mental health units who initiated long acting injectable antipsychotic treatment (monthly aripiprazole 400 mg (MA), monthly paliperidone 150 mg (MP) or quarterly paliperidone 525 mg (QP)) between April and September 2017. Anthropometric data, injectable antipsychotic treatment and psychiatric diagnoses were collected. Active treatments, discontinuations and changes in drugs, formulations (monthly/quarterly) and doses were recorded in April 2018 and April 2019.

Results A total of 113 patients were included. Treatments were 46.0% (52) MA, 40.7% (46) MP and 13.3% (15) QP. Average ages (MA, MP, QP) were 41.75±12.8, 47.70±14.9 and 44.13±7.1 years, respectively, and the number of men were 56.69%, 76.09% and 93.33%, respectively. Diagnoses (MA, MP, QP) were paranoid schizophrenia in 55.77%, 54.35% and 53.33%, respectively; substance abuse related disorder in 7.69%, 4.35% and 6.67%, respectively; simple schizophrenia in 17.31%, 10.87% and 13.33%, respectively; intellectual disability in 3.85%, 4.35% and 0%, respectively; personality disorder in 1.92%, 4.35% and 0%, respectively; and other in 13.46%, 21.73% and 26.67%, respectively.

In April 2018, 90.38% (47) of MA patients maintained treatment, while 9.62% (5) discontinued treatment. A year later, 76.92% (40) maintained treatment, 5.77% (3) changed doses and 17.31% (9) had discontinued their treatment.

For MP, 58.70% (27) continued with treatment in the first year, 19.57% (9) changed to QP, 6.51% (3) changed doses but maintained the monthly administration and 15.22% (7) interrupted treatment. In the second year, 50.00% (23) maintained treatment, 17.39% (8) changed to QP and 10.87% (5) changed dose. Treatment was interrupted in 21.74% (10) of patients at the end of the study.

For the QP group, 53.33% (8) maintained treatment in the first year while 26.67% (4) required a change to MP and 20.00% (3) interrupted treatment. At the end of the study, 40.00% (6) maintained treatment, 26.67% (4) continued with MP, 6.66% (1) changed to MA and 26.67% (4) discontinued treatment.

Conclusion and relevance A good maintenance rate was observed with MA and MP over 2 years. In contrast, half of the patients receiving QP had to interrupt their treatment during the first year due to a short acting duration. Almost a third of QP patients had to restart treatment with MP. In conclusion, the maintenance rate was higher in monthly presentations than in the quarterly presentation.

REFERENCES AND/OR ACKNOWLEDGEMENTS

N/A

No conflict of interest.

4CPS-167 EVALUATION OF PHARMACEUTICAL INTERVENTIONS: IMPROVEMENT PLANS

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Background and importance Medication errors are frequent in the hospital setting, increasing the morbidity and mortality of patients. The pharmacist detects medication errors, preventing the appearance of medication related problems through pharmaceutical care and pharmacotherapeutic follow-up.

Aim and objectives To evaluate pharmaceutical interventions and the degree of acceptance, and to evaluate the quality of interventions and optimise the process.

Material and methods A descriptive retrospective study of 3 years' duration of the interventions performed (October 2016–September 2019) was carried out. After reviewing and validating the electronic medical prescriptions and communicating to the responsible physician any possible medication errors detected by electronic messaging or by telephone, the pharmacist recorded the interventions performed daily in a database, classifying for further analysis.

Results A total of 5137 interventions were recorded in 4032 patients. Of these, 3032 were accepted after communicating them to the prescribing physician. A total of 25.36% of the interventions were related to therapeutic duplications, 13% to drug interactions, 12.09% to documented drug allergies, 10.6% to dose error (66% excessive dosage and 34% insufficient dosage), 8.6% required clarification/request for information because of an incomplete medical order, 8.75% were inappropriate or unavailable pharmaceutical form, 8.5% were medications not included in the hospital guide and 5.5% were inappropriate dosage range. etc. The services with the highest number of interventions were internal medicine 1436; pneumology 359; neurology 356; cardiology 350; digestive 349; oncology 335; infectious diseases 290; traumatology 189; and psychiatry 183. The degree of acceptance of the interventions in the internal medicine service was 49%; digestive (79%); pneumology (76%); neurology (73%); and cardiology (75%).

Conclusion and relevance Pharmaceutical interventions improve the quality of care and patient safety by reducing medication errors. The service with the highest number of interventions was internal medicine, although the degree of acceptance was not very high. These results highlight the importance of pharmaceutical interventions and suggest the need to implement an automatic registration system for the interventions performed, integrated into the electronic prescription programme, in order to facilitate interventions and promote their acceptance.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-168 DEVELOPMENT OF A BELGIAN CLASSIFICATION SYSTEM FOR CLINICAL PHARMACY ACTIVITIES

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Background and importance Registration of clinical activities and interventions is essential for an objective evaluation of the pharmacist's contribution to pharmacotherapy. However, in Belgium, a nationally standardised classification system is lacking, prohibiting structured and uniform registration of drug related problems (DRPs) and pharmaceutical interventions (PIs), thus complicating benchmarking and feedback to management and government.

Aim and objectives To develop and validate a Belgian classification system for clinical pharmacy activities, based on the literature and stakeholders' opinions.

