

days). With regard to quinolones, consumption was reduced from 192.7 to 125.5 DDD/1000 patient days (−34.9%). There was a significant decrease in consumption of systemic antifungals of 42.9% (35.9 vs 20.5 DDD/1000 patient days). The ratio (cloxacilin+cefazolin)/anti-MRSA agents increased (1.3 vs 1.8).

**Conclusion and relevance** A pharmacist led ASP achieved a reduction in consumption of antibiotics, especially carbapenem and quinolones. In the absence of support and oversight from an infectious disease physician, pharmacists could be key in the improvement in the use of antibiotics.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

- Gutiérrez-Urbón JM, Gil-Navarro MV, Moreno-Ramos F, *et al.* Indicadores del uso hospitalario de antimicrobianos basados en el consumo. *Farm Hosp* 2019;**43**:94–100.

No conflict of interest.

#### 4CPS-042 PHARMACIST'S MISSION IN INFECTION MANAGEMENT: EVALUATION OF IMPROVEMENT ACTIONS

<sup>1</sup>C Muziotti\*, <sup>1</sup>L Dol, <sup>2</sup>MF Texier, <sup>3</sup>S Chadapaud. <sup>1</sup>Centre Hospitalier D'hyeres, Hospital Pharmacy, Hyeres, France; <sup>2</sup>Centre Hospitalier D'hyeres, Operational Hygiene Team, Hyeres, France; <sup>3</sup>Centre Hospitalier D'hyeres, Infectious Disease Service, Hyeres, France

10.1136/ejhpharm-2020-eahpconf.143

**Background and importance** Antibiotic (ATB) resistance is a global scourge. The WHO has established an action plan to combat ATB resistance. Pharmacists in our hospital decided to follow this action plan and optimise the use of ATB.

**Aim and objectives** The purpose of the study was to determine if actions implemented by pharmacists in collaboration with an infectious disease specialist improved the correct use of ATB.

**Material and methods** All care services in our hospital were involved in this retrospective study. Patients treated with antibiotics were included randomly. Pharmacists and infectious disease specialists checked inpatient records and prescriptions with an assessment form. An average comparison test ( $n > 30$ ;  $\alpha 0.05$ ) comparing each item average before and after implementation of the improvement actions was carried out.

**Results** A pharmacist was integrated into infectious risk management. A commission of ATB was created. A pharmacist specialised in antibiotics was identified: he analysed ATB consumption and alerted prescribers in the event case discrepancies with the recommendations. Prescription software was set up so that initial treatment duration of ATB was limited to 4 days to promote re-evaluation of ATB. For ATB treatment  $> 7$  days, justification was requested. This retrospective study was conducted on 34 inpatient files in 2016 before implementation of the measures and compared with 34 other inpatient files in 2019 after implementation of the improvement actions. The results showed a statistically significant improvement in some criteria: ATB in accordance with recommendations 70% in 2016 and 91% in 2019 (70% vs 91%); ATB re-evaluation 75% versus 82%; and de-escalation 29% versus 69%. There was a reduction in inpatient files for: justification of an ATB treatment (100% vs 91%), clinical course during ATB treatment (100% vs 76%) and interpretation of microbiological examinations (80% vs 70%). In 2019, 82% of ATB

therapies with a duration  $> 7$  days were justified in the inpatient files.

**Conclusion and relevance** The actions of pharmacists improved the use of ATB in our hospital. There was a difference between the pre- and post-implementation phases over 3 years. However, during these 3 years, pharmacists made prescribers aware of the correct use of ATB. Pharmacists can improve the use of ATB through education and warning actions for prescribers.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

#### 4CPS-043 EFFECTIVENESS OF A NEW INTERNAL PROTOCOL FOR DOSAGE OF VANCOMYCIN IN NEONATES

M Ibáñez Carrillo, G Miralles Andreu, S Gutierrez Palomo, AM Sánchez García, AC Murcia López, A Navarro Ruiz\*. *Hospital General Universitario De Elche, Servicio De Farmacia, Elche, Spain*

10.1136/ejhpharm-2020-eahpconf.144

**Background and importance** Because of the difficulty in achieving target serum concentrations of vancomycin in neonates after the first dose, the pharmacy and the paediatric services developed a new protocol to establish the initial dosage of vancomycin in neonates. To improve efficacy and/or reduce toxicity, therapeutic drug monitoring (TDM) of vancomycin can be used to adapt doses and personalise treatment.

**Aim and objectives** To assess the rate of implementation of a hospital internal protocol for vancomycin dosage in neonates and the rate of under- and over-dose after the first control of serum concentrations of vancomycin.

**Material and methods** A retrospective observational study was carried out including all neonates ( $n=83$ ) who received vancomycin since approval of the protocol (April 2016) to September 2019. According to the new protocol, the dosage of vancomycin is based on gestational age, postnatal age and weight: in patients  $< 29$  weeks, the recommended dose was 10 mg/kg/12 hours for neonates  $< 14$  days and 10 mg/kg/8 hours for those  $> 14$  days; between 30 and 36 weeks, 10 mg/kg/8 hours for neonates  $< 14$  days and 12 mg/kg/8 hours for those  $> 14$  days. Vancomycin TDM was done before the third dose. For this study, we wanted a trough concentration of 7.5–15  $\mu\text{g/mL}$ .

**Results** Eighty-three patients with 87 first determinations of vancomycin were included: 45 males and 35 females with an average weight of 1.32 kg (0.53–4.32). The protocol for the initial dosage of vancomycin was followed in 71 (85.5%) patients. Thirty patients (36.4%) presented trough concentrations  $< 7.5$   $\mu\text{g/mL}$ , 6 patients (7.2%) had trough concentrations  $> 15$   $\mu\text{g/mL}$  and 51 patients (61.4%) had trough concentrations within the target range (7.5–15  $\mu\text{g/mL}$ ).

**Conclusion and relevance** Most of our patients received the dose of vancomycin following the protocol, achieving target concentrations in 61% of determinations. After implementation of the protocol, a minority of patients (7.2%) showed levels higher than the target therapeutic range.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

Thanks to my service for your unconditional support.

No conflict of interest.