hospitalised non-ICU patients who received at least one antimicrobial suitable for CI. Amoxicillin, aztreonam, benzylpenicillin, ceftazidime, flucloxacillin, meropenem, piperacillin/tazobactam, temocillin and vancomycin were included as antimicrobials. Catheter type, number of lumens, administration mode, loading and maintenance dose, and pump settings were assessed by comparing the electronic prescription and patient file with the observations. Drug incompatibilities (DI) were analysed using the compatibility information provided in Trissel's two clinical pharmaceuticals database and categorised as compatible, incompatible, uncertain or none. DI were defined as incompatibility or uncertainty about the compatibility between at least two simultaneously Y site administered drugs.

Results 107 observations in 86 patients were performed and 113 antimicrobial prescriptions were analysed. Peripheral lines were most commonly used (53%), followed by central venous catheters (35%) and peripherally inserted central catheters (10%). Single, double, triple and quadruple lumen catheters accounted for 56%, 23%, 17% and 4%, respectively. CI therapy was prescribed, according to hospital guidelines, in 96% of patients, 93% of whom received a loading dose. In 96% of cases a correct maintenance dose was administered. Only 63% of the infusion bags/syringes were labelled appropriately. In 7% of the observations, the pump settings did not match the prescribed dose, causing both over and under dosing in three patients (defined as >105% and <95% of the prescribed daily dose, respectively). We observed DI in 28% (30/107) of cases, mostly with single lumen catheters (63%), and in haematological patients (37%). Moreover, change from CI to intermittent infusion was the only solution to overcome DI in 73% of these cases.

Conclusion and relevance We found that administration issues were common in CI of antimicrobials. In response, we started educational sessions, the hospital policy was slightly adapted, including allowing intermittent infusion in the case of DI, and we created a prescribing alert for the assistance of a clinical pharmacist for DI review.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-238 EVALUATION OF EFFECTIVENESS OF COMPOUNDED ORAL VANCOMYCIN CAPSULES FOR TREATMENT OF CLOSTRIDIUM DIFFICILE INFECTION

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Background and importance Oral vancomycin (125 mg four times daily) is the standard treatment for mild/moderate *Clostridium difficile* infection (CDI). As there are no marketed vancomycin capsules in our country, vancomycin 500 mg vials have been taken orally for this purpose. But high price, difficult acquisition and complicated dilution and administration, especially among elderly patients, were associated with poor adherence to treatment and a higher risk of recurrence.

Aim and objectives To study the clinical effectiveness of oral vancomycin in patients with CDI and to compare the utilisation of two different pharmaceutical forms: vials and capsules.

Material and methods A retrospective, observational, cohort study was conducted. Vancomycin 125 mg capsules were first compounded and dispensed by us in January 2018. Electronic health records of outpatients with an episode of CDI and receiving vancomycin vials (January 2017 to December 2017) or capsules (January 2018 to December 2018) were reviewed. Variables analysed were: demographics (sex, age), CDI episode (new episode, first recurrence, second or subsequent recurrence), vancomycin pharmaceutical form, treatment adequacy (dosing and duration, as recommended from clinical guidelines), recurrence rate (presence of symptoms within 60 days of treatment), treatment adverse effects and hypervirulent PCR-ribotype 027 strain cases (epidemiological and clinical interest).

Results 99 patients were included, 35 receiving vancomycin vials and 64 receiving compounded vancomycin capsules. Demographic characteristics were similar between groups (median age was 60 years; 59.6% women).

Vials cohort: 22 diagnoses of a new episode (62.8%), 11 first recurrences (31.4%) and 2 second or more recurrences (5.8%). Capsules cohort: 48 diagnoses of a new episode (55%), 13 first recurrences (20.3%) and 3 second or more recurrences (4.7%). Recurrence occurred within 60 days in 13 (37%) of the patients from the vial cohort and in 20 (31%) patients from the capsules cohort ($p=0.52$). Inappropriate oral vancomycin dosing decreased from 28.6% (vials) to 6.3% (capsules) ($p=0.002$). No vancomycin adverse effects were reported. PCR-ribotype 027 was found in 9 patients (9.1%).

Conclusion and relevance Oral vancomycin is safe regardless of the pharmaceutical form. Prescription adequacy improved with capsules. Further studies need to be done to confirm if dispensing capsules containing an appropriate drug dose relates to less recurrence rate, and better adherence and outpatient satisfaction.

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4CPS-239 THERAPEUTIC DRUG MONITORING OF GENTAMICIN IN NEONATES

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Background and importance Peak (maximum plasma concentration)/MIC >8–15 is a pharmacokinetic (PK)/pharmacodynamic (PD) parameter that best correlates with the effectiveness of aminoglycosides. A peak between 8 and 15 mg/L is necessary to achieve this. In neonates, doses of 3–5 mg/kg/day for the first week and 7.5 mg/kg/day from the second to the fourth week of life are recommended.

Aim and objectives To evaluate the degree of adequacy of the initial dose with current recommendations and whether therapeutic drug monitoring (TDM) allows optimisation of treatment.

Material and methods A retrospective study was conducted from 1 January 2016 to 29 February 2020, in a general