Results The study included 61 patients (55.7% female) receiving vancomycin (n=39) or gentamicin (n=22) with mean age of 65.9±19.5 years and mean Cr of 0.7±0.5 mg/mL. The main diagnosis was urinary tract (18.0%) or osteoarticular (14.8%) infection; 104 analytical determinations were conducted (69.2% vancomycin, 30.8% gentamicin); and 57.6% of Pcs were outside the therapeutic range. PIs were: PI-1 (42.3%), PI-2 (53.8%) and PI-3 (3.8%). The reasons for vancomycin versus gentamicin suspension were: 'clinical/microbiological recovery' (66.6 vs. 31.8%); 'therapeutic failure' (2.6 vs. 0.0%); 'de-escalation' (7.7 vs. 22.7%); 'sequential therapy' (17.9 vs. 40.9%); 'severe toxicity' (0.0 vs. 4.5%); or death (5.2 vs. 0.0%). We observed nephrotoxicity in 2.6% of vancomycin-treated patients and 9.0% of gentamicin-treated patients.
Conclusion The pharmacist adds value to antimicrobial optimisation. Dose or interval modification (PI-2) was the most frequent intervention, increasing treatment effectiveness in a large number of patients and minimising as far as possible the risk of nephrotoxicity.

REFERENCE AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

4CPS-046 PHARMACEUTICAL INTERVENTIONS IN ANTIMICROBIAL TREATMENT IN A 150-BED HOSPITAL

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Background The correct use of antimicrobial treatment is necessary to ensure their effectiveness, the control of resistance and to avoid the occurrence of adverse reactions.
Purpose To analyse the pharmaceutical interventions (PI) in antimicrobial treatment and quantify the degree of their acceptance.
Material and methods Descriptive and retrospective study in a 150 bed-hospital was made. PI on antimicrobial treatments were analysed over a period of 16 months (December 2016 – March 2018). The collected data were: age, antimicrobial treatment, type of PI and degree of acceptance of the PI. The reasons for PI were classified into: inadequate dosage, dose adjustment due to renal insufficiency, drug change after antibiogram, therapeutic duplicity, suspension of treatment due to inadequate duration and change of route of administration. The degree of acceptance of the PI was detected based on the medical prescription modifications according to the recommendations. The pharmaceutical recommendations were made through the daily evolutions in the patient's history in the Ticares computer program.
Results Two-hundred and forty-four PI were carried out in 132 patients (1.84 PI per patient). The average age of the patients was 79 years (53% women). The PI, according to classification were: 160 (65.6%) PI due to changes in the antimicrobial administration route (92 were accepted, 57.5%); 70 (28.7%) PI due to suspension of treatment due to inadequate duration (44 were accepted, 62.90%); seven (2.9%) PI for dose adjustment due to renal failure (three were accepted, 42.9%); three (1.2%) PI due to therapeutic duplicity (100% accepted); three (1.2%) PI due to inadequate posology (two were accepted, 66.7%); and one (0.4%) PI due to antimicrobial change after antibiogram (the patient was discharged and it could not be confirmed if there was a change in the prescription). Regarding the degree of acceptance, 144 (59%) IP were accepted and 60 (37,29%) IP were not accepted.
Conclusion More than half of the pharmaceutical interventions resulted in a change in the medical prescription according to the recommendation. The pharmaceutical validation adds safety to the hospitalisation process and represents an improvement in the quality of care.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-047 FEASIBILITY OF PHARMACY FOLLOW-UP OF ANTIBIOTIC RE-EVALUATION IN A UNIVERSITY HOSPITAL: DAY-2 OR/AND DAY-7?

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Background Despite the benefits of antibiotic re-evaluation (decrease in the emergence of bacterial resistance, adverse effects and costs) physicians do not systematically trace it. In our hospital, after the implementation in June 2013 of a day-2 antibiotic re-evaluation (AR) module in the prescription software and three awareness periods of prescribers, only 53% of AR were done for 10 high-risk antibiotics.
Purpose The aim of this work was to study the feasibility of a follow-up by pharmacy of antibiotic re-evaluation.
Material and methods All antibiotic re-evaluation of the 10 antibiotics followed in 2017 were analysed by pharmacy from the AR module (status of prescriber, indication, date of AR). This analysis was compared with the number of patients initiated under these antibiotics and delivered by the pharmacy. In order to determine the feasibility of follow-up, all antibiotic prescriptions were analysed during 2 weeks to know the number of prescriptions and re-evaluation at day-2 and day-7 delivered by the pharmacy per day.
Results In 2017, there were 464 patients treated with linezolid and only 34 AR were traced at day-2 (7.3%). For other antibiotics, AR module use rate was: Imipenem/Cilastatine 38/308 (12.3%), Ceftazidime 32/225 (14.2%), Levofloxacine 130/590 (22%) and Cefepime 42/137 (30.7%). The AR was made on average at 4.3 days. A mean of 85 antibiotic prescriptions were analysed and delivered by the pharmacy per day. Among these prescriptions a daily mean of 31 prescriptions were sent to the pharmacy at day-2 and four at day-7. To enable the feasibility of follow-up, infectious disease physicians have validated an exhaustive list of infections requiring antibiotic therapy for more than 7 days, based on new international antibiotic therapy duration recommendations. This list allows the pharmacy to check the indication of treatment and to dispense antibiotics or not at day-7.
Conclusion Pharmacists have a crucial role to play in the AR through its follow-up. A day-7 AR module will be added in early 2019 to our prescription software. The day-7 follow-up of all antibiotic prescriptions by the pharmacy and its ability to halt dispensing might reduce the emergence of bacterial resistance and limit antibiotic consumption through a better traceability of AR.