw Family Doctors attention to the importance of active searching for alcohol related problems in their clinical practice, using the correct available screening tools, and to promote brief interventions as a practical way to change their patients’ behavior. The development of a multidisciplinary approach in order to prevent the medical, personal, and social consequences of alcohol abuse will bring significant social and economic gains to individuals and to the society.
Allergies registration in a clinical process – Quality improvement protocol

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Abstract:

**Background & aim:** All medication has the potential to cause adverse effects. When unpredictable they are classified as type B adverse reactions or hypersensibility. An allergic reaction to a medicine is included in this last classification and is characterized for being triggered by immunologic mechanisms.

The allergic reactions to drugs may vary from mild angioedema and skin rash to anaphylaxis. Therefore, one way to decrease the risk of this last form of reaction, with an estimated prevalence of 1/1000 in general population, is to register medications and respective allergies in the assigned area of SClínico®, where it is readily available.

This work is expected to increase medicine allergies reporting in SClínico®.

**Methods:** Studied dimension: Technical-scientific adequation of the healthcare professionals at USF Viseu-Cidade. Internal evaluation, retrospective. Unit of study: selective, of institutional base, constituted by patients registered in the USF. Evaluation period: 1st cycle – completion until June 2019; 2nd June 2020. Quality criteria: SClínico® reporting rate of allergic reactions to medication. Process data obtained annually by the doctor through the SClínico®. It is predicted an educational base intervention.

**Discussion:** According to the first cycle of quality improvement, the compliance rate (4.16%) shows a generous margin for improvement. In order to do so, this subject will be presented in a meeting of the USF’s general council aiming to raise awareness amongst doctors about the importance of this procedure.

**Conclusion:** Due to the potential severity of an allergic reaction to a drug, the filling of this field on the SClínico® will help to prevent these events.
Omega-3 fatty acid supplementation and preterm birth prevention: An Evidence-Based Review

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Abstract:

Background & aim: Preterm birth (PTB) is the main cause of death in children below the age of 5 and responsible for about 85% of perinatal complications. Therefore, PTB complications are the leading cause of child mortality and morbidity. It is known that maternal nutritional status along with infections and psychosocial stress, plays a role in spontaneous PTB. However, there are no current interventions or strategies applied in daily clinical practice to prevent it.

On the other hand, it has been shown that, higher levels of omega-3 during pregnancy have been associated with longer gestations and improved perinatal outcomes.

Women are particularly receptive during pregnancy to apply health behaviour changes and the majority of pregnant women have regular contact with general practitioners (GPs).

The aim of this review was to assess the effect of omega-3 LCPUFA on preterm birth prevention.

METHODS: The authors searched in international databases National Guidelines Clearinghouse, Guidelines Finder, Cochrane Library and MEDLINE/PubMed, for guidelines, systematic reviews, meta-analysis and randomized controlled trials, published between January 2009 and April 2019, using the MeSH terms ‘fatty acids, omega-3’ and ‘premature birth’.

We used the Strength of Recommendation Taxonomy (SORT) scale of American Family Physician to assign levels of evidence and strength of recommendations.

Results: From a pool of 23 papers, only 4 articles met the inclusion criteria: one systematic review (SR), one meta-analysis, one randomized controlled study (RCS) and one cross-sectional study (CS).

The analysis of the selected articles showed that omega-3 supplementation during pregnancy reduces the incidence of preterm labour.

Nonetheless, there is still no consensus about the best supplementation method (optimal composition, dosing and length of treatment strategies).

Conclusions: Increasing the levels of fatty acids omega-3 during pregnancy, namely long-chain polyunsaturated fatty acids (LCPUFA), whether through diet or supplements, reduces PTB incidence (Level of evidence 1). Consequently, the current available evidence suggests the benefit of omega-3 supplementation as a strategy to prevent preterm birth. (SORT A) However there is still no consensus about the best supplementation method (optimal composition, dosing and length of treatment strategies).

Nevertheless, further follow-up studies are needed to define exactly how supplementation should be done in terms of timing and doses.

The ongoing studies should see their results included in future reviews, so that more evidence is gathered in order to reach consensus about how to precisely recommend routine supplementation.
**Key-words**: omega-3 fatty acids; pregnancy; preterm birth
Approach of Pediatric Migraine in Primary Health Care

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Abstract:

Background and aim: In Pediatrics, migraine is the most common acute and recurrent disabling primary headache syndrome. In spite of its high prevalence among children (5% at 10 years old increasing up to 23% in adolescents) and its negative impact in children’s lives - contributing to absence and academic underachievement - pediatric migraines still remain underrecognized and underdiagnosed. In primary health care (PHC) the role of the family physician (FP) is pivotal in the identification of this pathology, in order to ensure an early diagnosis and eventual referral. However the diagnosis and treatment is not straightforward and consensual, so many FPs find its management challenging. The objective of this paper is to review the existing evidence regarding the approach, diagnosis, referral criteria, management and prevention, so that a FP can have an earlier and more active role in these children care and ultimately improve their quality of life.

Methods: For this review, we researched the following database: Canadian Medical Association - Practice Guidelines InfoBase, NICE, The Cochrane Library, UpToDate, Dynamed e Pubmed. The MeSH words used were pediatric migraine, migraine disorders and pediatrics. The research focused on articles published in the english language, between January 1st, 2015 and July 1st, 2019.

Results: We selected 28 articles, including 26 review articles; 1 systematic review and 1 guideline. An exhaustive anamnesis should include a careful clinical history and neurological examination. Identifying the main red flags allow us to distinguish between the need of referral to emergency care or neurology consultant, or the management in PHC. The initial management can be made in PHC and encloses pharmacological therapy during the migrainous attacks and introduction of preventive measures including non-pharmacological therapy and/or pharmacotherapy.

Conclusions: The FP has a pivotal role in the diagnosis of pediatric migraine and as such, it is essential the awareness of the disease and its different variants. In face of difficulties regarding the anamnesis, mainly with younger children, it is up to the FP to articulate with the family as to understand the impact and the limitations of the disease in the child’s life. When there are no specific referral criteria, the FP should feel empowered to implement and manage the medication for the crisis and/or prophylaxis. Since there are a paucity of pediatric randomized controlled trials, the majority of medications are used off-label which can hinder the FP’s role. However non-pharmacological preventive measures must be integrated into the treatment plan and considered just as important as pharmacotherapy, being the FP decisive in regards to implementing these preventive behaviours. This paper intends to review the more consensual and safest approaches, in order to encourage the follow-up of these children in PHC.
Scoliosis Screening: should it be done?

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Abstract:

Background & aim: Scoliosis is a 3-dimensional, structural deformity of the spine, with lateral curvature greater than 10o and axial rotation. Adolescent Idiopathic Scoliosis (AIS) is the most common subtype, accounting for 90% of all cases. The onset is at 10 years or older and it is of unknown etiology, with a prevalence ranging from 0.5% to 5.2%. Routine screening of AIS is controversial and recommendations vary greatly worldwide. Our aim is to assess the available evidence of AIS screening on a routine well-child examination.

Method: We searched for Meta-Analysis, Systematic Reviews (SR), Reviews, Randomized Controlled Trials, Guidelines and Practice Guidelines, in MEDLINE/Pubmed, EMBASE/The Cochrane Library, National Guidelines Clearinghouse, NICE and Clinical Evidence, regarding children and adolescents aged 6 to 18 years old, published in English, Spanish and Portuguese, between January 2012 and June 2019, with an available abstract. The MeSH terms were [Scoliosis], [Child], [Adolescent] and [Diagnosis]. Exclusion criteria were previous symptoms or an established diagnosis of AIS.

Results: Five articles were included: 2 SR and 3 Reviews. Most of the studies were in favor of screening for AIS, arguing: a relatively low cost, minimal radiation exposure with current radiographic techniques, a preventive role of bracing in deformity progression, an earlier detection of severe deformities requiring surgery, and a lesser need of surgery for scoliosis patients detected by screening. The accuracy of AIS screening seems to be higher when using forward bend test, scoliometer and Moiré topography. On the other hand, some authors suggest that it is not possible to evaluate the effect of screening for AIS on severity of curvature or adult health outcomes compared with no screening, due to lack of appropriate studies. In addition, harms associated with false-positive screening seem to be unclear. It should be noted that significant heterogeneity was found between studies.

Conclusions: Although usually benign, the natural course of AIS may lead to disturbance of body morphology, reduced thoracic volume, impaired respiration, increased back pain and serious esthetic concerns. Risk of deterioration is highest during the pubertal growth spurt, hence the importance of screening in adolescents. Screening seems to be effective at detecting AIS and enabling short-term management of the disease. However, there is little or no evidence on the harms of AIS screening or its effect on adult health outcomes. The challenge for the primary care physician is to distinguish adolescents with higher-risk scoliosis requiring intervention from those with lower-risk scoliosis that only require monitoring. Additional good-quality studies are needed to evaluate the harms and benefits of routine screening of AIS, as well as its repercussions on long-term health outcomes.
Immunogenicity of a single dose Hepatitis A Vaccine - an evidence based review

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Abstract:

Background & aim: In April of 2017, during a Hepatitis A (HAV) outbreak in Portugal, the General Health Department (DGS) published a statement providing directives on not administering a booster dose in previously single-dose HAV vaccinees and tranquilizing patients, citing a 2011 World Health Organization paper that confirmed the immunogenicity of a single dose HAV vaccine. However, the same paper stated: “It remains to be seen, however, if a single-dose immunization policy will indeed provide long-term protection against HAV or whether a booster dose will after all be required”. In December 2018, after epidemic control, DGS published another directive recommending the vaccination of at-risk patient with “age-adequate dosage schedule”. HAV vaccination assumes an important role in primary health care, especially among travellers to endemic countries and at-risk populations. The aim of this study is to elaborate an evidence-based review on the immunogenicity of single dose HAV vaccine.

