$p < 0.001$) and chemotherapy (12.6% vs 1.9%, $p < 0.001$). Admission to the intensive care unit (ICU) was significantly more frequent in surgical patients (35.4% vs 10.9%, $p < 0.001$) as well as use of second and third generation cephalosporins (30.0% vs 17.6%, $p = 0.001$; 64.6% vs 53.1%, $p = 0.007$, respectively).

Conclusion and relevance Age ≥ 65 years, use of PPIs, chemotherapy and fluoroquinolones were positively associated with the medical group and were significant predictors of CDI, whereas admission to the ICU and the use of second and third generation cephalosporins were positively associated with being in the surgical group and were significant predictors of CDI. We conclude that medical patients were more endangered with HA CDI than surgical patients.

REFERENCES AND/OR ACKNOWLEDGEMENTS

1. Perić A, Dragojević-Simić V, Milenković B, et al. Antibiotic consumption and healthcare-associated infections in a tertiary hospital in Belgrade, Serbia from 2011 to 2016. *J Infect Dev Ctries* 2018;**12**:855–863.
2. Šuljagić V, Miljković I, Starčević S, et al. Risk factors for *Clostridioides difficile* infection in surgical patients hospitalised in a tertiary hospital in Belgrade, Serbia: case-control study. *Antimicrob Resist Infect Control* 2017;**6**:31.

Conflict of interest No conflict of interest

4CPS-244 THERAPEUTIC DRUG MONITORING GUIDED PHARMACY INTERVENTIONS TO OPTIMISE THE DOSAGE OF BETA-LACTAMS ADMINISTERED IN CONTINUOUS INFUSION IN NON-CRITICALLY ILL PATIENTS

¹AM Aragones Eroles, ¹P Taberner Bonastre*, ¹JA Schoenenberger Arnaiz, ²A Bellés Bellés, ¹SM Cano Marrón, ¹A Morales Portillo, ³A Jover Saenz. ¹Hospital Universitario Arnau De Vilanova, Hospital Pharmacy, Lleida, Spain; ²Hospital Universitario Arnau De Vilanova, Microbiology, Lleida, Spain; ³Hospital Universitario Arnau De Vilanova, Proa Equip, Lleida, Spain

10.1136/ejhp-pharm-2021-eahpconf.76

Background and importance Increasing bacterial resistance to antibiotics requires new treatment strategies.

Aim and objectives To assess the number and type of pharmacy interventions in therapeutic drug monitoring (TDM) guided piperacillin or meropenem treatments. Treatments were administered by continuous perfusion (CI) in non-critically ill patients.

Material and methods We conducted a prospective study (October 2019–February 2020) to measure plasma concentrations (PC) of piperacillin or meropenem administered by CI. The physician prescribed the antibiotic as a continuous infusion and requested monitoring of drug therapy. The pharmacist established the time to determine PC and interpreted the analytical result, modifying the treatment if necessary. TDM sought to achieve free drug PC with 100% fT, four times the minimum inhibitory concentration (MIC) of the microorganism. If there were no isolates, the MIC of the most resistant microorganism was considered. We used high performance liquid chromatography to determine the PC.

Samples to be analysed were obtained once steady state was reached. The MIC of the microorganisms was determined by microdilution in broth or by E-test. The glomerular filtration rate (GFR) of patients was calculated using CKD-EPI. The pharmacist directly modified the regimen for piperacillin and meropenem PC below $4 \times \text{MIC}$ or above $6 \times \text{MIC}$. Microsoft Excel was used for the statistics calculation.

Results 37 patients treated with piperacillin (62.2% men; aged 67.3 ± 15.4 years) and 11 treated with meropenem (45.5% men; aged 73.8 ± 24.8 years) were included. For 28/37 (75.7%) patients treated with piperacillin and 8/11 (72.7%) treated with meropenem, symptoms related to chronic pulmonary disease were present. We analysed a total of 48 PC for piperacillin and 15 for meropenem. Mean GFR of those treated with piperacillin was 77.46 ± 29 mL/min/1.73 m² and for meropenem 89.27 ± 17.43 mL/min/1.73 m². Pharmacists intervened in 14/37 (37.8%) patients treated with piperacillin, 9/14 (64.3%) to increase the dosage. For meropenem, the pharmaceutical interventions were 4/11 (36.4%), two to reduce the dose. In 90% of the patients in whom the dosage was increased had a GFR > 60 mL/min/1.73 m², and 43% of the patients in whom it was decreased had a GFR < 60 mL/min/1.73 m².

Conclusion and relevance TDM of beta-lactams shows whether the concentration reached is adequate for the causative microorganism and the patient's condition. Pharmaceutical interventions optimised the dosage in cases where standard regimens were not appropriate.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-245 DURATION OF ANTIBIOTIC TREATMENT IN PATIENTS DISCHARGED FROM A SHORT STAY HOSPITALISATION UNIT

¹C Pinto-Nieto*, ²P Conde Baena, ³J Canto Mangana, ⁴A Martos Rosa, ⁵B Casado Robles, ⁶MA Garre Gonzalez, ⁷G Alvarez Corral, ³M Herrera Exposito, ³JE Martinez De La Plata, ³MA Castro Vida. ¹Har Guadix, Pharmacy Department, Guadix-Granada, Spain; ²Hospital De Guadix, Internal Medicine, Guadix-Granada, Spain; ³Hospital De Poniente, Pharmacy Department, El Ejido-Almería, Spain; ⁴Hospital De Poniente, Hospital Pharmacy, El Ejido-Almería, Spain; ⁵Har Guadix, Community Medicine, Guadix-Granada, Spain; ⁶Hospital De Guadix, Community Medicine, Guadix-Granada, Spain; ⁷Hospital De Guadix, Biotechnology, Guadix-Granada, Spain

10.1136/ejhp-pharm-2021-eahpconf.77

Background and importance Shortening the duration of antibiotic treatment is one of the cornerstones to reduce antibiotic pressure and, therefore, the appearance of antimicrobial resistance

Aim and objectives To describe the duration of antibiotic treatment in patients discharged from a short stay hospitalisation unit and to analyse the duration of antibiotic treatment with regards to the current evidence based recommendations.

Material and methods A descriptive, retrospective, cross sectional study was carried out in a short stay hospitalisation unit in January 2020. Patients ≥ 14 years old with an antibiotic prescription at discharge were included. Data collected were: age, gender, average number of admission days, antibiotic prescribed and antibiotic clinical indication. Data were collected from patients' electronic health records. Pubmed database review was performed regarding the current evidence based recommendations for optimising the duration of antibiotic treatment.

Results 98 patients were admitted in January 2020; 63 patients met the study inclusion criteria and 40 were men. Average age was 74 years (18–92) and average number of admission days was 3.4 (1–11). 11 (17.5%) patients visited the emergency department or general practice the following