categories C, D and X have been considered. The degree of rigor and the reliability rating were also collected.

Results A total of 69 men were interviewed. The mean age was 77 years, all older than 60 years. 31 patients were receiving treatment with apalutamide, 26 with abiraterone and 12 with enzalutamide. The patients had a mean of 12.6 ± 15.1 months of treatment. 88.5% took 5 or more medications.

A total of 709 lines of treatment were analysed, finding that 66.6% of the patients presented an interaction in their treatments, 1.9 interactions per patient.

According to the severity of the interactions, 76.2% (91) were C, 10.1% (12) D and 12.7% (15) category X. 63.5% of the interactions were with apalutamide, 26.2% with enzalutamide and 10.1% with abiraterone. 4 pharmacological groups are responsible for category D interactions and 1 is responsible for category X interactions (proton pump inhibitors).

Conclusion and Relevance

- The study has allowed us to detect a high number of interactions, although the proportion of patients with clinically relevant interactions is low.
- The pharmacist plays a very important role in the prevention, detection and monitoring of interactions in this group of patients.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

4CPS-262 A NOVEL ARTIFICIAL INTELLIGENCE-BASED TOOL TO ASSESS ANTICHOLINERGIC BURDEN: A SURVEY

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Background and Importance Many medications possess anticholinergic activity. Their use is associated with a number of serious adverse effects including cognitive effects. The cumulative anticholinergic effect of medications as assessed by tools such as the anticholinergic burden scale (AchB) can identify people particularly at risk of anticholinergic side-effects. Currently, more than 20 tools are available for clinicians to use, but there is no consensus on the most appropriate tool.

Aim and Objectives To assess the overall need for an assessment tool as well as the usability of a newly created tool, the International Anticholinergic Cognitive Burden Tool (IACT), to assess anticholinergic burden of medications.

Material and Methods A newly created online tool, International Anticholinergic Cognitive Burden Tool (IACT), based on natural language processing and chemical structure analysis, was developed and made available for clinicians to test its functions. We carried out a survey (between 8 February to 31 March, 2021) to assess the overall need for an assessment tool as well as the usability of the IACT.

Results A total of 110 responses were received from different countries and practitioners' groups. The majority of the participants (86.11%) stated they would use a tool for AchB assessment if available and when they were asked to rate the IACT against other tools, amongst 34 responders, 20.59% rated it better and 8.82% rated it significantly better, 44.12% rated it neither better, nor worse, 14.71% rated it worse and 11.76% somewhat worse.

Conclusion and Relevance There is a need for an anticholinergic burden calculator to assess the anticholinergicity of medications. Tools such as the IACT potentially could meet this demand due its ability to assign scores to current and new medications appearing on the market based both on their chemical structure and reported adverse pharmacological effects.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

4CPS-263 THE PHARMACIST'S ROLE IN OPTIMISING SURGICAL ANTIBACTERIAL PROPHYLAXIS (SAP)

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Background and Importance Surgical antibiotic prophylaxis in orthopaedic joint arthroplasties is common reason for unnecessary, excessive and irresponsible use of antibiotics.

Aim and Objectives The purpose of this study was to analyse whether the continuous presence of clinical pharmacist on the ward may improve SAP guidelines adherence and clinical outcomes.

Material and Methods The study was conducted at an Orthopaedics Department of a tertiary care medical centre. Overall guideline adherence (agent, dose, frequency, duration), clinical outcomes (length of stay-LOS, number of surgical site infections-SSIs), antibiotic exposure and direct antibiotic costs were compared between pre-intervention (retrospective observational) and intervention (prospective) periods. The clinical pharmacist's interventions consisted of proactively controlling antibiotic prophylaxis every day on an individual level to ensure compliance with SAP (agent selection, dosage, and duration) guidelines, attending surgical ward visits, participating in antibiotic related decisions, and providing continuous counselling service. SAP guideline adherence, antibiotic exposure, and costs in the two periods were compared using Chi-square, Fisher exact, and Mann-Whitney tests.

Results Significant improvement in overall SAP guideline adherence (by 56.2%, from 2% to 58.2%, $p<0.001$) was observed. Significant reduction in SAP duration (by 42.9%, 4.1 ± 2.1 vs 2.1 ± 1.9 days, $p<0.001$), in SAP antibiotic exposure (by 41%, from 6.1 ± 0.05 to 3.6 ± 4.3 DDD/patient, $p<0.001$), and average prophylactic antibiotic cost (by 54.8%, 9278.8 ± 6094.3 vs 3598.2 ± 3354.6 HUF/patient)

were observed. Moreover, prolonged prophylaxis has no benefit on clinical outcomes (LOS: decreased by 37.2%, 11.2 ± 7 to 7.62 ± 3 days, p<0.001; confirmed SSIs: deceased by 1.8%, from 3% to 1.2%, p=0.21).