Method: We searched Medline and Cochrane databases with the following Mesh Terms: “Hepatitis A” and “Vaccines”. We included all randomized controlled trials (RCT) and observational studies (OS) that evaluated the efficacy of single dose HAV vaccine, through the determination of immunogenic antibodies against hepatitis A for at least 24 months. We selected papers in English, Portuguese, Spanish and French. From those 119 papers, we excluded 114 that didn’t fit the purpose of this study. We selected 4 RCT and 1 OS and used the Strength of Recommendation Taxonomy to rate the quality of evidence and strength of recommendation.

Results: The RCT did the following comparisons: single dose inactivated HAV vaccine vs single dose HAV and typhoid fever combined vaccine; single dose attenuated HAV vaccine vs booster dose at 12 months; single dose inactivated HAV vaccine vs single dose attenuated HAV vaccine vs booster dose at 6 months; and single dose attenuated HAV vaccine vs 2 different single dose inactivated HAV vaccines. The OS evaluated the immunogenicity of a single dose virosomal HAV vaccine. Follow-up time varied from 2 to 8 years and sample size between 130 and 3515 subjects. Seroprotection rate was at least 70% of single dose inactivated HAV vaccinees and 63% of single dose attenuated HAV vaccinees at the end of respective follow-up time. Booster dose had a seroprotection rate of 98-100%. Only the OS evaluated the incidence of HAV infection in single dose HAV vaccinees, having detected 1 case of sub-clinical hepatitis.

Conclusion: This review suggests that a single dose inactivated HAV vaccine is immunogenic during the period of study. No clinical HAV infection was detected, although only one study evaluated this premise. The main limitation of this review is the variety among HAV vaccine types and follow-up
times. Besides, there is still a lack of studies regarding the long term immunogenicity of a single dose HAV vaccine.
Metabolic disturbances and hepatic steatosis in clinically healthy overweight and obese adults at age 30 to 45

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Abstract:

Background: Testing for metabolic disturbances and hepatic steatosis in overweight and obese individuals could be used as “a tool” in primary care to motivate towards lifestyle behavioural changes prior to an apparent disease. Feasibility of such tests is related to prevalence of disturbances in the given population and could be doubted due to recent evidence suggesting that metabolically healthy obesity is transient and that MH obese individuals are still at higher risk of diabetes and cardiovascular diseases. Data on metabolic disturbances and hepatic steatosis in clinically healthy overweight and obese men and women is lacking in Latvia.

Objective: To find out gender related differences in metabolic disturbances and hepatic steatosis in the studied population of clinically healthy overweight and obese individuals at age 30 to 45

Methods: We performed a survey of 123 clinically healthy overweight and obese individuals (47% males) at age 30 to 45 involved in an RCT and selected from six randomly chosen family physicians’ practices in one health care centre in Riga. All subjects were examined after 12 hours fast. We measured waist, BMI, venous lipid, glucose and insulin levels and performed an abdominal CT scan. Independent samples t-test, Mann-Whitney U test or Chi square tests were used to compare results by gender (men n=58 and women n=65).

Results: We did not find any significant differences between women and men in age (36.9±4.3 vs. 36.0±4.1, p=0.777) and BMI (32.0±4.4 vs. 31.9±4.2, p=0.908) in the studied group. Average waist of women was 95.28±10.1, while in men 104±14.3, p<0.001. Men had higher rates of hypertriglyceridemia (TG>1.7 mmol/l), 53% vs. 19%, p<0.001, and liver steatosis 57% vs.22%, p<0.001, compared to women. Men and women had similar rates of HDL-C dyslipidaemia (< 1.03 mmol/L in men, <1.29 in women) (22% vs. 21%, p=0.908), hyperglycaemia (≥5.6 mmol/l) (26% vs.19%, p=0.322) and HOMA-IR above 2 (72% vs.69%, p=0.700).

Conclusions: The study implies that in clinically healthy overweight and obese individuals residing in Riga, Latvia majority might have HOMA-IR above 2, every second man might have hypertriglyceridemia or liver steatosis, every fifth man or woman might have decreased HDL-C or increased fasting glucose.
Blood pressure assessment in a type 2 Diabetes Mellitus population

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Abstract:

**Background and aim:** Diabetes Mellitus (DM) constitutes an independent cardiovascular risk. Besides that, most patients have additional risk factors (RF) such as obesity, sedentarism, dyslipidaemia and hypertension. Controlling these RF has been shown to reduce morbidity and mortality in patients with DM. The American Diabetes Association and European Society of Cardiology recommended specific blood pressure target-ranges according the age of patients and presence of hypertension.

The aim of this study is to analyse the systolic and diastolic blood pressure in a group of type 2 DM.

**Method:** A retrospective observational study was performed, and patients from a primary care unit with the diagnosis of type 2 DM were selected using the MIM@UF® database. Through the analysis of the clinical process, the following variables were recorded: age, gender, body mass index, systolic blood pressure (SBP) and diastolic blood pressure (DBP), presence of major cardiovascular RF, target organ damage (TOD), cardiovascular events, glycated haemoglobin, and low-density lipoprotein (LDL) values. Patients were stratified according to their age and presence of hypertension or cardiovascular events. For each group, systolic and diastolic blood pressure were evaluated and compared to target-ranges according to international recommendations.

**Results:** We obtained a sample of 853 patients with an average age of 72 years, 50% female, 96% with major cardiovascular RF and 46% with TOD. Concerning other variables, 39% where obese, 39% had a glycated haemoglobin above 7% and 24% had a LDL above 115 mg/dL.

In the studied sample, 75% of patients had hypertension and 23% had history of cardiovascular events. For patients with hypertension, the adequate control of SBP was achieved in: 18% of patients between 18 and 64 years old, and 30% of patients with more than 65 years old. The DBP was in the target range in 41% of patients.

For patients with cardiovascular events, the adequate control of SBP was achieved in: 1% of patients between 18 and 64 years old, and 23% in patients with more than 65 years old. The DBP was in the target range in 39% of patients.

**Conclusions:** Diabetes Mellitus is frequently linked to other cardiovascular risk factors. In this study, we verified an inadequate control of blood pressure, particularly of SBP. In the group with cardiovascular events there was a less frequent adequate control of SBP. Because blood pressure is a modifiable cardiovascular RF, it is important to control it in order to attain all the potential health benefits.

The limitations of this study are the retrospective nature of the study, the lack of data concerning both the medical therapeutics and the duration of the disease, the presence of only one blood pressure measure for each patient, and the absence of quality control of blood pressure procedure.
Adequacy of the control of dyslipidaemia on a population with type 2 diabetes mellitus

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Abstract:

**Background & aim:** Diabetes Mellitus (DM) is by now clearly associated with an increase in cardiovascular risk, which in turn is the main cause of mortality in the DM population. Alongside with DM, other conditions that constitute a clear cardiovascular risk factor (RF), such as dyslipidaemia, are frequently found. According to the European Society of Cardiology (ESC), patients with type 2 DM belong to the high and very high cardiovascular risk groups. As such, these two distinct groups have different target-values of low-density lipoprotein (LDL) and below those values, there is a reduction in all-cause mortality. The aim of this work is to analyse the LDL values and assess the adequacy of its control in a population with type 2 DM.

**Method:** A retrospective observational study was performed, and patients from a primary care unit with the diagnosis of type 2 DM were selected using the MIM@UF® database. Through the analysis of the clinical process, the following variables were recorded: age, gender, body mass index, blood pressure, presence of major RF, target organ damage (TOD), cardiovascular events, glycated haemoglobin, total cholesterol, high density lipoprotein (HDL), LDL and non-HDL-cholesterol (non-HDL-c) values. Patients were stratified according to cardiovascular risk into two risk groups. For each group, LDL values were evaluated and compared to target-values according to ESC recommendations.

**Results:** We obtained a sample of 853 patients with an average age of 72 years, 50% female, 96% with major cardiovascular RF and 46% with TOD. Concerning other variables, 39% where obese, 58% had systolic blood pressure above 130mmHg and 39% had a glycated haemoglobin above 7%. Regarding cardiovascular risk, 17 patients where at a high cardiovascular risk and 836 at very high risk. In patients with very high cardiovascular risk, 24% had LDL in the desired values, and 28% had non-HDL-c in the desired level. In patients with a history of cardiovascular events, 29% had a LDL in the desired level and 35% had a non-HDL-c in the desired level.

**Conclusions:** DM is a prevalent disease and cardiovascular RF control is fundamental to reduce morbidity and mortality. In the study sample, there was an inadequate control of LDL values. It is important to refer that most patients had a non-HDL-c higher than the recommended values thus conferring a more atherogenic profile. Furthermore, we verified the prevalence of other cardiovascular risk conditions such as hypertension and obesity. Interestingly, in the group with a history of cardiovascular events, the average LDL and non-HDL-c values were lower, which suggests that RF are more assertively controlled after a major cardiovascular event. It is therefore essential to monitor more closely the LDL values in the population studied.
The limitations of this study are the retrospective nature of the study and the lack of data concerning both the medical therapeutics and the duration of the disease.
Very brief and brief intervention on smoking- assessment and quality improvement

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Abstract:
Background & aim: Smoking is the first avoidable cause of illness, disability and premature death in developed countries. Smoking cessation is indicated in all smokers, regardless of age, disease stage or smoking burden. On the Family Health Unit, although 16.5% of smokers had a tobacco-related consultation in the past year, it was found that there was no evidence of a very brief or brief intervention in this area.
The objective is to increase the number of smokers undergoing a very brief and brief approach to smoking on primary health care.

Method: Data collection: by the authors in January and May 2019, consulting SCLINICO, MIM @ UF and Bi-CSP clinical records.
Population: Users of both sexes, aged ≥ 15 years, from the files of 6 family doctors from a primary health care unit. Sample: institutional basis, convenience. Type of assessment: an internal, retrospective. Data collection: Analysis of data: Excel®2018. Inclusion criteria: smoking users aged ≥ 15 years, considered in the 1st assessment in January 2019 and the 2nd assessment in May of 2019. Exclusion criteria: deceased. Evaluation / Quality Criteria: Improvement of results, with an increasing proportion of users with very brief or brief intervention in smoking in the last year. Type of Intervention: Professional focused (data exhibition and discussion of results at health care unit meeting, it was focused the patient approach according to the 5As Intervention or 2As + A / R Very Brief Intervention algorithm) and user.focused educational (handout distribution).
Evaluation/quality criteria: Identify if after the intervention there was an increase in the ratio of smokers with evaluation in smoking cessation.

