increased up to 1.31 ng/ml and 1.45 ng/ml, requiring dose reduction to 50 mcg/day.
Conclusion and Relevance In our case report, therapeutic drug monitoring of digoxin has allowed for the detection of increased levels of digoxin and higher risks of toxicity. It coincides with the start of osimertinib exposure, being the P-gp inhibition the most plausible factor for this finding.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

4CPS-104 ANALYSIS OF INTERVENTIONS IN PHARMACEUTICAL VALIDATION IN A THIRD LEVEL HOSPITAL

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Background and Importance Pharmaceutical validation is necessary to achieve maximum clinical benefit. Thanks to clinical pharmaceutical interventions (CPI) many prescription errors, drug interactions and adverse reactions are prevented.
Aim and Objectives To analyse CPI carried in a 1040-bed hospital and to assess the acceptance rate of these interventions.
Material and Methods Observational and retrospective study of CPI performed between June and August 2022 in hospitalised patients. They were recorded in the pharmaceutical intervention module of PharmNet application of Millenium programme. The variables evaluated were: episode number, date, type of intervention, prescribing service, drug and indication. Interventions that led to a change in the prescription within 48 hours of the CPI were considered accepted.
Results A total of 324 interventions were analysed in 293 patients, which were 100% of those performed. More than half of the interventions were therapeutic duplications (36.4%; n=118) and dosing errors (25.9%; n=84) (overdose 62% and underdose 23%). They were followed in frequency by: incomplete medical orders (18.5%; n=60); drugs not indicated (6.8%; n=22); drug interactions (4.6%; n=15); inappropriate dosage form (4.6%; n=15) and adverse events (3%; n=10). The distribution of the number of interventions according to prescribing service was: cardiology (n=54); gastroenterology (n=44); pneumology (n=32); internal medicine (n=30); vascular medicine (n=29); neurology (n=23) and traumatology (n=28). The acceptance rate of the CPI was 80,3% (n=260) with the following service distribution: 90% internal medicine; 87.5% pneumology; 84% gastroenterology, 82.7% neurology and 79.3% cardiology. Drugs which caused most interventions were antibiotics (17%), anti-inflammatory drugs (11.4%), cardiovascular agents (11.1%) and antidepressants (9%).
Conclusion and Relevance The clinical pharmaceutical interventions proposed to the prescribing services were highly accepted. This shows the importance of pharmaceutical validation by the hospital pharmacist to better manage the quality and safety of pharmacological treatment prescribed to patients during their hospital stay.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

4CPS-105 CEFIDEROCOL TREATMENT IN COVID-19 POSITIVE PATIENTS CO-INFECTED WITH PAN-RESISTANT PSEUDOMONAS AERUGINOSA

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Background and Importance Immunosuppression due to SARS-CoV2 infection (COVID19) has caused an increase in identification of multi-resistant organisms in Intensive Care Units (ICU), among which multi-resistant *Pseudomonas aeruginosa* rise about others. Cefiderocol is a costly new cephalosporin against extensively resistant Gram-negative bacteria.
Aim and Objectives The objective of this study is to describe the characteristics and clinical results of patients treated with cefiderocol, as well as the dosage of this treatment, in ICU inpatients with COVID19 pneumonia and co-infected with pan-resistant *Pseudomonas aeruginosa*.
Material and Methods Retrospective observational study carried out in a general hospital from September 2020 to December 2021. Inpatients at ICU diagnosed with COVID-19 pneumonia that were treated with cefiderocol due to *P. aeruginosa* infection were included. Collected data were: days admitted in ICU, days of treatment with cefiderocol, concomitant treatment, cefiderocol dosage and results of the treatment.
Results Three patients fulfilled the inclusion criteria among 70 patients admitted to ICU with COVID-19 in the study period (4.3%). All patients included were men and the median age was 66.6 ± 6.5 years old. They presented as comorbidities obesity, hypertension and diabetes mellitus. They were admitted during 87 ± 28.6 days, with detection of pan-resistant *P. aeruginosa* in the range of 32.5 ± 2.1 days after admission at ICU. All of these cultures were only sensitive to cefiderocol, being resistant to all other tested antibiotics. Due to that, all patients received cefiderocol during their stay and dose adjustment to their renal function or renal replacement therapy were applied. Every patient received a bolus of 2 grams in 30 minutes and the maintenance dose in at least 3 hours. The average of treatment days was 20.5 ± 4.5 days. In all cases, the isolated strains were sensitive to colistin, so cefiderocol was used in combination with it. The results of the treatment were disparate: one cure, one death, and one development of resistance to cefiderocol.
Conclusion and Relevance Cefiderocol use for multi-resistant bacteria treatment requires prior knowledge of its pharmacokinetics, taking into account the physiological factors of patients in its dosage. New treatments are not exempt from the development of resistance.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

