5PSQ-085 MEDICATION ERRORS AND PHARMACEUTICAL INTERVENTIONS FOR DRUGS ADMINISTERED BY FEEDING TUBE

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Background and importance Enteral nutrition (EN) through a feeding tube is a frequent method of nutrition support in the hospital environment. This method of delivering nutrition is also commonly used for administering medications when patients cannot swallow safely. An incorrect administration may alter the efficacy and/or adverse effects of the drug, and could even compromise patient safety.

Aim and objectives To detect potential medication errors in patients receiving EN and drugs at the same time by enteral feeding tube and to describe pharmaceutical interventions and acceptance rate.

Material and methods A prospective study was conducted in a tertiary level hospital between September and October 2019. All prescriptions of drugs administered by enteral feeding tube were assessed. Patient demographics, number of prescriptions analysed and administration data (route, pharmaceutical form) were collected. Pharmaceutical interventions were carried out through the validation programme and by telephone. The acceptance rate of the performed interventions was also evaluated.

Results Forty-eight patients with an enteral feeding tube were included, 27% were women and mean age was 61 years (range 32–85). A total of 174 prescriptions of drugs administered by tube were assessed and 37 medication errors were detected: 16.22% were drugs that cannot be administered by tube and 83.78% were physical incompatibilities between drugs and EN. A total of 46 interventions were performed. The interventions were: to avoid simultaneous administration of EN and medication (67.39%), to change pharmaceutical form (4.35%), to change the route (6.52%), to propose a therapeutic alternative due to incompatibility between the medication and the tube (13.04%) and to advise about the correct administration of hazardous drugs (8.70%). All of the interventions (100%) were accepted by doctors and nurses.

Conclusion and relevance Successful drug delivery through enteral feeding tubes requires careful selection and appropriate administration of drug dosage forms. Pharmacists play an important role in making recommendations about handling medications and selecting the most suitable pharmaceutical form to administer through an enteral tube. This leads to a reduction in the risk of medication errors, improving the effectiveness and safety of the treatment.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-086 MANAGEMENT OF A CONTAMINATION EPISODE IN A PARENTERAL NUTRIENT MIXTURE PREPARATION UNIT

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Background and importance Sterility of parenteral nutrition mixtures is verified by anaerobic and aerobic seeding of preparations incubated for 5 days (BACTEC). In May 2019, an aerobic sample was positive for BGN *Pseudomonas putida* on a bag for adult parenteral nutrition (PN). The product batch involved patients followed at home.

Aim and objectives The objective was to present the acute management of this incident, the investigations carried out to identify the origin of the contamination and the corrective actions implemented.

Material and methods *Acute incident management*: (i) patient identification, patient and physician information; (ii) substitution to ready to use PN; (iii) analyse samples of the day's production; (iv) inform the health services, department heads, the regional health agency and the establishment's management; and (v) quarantine the laboratory and suspend sterile preparation activities during investigations.

Investigations conducted in multidisciplinary collaboration (pharmacists, biologists, hygienists, quality division, hospital direction): (i) visit to the laboratory by the hospital hygiene service; (ii) surface sampling, analysis of microbiological and particulate monitoring over the last 30 days; and (iii) chronology of the production day: analysis of the batch file and survey of the unit's agents.

Results Twenty-two bags of adult NP were contaminated by two environmental germs: *Pseudomonas putida* and microbacterium species. Three bags were partially administered over a period of 17 hours: patients were asymptomatic. No paediatric NP bags were contaminated.

The chronology of the incident and bacteriological investigations made it possible to identify a single source of contamination: the single channel automated compounding device allowing the addition of lipids to the bags. However, it was not possible to distinguish whether the origin came from a sterile medical device or from a batch of contaminated lipids.

Conclusion and relevance This episode attests to the effectiveness of bacteriological controls carried out on NP preparations (BACTEC). A 24 hour release period for NP bags between production and dispensing of PN bags and a pharmaceutical operational on-call to manage this type of alert have been set up. To satisfy the nutritional needs of newborns, we are studying the development of an ultrafast sterility test of the PN samples in order to release the preparations within 8 hours.

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5PSQ-087 SEVERE MALARIA: 3 YEAR REVIEW OF INTRAVENOUS ARTESUNATE USE IN A UNIVERSITY HOSPITAL

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Background and importance Since 2011, the French drug agency has sponsored an expanded access programme to make Malacef (artesunate) available for the treatment of severe malaria. This drug has not yet been approved by European and US pharmaceutical agencies, while it is available in China and several African countries.

