Results A total of 177 patients were reviewed, with a mean age of 63.4 ± 16.4 and 32.8% were women. Almost half of the patients 48.6% (n=86) had an osteoarticular infection: bacteremia accounted for 36.2% (n=64). The rest of the infections were related to the central nervous system 3.4% (n=6), endovascular system 3.4% (n=6) and others 8.4% (n=15).

Patients excluded: eight due to neutropaenia (n=169), 15 due to thrombocytopenia (n=162) and 14 due to AKI (n=163) prior to vancomycin therapy.

Neutropaenia was developed in seven patients (=1:24), thrombocytopenia in 12 patients (=1:14) and AKI in 26 patients (=1:6). The prevalence of nephrotoxicity is described as common (1:100–1:10) in the summary product characteristics (SPC). However, neutropaenia and thrombocytopenia are classified as rare undesirable effects (1:10.000–1:1.000).

Conclusion The prevalence of AE related to vancomycin therapy is higher than reported in SPC. In our study neutropaenia was reported in 7:169 patients, thrombocytopenia in 12:162 and AKI in 26:163.

The difference between SPC and our clinical practice is considerable. However, it should be noticed that only patients monitored by PD were reviewed, and therefore the number of patients included is low. It is of high importance to continue reporting any AE related to vancomycin therapy to the appropriate pharmacovigilance institution in order to better understand the toxic profile of the drug.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-061 EXTENDED INFUSION OF MEROPENEM IN A NEONATE WITH COMPLICATED KLEBSIELLA PNEUMONIAE MENINGITIS

¹MG Lopez Ramos*, ²Á Pertierra Cortada, ²A Alarcón Allen, ²N Carreras Blesa, ²B Palenzuela Afonso, ³S Luque Pardo, ³S Grau Cerrato, ¹R Farré Riba. ¹Hospital Sant Joan de Déu, Pharmacy, Esplugues de Llobregat Barcelona, Spain; ²Hospital Sant Joan de Déu, Neonatology, Esplugues de Llobregat Barcelona, Spain; ³Hospital del Mar, Pharmacy, Barcelona, Spain

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Background Extended infusion of beta-lactam antibiotics is aimed at achieving microbiological eradication and clinical resolution of complicated bacterial infections. For meropenem, the best predictor of bacterial killing is the time over which free-drug concentration exceeds 4–6xMIC of the microorganism (desirable 40% fT >MIC).

Purpose To describe the course and monitoring of prolonged treatment with meropenem by extended infusion of 4 hours in a neonate with ventriculitis due to ESBL-producing *Klebsiella pneumoniae*.

Material and methods We present the case of a 25 weeks' pre-term newborn, who presented with a septic episode with clinical, laboratory and ultrasonographic signs of ventriculitis at 93 days of age, in February 2018. Treatment was started with meropenem 40 mg/kg/8 hour, in an extended infusion of 4 hours. Concentrations of meropenem were determined in plasma and CSF samples before the administration of a dose (C_{min}), once steady-state equilibrium was reached. For the quantification of the levels, high-performance liquid chromatography validated techniques were used.

Results ESBL-producing *Klebsiella pneumoniae* sensitive to carbapenems (MIC Meropenem <1 mg/L) was isolated from CSF cultures. From the beginning of meropenem treatment, CSF showed progressive improvement in inflammatory parameters, and the microorganism was not isolated after 2 days of treatment. Meropenem levels in plasma and CSF were determined at 4 weeks of treatment, which were 7.6 mg/L (pre-dose) in plasma and 4.7 mg/L in CSF. These levels showed an excellent penetration of the antibiotic in CSF (CSF/plasma concentration ratio of 0.62), ensuring a time above MIC >100% in both plasma and CSF. Likewise, no potentially toxic levels were observed despite a prolonged and extended infusion strategy. The patient continued treatment until completing 8 weeks. The ventricular drain was replaced by a ventriculoperitoneal shunt after 62 days. Clinically, the patient showed progressive improvement in neurological status. However, in view of the risk of neurodevelopmental impairment, the infant is currently under outpatient follow-up.

Conclusion With the dosing strategy used, optimal concentrations of meropenem were achieved, which allowed reaching the PK/PD index of time >4 times the MIC during 100% of the dose interval, both in plasma and in CSF.

The extended infusion of meropenem in 4 hours in our patient showed criteria of efficacy and the safety of prolonged treatment.

REFERENCE AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

4CPS-062 IMPACT OF ANTIMICROBIAL STEWARDSHIP PROGRAMME ON CARBAPENEMS RESISTANCE AND CONSUMPTION IN A TERTIARY HOSPITAL: A BEFORE-AND-AFTER INTERVENTIONAL STUDY

¹T Lopez Viñau Lopez*, ¹M Saez-Torres de Vicente, ²I Gracia-Ahufinger, ¹L García-Martínez, ³J Torre-Cisneros. ¹Hospital Reina Sofía, Pharmacy Unit, Córdoba, Spain; ²Hospital Reina Sofía, Microbiology Unit, Córdoba, Spain; ³Hospital Reina Sofía, Infectious Diseases Unit, Córdoba, Spain

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Background The treatment of infections caused by multiresistant gram-negative bacteria is a growing challenge in many hospitals. To combat this problem, the development of antimicrobial stewardship programmes (ASP), consisting of specialists in antimicrobial use from different units coordinated by infectious diseases specialists, is recommended.

Purpose The aim was to assess the impact of ASP on carbapenems resistance and consumption in a tertiary university hospital.

Material and methods A quasi-experimental study was designed before (March 2013–February 2014) and during the intervention (March 2014–February 2016). Patients prescribed carbapenems (meropenem, imipenem) were identified daily through the prescription drugs computer system (Farmatools). We recorded the impact of the programme on carbapenems consumption, in terms of defined daily dose (DDD)/1000 hospital stays, and the impact on the development of strains of *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, other *Enterobacteria* and *Acinetobacter baumannii* resistant to carbapenems using the percentage of resistance (number of resistant isolates/