

5PSQ-045 IMPACT OF PHARMACEUTICAL INTERVENTIONS IN CRITICAL PATIENTS

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Background and Importance The high healthcare burden in the Intensive Care Unit (ICU) due to the SARS-CoV2 Coronavirus pandemic has created a work environment that increased medication errors. It is known that pharmaceutical interventions reduced medication errors.

Aim and Objectives The objective of this study is to know the impact of pharmaceutical intervention in critically ill patients.

Material and Methods Retrospective observational study carried out in a general hospital. All the pharmaceutical interventions performed in the Intensive Care Unit (ICU) between the months of October 2020 and April 2021 were analysed. It was registered in a database: Positive diagnosis of COVID-19 (SARS-CoV2 coronavirus disease), number of interventions, type of intervention and acceptance of the intervention.

Results A total of 51 interventions were obtained in 169 patients admitted during the 7 months of the study (0.3 interventions / patient). 42.6% of the patients had a diagnosis of COVID-19. 17% of the patients admitted to the ICU had at least one intervention, of which 38% had more than 1 (mean 1.76 interventions per intervened patient). The most frequent reasons for intervention were dose modification due to inappropriate dose (35.3%) and inappropriate choice of presentation due to the route of administration (21.5%). 84% of the interventions were carried out in COVID-19 patients, with the mean number of interventions performed in these patients higher than in non-COVID-19 patients (1.87 vs 1.33). 92% of the interventions conducted by the pharmacist were accepted.

Conclusion and Relevance Pharmaceutical validation in the Intensive Care Unit (ICU) is essential to optimise the treatment of critical patients, increasing safety and efficacy of medications they receive and reducing medication errors. Patients diagnosed with COVID-19 are especially likely to benefit from pharmaceutical interventions, which are highly accepted by physicians.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

5PSQ-046 FMEA (FAILURE MODE AND EFFECT ANALYSIS) APPLICATION TO PARENTERAL NUTRITION BAGS MANUFACTURING PROCESS: ROLE OF HOSPITAL PHARMACIST

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Background and Importance Correct identification of unexpected/unwanted processes variability allows us studying solutions for increasing any system reliability. FMEA (Failure Mode and Effect Analysis) is an inductive method that provides a 'bottom up' approach; starting from activities process

analysis, it reaches identification of possible inconveniences (failure mode) and effects on an entire system.

Aim and Objectives Our purpose was detecting the most critical phases of Parenteral Nutrition bags (PNB) compounding process through an audit consisting of hospital pharmacists, doctors, nutritionists and nurses.

Material and Methods FMEA was applied to PNB compounding process in a hospital with 639 beds. The process was divided into four phases (prescription, formulation, compounding, quality-control). By making an estimate of severity, probability and detectability, we have defined appropriate actions to be taken for eliminating potential problems' occurrence. The product between previously identified values (on scale from 1 to 10) provides Risk Priority Index (IPR), an overall criticality measure.

Results The highest IPR value (384) was found in formulation phase where bag's osmolarity was higher than venous access type chosen. An IPR=168 was found in prescriptive phase concerning patient incorrect selection from software (homonymy cases), followed by data incompleteness, relating to microelements addition (with an IPR=150). An IPR=140 was found during Siframix machine setting up regarding microelements' housings exchange (danger due to Potassium replacement with microelement required in greater quantities). Finally, IPR=144 was found, during compounding phase, due to confusion about 'look alike sound alike' constituents (inframin/siframin replacement); this allowed PNB compounding with a qualitative-quantitative composition different from that requested.

Conclusion and Relevance Joint audit proposed solutions for each phase. For prescriptive one, it would be desirable to take advantage of a software that gives access to medical records in order to check that bag suited patient's needs. During formulation phase, it is necessary that a hospital pharmacist (HP) performs a double check between worksheet drafting and label, verifying correspondence, completeness and overlapping with data indicated in prescription. HPs have to control prescription feasibility and that volume is suitable for access provided for patient. For set-up phase, a double check should be carried out to make sure that each housing contains corresponding nutrient; in addition, at least two technicians should be present to carry out the operations in duplicate.

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5PSQ-047 PRECAUTIONARY CANCELLATION: TOOL TO IMPROVE PATIENT SAFETY

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Background and Importance Precautionary cancellation is a new tool for primary care and hospital pharmacist that allows them to cancel prescriptions and avoid dispensing medicines at pharmacies.

Aim and Objectives Analyse the precautionary annulments made in a hospital and quantify the degree of acceptance of the doctor.

