

Material and methods The high-alert medication list was obtained through the Institute for the Safe Use of Medicines. We analysed the drugs included in it and we selected those that were reasons for doubt and by those who called more frequently to the hospital pharmacy service to clarify doses, routes of administration and so on: in general, those that caused failures in the process of using them. We also tried to analyse the circumstances that could motivate these doubts or errors.

These drugs were: oral anticoagulant, heparin, insulins, intravenous potassium chloride and oral methotrexate.

Results

Abstract 5PSQ-117 Table 1

High-alert medication	Error or reason of doubt	Protocol of action
Oral anticoagulants	Lack of knowledge of dose and dosage schedule.	Transcription of the haematology guideline by the pharmacy service and dispensation of the right dose for each day. Establish INR monitoring protocols.
Heparin	Confusion between doses and concentration. Possible confusion with insulins when dosed also in units.	Reduce the variety of available presentations and indicate that heparin should be separated from insulin as well as from other drugs that are prescribed in units.
Insulins	Confusion between the different types, marks and concentrations.	Prescription by trademark, decrease the number of presentations in the hospital.
Intravenous potassium chloride	Storage of the solutions concentrated in the kits.	Remove potassium vials from care units and use pre-mixed potassium prepared by industry or pharmacy service.
Oral metotrexate	Daily administration instead of weekly.	Treatments conciliation (dosage and frequency of administration) to avoid overdosing.

Conclusion The implementation of specific practices, including packaging, labelling, storage, prescription and preparation, as well as the establishment of standardised protocols of action in the hospital will help to reduce the errors of medication.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-118

SURVEILLANCE AND MONITORING OF PATIENT FALLS IN A HOSPITAL SETTING BY THE HOSPITAL PHARMACIST: FOCUS ON PATIENT-RELATED RISK FACTORS AND DRUG THERAPY

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Background Falls in hospitalised patients (FHPs) represent the most common adverse event in a hospital setting that can increase hospitalisation stay.

Purpose The aim of this study was to identify the risk factors related to FHPs.

Material and methods We analysed 65 falls of 61 patients that occurred in our institute from January 2013 to May 2018. There were identified patient-related risk factors (age, gender, body mass index, diseases, postoperative status, need of assistance and previous fall in the past 6 months) and therapy-related risk factors, such as the presence of fall-risk-increasing drugs (FRIDs) reported in the literature.

Results 19.7% (12/61) of the fallen patients were aged under 60 years, 45.9% (28/61) between 60 and 70 years, 31.1% (19/61) between 70 and 80 years, while 3.3% (2/61) were over 80 years. 68.9% (42/61) of the patients were males, while 31.1% (19/61) were females. 96.7% (59/61) had predisposing factors to FHPs. 55.7% (34/61) were overweight and 1.6% (1/61) were underweight. 44.3% (27/61) required total care, while 27.9% (17/61) required partial assistance. In 40% (26/65) of the FHPs, the patients were in a postoperative care, while in 31.1% (19/65) of FHPs, the patients had fallen in the previous 6 months. In 35.4% (23/65) of the FHPs, one or more diagnostic tests were necessary, for a total amount of 33 examinations. In 96.9% (63/65) of the reported falls, the patients were in polytherapy and assumed FRIDs, with an average of 7.3 FRIDs per patient: the most representative classes of FRIDs were cardiovascular drugs in 47.4% (227/479), hypoglycaemics in 12.1% (58/479), proton pump inhibitors in 11.3% (54/479), laxatives in 7.1% (34/479), opioids in 6.9% (33/47) and anxiolytics in 5% (24/479). The most frequent FRIDs were furosemide in 14.2% (68/479), omeprazole in 9.8 (47/479), insulin lispro in 5.4% (26/479) and tramadol in 5.2% (25/479).

Conclusion This analysis shows some critical points that required the implementation of preventive and safety measures, in order to reduce the incidence of FHPs. We propose to perform: frequent fall-risk assessments of each patient through appropriate assessment scales; greater attention to drug therapy; and adequate training of healthcare professionals.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-119

A PRELIMINARY SURVEY ON DAILY DRUG INTAKE IN OLDER PATIENTS IN COMPLIANCE WITH EAHP POLICY STATEMENT ON AN AGEING SOCIETY

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Background The elderly are particularly at increased risk of adverse drug reactions (ADR) attributed in the main to poly-pharmacy, poor compliance and physiological changes affecting the pharmacokinetics and pharmacodynamics of many drugs. The tracer pharmacist (TP) can support physicians to ensure the appropriate and safe use of drugs, and stimulate patient reporting to the pharmacovigilance system.

Purpose The aim of this study was to identify the risk factors inherent in the daily drug intake, in order to prevent/reduce the incidence of ADR and to increase the reporting of them.

Material and methods A preliminary prospective observational study was performed by the TP in September 2018. Sixty elderly inpatients and outpatients were included. After acquiring informed consent, patient questionnaires were administered to evaluate the correct use of drugs and the use of Over the

Counter (OTC) drugs, supplements and herbal products. An educational brochure had been created and was sent to the elderly patients during the interviews.