Aim and objectives The aim of this study was to assess the efficiency and real life safety of intravenous artesunate (IA) for the treatment of severe malaria.
Material and methods We performed a retrospective, monocentric, observational study. All patients who received IA from January 2016 to September 2019 were included. Data were collected from the pharmacy service computerised system, patient records and nominative expanded access authorisation forms. The primary endpoint was efficiency, assessed by the microscopic negativation of the parasitaemia. The secondary endpoint was safety, assessed by monitoring haemoglobin, transaminases, blood platelets, kaliaemia and creatinaemia.
Results Sixty-nine patients were treated with IA in our hospital. Among all patients, 59 patients (86%) had not received chemoprophylaxis. The average time between leaving the infected zone and hospital admission was 11±7 days. Patients received 3.1±0.7 doses of IA. Sixty-five patients presented at least one criterion requiring the use of IA (the most common was >4% hyperparasitaemia in 39 patients). Forty-six (67%) patients had a microscopic negativation of their parasitaemia after 3 days of treatment and 100% at day 7. Regarding tolerance, only 52% had a decrease in their haemoglobin level of >2 g/L during the whole hospitalisation. Platelets and transaminase values were normal (184–440 G/L and <35 UI/L, respectively) after 7 days of treatment in 51 patients. Nine patients displayed an abnormal kaliaemia (more than or less than 3.4–4.5 mmol/L) for more than 1 day. Finally, only 4 patients exceeded the basal level for creatinaemia (45–84 µmol/l) for more than 1 day. Three adverse events (anaemia) were reported to the pharmacovigilance centre, among which none was severe.
Conclusion and relevance The IA treatment was effective and well tolerated in all patients. These results seem to be in favour of a broader and ease of use of IA.

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5PSQ-088 MONITORING OF THE INTRODUCTION OF CHLORHEXIDINE RELEASING POLYURETHANE MEDICATION IN PILOT WARDS OF A LARGE CITY HOSPITAL

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Background and importance Central venous catheters, peripherally inserted central catheters, Port-a-cath and Midline are fundamental systems to manage acute and chronic treatments in both inpatients and outpatients. Available dressings must provide a protective barrier, avoid the dislocation of these medical devices and be comfortable for the patient. Chlorhexidine releasing polyurethane medications can prevent bacterial colonisation and, consequently, the occurrence of infections.
Aim and objectives The objective of the study was to monitor the introduction in some wards of a chlorhexidine releasing dressing and collect data relating to its appropriate use and exit site.
Material and methods Basing on the typology of the patients and treatments, four pilot wards were chosen (intensive care unit, dialysis, oncology and neurosurgery). After team building meetings, an ad hoc form was introduced and provided to the internal pharmacy service following every application/change of a dressing. The form contained information on the patient's name and surname, age, diagnosis, type of catheter, treatment, date of first application of the dressing, exit site and reason for dressing substitution. The form was used to fill an Excel database and sum up data using descriptive statistical methods.
Results From October 2018 to June 2019, the dressing was used in 126 patients (55% men, n=69): 53% (n=67) in the intensive care unit, 37% (n=47) in oncology and 7% (n=9) in dialysis. Thirteen patients with an exit site grade (G) >0 were given the medication: 7 of these patients from dialysis had a 1 ≤G ≤3 already present at the first application, and 4 in oncology and 2 in intensive care developed a G=1 that lasted for a single application and then regressed to G=0. The average number of days of application of the medication was 6. Of the 290 chlorhexidine containing dressings provided to the units, 27 were changed before day 7 (maximum time in place), 67% (n=18) because of 'self-removal of the previous dressing', 30% (n=8) due to 'dirty medication' and 19% (n=5) because the dressing was 'wet'.
Conclusion and relevance In 219 of 231 cases, at replacement of the dressing, the exit site grade was G=0, suggesting that this medication may have helped the preservation of skin integrity. In dialysed and oncologic patients, the exit site grade is more difficult to manage, probably due to the complexity of the pathology and therapy.

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5PSQ-089 CYTOKINE RELEASE SYNDROME REACTION: THE CLINICAL PHARMACIST IN THE CHIMERIC ANTIGEN RECEPTOR T CELL THERAPY TEAM

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Background and importance Chimeric antigen receptor (CAR) T cell therapy is being studied for the treatment of haematologic malignancies. CARs are synthetic receptors that reveal the specificity, purpose and metabolism of T cells. The first step in making CAR-T cells is to insert a gene into the cell in order to express a new antigen binding site on its surface and to redirect the T cell to the new target. Since CAR-T is a personalised therapy, the medicine should be administered to the patient for whom it was intended. For this reason, the clinical pharmacist plays a key role in clinical surveillance, care coordination and patient education.
Aim and objectives The aim of this work was to assess the pharmacist as risk manager in a CAR-T multidisciplinary team comprising professionals who take care of cancer patients. Beyond the implementation of the hospital system, the pharmacist is essential in the follow-up of patients after administration because of the complexity of the side effects as well as antidote management.
Material and methods Cytokine release syndrome (CRS) is one of the most common side effects of CAR-T therapy, in which there is a fast release of cytokines involved in the inflammatory process. It seems that the onset of CRS is related to the efficacy of the therapy, even though this side effect is