Results: On the first assessment, in January 2019, there were a total of 1737 smokers and no one had a consultation with a very brief or brief intervention in smoking cessation in the last 12 months. After the educational session, in the second evaluation, 1746 smokers were studied, and it was found that only 0.46% had an intervention in this area.

Conclusion: There was a small increase in smokers who underwent an intervention on smoking cessation, which allows us to conclude that the intervention performed had a little impact. Possible explanations: failure of implemented strategies; failures in the clinical record. It is important to implement new corrective measures, promoting the importance of smoking cessation.
Imaging in acute low back pain – prescription quality assessment

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Abstract:

Background & aim: Lower back pain is the first cause of disability worldwide. Acute low back pain is typically self-limited, lasting around 4 weeks, and rarely relates to a serious condition. As such, routine imaging is not recommended, and imaging should be performed only in the presence of red flags. Despite that, there is a high imaging prescription rate, and since this condition is so prevalent higher costs are incurred and it leads to more imaging, treatments and unnecessary surgery. International guidelines recommend that local teams should monitor the compliance with local protocols. With this work we aim to determine if imaging for acute low back pain is prescribed without clinical indication, and, when imaging is indicated, if the correct imaging exam is prescribed. We also aim to access the proportion of patients in which imaging altered clinical approach; in which intramuscular analgesia was given, and in which a certificate of incapacity for work was issued.

Method: We included clinical records from August to December 2018 of a primary care unit in Lisbon that were coded with ICPC-2 L03 (Low back symptom/complaint), L84 (Back syndrome w/o radiating pain) or L86 (Back syndrome with radiating pain) using the MIM@UF database. We excluded records with no reference to low back pain and of chronic pain appointments, except in case of pain exacerbation. The following data was collected: demographic data; pain characteristics; indications for imaging prescribing; clinical approach after exam result; intramuscular medication use and medical certificate issuing.

Results: Out of 446 clinical records, 282 were excluded, leaving 164 episodes of acute low back pain. In 25,61% of cases imaging was performed without clinical justification in the medical files. From the 44 episodes where imaging was indicated, 54,54% performed the correct imaging exam, 31,81% performed an improper imaging exam, and 13,63% should have performed an imaging exam but it was not prescribed. From the 80 people that performed imaging, only in 8,75% did the imaging exams alter the clinical approach. In 23,17% of cases intramuscular analgesia was given, and 27,9% were issued a certificate of incapacity to work.

Conclusions: 1 in every 4 imaging exams were performed without justification in the clinical records and in less that 10% did the imaging exams alter the clinical approach. This indicates that there is a need not only to promote local protocols but also to improve clinical records. There might also be pressures from patients for imaging prescribing, intramuscular analgesia and medical certificate issuing that could be minimized with patient education. These results denote the need for an intervention aimed at the medical team and also at the patients in order to improve our quality of imaging prescription, thus avoiding unnecessary exams.
Automobile restraint systems: perception of children´s caregivers in a healthcare center community

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Abstract:

Background & aim: Road accidents are the leading cause of death and child incapacity in Portugal. The use of appropriate restraint systems in car transport is essential to countermeasure this data. According to World Health Organization, the use of child restraint systems, well-installed and suitable for children’s weight and age reduces the risk of death by 54-80%. It is therefore important that the caregivers understand the need to transport their children as accurately as possible.

Methods: The aim of this study was to characterize the knowledge and attitudes of the children’s caregivers of our health center, in relation to the automobile restraint systems. It was performed an opportunistic evaluation, in which the caregivers of children aged between 0 and 12 years old, who use the health center in a scheduled consultation of child health or in day consultation, signed an informed consent and filled out a questionnaire. Exclusion criteria: children not enrolled in our health center, children who come to the medical appointment accompanied by caregivers who do not usually carry them, incorrect completion of the questionnaire. Variables: age, gender, weight, height, schooling of the caregivers, perception of the caregivers in relation to the importance of the automobile transport, knowledge of the existence of the Portuguese law regulating the automobile transport of children, whether or not they consider the restraint system to be suitable for their child, how they transport their children depending on the distance to go, whether or not the topic is addressed in medical appointments and whether they consider it important to address it. Data Source: MedicineOne® and questionnaire elaborated by the authors. Descriptive statistics will be performed. Data collection: July 1st to August 31st of 2019.

Results: The data is still being collected, so we performed a preliminary assessment. So far we have 70 questionnaires correctly fulfilled, 35 corresponded to female children and 35 males, being the median age of 2 years. All respondents consider important the way they carry their child in the automobile and 97.1% are aware that there is a Portuguese law regulating the carriage of children. The majority (81.4%) properly carries their child in the car and 98.6% transport their child in an equal way whether it is a long or short course. As regards road safety, 87.1% responded that it was regularly approached in the health centres child health consultations, but 12.9% said no. However, all respondents consider important to address this issue in routine consultations.

Conclusions: From the data we have so far, most of the caregivers use the adequate automobile restrain systems and all of them think that automobile restraint systems are an important subject to assess in our health units, but some of them don’t have the required information about this subject. It is of extreme importance that we provide this kind of information in primary care centres.
Bacterial lysates: evidence of its use to prevent recurrent respiratory tract Infections

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Abstract:

**Background & aim:** Recurrent Respiratory Tract Infections (RRTIs) remain an important cause of morbidity worldwide and have important socio-economical implications. Often it is necessary to prescribe antibiotics to treat RRTIs and their overuse can lead to microbial resistance. It is extremely important that strategies to decrease the use of antibiotics are adopted. One possible approach to the decrease RRTIs is their prevention. Bacterial Lysates (BL) can act on the non-specific immune response and increase it or augment innate defence mechanisms, so they stand as a possible way to prevent RRTIs. The aim of this study was to evaluate the current evidence available on BL as an effective method to prevent RRTIs.

**Method:** We considered studies of male and female patients of all ages with RRTIs. The intervention considered was the administration of BL as comparison to standard care. As outcome the absence or decrease of RRTIs. Studies that had as population patients with chronic diseases such as Asthma or Chronic Obstructive Pulmonary Disease (COPD) were excluded. Our research included meta-analysis, systematic reviews and studies published between January 1, 2010 and July 19, 2019, conducted in Portuguese and English, using the MeSH term “Respiratory Tract Infection” and the term “Bacterial Lysate”. The databases used were PubMed, Cochrane Library, National Guideline Clearinghouse, Centre of Review and Dissemination (CRD) University of York, National Institute for Health and Care Excellence (NICE), Embase and Direção Geral de Saúde (Portugal). To assign the levels of evidence and recommendation forces we used the Strength of Recommendation Taxonomy Scale of the American Academy of Family Physician.

**Results:** 98 articles were obtained in our research, 75 were excluded after reading the title and the abstract and 9 after the full reading. In the end, 14 articles were included: 8 original studies, 3 systematic review and meta-analysis and 3 systematic reviews.

**Conclusions:** The current data supports that the use of BL reduces the events of RRTIs and in some of the studies BL decreases the severity of the episodes of RRTIs (Level of Recommendation B). Cleary there is a positive trend when it comes to the use of BL, but the strength of the studies is not ideal. Firstly, there is a lot of BL, so it is difficult to evaluate them simultaneously. Moreover, the population sample is not significant enough and there is a lot of different methodologies in the studies. There are a lot more studies on children than on the adult population. Therefore, it is important to perform methodical studies with good sample population that include both children and adults to verify the positive trend of the use of BL to prevent RRTIs.
The prevention of early intervention and complications on congenital Birthmarks

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Abstract:

**Background & aim:** The congenital birthmarks on the newborn are a frequent source of concern for the parents. The GP should know how to recognize these injuries in order to make a correct approach to the newborn and his family, and differentiate the ones that need further study due to the possible co-existence of neurological malformations disorders or due to the oncogenic potential. The goal is to do a review of the most frequent birthmarks on the neonatal period, with emphasis on the treatment, prognosis and parenting advice.

**Method:** Searching Articles in UpToDate, The Cochrane Databases Library, Pubmed and on medical society websites, published between 2013-2019, in Portuguese, English and Spanish, by Mesh terms: birthmarks; newborn; skin.

**Results:** Congenital nevus can be divided into 3 groups: pigmented (congenital melanocytic nevus, dermal melanosis), vascular (hemangioma, port wine stain, salmon patches) and resulting from malformations (supernumerary nipple and spinal dysraphism with cutaneous manifestation). The congenital benign nevus (dermal melanosis, hemangiomas, salmon patches, port wine stain) generally do not require diagnostic procedures or treatment; however there is a cosmetic intervention possibility. The giant congenital melanocytic nevus should be referred for exeresis due to the neoplastic potential, while the smaller ones should be closely watched. Supernumerary nipples are frequent and benign malformations, and may be confused with congenital melanocytic nevus. The Cutaneous signs of spinal dysraphism. (sacroccocygeal pits, dermal sinus, caudal appendages, hairy tufts, lipomas) need to be evaluated by ultrasound or MRI once the catastrophic neurological consequences they can have if not diagnosed on time.

**Conclusions:** It is important that the GP is familiar with the congenital birthmarks. We should be able to relax the parents and prevent invasive diagnostic techniques or treatments for those that are benign and without related morbidity. On opposite, we need to identify the ones that need close follow up or intervention to prevent major complications.
Probiotics: are they useful for the prevention of antibiotic-associated diarrhea in children?

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Abstract:

Background and aim: Antimicrobial agents are the most commonly prescribed therapeutic agents in the paediatric population. A retrospective analysis of 4 European countries showed that on average, there were 0.88 prescribed antimicrobial courses per child–year, with an increase to 1.15 for children under 6. Antibiotic-associated diarrhoea (AAD) is a common and challenging complication that occurs in up to a third of all patients treated with antibiotics. The use of probiotics (live microorganisms that, when administered in adequate amounts, provide a health benefit on the host) has been reported as a measure to prevent the occurrence of AAD. This review aims to overview the main evidence regarding the use of probiotics for the prevention of AAD in children.