Results The average age of patients in the study was 72.7 years and 70% (42/60) of patients were males. 95% (57/60) of the patients were expected for outpatient visits and the remaining 5% (3/60) were hospitalised. The most common reason for hospitalisation was cardiovascular diseases 46.6% (28/60). There was an average of two comorbidities and 78.3% (47/60) of patients were in polytherapy (≥ 4 drugs). Antihypertensives were the most frequently used drugs 63.3% (38/60). 6/60 (10%) patients reported a drug allergy, in particular Betamethasone, Iopromide, Ranolazine, Levofloxacin, Cefuroxime and Amoxicillin clavulanate. 16/60 (26.6%) of patients reported the use of paracetamol as an OTC when needed, 10/60 (16.6%) patients reported the use of supplements and only 2/60 (3.3%) patients the use of herbal products. A good adherence therapy and knowledge of ADR reporting methods emerged from the interviews. 2/60 (3.3%) patients reported ADR, respectively diarrhoea and procrastination related to Nintedanib and head and hand tremor related to Tacrolimus. These ADRs have been reported in the pharmacovigilance system.

Conclusion This direct approach with elderly patients has been important in focusing on their particular needs, and multidisciplinary teamwork has improved the risk/benefit ratio of the therapies. Further data will be recorded.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-120 APPLICATION OF INTERNATIONAL GERIATRIC CRITERIA ACCORDING TO EAHP POLICY STATEMENT ON AN AGEING SOCIETY

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Background Inappropriate prescribing in the elderly is a critical issue in primary care, causing a higher risk of adverse drug events and resulting in major patient safety concerns. At international level, many tools have been developed to cope with this problem and to identify Potentially Inappropriate Medications (PIMs).

Purpose The aim of this study was the application of Beers, Screening Tool of Older People's Prescriptions (STOPP)/Screening Tool to Alert to Right Treatment (START) and Improving Prescribing in the Elderly Tool (IPET) criteria by the tracer pharmacist (TP), as a key tool in reducing PIMs and improving the quality of prescribing.

Material and methods A retrospective cohort study was conducted by the TP using Beers, STOPP/START and IPET criteria. The cohort comprised 370 elderly patients hospitalised from January to May 2015, with at least three prescriptions.

Results The average age of patients in the study was 73 years and 54.5% (209/370) of patients were males. The most common reasons for hospitalisation were cardiovascular disease (183/370) and cancer (72/370). There was an average of 4.4 comorbidities and 83.8% (310/370) of patients were in polytherapy (≥ 4 drugs). The prevalence of PIMs in the sample was 85.7% (317/370) according to Beers criteria, 76.5% (283/370) using STOPP criteria and 39.2% (145/370) using IPET criteria. According to Beers criteria, the most prevalent PIM,

with a percentage of 72.1% (267/370), was the use of a proton-pump inhibitor, which exposes patients to *Clostridium difficile* infection, bone loss and fractures. According to STOPP criteria, we reported potentially constipating drugs (antimuscarinics, Fe, opioids) in 51.3% (190/370). According to IPET criteria, the use of δ -blocker in patients with obstructive pulmonary disease was the predominant PIM, with a percentage of 27.3% (101/370). On the other hand, the use of START criteria allowed the detection of appropriate prescriptions, which were 151/370: the most common was the use of inhaled $\delta 2$ -agonists in the treatment of asthma or obstructive pulmonary disease.

Conclusion Regardless of the criteria used, our data showed that, according to Beers criteria, more than 80% of patients were exposed to PIMs. To make health professionals aware of the use of these tools and to improve care for the elderly patients, an educational brochure has been created.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-121 QUALITY ASSESSMENT WITHIN FRENCH FIRE AND RESCUE SERVICES PHARMACIES IN THE NORTH OF FRANCE: DEVELOPMENT AND EVALUATION OF A SELF-ASSESSMENT TOOL

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Background The organisation of Pharmacies of French Fire and Rescue Department Services (FFRDS) progressively switches to an operating mode currently applied in hospital pharmacies. FFRDS pharmacies have very specific activities and, currently, there is no self-assessment tool available that enables assessment of the quality system (QS).

Purpose Primary aim of this study was to develop a QS self-assessment tool compatible with healthcare products (HP) management. Another goal was to set up a state of QS within the different pharmacies of FFRDS in the north of France.

Material and methods The first step was to create an expert group. It was composed of 15 members in different professions. Then, an audit checklist made up of 194 items was constructed. Each item was rated according to a risk level (from 0 'no risk' to 3 'unacceptable risk') and to an effort level required to control this risk (from 0 'no effort' to 3 'major effort'). Finally, computer modelling was done (Excel file).

Results A quantitative analysis was made from the results of five FFRDS pharmacies. This analysis revealed a high risk linked particularly to: pharmaceutical analysis and validation of medical prescriptions (70%), HP preparation and dispensation (67%). However, the risk related to HP purchase was low (20%). Furthermore, 16% of all the studied items showed a risk higher than 80%, whereas 32% showed a risk below 20%.

The qualitative analysis demonstrated a fair balance between the proportion of items categorised as 'unacceptable' and 'bearable'. The result range for the proportion of items classified as 'unacceptable' spans 3% to 34%.

As for the effort level required to control the risk, most items that have not been validated required a 'low intensity'