Conclusion and Relevance Continuous presence of the clinical pharmacist is crucial in optimising antibiotic use. Pharmacist's intervention led to a significant improvement in SAP guideline adherence, that entailed also the significant reduction of antibiotic exposure, length of stay, and costs. Additional research, focusing on empirical and targeted antibiotic therapy and implementation of optimising antibiotic use, is needed.

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Conflict of Interest No conflict of interest

Section 5: Patient safety and quality assurance

5PSQ-002 PHARMACIST IN SECURING DRUG CIRCUIT: FROM PRESCRIPTION TO ADMINISTRATION (ANALYSIS AND ACTIONS)

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Background and Importance In a multidisciplinary hospital with 426 beds, roles of hospital pharmacist are varied and drug circuit presents many risks of medication error. According to the WHO, the roles of pharmacists are 'the Seven star Pharmacist': care giver, decision maker, communicator, leader, manager, lifelong learner and teacher.

Aim and Objectives Objective of this study is to measure effectiveness of actions taken by pharmacists to reduce medication errors: from prescription to administration.

Material and Methods Between 2019 and 2022, a compilation of audits have been made. Various stages of drug circuit were audited using previously validated audit grids. Each audit have been made during 15 days for all new prescriptions. A statistical analysis of proportion comparing the error rate before and after the implementation of improvement actions was carried out. Prescription of all injectable drugs has been formalised, new doctors arriving at the hospital are made aware. Concerning medication reconciliation: in the event of a discrepancy observed, doctor is systematically informed, a pharmacy student has been assigned to the surgery unit. Errors not detected during pharmaceutical validation were presented to all pharmacists. Measures to reduce risk of task interruption were implemented during dispensing (dedicated emergency telephone line, redefining tasks). Concerning administration of medication: training workshop days for nurses have been created by pharmacists.

Results Results showed a statistically significant improvement in certain criteria (statistical analysis of proportion : comparing error rate before and after actions ; alpha = 5%) : medication reconciliation rate increased from 64% in 2019 to 73% in 2021 (64% VS 73%); errors not detected during pharmaceutical validation (2% VS 1%); dispensing error (3% VS 2%); lack of knowledge of the establishment's drug administration procedure (58% in 2019 VS 33% in 2022). On the other hand, certain criteria have deteriorated: prescription compliant in 70% in 2019 and 65% in 2022.

Conclusion and Relevance This study has made it possible to objectify that actions of pharmacists have been beneficial in management of patients. However, we find that actions taken to improve prescription of drugs have not been effective. It would be interesting to set up continuous training for doctors on the use of the prescription software in our establishment.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

5PSQ-003 PERFORMANCE OF A COLD MAINTENANCE DEVICE DURING THE IMPLEMENTATION OF A PNEUMATIC CIRCUIT

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Background and Importance Few information are available about the performance of cold maintenance device.

Within the framework of the implementation of a pneumatic system in a new university hospital, the feasibility of sending different types of medicines, including cold products with a pneumatic system was studied.

Aim and Objectives The objective of this study is to evaluate the compliance of a cold maintenance device within a pneumatic.

Material and Methods The study was led in a French University Hospital with 1495 beds and more than 80 care units between May and September 2022. The analysis was made with kits provided for the cartridges dedicated to cold transport and with qualified electronic temperature recorders Log-tags ® (C.M.I France, Neung-sur-Beuvon). Different conditions were tested, one condition per test, reproduced at least 3 times: kits placed at room temperature, in the fridge (2/8°C) or in the freezer, presence or not of a secondary packaging, eutectic plate or putting the kit in the cartridge. The supplier had certified on his commercial leaflet a duration of 50 min between 2 and 8°C under the following conditions: 500 ml infusion bag stored at 5°C, with thermal recorder inside the bag, placed in the kit then in the cartridge.

Results All the results of the 9 different tests (one condition per test, reproduced at least 3 times) do not meet the 50 min data indicated by the supplier. The method applied by the supplier shows a mean duration between 2 and 8°C of 4.20 min [4;5] Using the same starting conditions: freezing the kit, gave an average of 8.20 min [7;9], using a secondary packaging, the average was 6.40 min [6;7], outside the cartridge, the average was 4.40 min [4;6], and adding an eutectic plate, the average was 29.24 min [11;60] but with a temperature below 0°C. The average for all tests is 8.46 min.

Conclusion and Relevance This study showed that the supplier's device and data did not comply the good practices concerning management of health products subject to cold chain and the patient safety.