Method: Research in Pubmed and Google Scholar for results in English and Portuguese, published in the last 10 years, including the keywords “probiotics”, “antibiotic”, “antibiotic-associated diarrhoea”, “paediatric”, and the equivalent descriptors in Portuguese.

Results: The rationale for the use of probiotics relies on the hypothesis that AAD is caused by dysbiosis that is triggered by antibiotic use and that the probiotic intervention favourably modulates the intestinal microbiota. Clinically, AAD may present as mild diarrhoea where usually, no pathogen is identified. However, in the most severe forms, the causative agent is often identified as Clostridium difficile. Risk factors for the occurrence of AAD or C difficile–associated diarrhoea such as class of antibiotics, duration of antibiotic treatment, age, need for hospitalization, comorbidities, and previous episodes of AAD or C difficile–associated diarrhoea should be considered when making decisions on the use of probiotics. Although probiotics are safe for use in otherwise healthy populations, there is a lack of data that specifically address the safety of probiotics for preventing AAD in vulnerable populations. A number of systematic reviews and meta-analyses have shown that probiotics as a group are effective in preventing AAD.

Conclusions: The use of probiotics may be a useful tool to prevent negative outcomes in risk paediatric populations. Several factors must be taken into account when choosing a probiotic. It is advised to choose one with confirmed efficiency in well-conducted randomized clinical trials and from a manufacturer who has a regulated quality control of factors including the composition and content of the probiotic agent. If the use of probiotics for preventing AAD is considered, strains of L rhamnosus GG or S boulardii (moderate quality of evidence; strong recommendation) must be preferred. On the other hand, if preventing C difficile–associated diarrhoea is considered, it is recommended to use S boulardii (low quality of evidence; conditional recommendation). All other probiotics available in the market lack evidence of their efficacy.
Vitamin D screening and supplementation in asymptomatic adults: are there really benefits?

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Abstract:

**Background and aim:** Measurement of vitamin D levels and oral supplementation have become commonplace in clinical practice. Although vitamin D deficiency has been labelled a worldwide problem, estimates of disease burden are based on specific laboratory values, rather than on health problems that can be reliably attributed to low vitamin D levels or that have been shown to respond to vitamin D supplementation, namely skeletal diseases; thus, supplementation in asymptomatic individuals is controversial. This review aims to overview the main evidence regarding vitamin D deficiency screening and its impact on the health of adults without overt skeletal disease.

**Method:** Research in PubMed and Google Scholar for results in English and Portuguese, published in the last 10 years, including the keywords “vitamin D”, “screening”, “supplementation”, “adults”, and the equivalent descriptors in Portuguese.

**Results:** Although widely measured, the usefulness of serum 25-hydroxyvitamin D levels to assess adequate exposure to vitamin D is hampered by variations in measurement technique and precision. Furthermore, commonly used cutoffs for deficiency or insufficiency are not universally accepted and are not based on the distribution of results across a healthy population, but rather on the correlation with physiologic parameters such as parathyroid hormone levels. So, population-based screening for vitamin D deficiency is not recommended. Clinical trials have not demonstrated health benefits of routine vitamin D supplementation in asymptomatic adults, namely in the prevention of cardiovascular disease, cancer, falls and fractures. Additionally, and although a variety of nonskeletal disease states have been associated with vitamin D levels, therapeutic benefits for disorders like depression, diabetes, fatigue, heart failure, amongst others, have not yet been established, requiring further evidence.

**Conclusions:** Routine measurement of serum vitamin D levels is only recommended in patients with hypercalcemia or decreased kidney function. Screening asymptomatic individuals for vitamin D deficiency and treating those considered to be deficient has not been proven beneficial, regardless of the evaluated outcomes. Furthermore, if taken in excess, supplementation may eventually be harmful. As advocates of patient care and promoters of patient well-being, Family Medicine doctors must be aware of this evidence; this will enable adequate patient counselling and avoid unnecessary or ineffective medical interventions, which ultimately can go against our oath of doing no harm.
Routine iron supplementation in non anemic pregnant women - an evidence based recommendation?

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Abstract:

Background & aim: Iron deficiency (ID) is the major cause of anemia in pregnancy and has for a long time been associated with poor pregnancy outcomes. For this reason, in 2013 the World Health Organization recommended for routine iron supplementation (IS) in all pregnant women. Despite this recommendation, IS programs vary among different countries. In Portugal, it is recommended for all gravidas to take 30-60mg/day of prophylactic elemental iron from the 14th/16th weeks onwards, even without previous ID screening. However, according to Cochrane’s systematic review on daily oral IS during pregnancy (2015), the positive effect on maternal and child clinical outcomes is not clear. Additionally, emerging and preliminary evidence has raised questions about the risks of supplementation in iron-replete women, such as gastrointestinal symptoms and gestational. This review aims to analyze what has been published since 2015 and clarify whether routine IS in pregnant women improves clinical outcomes.

Methods: We examined evidence based guidelines, systematic reviews and primary studies (published from 2015 to July 2019) retrieved from different scientific databases, using the MeSH terms “iron”, “pregnancy”, “dietary supplements”, “iron-deficiency”, “patient-relevant outcome”, “pregnancy complications”, “pregnancy outcome” and “prenatal care”.

Results: 5 studies were included in our review (2 evidence-based guidelines, 2 reviews and 1 primary study). The two guidelines recommend prophylactic iron supplementation during pregnancy, as it reduced the number of low birthweight incidence (mid-level evidence). However, the other 3 studies did not find any significant difference regarding low birth weight between the groups who did IS compared to the ones who didn't. Additionally, two of the studies did not find differences in the incidence of preterm delivery and perinatal mortality. Regarding maternal outcomes, one guideline states that there is a lower incidence of puerperal sepsis, one review shows no difference in adverse effects and the another review found no differences in maternal mortality between groups. The remaining 2 studies did not evaluate clinical maternal outcomes.

Conclusions: Regarding the patient-centered outcomes of IS in non anemic pregnant women, there remains a lack of high quality evidence to sustain an evidence based agreement. Since the last Cochrane Systematic Review (2015), only one primary study has been published and this is not enough to draw new recommendations. However, emerging evidence demonstrates the need to take into consideration the risk of adverse effects associated with supplementation in iron replete women. As there is no agreement on routine IS in non anemic women, screening for ID could possibly help Health Professionals guide their clinical decision, although there remains a need for further high quality studies in this subject.
Defensive Medicine and its perception in Primary Health Care

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Abstract:
Introduction and objectives: Defensive medicine (DM) is commonly defined as a deviation from standard medical practice for fear of medical malpractice claims. This deviation may include two types of behaviours: “safety behavior”, which involves prescribing more tests and procedures than those clinically recommended, and “avoidance behavior”, in which the physician avoids high-risk procedures and/or patients as a way to distance himself from possible malpractice. DM is on the rise because on the one hand patients are increasingly dissatisfied with health services and more easily resort to litigation; on the other hand, doctors who fear malpractice proceedings, adopt conducts that deviate from standard practice. This widespread conduct has serious consequences for patients, doctors and a represents a drain on public funds. Literature on DM in the Portuguese Primary Health Care (PHC) setting is very scarce, therefore the aim of this paper is to understand the perception of the practice of DM in PHC, more specifically, in the Health Centers Group of West Lisbon and Oeiras (HCG WLO).

Methods: This protocol aims to conduct a cross-sectional study with a descriptive and analytical component. It will be held at HCG WLO health facilities from May 2019 to April 2020. All physicians working at HCG WLO will be considered eligible for the study, including specialists, residents and physicians without a speciality. Physicians involved in this protocol, medical students, and interns will be excluded. For this study, we researched the Pubmed database. The MeSH words used were defensive medicine, defensive practices, medicine defensive, malpractice, jurisprudence, care primary health, primary healthcare, primary care. The research focused on articles published in english, portuguese and spanish, between April 2014 and April 2019. Each participant will be given an informed consent and a questionnaire to answer within a month, subsequently collected by the research team. The lead researcher will be responsible for entering all data into a password protected database accessible only to the research team. RStudio version 1.2.1335 will be used for the statistical analysis of the results and of any eventual association between the different variables. This protocol is awaiting approval by the Executive Board of HCG WLO and the Ethics Committee of the Regional Health Administration of Lisbon and Tagus Valley.

Expected Results: The research team is expecting similar results to those found in international literature, such as: practice of DM by most practitioners; more common practice of DM by medical residents; highest likelihood of practicing DM with female patients and/or patients of higher socioeconomic class; practitioners previously prosecuted or in contact with fellow physician(s) with malpractice history are more prone to practice DM.
Our smoking cessation project in Primary Care - A global approach

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Abstract:

Background & aim: Cigarette smoking is the leading preventable cause of mortality in the general population. Smoking is an independent major risk factor for atherosclerotic cardiovascular disease, pulmonary diseases, and contributes to all-cause mortality. Smoking cessation is associated with substantial health benefits for all smokers.

Clinician involvement increases the probability of a successfully smoking cessation. Doctors should screen all patients for tobacco use and offer evidence-based help to quit. Behavioral counselling and pharmacotherapy to stop smoking are among the most valuable preventive services that can be offered in health care.

Our project goal is to provide both individualized and group support to smokers who decide to stop. We aim at a global approach, helping with education, behavioral changes and drugs if necessary.

Method: The smoking cessation project is carried out by resident and senior general Doctors. It takes place every year at Casa del Barco health center, located in Valladolid, Spain.

We form a group of about 50 patients who want to give up smoking for several causes (other specialist advice, to save money, etc.). The group meets one day per week, from 17 to 19 pm, for 12 weeks.

In the first reunion we explain the project and set a “quit date”. The following meetings develop in two different parts: the first one consists on having an individual medical interview, where the level of motivation and dependence is established using the Fagerström, Richmond and Glover Nilsson Tests. We also record several data such as blood pressure, heart rate, peak flow, CO-oximetry and weight. Frequent symptoms are also registered each week, as well as possible side effects of the drug therapy.

