from primary care. At present, it contains over 100 million person-years of data from some 10 million active patients. The study encompassed 103,307 patients below the age of 80 years with an incident major depression diagnosis between 2000 and 2013, and we matched each case to one control patient on age, sex, general practice, number of medical encounters, and years of history in the CPRD prior to the index date.

Main outcome measures: Major depression diagnosis was identified by Read-codes based on ICD-10 codes (F32), with a minimum of three prescriptions for antidepressant drugs recorded after the diagnosis. We calculated relative risk estimates of developing depression in association with previous influenza infections, stratified by the number, timing and severity of such events, and we adjusted for a variety of confounders, smoking status, alcohol intake, body mass index, use of oral corticosteroids, and benzodiazepines.

Results: Patients with a previous influenza infection had an increased risk of developing depression (OR 1.30, 95% CI 1.25-1.34) compared to patients with no history of influenza infections. A recent influenza infection recorded within 30-180 days prior to the index date yielded an adjusted OR of 1.57 (95% CI 1.36-1.81), and an increasing number of previous influenza infections was associated with increasing odds ratios (>3 recorded influenza infections, adjusted OR 1.48, 95% CI 1.22-1.81). We did not see any differences in the relative risk association with influenza in regard to a previous influenza vaccination.

Conclusion: This study suggests that influenza infections are associated with a moderately increased risk of developing depression.

PEO12
Potentially inappropriate medications in the elderly and their different approval rates in countries participating in the EU COST Action 1402 initiative

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Please specify your abstract type: Research abstract
Background and Objective: Explicit criteria of potentially inappropriate medications in the elderly (PIMs) have been published in the USA, Canada, Australia and many EU countries. There is a lack of studies describing prevalence of PIM use in Central and Eastern Europe. The aim of the EU COST Action 1402 initiative WG18 (2015-2018) is to evaluate the registration rates and use of PIMs in Central and Eastern Europe compared to other EU countries participating in this initiative. This abstract describes preliminary findings on different registration rates of PIMs in different EU countries.
Setting and Method: Researchers/members of the EU COST Action 1402 initiative from the Czech Republic, Serbia, Hungary, Spain, Turkey and Portugal were asked to fill in evaluation tables for the list of 484 PIMs in the period 01-06/2016. Items available in these evaluation tables related to: registration of individual PIMs on the pharmaceutical market, registered doses, drug forms, availability of PIMs on prescription or as OTC drugs, prescription limits and the most frequently used brand names. Data were evaluated using comparative descriptive statistics.

Main outcome measures: Overall prevalence of registered PIMs in different countries, country differences in availability of individual PIMs.
Results: Of 484 PIMs 81.8% were registered in at least 1 participating country. For the Czech Republic (45.2%), Turkey (48.6%), Spain

PEO11
The incidence of potential clinically significant drug interactions of warfarin in elderly patients

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Please specify your abstract type: Research abstract
Background and Objective: Warfarin is known for its interactions with many drugs. Elderly patients are particularly sensitive to warfarin interactions. To evaluate the incidence of potential drug interactions when prescribing new drugs to elderly patients on warfarin, a prospective observational study was conducted.

Setting and Method: Patients on warfarin older than 65 years were included and monitored for six months in 4 community pharmacies in Croatia. Data regarding new prescribed drugs was obtained from pharmacy records at the moment of dispensing or by patient self-reporting. The potential interacting drugs were identified using the LexiComp® Lexi-Interact Online software. Only the clinically significant (levels C, D, X of clinical significance as classified by LexiComp® Lexi-Interact Online) interactions were included in this analysis.

Main outcome measures: Number of new prescribed drugs, level of interaction with warfarin, mechanism of interactions.
Results: We included 157 elderly patients with an average age of 73 years. In the follow-up period, new drugs were prescribed to 54 patients (34.4%). There were 79 prescriptions of new drugs and 57 (72.2%) of these were drugs with a clinically significant interaction with warfarin. There were 39 prescriptions of drugs with level C of interaction (68.4%), and 18 (31.6%) with level D. There were no drug interactions of level X.

In the group with level C the most prescribed drugs were antibiotics with 26 prescriptions: amoxicillin/clavulanate 28%, clenodiaminc 9%, ciprofloxacin 8%, norfloxacin 8%, azithromycin 5%, clarithromycin 3%, doxycycline 3%. The remaining 13 prescriptions included trandolapril with perindopril 18%, rosvastatin 9%, simvastatin 3%, fluvastatin 3%, levotiroxina 3% and rosuvastatin 3%. The dominant mechanism of the potential interactions was pharmacodynamic.