Material and Methods Prospective study lasting five months in a country hospital. All patients outpatients with onco-

haematological prescriptions and home treatment were included. The precautionary annulments were codified as safety: interaction between drug (INT): category X (avoid combination) and category D (modify therapy), unnecessary medication (UM), overdose (OD) and therapeutic duplicity (TDUP). The variables collected were: age, sex, prescribing service, type of precautionary annulments and degree of acceptance of the doctor. Sources used: digital clinical history Diraya, corporate dispensing module, Uptodate interactions and electronic prescription program Farmis Oncofarm v4.0.11.164.

Results We analysed 35 precautionary annulments. Population of mean age 52 years (range 46-87). 71% were women. The prescribing services were Oncology (97.14%) and Hematology (2.86%). The precautionary annulments were of safety: INT 80% (category X 85.72% and category D 14.28%), UM 14.28%, OD 2.86% and DUPL 2.86%. The degree of acceptance of the doctor was 88.57% and modified the treatment 11.43%.

Conclusion and Relevance The results of the series studied show a high degree of acceptance by the doctor of the precautionary cancellations made by the hospital pharmacist. It is a useful safety tool, emphasising serious interactions.

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5PSQ-048 WHAT DO ONCOLOGISTS AND PHARMACISTS THINK AND WANT FROM A CAHMS-DRUG INTERACTION CHECKER? A BROADSCALE SURVEY TO ASSESS EXPECTATIONS

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Background and Importance The use of complementary and alternative herbal medicines (CAHMs) is widespread and popular among cancer patients for different reasons. Unfortunately, CAHMs can interfere with anticancer treatments leading to both toxicity or decreased efficacy with therapeutic failure. The availability of a tool for the management of potential CAHM-drug interactions (CAHMDI) could provide health care professionals (HCP) with scientific evidence-based information. It may facilitate open communication about potential adverse effects without neglecting patient's beliefs and preferences. Such a tool does not yet exist in our hospital.

Aim and Objectives The aim of this survey was to assess future user's expectations of a practical tool to manage CAHMDI.

Material and Methods Two e-surveys, carried out in Google Forms, were sent to 1) health care providers (HCPs) of all oncological disciplines in our hospital and research departments and 2) all hospital pharmacists of UHL.

Results The survey was completed by 37 HCP and 27 hospital pharmacists (HP). The results clearly demonstrated an interest

in a CAHMDI, as confirmed by 94.6% and 100.0% of the HCP and HP, respectively. All respondents indicated a preference for a website rather than a tool integrated in the clinical decision support system (51.0% HCP and 46.4% HP, respectively). In their current daily practice, the most commonly consulted resources for checking CAHMDI by HCP were consulting a clinical pharmacist (33.9%) and Lexicomp Drug Interactions® (21.4%). HP mentioned Stockley's Herbal Drug Interactions® (21.3%) and Lexicomp Drug Interactions® (21.3%). Key requirements for the development of a tool were management options, potential clinical consequences, severity level, mechanism and level of evidence.

Conclusion and Relevance Developing a user-friendly CAHMDI checker would be helpful for HCP and HP. Alerting about HDI could enhance prescribers' knowledge and awareness about this topic and enable them to inform patients about the potential adverse effects of these easily accessible CAHMs.

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5PSQ-049 ASSESSMENT AND OPTIMISATION OF THE MANAGEMENT OF HIGH-RISK MEDICINES IN A GENERAL HOSPITAL

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Background and Importance High Risk Medicines (HRMs) are medicines with an increased risk of significant harm to the patient if they are misused.

Regarding the storage of HRMs, our hospital guidelines are based on the reference system of our accreditation organisation.

Compliance with guidelines is essential to ensure the quality of care.

Aim and Objectives

- To determine the rate of adverse drug events related to HRMs.
- To evaluate the impact of the introduction of low-concentration electrolytes (KCl) on the consumption of concentrated electrolytes (KCl).
- To test the impact of pharmaceutical interventions on four quality indicators linked to HRMs storage in care units.

Material and Methods

- Among all the adverse drug events encoded during the year 2021, we identified those related to HRMs.
- A consumption analysis of injectable Potassium Chloride (KCl) concentrated and low-concentrated solutions was performed during the years 2018-2022.
- Audits targeting HRMs was conducted in 6 care units over a period of 3 weeks in December 2021. These audits focused on the following items : storage, quantity, labelling and expiry date of each HRM stored in care unit. During each audit, a pharmaceutical intervention took place as follows : tidying, relabelling, withdrawal of expired HRMs, feedback of audit, education and awareness. The impact of the pharmaceutical interventions was further evaluated. For comparison between the groups (pre-test and intervention groups), data were analysed using Chi Square test for all HRMs.