The second part consists on a group reunion in which we invite the patients to share their struggles. After the “quit day” every patient is invited to say if he smoked during the week and if so, in which situation, how he felt, and discuss it as a group. We also give each day a different educational talk or workshop. The most frequent themes are the benefits and risks of smoke cessation, behavioral tips and tricks, diet, exercise, anxiety and stress management, legislation and media influence on smoking.

Results: We analyzed the data from the 2016’s meetings that occurred from October to December. We started the project with a group of 41 individuals from which 23 finished the whole course and 18 did not, meaning that only 56,1% completed the program. In this last group, all but one gave up smoking. In the 2 years follow-up of these patients, 82,6% continued so. As for the individuals who haven’t finished the course, 83,3% are still smoking.
Conclusions: - Finishing the project relates to a higher rate of cessation.
- The individual’s own motivation is decisive to continue the program and reach the aim.
- It would be useful to collect data about the patients who left the course, to identify ways in which we can decrease the abandonment rate.
HIV Infection Screening in Primary Care Units: a Study Protocol

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Abstract:

**Background and aim:** The late diagnosis of Human Immunodeficiency Virus (HIV) infection is associated with a worse prognosis, higher transmission rates, and greater costs. Although its mortality is decreasing, the HIV infection incidence remains high, despite several community-level prevention interventions. In Portugal, by the end of 2017, 57574 cases had been diagnosed. In 2015, the highest incidence was in the Lisbon Region, achieving the worst values in Lisbon’s center. Aiming to lower HIV infection incidence, the United Nations has set the 90-90-90 goals on diagnosis and treatment to achieve in 2020. Also, multiple scientific organizations argue that HIV screening leads to earlier diagnosis and lower morbimortality. In Portugal, the Directorate-General of Health recommends screening all people between 18 and 64 years.

We aim to design a study to assess the application of HIV infection screening in people between 18-64 years in four Family Care Units of Lisbon Region. Secondarily, we will evaluate the association between the screening request and population characteristics, the reason for this request and care of level where the exam was requested.

**Methods:** A cross-sectional observational study with a descriptive and analytical component will be performed. A random population sample will be selected from the Care Units total population aged between 18 to 64 years old, including both genders, regarding the year of 2018. The descriptive and analytical analysis will be done using SPSS 25.0 software. The sample description will attend to age distribution, gender, and education level. The absolute frequency of screening for HIV infection and the context in which it was performed will also be calculated. The statistical relationship between the HIV infection screening and sociodemographic variables, the screening motif and care of level where the test was requested will be evaluated using the χ² or Fisher’s exact, for a 95% confidence interval. All information regarding the patient and prescriber identification will be anonymized, and the access to the document limited to investigators. The study protocol will be submitted to the regional health ethic committee.

**Discussion:** Attending the high incidence of HIV infection in the Lisbon metropolitan area, this study can help to identify who were screened and promote the reflection about the paper of primary health care in this subject. We expect to find more HIV screening requests in women of childbearing age or if known risk behavior. On the other hand, we will probably find that older people are lesser screened. The main limitation of our study is the possible loss of patient’s information, as only the electronic medical record will be considered. We also should take into account that HIV screening might be performed in another care of level (including private services, hospital, mobile units) and could not be available in the patient’s medical record.
Aspirin for primary prevention of colorectal cancer, among adults

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Abstract:

Introduction & aim: Colorectal cancer (CRC) is one of the most common cancers in developed countries and annually, over 600,000 people die due to CRC. Beside the personal cost of disease, one study in Canada suggests that medical costs range from $20,319 per patient in TNM stage I colon cancer to $39,182 per patient in stage III rectal cancer. The first six months after the diagnosis of CRC are resource demanding, but compared with the metastatic disease state, the costs are lower. Therefore primary prevention of cancer is an important public health issue. Besides the chemopreventive interventions, aspirin is being pointed in several post hoc analysis, as a promising agent to reduce the risk of developing CRC. Due to several studies conducted in the prevention of cardiovascular risk, aspirin may be an option to reduce the risk of CRC in this population. Because of several studies in the prevention of cardiovascular disease, aspirin might be an option to reduce CRC risk in this population.

We aim to explore the role of oral aspirin in the primary prevention of colorectal cancer in adults.

Methods: Clinical question: Does the oral intake of aspirin prevent colorectal cancer in adults? We searched for evidence published in PubMed, Cochrane Database and National Institute for Health and Care Excellence, from January 2010 until December 2018. The MESH terms used were “aspirin”, “primary prevention” and “colorectal cancer”.

To evaluate the level of evidence and the Strength of Recommendation the authors used the instrument Strength of Recommendation Taxonomy (SORT) from American Family Physician.

Results: After the initial search, twenty five studies matched the MESH criteria and nine of them were selected after reading the title and abstract, as they meet the research objectives. Seven studies were systematic reviews, one was a randomized control trial with study quality level one, and one recommendation from the USPSTF, graded level A.

The benefit of aspirin in primary prevention of CRC is larger in patients 50 to 59 years of age with high cardiovascular risk (>10%). In older people (>60 years) there is a higher risk of side effects, such as gastrointestinal bleeding. The benefit from colorectal cancer prevention appears to require aspirin use for five to 10 years.

Conclusions: Aspirin may be an option for primary prevention of CRC, although further studies are required to access the cost-efficiency of prevention policies regarding its use, the dose required to lower the risk and when to stop long term use (quaternary prevention). In conclusion, decisions regarding aspirin use should be individualized, balancing the benefit/risk ratio and patient preferences.
Unexpected Vitamin B12 increase: Could there be an underlying disease?

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Abstract:
It is not unusual to be confronted with a patient’s request to perform certain complementary diagnostic test that have no fundamental reason to be done. Even though it is important to actively search for modifiable risk factors that may impact on the development and course of common preventable diseases, it is essential to realise that any kind of screening or diagnostic test should only be performed when there is strong suspicion of a certain etiology.

It is our responsibility to first define the purpose and the utility of these tests for the patient’s health, as well as its possible consequences - especially in the case of an unexpected abnormal result.

In this clinical report, an 84-year-old woman visited her Family Physician (FP) with the aim of doing a regular surveillance of her chronic medical conditions. During the consultation the patient decided to show her FP some laboratory results that had been requested by an Internist that she also met regularly for the same purpose. The patient had been totally asymptomatic since her last medical appointment, and these laboratory results seemed to be the so-called “routine” tests.

Unexpectedly, these revealed an abnormal increase in the serum vitamin B12 levels (>2000 pg/mL), without apparent repercussion on her blood count, liver enzymes or kidney function. Being the first confronted with the situation, her FP explained that these blood tests had to be repeated in order to be confirmed, because if true, further investigation could be needed.

The second measurement of serum vitamin B12 levels confirmed an additional increase (>3000 pg/mL). Further investigation was performed since this finding can possibly be associated with a range of serious etiologies such as solid neoplasms, haematological malignancies, liver and kidney diseases.

With this clinical report we intend to highlight the fact that every medical act performed has its consequences – even if it seems an apparently harmless “routine” test. We shall not forget that all patients must give their informed consent to every screening or diagnostic test and that it is our role to make sure that they are aware of what kind of further investigation an abnormal result might oblige.

Having in mind that the patient was asymptomatic, we cannot confirm the exact purpose behind the request of this specific laboratory test. However, we must notice that it did not only put the patient through a stressful situation, but it also represented a considerable amount of consumption of medical resources, both which could have been avoided.

This case is a reminder of the need of continuously updating our clinical knowledge, but also alerts to the importance of targeting our preventive medical acts with the goal of doing nothing but the best for every patient’s health, protecting them from procedures that can do more harm than good.
Abdominal aortic aneurysm: Who should we screen?

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Abstract:

Background and aim: Acute aortic abdominal aneurysm (AAA) rupture is one of the most dramatic emergencies in medicine, and a major cause of sudden death. However, the finding of a AAA can make the patient anxious and systematic populations screening would diagnose many small aneurysms that are very unlikely to rupture and don’t meet repair criteria, which may result in a needless anxiety and disease labeling for the patient. With that in mind, we ask the question, should we screen for AAA, and who should we screen?

Method: Systematic review (non-quantitative). We made a guideline research in the National Institute of Health and Care Excellence (NICE) and in UpToDate with the MeSH term: Aortic Aneurysm, Abdominal.

Results: We found the following Guidelines: European Society of Cardiology (ESC, 2014), The Canadian Task Force on Preventive Health (CTFPH, 2017), American College of Cardiology/American Heart Association (ACC/AHA, 2013), The US Preventive Services Task Force (USPSTF) and Society for Vascular Surgery (SVS, 2018).
All guidelines agree that one-time screening with ultrasonography (US) should be done in men between 65 to 75 years old who have ever smoked. They also agree that men with first-degree relatives with AAA who are between 65 and 75 years of age should have an US screening for AAA. For women of any age that do not have history of tobacco use or family history of AAA, screening is not recommended. Most of the guidelines agree that there is not enough evidence to assess the balance of benefits and harms of screening women between the age of 65 and 75 who have ever smoked or have family history of AAA. They also go against screening men older than 75 years old. However, the SVS and ESC guidelines consider AAA screening with abdominal US of women between 65 to 75 years of age who have ever smoked or have a first-degree relative with AAA. They also recommend that men and women over 75 years old who ever smoked and are in otherwise in good health have one-time US screening for AAA.
The CTFPH and ESC guidelines agree that all men between 65 and 80 years old should be screened for AAA with an US, even without smoke history or a first-degree relative with history of AAA.

Conclusions: We can say with a certain degree of confidence that man, with family history of AAA or history of tobacco consumption should undergo one-time screening with abdominal US for AAA, and that women of any age without family history of AAA and who never smoked should not do an AAA screening. However, we cannot make a clear statement about the AAA screening recommendation in women older than 65 years with family history and/or tobacco consumption. The same is said for men older than 75 years, even with family history of AAA and/or tobacco consumption.
A Health Professional at risk....

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Abstract:
This clinical case addresses the problem of breast cancer screening in women under 50 years. The U.S. Preventive Services Task Force states that, at this age, and in the absence of risk factors, the benefit of breast cancer screening is limited and therefore it should be based on an individual clarified decision (level of recommendation C). On the other hand, it analyses the need of intervention by the Occupational Health, particularly, in the surveillance of tuberculosis in health professionals.

