

mofetil and two (9.5%) with tacrolimus. Treatment schemes: eight (38.1%) patients received 15 day cycles with a fixed dose of 1000 mg on days 1 and 15. Ten patients (47.6%) with 500 mg weekly for 4 weeks and three patients (14.3%) received doses of 875 mg/m<sup>2</sup> weekly for 4 weeks. Adverse reactions: 11 patients (52.4%) developed cytopaenia. The most frequent cytopaenia was anaemia: five patients 45.4%. Seven (33.3%) patients developed pneumonia or sepsis that required hospital admission. A case of atrial fibrillation was recorded. No reactions related to the perfusion of rituximab were recorded.

**Conclusion** The use of rituximab off-label has increased in recent years. It is therefore necessary to develop protocols to unify the criteria for use, evaluating its effectiveness and safety profile to increase the quality of care.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

#### 5PSQ-131 PHARMACOVIGILANCE 2018: SURVEY ON THE PERCEPTION OF PHARMACOVIGILANCE IN THE HOSPITAL – TOOLS TO ENHANCE ADVERSE DRUG REACTIONS REPORTING

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**Background** Hospital pharmacovigilance (PV) has always shown an irregular trend. High increases in the use of adverse drug reactions (ADR) reporting are often recorded during the times in which ad hoc surveillance projects are also carried out. There are several reasons: the lack of knowledge about the role of the PV, the underestimation of the iatrogenic illnesses, job organisation problems and the perception of PV as a merely bureaucratic procedure.

**Purpose** The purpose of the survey was to suggest the use of some practical and quick tools that could help the staff of the hospital reporting the ADRs in a continuous and spontaneous way, without interfering in the ordinary management of the patients.

**Material and methods** The entire hospital staff was asked to take part in a survey sent by company e-mail. The survey consisted of 15 questions, which the participants could answer online anonymously. The first part of the questionnaire concerned the meaning of ADR, while the second one examined useful tools for the encouragement of the surveillance. The results were analysed through Microsoft Excel and LimeSurvey.

**Results** Two-thousand, six-hundred and seventy-two surveys were collected, with a participation rate of 27.3%. The obtained data highlighted that only 31.23% of the participants knew the correct meaning of ADR: 69.32% of them had never reported an ADR.

The chance of notifying directly the ADRs to the Qualified Person Responsible for Pharmacovigilance (QPPV) by putting a tick in the software for the patients' management was evaluated positively by the participants. Moreover, 69.73% of the interviewed would find the presence of the QPPV inside the ward useful.

**Conclusion** The analysis of the results shows that the promotion of PV knowledge is strongly suggested. Supporting the

wards in the comprehension of the reporting procedures is considered rather important.

Furthermore, it is recommended to add a checkbox for the ADRs in the software for the patients' management to promote the use of such an activity in the long term. In addition, the QPPV should have access to medical reports and useful data so that thorough and high-standard ADR reports could be provided.

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#### 5PSQ-132 ASSOCIATION BETWEEN ANTICHOLINERGIC BURDEN OF MEDICATIONS AND MORTALITY IN OLDER ADULTS: A SYSTEMATIC REVIEW

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**Background** Anticholinergic burden of medications has been linked to a number of adverse outcomes in older adults. It has demonstrated a negative impact on health outcomes such as cognitive impairment or falls, and many studies have recently investigated the association with a higher risk of mortality, but findings are contradictory.

**Purpose** To summarise with a systematic review of the evidence regarding the association between the anticholinergic burden of medications and mortality in older adults.

**Material and methods** A scientific literature search was conducted to identify all relevant studies published from 2006 until May 2018, without applying language restrictions. Queries of the literature were performed using the electronic databases PubMed (MEDLINE), EMBASE, Web of Science, CENTRAL and PsycINFO. A combination of the following search terms was used: 'aged' AND 'anticholinergic' AND 'mortality'. Studies with any type of design and setting with participants of mean age 65 years or older were included.

**Results** Two-thousand and twenty-eight different studies were identified, and after a two-step review, 34 were finally included in the systematic review (total 1,142,613 participants, from 71 to 537,387). All of them were observational studies: one case-control study and 33 cohort studies (nine retrospective and 24 prospective). Fourteen different scales were used: Anticholinergic Risk Scale, Drug Burden Index and Anti-Cholinergic Burden Scale were the most commonly used. Thirteen studies were performed in a hospital setting, seven in nursing homes, seven in a community dwelling, four were population-based studies and the rest used mixed populations. Follow-up periods differed from length of hospital stay to 10 years. Eighteen of 34 studies found a significant association between the anticholinergic burden of medications and an increased risk of mortality, in different settings and

with different anticholinergic scales (six of 13 studies with hospitalised patients).