Conclusion: Pharmacists should actively monitor prescribing of new drugs to elderly patients on warfarin in order to reduce the risk of clinically significant drug interactions.
PE013
Effectiveness of a pharmacist provided intervention in reducing potentially inappropriate prescriptions in polymedicated patients in primary health care

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Please specify your abstract type: Research abstract

Background and Objective: Inappropriate prescribing is a common circumstance found in polymedicated patients. Screening tools for identifying potentially inappropriate prescription (PIP) and pharmacist interventions for evaluating them have been developed to decrease this (1). The aim of this study was to evaluate the effectiveness of a pharmacist provided intervention to reduce PIPs in polymedicated patients.

Setting and Method: The design was a quasi-experimental study focusing on a single group before and after intervention. The study took place from July to December of 2015 at three primary care centres (52,992 population). Polymedicated patients were those using ≥10 chronic drugs for ≥6 months.

Main outcome measures: Reduction in the rate of PIP per polymedicated patient (number of PIPs found divided by the total number of polymedicated patients) before and after intervention, and the influence of the following variables: type of PIP (inappropriate medication for patients ≥75 years old, medication with low therapeutic effect, duplication of benzodiazepines (BZD) or angiotensin-converting enzyme (ACE) inhibitors, combination of anti-coagulant and antiplatelet, combination of non-steroidal anti-inflammatory drug (NSAID) with a diuretic and ACE inhibitor, NSAID in cardiovascular disease, chronic antipsychotic in dementia, chronic BZD or chronic NSAID), gender and age of patients with at least one PIP, and the main prescribed drugs involved in the PIPs based on ATC classification system of World Health Organization.

Results: There were 1,093 and 959 polymedicated patients before and after intervention, respectively. 71.36% (n=780, before) and 68.30% (n=655, after) of the total patients had at least one PIP. The number of PIPs was reduced from 1,373 to 1,108, while the rate of PIP per polymedicated patient decreased from 1.26 to 1.15, achieving the limit established by the regional health authority, 50.90% (before) and 48.70% (after) of patients had more than one PIP at the same time, up to 5 PIPs per patient. Before and after intervention, more than half of patients with at least one PIP were ≥75 years old, and approximately 9 out of 10 were ≥65 years old. Also before and after intervention, 8 out of 10 patients with chronic NSAID and with BZD duplication were women. 6 out of 10 patients with combination of anticoagulant and antiplatelet were men. The main PIPs before and after intervention were, respectively: chronic prescription of BZD (39.77% vs. 37.99% of the total PIP), medications with low therapeutic effect (19.91% vs. 21.30%) and inappropriate medication for patients ≥75 years old (16.82% vs. 17.42%). The main ATC group involved in the total of PIPs was drugs for the nervous system, and the five most prescribed drugs were all BZD (lorazepam being the first).

Conclusion: Pharmacist provided intervention was able to reduce PIP in polymedicated patients. Gender, age and ATC classification of drugs involved were factors in the PIPs.


PE014
Effect of prenatal selective serotonin reuptake inhibitor (SSRI) exposure on birthweight and gestational age: a sibling-controlled cohort study

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Please specify your abstract type: Research abstract

Background and Objective: Up to 10% of women are exposed to selective serotonin reuptake inhibitors (SSRIs) during pregnancy. Information on their effect on birthweight and gestational age remains conflicting. The aim of this sibling controlled prospective cohort study is to address shared genetic and family-level confounding to investigate the effects of prenatal SSRI exposure and maternal depression on birthweight and gestational age.

Setting and Method: We used the Norwegian Mother and Child Cohort Study (MoBa) and the Medical Birth Registry of Norway (MBRN). Our study population consisted of 27,756 siblings; 194 were prenatally exposed to SSRIs and 27,500 were unexposed to any antidepressant medication. Random and fixed effects analysis with propensity score adjustment was used to evaluate the effects on birthweight and gestational age.

Main outcome measures: Birth weight, gestational age.

Results: SSRI exposure during two or more trimesters was associated with a decrease in birthweight of 205 g (95% confidence interval [CI] 372 to 103) and a decrease in gestational length of 4.9 days (95% CI 3.9 to 4.4). Neither maternal SSRI use in one trimester, lifetime history of major depression nor depressive symptoms during pregnancy were associated with these pregnancy outcomes.

Conclusion: Prenatal exposure to SSRIs during two or more trimesters may decrease birthweight and gestational length. Our results indicate that neither maternal depression nor shared genetics and family environment fully explain this association.

PE015
Drug burden index to define functional and cognitive effects in older adults with intellectual disabilities: an observational cross sectional study

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