A woman, 48 years old, nurse, without any previous health problems and no relevant family history: at the age of 40, she resorted to a Gynecology appointment due to metrorrhagia. With no further information provided, the doctor prescribed a mammography which came with a BI-RADS 4 diagnosis, and a subsequent hospital appointment. There was no evidence of breast cancer in the biopsy, so she was discharged from the hospital appointment, with the recommendation of maintaining mammography surveillance with her family doctor, given the psychological impact of this event. At the age of 47, the patient performed a mammography scan which, once again, revealed a BI-RADS 4 diagnosis. She returned to the hospital appointment and chose for the nodule surgical excision. The pre-surgery chest radiography presented some suspicious nodular images; therefore, a thorax TC-scan was held. The TC-scan showed “probable secondary injuries”.

The patient was sent to the Pneumology appointment to be submitted for a fiberoptic bronchoscopy. The analysis of the excised nodule did not confirm cancer and the cultural examination of bronchoalveolar lavage fluid identified pulmonary tuberculosis, presenting no symptoms.

This clinical case illustrates the impact that cancer overdiagnosis can have in people’s quality of life. According to guidelines, due the patients age, performing the first mammography should have been decided considering its benefit, important but not frequent, of breast cancer deaths rate versus its risks, less important but more frequent of overdiagnosis, and the consequent unnecessary and invasive interventions. In this case, this didn’t happen despite of patients approval for all the exams. Another relevant point is the fact that a nurse who treats patients with tuberculosis had never been called to an Occupational Health appointment, which represents a nonconformity of the 010/2014 portuguese recommendations, by General Health Direction.

With this clinical case, we intend to enhance the importance of clarified decisions in Medicine and the need of a more effective intervention of the Occupational Health among health professionals.
Drug Iatrogeny in the Elderly - A Case Report

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Abstract:

Background: The elderly population represents a group with higher prevalence of frailty, either due to physiological changes or to the frequent polymedication in these age groups, thus increasing the likelihood of iatrogenesis.

Objectives: Report a case of probable drug iatrogenesis

Case Description: A previously autonomous 77-year-old woman with multiple Cardiovascular risk factors (diabetes, dyslipidemia, hypertension, overweight) was observed in an emergency setting in a private hospital due to ataxic gait and vertigo syndrome at 3 weeks evolution, with multiple falls and periods of disorientation. She was transferred to the Neurology to study gait and behavioral changes. She performed analytical and imaging studies of rapidly progressive dementia. From the study, only to highlight CT scan with signs of ischemic leukoencephalopathy and lacunar infarcts. During hospitalization, diazepam 10 mg was suspended, which the patient had started about 1 month ago, with the notion of improvement and resolution of symptoms. At the time of discharge, almost complete recovery from changes, keeping only some fear of walking, so she started physical therapy.

Discussion: Drugs increase life expectancy and treat multiple conditions, however in the elderly population special attention needs to be given to the increased risk of iatrogenesis, which can cause serious adverse effects. Special care must be taken in drug prescribing to avoid cases of iatrogenesis, especially in the elderly population.
Bell’s Palsy as a starting point to overdiagnosis – a case report

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Abstract:

Setting: Primum non nocere is one of the principles that should be taken into consideration in every clinical decision. Nowadays, there are a plethora of complementary exams, which should be criteriously ordered for their findings to be useful in treating the patient. Undergoing such exams when they don’t prove beneficial to instituting an appropriate therapy or diagnosis may lead to overdiagnosis. Due to this, patient otherwise asymptomatic may be labeled as ill or sick, and develop unmanageable anxiety.

Case: A previously healthy 30-year-old caucasian man presented at the family doctor with difficulty closing his mouth and right eye. It started suddenly and he has been symptomatic for 48 hours, without any other symptoms. During examination the patient was conscious, oriented, eupneic, normotensive and afebrile. The otoscopy was normal. The neurological exam showed muscular weakness on the right side of the face with inability to close his right eye, to raise his right eyebrow, and a labial comisure deviation. There was also a left deviation of the uvula and tongue. There were no additional neurological deficits or other associated signs at the clinical evaluation. He was given oral corticosteroid and vitamins and tear-like eye drops to protect the eye from drying up. To hasten his recovery he should undergo physiotherapy, but since we had no timely response in the primary care services, he was referred to the ER. There, though the diagnosis of Bell’s Palsy was clear and the patient was already given the treatment, the doctor ordered a head TC-scan. The result showed no acute sign of disease, but it showed an incidental finding that had no symptoms associated. The patient was then referred to Neurology and underwent more auxiliary exams such as a MRI. The patient went through physiotherapy, finished corticoid treatments and recovered with no sequelae from the Bell’S Palsy. However, he developed crippling anxiety because of the new “disease” that has no symptoms but forced him to undergo medical exams and consultations he wasn’t expecting.

Conclusion: Present case report, although mundane in regards to the clinical syndrome itself, stands out because of the overall personal damage to the patient, resulting from the order of a expendable complementary exam, which was irrelevant for the appropriate diagnosis and institution of appropriate therapy for the disease. Defensive medicine is an ongoing problem, fueled by the fear of litigious cases and the mediatization of medical conduct. The consequences are noticed not only on the patient itself but also in society at large, as a result of the inconsequential spending without an effective health gain. It’s paramount to counter this trend in medicine and realize that there are medical acts that are more detrimental rather than beneficial to the patient. Quaternary prevention needs to be the bedrock of medical conduct, casting aside the very pervasive trends of overdiagnosis and overtreatment.
Effectiveness of pneumococcal vaccines in preventing pneumonia in patients with type 2 diabetes: a systematic review

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Abstract:

**Background & aim:** Portugal is the European Union country with the highest mortality rate due to pneumonia, according to the Organisation for Economic Cooperation and Development (OECD). Patients with diabetes are at increased risk of death from pneumonia, and therefore there are recommendations for pneumococcal vaccination in this group of patients. Two types of pneumococcal vaccines are indicated for use in adults: 23-valent pneumococcal polysaccharide vaccines (PPV23) and a 13-valent pneumococcal conjugate vaccine (PCV13). Whilst pneumococcal vaccines have the potential to prevent disease and death, the degree of protection afforded within different populations is uncertain. The aim of this systematic review is to assess the effectiveness of pneumococcal vaccines in preventing pneumococcal pneumonia in patients with type 2 diabetes.

**Method:** We systematically searched PubMed, BMJ Evidence-Based Medicine, Cochrane Library, Canadian Medical Association, NICE, National Guideline Clearinghouse, American Diabetes Association and the Directorate-General of Health (DGS) to identify systematic reviews, meta-analyses, original studies and guidelines published in Portuguese or English, between January 1, 2009 and December 31, 2018. The MeSH terms used were “Diabetes Mellitus, Type 2”, “Pneumonia, Pneumococcal” and ”Pneumococcal Vaccines”. It was used the Strength of Recommendation Taxonomy (SORT) scale to assess the strength of the body of evidence.

**Results:** From the 29 results retrieved from the search, 1 study and 3 guidelines fulfilled the inclusion criteria and were considered for this review. The one study considered, an observational study, reported that “pneumococcal vaccination was not associated with a reduction in incident hospitalisations for, or death from, all-cause pneumonia” (Evidence level 2). The considered guidelines all recommend that people with diabetes should vaccine for pneumonia (Strength of recommendation C).

**Conclusions:** National and international guidelines recommend the pneumococcal vaccination of type 2 diabetes patients (SR C). More studies are needed to validate the effectiveness of pneumococcal vaccines on this population.
Postpartum Depression: a systematic review

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Abstract:

Background & aim
Postpartum depression (PPD) is the most common pathology of the postpartum period. Usually PPD is considered when depressive episodes onset within 12 months after delivery. In the most severe cases, episodes can last up to one year. Untreated PPD may have long-term adverse effects both for the mother and the child. Proper screening, timely diagnosis and treatment are crucial for an individual and a familiar well-being. In this work, a systematic review of DPP patient management has been done.

Method
Articles published between 2005 and 2019 were searched done in Pubmed using the MeSH terms “postpartum depression” and “treatment” for this systematic literature review.

Results
Literature shows that up to 85% of women experience some kind of mood disorder in the postpartum period, in most of which the disorder is transient. About 15% develop a disabling and persistent form of depression but less than 20% receive an appropriate treatment. Primary prevention of DPP can be done in predisposed women to this disease, as women with history of depression or bipolar disorder. Edinburgh Postnatal Depression Scale can be used to detect DPP high risk women. Psychotherapy, group therapy and other non-pharmacological measures are effective. In specific women, it is necessary pharmacological treatment with sertraline, fluoxetine or other antidepressant drugs both in primary and secondary prevention. Unfortunately only 50% of patients have a disease remission. New promising experimental treatments include brexanolone and estradiol; however these drugs are being still tested in experimental phases.

Conclusions
DPP is the most common pathology in postpartum women. DPP highly debilitates the patients, affecting their family. Under the most effective treatments, only 50% of patients have completely remission. New treatment are in experimental phases.
Prevention of elder abuse

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Abstract:
Background: Elder abuse is increasing. It’s important to recognize the signs and symptoms and to develop prevention strategies. 80% of the cases are not reported so this problem is underestimated. Financial exploitation and neglect are the most commonly reported types of abuse.

Methods: Search on Pubmed database and Evidence-Based Medicine sites of evidence-based reviews, clinical guidelines, meta-analysis, systematic reviews and randomized controlled trials, of articles published in English and Portuguese.

Results: There are 7 types of elder abuse: Physical abuse, sexual abuse, financial exploitation, caregiver neglect, psychological and emotional abuse, abandonment, and self-neglect. The studies show that appears to be a risk for early mortality. Some characteristics that place older adults at greater risk are being a Female, advanced age, cognitive impairment, co-habitation with family members, social isolation and poor social support networks, mental health problems, substance abuse, dependency for care and frailty. Some indicators of elder abuse are fractures, burns, bruises, untreated injuries, repeated history of falls, depression, agitation, dehydration, malnutrition, unexplained deterioration in health, and many others. There are some tools to screen for elderly abuse like the comprehensive geriatric assessment, Elder Abuse Assessment Instrument, Brief Abuse Screen for the Elderly, Hwalek-Sengstock Elder Abuse Screening Test, American Medical Association Screening of Abuse.