**Conclusion** A high anticholinergic burden may increase the risk of mortality in older adults, but further well-designed research is needed to confirm this finding. A reduction of anticholinergic burden could be a cautious strategy to reduce the risk of mortality and other adverse outcomes. Hospital is a suitable setting to perform medication reviews in older adults to reduce this risk and clinical pharmacists can play an important role for this purpose.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

#### 5PSQ-133 DRUG-RELATED HOSPITAL ADMISSIONS IN AN ACUTE GERIATRIC UNIT AND ASSOCIATED FACTORS

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**Background** Older adults are at high risk of adverse drug events (ADEs) and these are often a cause of hospitalisation in this population. Factors associated with drug-related hospital admissions are not well known.

**Purpose** To estimate the prevalence of drug-related hospital admissions and most common responsible drugs in an Acute Geriatric Unit, and assess the associated factors.

**Material and methods** Cross-sectional observational study of over 75 years' old patients consecutively admitted to an Acute Geriatric Unit in a third-level hospital. A review panel (geriatrician and a clinical pharmacist) registered if the hospital admission was mainly caused by an ADE or it may have contributed to it, according to clinical criteria after a Comprehensive Geriatric Assessment. Socio-demographic and clinical characteristics of included participants were registered from medical records and patient interview. Multivariate logistic regression was used to identify predictors of hospital admissions associated with ADEs. The following factors were included in the analysis: age, sex, number of medications, comorbidities (Charlson Comorbidity Index), functional and cognitive impairment (Barthel Index and diagnosis of dementia), frailty (FRAIL scale) and living in a nursing home.

**Results** Seven-hundred and sixty-six patients were included, 443 were females (57.8%) and mean age was 86.9 years (SD 5.0). In 217 patients (28.3%, 95% CI: 25.13 to 31.53) the review panel considered that drugs had contributed to hospital admission, and in 115 (15.0%, 95% CI: 12.48 to 17.55) they judged that an ADE was the main cause. Three factors were associated with drug-related admissions: age (OR 0.95, 95% CI: 0.913 to 0.996) and comorbidity (OR 0.81, 95% CI: 0.692 to 0.943) were inversely associated, and total number of drugs (OR 1.15, 95% CI: 1.070 to 1.229) were directly associated. Drug classes most commonly associated with drug-related hospital admissions (main cause) were psychotropic medications (38, 33.0% of cases), antiepileptic drugs (11, 9.6%), opioids and non-steroidal anti-inflammatory drugs (both 10, 8.7%).

**Conclusion** ADEs are an important cause of hospital admission in Acute Geriatric Units. In elderly people older than 75 years' old polypharmacy should be carefully reviewed to prevent severe ADE and associated consequences, such as hospital admissions. Hospital pharmacists can play a role in the geriatric teams contributing to Comprehensive Geriatric Assessment regarding medications and detecting ADEs.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

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#### 5PSQ-134 ANALYSIS OF MEDICATION DISCREPANCIES AS PART OF THE CLINICAL PHARMACY MEDICATION RECONCILIATION PROCESS

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**Background** It is widely accepted that the transition of patients across organisations or between professionals is a vulnerable time with regards to medication safety. Approximately 20% of all adverse drug events (ADE) are attributed to poor communication at transitions of care. Completing a medication reconciliation or MedRec for patients at these junctures may be an important means for improving medication safety, and studies have identified that clinical pharmacists contribute positively to MedRec on admission to hospital.

**Purpose** The study aimed to assess the impact of clinical pharmacy-led MedRec, within the adult patient population upon admission to an acute hospital.

**Material and methods** This observational, prospective study took place over a 4 week period in March 2018 in an urban, acute, university-affiliated teaching hospital. Data were collected on 205 patients as a part of the normal delivery of services. When MedRec was completed for a patient, the number of *apparently* unintentional discrepancies were recorded. At 24 and 48 hours, the number of unintentional discrepancies (UD), intentional discrepancies, unresolved discrepancies and the details of the discrepancies were recorded. An expert review panel rated the discrepancies using the numerical rating score according to the potential for harm to the patient if the CP had not intervened.

**Results** Almost two-thirds of patients (n=205) experienced a CP intervention or endorsement regarding *apparently* UD. Unintentional discrepancies affected 51% of patients and were associated with 17% of medications reviewed (n=1584). There was a statistically significant positive association between the number of pre-admission medications a patient was taking and UD (r=0.26, p<0.0001). Almost 90% of UD were reported as having the potential to cause moderate harm to the patient: 2.5% were considered to potentially cause serious harm.

**Conclusion** Pharmacy-led MedRec has a positive effect on patient safety at transitions of care. Longitudinal research is needed to examine the clinical effect that discrepancies have on patient outcomes.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

n/a.

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