Material and methods Firstly, existing classification systems for DRPs and PIs were identified through a systematic literature review. Secondly, through a nationwide electronic survey (Snap Surveys; June–July 2018) we assessed current registration practices of Belgian hospital pharmacists and their opinions

regarding an ideal registration system. This information was used to develop a preliminary version of the classification system, which was further evaluated by major stakeholders (hospitals, universities, government) during a focus group discussion (September 2018). A final version was validated and assessed for interrater reliability in a second nationwide electronic non-Delphi survey (March–April 2019), comprising the classification of DRPs and PIs in 45 theoretical cases. Participants were also asked to score interpretability, user friendliness and user satisfaction.

Results Following the literature review, 22 classification systems were identified, all with different categories and numbers of categories. Both the survey and focus group discussion revealed that the use of validated systems is very scant, but desirable in Belgium, with practicality and time investment as the most important characteristics. The final classification system included seven clinical activities, grouped into four activity classes. The most extensive activity class (ie, medication review) included 29 DRPs and 22 PIs. Forty-four hospital pharmacists participated in the validation study. Interrater reliability was substantial for the DRPs (Fleiss' $\kappa=0.731$) and PIs (Fleiss' $\kappa=0.784$). The classification system was found to be user friendly, with good interpretability and user satisfaction, resulting in a very high interest to use our system in daily practice.

Conclusion and relevance A classification system, adapted to Belgian clinical pharmacy activities, was developed and validated, and was well received by hospital pharmacists. The final version will be promoted at different levels for use in daily practice.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-169 EFFECT OF ABIRATERONE VERSUS ENZALUTAMIDE ON PROSTATE SPECIFIC ANTIGEN LEVELS IN METASTATIC CASTRATION RESISTANT PROSTATE CANCER

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Background and importance Enzalutamide (ENZ) and abiraterone (AA) are two drugs that have been shown to improve survival in patients diagnosed with metastatic castration resistant prostate cancer (CRPCm). There are no direct comparison studies of these two drugs, so comparative analyses may help therapeutic positioning.

Aim and objectives To evaluate the response of both drugs, measured as an early decrease in prostate specific antigen (PSA) levels, in CRPCm patients.

Material and methods A prospective study was carried out in a third level hospital in which all patients diagnosed with CRPCm receiving treatment with AA and ENZ as firstline therapy were included. The characteristics of the patients and the necessary clinical data were obtained from the electronic medical records. To evaluate the progression of PSA levels, their absolute variation was determined at 3 (VPSA3) and 6 (VPSA6) months from the beginning of treatment. Differences between the baseline characteristics of both groups of patients were evaluated using a Student's t test. The same type of statistical analysis was used to study significant differences between AA and ENZ with respect to VPSA3 and VPSA6. The study was authorised by the Committee on Ethics of Drug Research (CEIm) of the centre of reference (code GNC-ABI-2017-01).

Results In this study, 42 patients were included (mean age 78.3 years (66–92)), all with a Gleason score $\geq$7: 40.5% (n=17) of patients were treated with AA and 59.5% (n=25) with ENZ. No differences were observed between the two groups in their baseline characteristics: mean age 76.2 versus 79.8 years (p=0.054); mean PSA levels before initiation of AA were 32.9 ng/mL versus 59.0 ng/mL with ENZ (p=0.51). VPSA3 was higher in the group of patients treated with ENZ (−45.3 ng/mL) than in the AA group (+25.9 ng/mL, p=0.04). No differences were observed between groups for VPSA6 (AA versus ENZ: +28.1 ng/mL vs −10 ng/mL; p=0.23).

Conclusion and relevance As described in previous studies, an early decrease (3 months) in PSA levels was greater in ENZ treated CRPCm patients. However, these differences in biochemical response were equal after 6 months of treatment. Although these results, to date, have not been correlated with effects on progression free survival or overall survival of patients, this effect could position ENZ as the therapeutic alternative in situations that require a rapid response.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-170 ANALYSIS AND EVALUATION OF PHARMACEUTICAL INTERVENTIONS PERFORMED IN THE EMERGENCY DEPARTMENT OF A TERTIARY HOSPITAL

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Background and importance Prescription in the emergency department (ED) is compromised by multiple causes which could lead to a higher risk of medication errors.

Aim and objectives To compare and analyse pharmaceutical interventions (PIs) performed in frail patients (FP) with those performed in the rest of the patients (ROP).

Material and methods A prospective interventional study (January 2019–June 2019) was conducted in a tertiary hospital. A medical reconciliation was made daily using electronic prescriptions (EP) of patients own drugs and ED treatment of all patients admitted. FP (defined by their primary care physician) were also personally interviewed.

Electronic medical history was consulted to evaluate current treatment and to collect demographic data. PIs were performed electronically in ROP and discussed personally with the clinician in charge of FP. PIs were categorised. The rate of medical acceptance was evaluated. Drugs were classified as high risk drugs (HRD), potentially inappropriate drugs in the elderly (PID) and other.

Results We included 418 patients: 61 in the FP group (mean age 78.8 years (SD=10.4), 55.7% men) and 357 in the ROP group (mean age 76.4 years (SD=13.5), 50.0% men).