Conclusions: Elder abuse is a critical medicosocial problem in our modern society. It’s important to screen for risk factors and indicators of abuse in order to detect elder abuse on time to make a difference.
The rise of vitamin D prescription in primary care.

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Abstract:

Background & aim: There is much confusion surrounding the measurement and treatment with vitamin D in primary care although there is no scientific consensus that vitamin D supplementation leads to positive health outcomes, including the prevention of bone fractures. The aim of this study was to assess the trends of prescription of vitamin D in the last 7 years in an urban primary health care centre that covers a population of about 23,000 patients.

Method: Databases from 2012 to 2018 including clinical, pharmacological and laboratory information were used to analyze the trend of prescriptions and also laboratory determinations of vitamin D (in that case we only had data from 2015 to 2018).

Results: The number of patients treated with vitamin D has increased over time, ranging from 497 patients (2.2%) in 2012 to 1,084 patients (4.6%) in 2018 (p<0.001). Looking at patients over 64, patients treated with vitamin D increased from 358 (7.2%) to 730 (14.2%) (p<0.001), and particularly in women, from 285 (9.3%) to 581 (18.5%) (p<0.001) during these 6 years. Determinations of vitamin D in treated patients over 64 showed small changes, ranging from 87 (15.5%) in the year 2015 to 119 (16.3%) in 2018.

Conclusions: Patients over 64 treated with vitamin D have more than doubled in the last 6 years. There were no changes over time in laboratory determinations of vitamin D, being only determined one in six treated patients. These results most probably indicate that laboratory determinations are performed in secondary or tertiary care, and treatment with vitamin D is induced by specialists (gynecology, endocrinology, rheumatology and internal medicine) and patients come to general practice to get the prescription. A stronger relation between GP's and hospital doctors would be needed to establish common guidelines to limit overtesting, overdiagnosis and overtreatment of vitamin D disorders.
Volunteer at CheckPointLx - practice report

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Abstract:
Introduction: CheckPointLx is a community-based center for men who have sex with men (MSM) for rapid, anonymous, confidential and free screening for human immunodeficiency virus (HIV) and other sexually transmitted infections (STIs), sexual counseling and referral to health care. The entire team is made up of MSM technicians so that through peer support and education, access to prevention and sexual health is facilitated more effectively. With this work I intend to share my experience as a medical volunteer in this project and reflect on how clinical practice in this area contributes to my training in General and Family Medicine. HIV and other STIs are a public health problem and it is important for any GP to know how to diagnose STI and guide the patient, such as communicating with vulnerable populations and addressing sexual practices.

Results: I started volunteering in May 2018 and in the first 3 months I was in training. The medical consultation, aimed exclusively at men who have sex with men and trans, offers screening for chlamydia and oral, genital and anal gonorrhea, syphilis, hepatitis B, human papilloma virus, and anal cancer screening. We promote sexual health education and advise vaccination against Hepatitis A, HPV and Hepatitis B when indicated. Some STIs are treated and when there is a medical indication, we refer to the hospital consultation.

Discussion: During my course at CheckPointLx I made 65 medical appointments, autonomously with the support of the clinical coordinator whenever necessary. Of the 56 chlamydia and gonorrhea screenings I performed, 39 had all negative results, while 17 had some positive results (28.8%). 3 out of 22 patients who had serology for syphilis had a positive diagnosis (13.6%). Of the 33 anal cytologies performed, 24 were negative (72.7%), 3 had ASC-US (9%), 1 LSIL (3%) and five unrepresentative samples (15%). From the HPV survey, 30 out of 35 clients had some positive subtypes (85.7%).

Conclusion: Being part of CheckPointLx’s clinical staff has allowed me to acquire skills I would not otherwise learn. I improved my knowledge of STI diagnosis and treatment, as well as my doctor-patient communication technique.
How controlled is c-LDL at USF Viseu-Cidade?

Authors name: João Figueiral Ferreira; Ana Paula Pinheiro; Paula Rodrigues; Rafaela Cabral; José Varanda Marques; Inês Santos
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Abstract:

**Background & aim:** Nowadays, cardiovascular disease is one of the main causes of death in European countries, namely through ischemic heart disease and stroke. The LDL cholesterol (c-LDL) appears to be a major risk factor for atherosclerotic cardiovascular diseases (ACVD), because it contributes to fatty buildups and narrowing of the arteries. According to the European Society of Cardiology (ESC), patients with Diabetes Mellitus (DM) and High Blood Pressure (HBP) are considered at very high cardiovascular (CV) risk, i.e. with a large probability of developing an atherosclerotic CV episode fatal or not. In these patients it is recommended to achieve c-LDL levels < 70 mg/dL. Therefore, besides of studying the prevalence of these conditions, it will be relevant to understand if those c-LDL levels are attained in people with DM and HBP, as well as to verify if there is a relation between LDL levels, hemoglobin A1c (HbA1c) and age.

**Methods:** A retrospective observational study was conducted. The studied population was constituted by DM and/or HBP patients that are being accompanied at USF Viseu-Cidade by the respective follow-up programs, then it was sampled patients with DM and HBP. The presented information refers to the time period between 01/06/2018 and 31/05/2019. There were considered as variables c-LDL, HbA1c and age. This data was collected from SClinico and analyzed using Microsoft Office Excel and SPSS v.23.

**Results:** There is a total of 14359 patients at USF Viseu-Cidade, of which 3170 (22%) have HBP, 1237 (9%) have DM and 954 (7%) have both HBP and DM. Therefore, 30% of HBP patients have DM and 77% of DM patients have HBP. The average age of people with both these conditions is 72.4 years. The c-LDL levels registered from the DM and HBP patients, during the studied period, showed that 37% were according to the ESC recommendations (i.e. < 70 mg/dL), being the mean c-LDL level of 81 mg/dL. When compared the distribution of the values of c-LDL with the ones from HbA1c through the Spearman’s correlation, it was verified a weak negative relation but statistically significant amongst the distribution values (rs= -.074, p=.034). There wasn’t a statistically significant relationship between the distribution of c-LDL and age values (p = .625).

**Conclusions:** The majority of DM and HBP patients belongs to an older age group and do not present values within the ESC recommended target levels. It may be helpful in the future to confirm who is liable to have its therapeutic intensified. In addition, the advanced age and the higher HbA1c level do not appear to be related with higher c-LDL levels. Thus, there is an opportunity to control LDL levels according to ESC recommendations and, therefore, reduce the atherosclerotic cardiovascular events.
COPD North to South – Quality Improvement on Portuguese COPD patients in primary care

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Abstract:

Background & aim: Chronic obstructive pulmonary disease (COPD) is a serious and ever growing health problem. It is responsible for increasing mortality, chronic morbidity, health-related loss of life quality and financial impact. In Portugal, real numbers are unknown, mostly due to records underreport. Furthermore, once that COPD management in primary care is sometimes suboptimal, it is crucial to create global strategies of improvement.

The aim of this work was to improve the characterization and management of COPD patients in primary health care settings.

Methods: This was a quality improvement work and simultaneous cross-sectional study done in five Portuguese primary health care centres. We evaluated all the patients with COPD diagnosis (a), regarding flu and pneumococcal vaccination (b), smoking habits (c), FEV1 records in the last three years (d), exacerbations (e) and therapeutic management (f) between December 2017 and December 2018. Data were extracted using MIM@UF® and SClinico® software and statistical work was done using Microsoft Excel 2013®. Educational interventions were made to the community (through leaflets and newspaper articles) and to healthcare professionals (with lectures about pathology, guidelines and local results) between March and September 2018.

Results: From a total of 62390 patients in these health care centres, it was assessed an increase on the number of COPD diagnosis from 545 to 931 patients, in this period. Therefore, the global prevalence increased from 0,9% to 1,5%. If we consider only patients with ≥40 years-old, it increased from 2% to 2,6%. Pneumococcal vaccination was also enhanced, from 12,7% to 34% (specifically VPC13); and there was no difference in flu vaccination. Regarding smoking status records, it was verified that there was under-recording (improved from 60% to 96%); as well as FEV1 records (from 23,3% to 58%). Concerning treatment, it was seen that the rate of long-acting bronchodilators prescription increased from 14,7% to 22%; on the contrary, inhaled corticosteroids did not fluctuate (16,7%-16,9%). Therefore, after the corrective measures, it was reached a quality standard of “Good” (improvement of ≥4 criteria).

Conclusions: In order to better manage COPD patients it is our understanding that it is crucial to continuously alert primary healthcare professionals to this matter.
We also believe there is still COPD underdiagnosis, once that the prevalence found here is greatly different from the 14,2% reported on the Portuguese Burden study. We also believe there is still COPD underdiagnosis in these contexts and that vaccination must be increased.
In spite of the standard of quality “Good”, it is considered that there is great need of continuous
intervention and monitoring to improve health results. Consequently, it is intended to intervene again in 2019 and collect data afterwards; widening the health quality circle.
German Guideline on Quarternary Prevention

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Abstract:
Intended as an evidence-based GP counterpart to the more consensus-based "choosing wisely" campaign, the German Society of General Practice and Family Medicine produced a guideline on Quarternary Prevention in 2019. Recommendations for primary care were extracted and condensed from several existing national evidence-based-guidelines by a predefined multilateral consensus procedure. The recommendations were classified according to evidence levels, do`s and don’ts and condensed the guidelines into mindlines.
The procedure of extraction and the major recommendations will be presented.
Skin cancer screening – What’s the impact on incidence and mortality?

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Abstract:

Background: In the last few decades, an increasing number of deaths due to oncologic diseases has been observed worldwide. Cancer screening has contributed to the downward trend in cancer mortality but is also associated with overdiagnosis and overtreatment. Skin cancer, including malignant melanoma, basal cell carcinoma and squamous cell carcinoma are the most frequent cancers in industrialized countries, with predominantly light-skinned population. Benefits of skin cancer screening remain controversial though has the potential to reduce melanoma mortality by detecting tumors at an earlier stage with better prognosis. Germany was the first European country to introduce a nationwide skin cancer screening in mid-2008, after positive results of a pilot project carried out in 2003–2004 in a Northern Germany population.

Aim: Review the evidence of the impact of skin cancer screening for early detection and mortality reduction of malignant melanoma.

Methods: Bibliographic research, using MeSH terms “skin cancer” and “screening”, on MEDLINE, Pubmed and Cochrane Library for studies in English, Spanish or Portuguese published between January 2009 and June 2019.

Results: Evidence suggests that invasive and in situ skin cancer incidence increased after screening implementation. On the other hand, screening led to more diagnoses of early-stage melanoma, with increasing rates of thin and decreasing rates of thick melanoma. Skin examination was associated with melanoma mortality reduction five years after the screening, as seen in the Northern Germany pilot project, although the mortality reduction did not persist in long-term follow-up. The harms of screening for melanoma include potential false-positive findings, with an increased number of dermatology referrals and unnecessary biopsies with resulting patient morbidity (scaring and anxiety) and health-related costs.

Conclusions: Evidence supports that whole-body skin examination by Primary Care physicians is cost effective, leading to the detection of earlier stages of melanoma and allowing a reduction in disease-specific mortality.
Hypothyroidism screening in pregnancy: are we doing it properly?

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Abstract:
Background & aim: Universal thyroid screening is not recommended since it is likely to predominantly identify women with subclinical thyroid disease for whom the benefits of treatment remain controversial. In 2017 the American Thyroid Association (ATA 2017) recognised 4,0mU/L as an appropriate upper limit for TSH concentration, being the previous one 2,5mU/L, in the first trimester in pregnant women without risk factors. It came to our knowledge that there have been different ways of approaching this subject (concerning the reference values) so our aim is to provide uniform clinical practice in the screening of thyroid function in pregnant women.

Methods: This is a retrospective observational study of pregnant women without known thyroid dysfunction with pregnancy follow-up appointments at Unidade de Saúde Familiar da Baixa, in Lisbon, between June 2017 and July 2019. The total of pregnant women during that period was searched in Módulo de Informação e Monitorização das Unidades Funcionais (MIM@UF®). Social demographic and clinical data were collected in SClínico® programme. We included 219 pregnant women and excluded 128 pregnant women.

Results: A total of 219 pregnant women were included in this study of whom 66,2% were from a foreign country. In 102 pregnant women, screening thyroid function was conducted at a median of 9 weeks of gestation (interquartile range, 6 to 11). 74,5% of these were considered to have none of the risk factors mentioned in ATA 2017. Using the older reference range of the upper limit of 2,5mU/L, 23,7% of pregnant women without known risk factors were diagnosed with hypothyroidism that prompt further evaluation, against 10,5% according to the new reference limit defined in ATA 2017.

Conclusions: Our results point that screening thyroid function in the first trimester is done in the absence of risk factors that justify this approach. Adopting the recommendations of the ATA 2017 will result in fewer women being classified as having thyroid dysfunction during pregnancy, reducing hospital visits, repeated blood tests and leading to the optimisation of hospital resources.
Hepatic adenomas: and my child?

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Abstract:  
Background & aim: Peliosis hepatis is a rare vascular condition of the liver characterized by cystic blood-filled cavities distributed randomly throughout the liver. The epidemiology of peliosis hepatis is incompletely understood since many patients are asymptomatic and remain undiagnosed. Peliosis hepatis is often an incidental finding on abdominal imaging and resembles primary hepatic carcinoma, liver metastases, or liver abscess. The aim is to discuss a case of potential violation of quaternary prevention.

Methods: Case description alongside with articles research on the subject.

Results: Woman, 46 years-old, Caucasian, presents to his family doctor with anxiety regarding a medical consultation in which found that she had a mutation in hepatocyte nuclear factor 1 A. She expressed guilt, sadness, indeciveness, fatigue and sleep disturbance. Her speech revolved around the idea of transmitting a disease to her only child without having the chance to change or express an opinion. She needed to reassure herself that her daughter hadn’t any sign of liver disease. She asked for an opinion and possibility of any type of exam. Later she brought the her child abdominal ultrasound that showed multiple small hepatic adenomas. Her history goes back to 1996 when she suffered an hemorrhagic shock due to liver rupture and needed intensive care treatment. She then was diagnosed with peliosis hepatis. Had been medically counseled in various countries and decided in 2018 to engage the process for orthotopic liver transplantation. In her child’s visit to the family doctor the daughter was scared of her mother transplantation, she "knew" what it meant. Nowadays her child has been on Pediatrics Oncology consultation for three consecutive years.

Conclusions: Medical school’s programs do not focus intensively on genetic counseling. There’s also a need for better teaching on ethics subjects. In this case it was hard to make a decision taking on account the potential damage of diagnosing a child for life and not knowing the typical course of an unclear rare disease. The family doctor is the first step on access to healthcare services in many countries so it’s of the outmost importance that new tools may be given to better manage these difficult encounters.
Evaluation and quality improvement project on type 2 Diabetes risk

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Abstract:

**Background & aim:** Type 2 Diabetes mellitus (T2DM) is a chronic disease with significant impact worldwide. In Portugal, the prevalence is 13.3% in the population aged 20 to 79 years. Currently, the treatment of T2DM and its complications represent about 10% of health expenditure. Thus, the National Diabetes Program prioritizes prevention and early diagnosis. Prevention of T2DM plays a leading and cost-effective role. Since T2DM is underdiagnosed in 44% of individuals aged 20 to 79 years and 27.4% are in the stage of intermediate hyperglycemia this work may mitigate this failure. It is then urgent to evaluate and apply the Finnish Diabetes Risk Score (FINDRISC) questionnaire for proper risk categorization and proper patient guidance. The aim is to evaluate and guarantee the risk calculation of TDM2.

**Method:** Cross-sectional study, evaluation and quality improvement project. The institutional-based sample comprised all individuals aged ≥ 18 years, with no diagnosis of T2DM according to the International Classification of Primary Care, and meeting the remaining inclusion and exclusion criteria. Quality standards were set by the authors after discussion at a Family Healthcare Unit (FHU) meeting. The project has 3 phases: data collection of the T2DM risk calculation and further management in June 2018; application of corrective measures - monthly e-mail, two presentations at FHU, algorithm on management of different levels of T2DM risk and paper reminder (July 2018 to July 2019) and data collection on the risk calculation and further management in August 2019. The study will take place at the authors’ FHU, located in the metropolitan area of Porto.

**Results:** By now, there was a significant improvement on the proportion of patients submitted to FINDRISC questionnaire, from 26.6% to 57.9%. On the moderate risk category the quality pattern obtained was "good". On the high risk category the quality pattern obtained was "satisfactory". New data will be available at the conference.

**Conclusions:** Calculating patients T2DM is fundamental on the management of the healthy individual. This clearly shows that there can be an significant decrease in T2DM underdiagnosis. However there are still some flaws on the management of T2DM risk categories allowing health discrepancies.
Urinalysis: screening measure?

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Abstract:

**Background & aim:** The request for urinalysis is a routine act, performed repeatedly at the GP level. The observed changes may be attributed to a wide range of factors that often lead to false positives. Therefore, it is not recommended as a screening test and, although it is available at a low cost, its economic impact on health expenditure may be lessened. The aim is to characterize the use of urinalysis in an adult population of a Family Health Unit.

**Method:** Retrospective, analytical, cross-sectional study of clinical records for healthy adults visits with request compatible with urinalysis in individuals aged 40-60 years. Data collected through 2018, from the family doctors' clinical records of a Family Health Unit. Demographic variables (age and gender), presence of chronic kidney disease, serum creatinine value, reason for prescription, result and effect will be analyzed.

**Results:** A total of 340 consultation episodes were evaluated. There was an inappropriate prescription rate of 67%. The most frequent reason for request was “routine”. In about 80% of cases there was maintenance of attitudes. Approximately 14% of cases with abnormal results had a different test or repeated urinalysis in less than 12 months. In the vast majority of abnormal results there was no medical follow-up. Referral to Nephrology consultation occurred in 2%.

**Conclusions:** Urinalysis does not show benefit as a periodic health check and may counteract quaternary prevention. Of note is the low value that the doctor attributes in terms of meaning, even in the face of an abnormal result. In most situations, this examination did not clarify the clinical situation of patients contributing to anxiety and higher costs.
Acute low back pain: quantification of inappropriate imaging

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Abstract:

**Background & aim:** Acute low back pain (ALB) is a leading cause of disability-adjusted years and probably the most frequently implicated symptom in medical consultation. Inappropriate use of imaging methods for etiological diagnosis of ALB is estimated to be about 30%. Misinterpretation of imaging results by the patient, physician, and cumulative radiation exposure are sources of harmful intervention. The aim is to characterize the imaging approach in ALB of a Family Health Unit.

**Method:** Retrospective, analytical, cross-sectional study of clinical records for consultations coded for "L03", "L84" and "L86" (ICPC-2) that match the temporal definition of ALB in individuals aged 18-75 years. Data collected through 2018, from the patients' lists of family doctors of a Family Health Unit. Demographic variables (age and gender), description of alarm signals, reason for imaging prescription, type of examination, result and effect will be analyzed.

**Results:** A total of 271 episodes of ADD consultation were evaluated. There was an inappropriate prescription rate of 28%. Approximately, it corresponded to an effective radiation dose comparable to 20 CT scans. Some cases involved referral to Physical Rehabilitation Medicine with resolution of complaints, although sometimes the use time is longer than expected. Referral to Orthopedics was returned in 15%.

**Conclusions:** Early use of an imaging study in ALB does not improve the patient's prognosis, however, increases the likelihood of invasive interventionism. In fact, findings such as hernia pathology in asymptomatic patients are frequent. On the other hand, the morphofunctional alterations found are not related to the severity of the symptoms and establishing a cause-effect nexus can be difficult.
THANK YOU