4CPS-107 EFFECT OF PATIENT BODY WEIGHT ON THE PHARMACOKINETIC BEHAVIOUR OF AMIKACIN

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Background and Importance Obesity is a disease that influences numerous physiological processes. Currently there is little pharmacokinetic data in obese patients and extrapolated data from patients with normal weight are often used. In order to optimise the dosage of drugs in obese patients, it is necessary to design specific population models in this group of patients.
Aim and Objectives To analyse the differences in the pharmacokinetic parameters of amikacin in hospitalised patients based on body mass index (BMI).
Material and Methods Retrospective observational study in which patients treated with amikacin between January and August 2022 were analysed. The variables collected were: age, weight, height, sex, serum creatinine, dosage regimen and amikacin level.

Patients were classified according to their BMI: less than 30 Kg/m2 (non-obese) and greater than 30 Kg/m2 (obese). The mean and standard deviation of the volume of distribution (Vd) and clearance (Cl) of the two groups were calculated using a pharmacokinetic programme (MwPharm) based on a single compartment model.

Statistical analysis was performed using Student's t-test for independent samples.

Based on the data collected, BMI and creatinine clearance (according to the Cockcroft-Gault equation) were calculated. Patients with a glomerular filtration rate of less than 30 mL/min were excluded.
Results 42 patients (52% women) with 156 levels of amikacin and a mean age of 69 ± 28 years were included. The distribution of patients according to BMI was: 59% normal weight and 41% obese.

The mean and standard deviation of Cl of obese patients and normal weight were 2.67 ± 1.41 L/h and 1.92 ± 1.04 L/h, respectively. P-value from t-test was 0.04 ($p < 0.05$) for Cl.

Vd data were 0.314 ± 0.068 L/Kg (obese) and 0.28 ± 0.034 L/h (normal weight). P-value was 0.648 ($p>0.05$) for Vd.
Conclusion and Relevance Statistically significant differences were found in Cl between both groups: in obese patients amikacin Cl was higher than in patients with normal weight.

No significant differences in Vd were found between the two study groups.

Future studies are needed to design population pharmacokinetic models of amikacin in obese patients.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

4CPS-108 PATIENT AND PHYSICIANS'S SATISFACTION WITH CLINICAL PHARMACY SERVICES ON A HAEMATOLOGY WARD IN A LARGE TERTIARY CARE HOSPITAL

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Background and Importance Oral anticancer therapy is increasingly used for the treatment of hematologic malignancies. Despite its convenience, several challenges such as medication adherence may impact therapeutic effectiveness and outcome. Therefore, a clinical pharmacy service was initiated on the haematology ward at our hospital .
Aim and Objectives To determine the satisfaction rate of the clinical pharmacy service in patients with haematological malignancies treated with oral anticancer therapy and in haematologists-in-training.
Material and Methods Between January and May 2022, a survey was developed to assess patient and haematologists-in–training satisfaction and perceived value of healthcare services provided by clinical pharmacists at a tertiary care hospital. The survey was taken by a pharmacist not involved in daily clinical pharmacy practice. The survey contained questions addressing demographic, type of oral anticancer therapy and pharmacist-specific items. Responses were analysed using descriptive statistics. Satisfaction was assessed by 5 Likert-scale questions and either 8 or 4 open-ended questions for cancer patients and for haematologists in training, respectively. We aimed to have a satisfaction rate of at least 80%.
Results A total of 65 patients and 11 haematologists-in-training participated in the survey. All patients (100%) ranked the pharmacists' explanation about medication intake and side-effects as either very satisfying or satisfying . Counselling about drug interactions was the only criterion that did not result in the achievement of the predefined 80% satisfaction rate, with 27.6% of patients being very satisfied and 51.7% of patients being satisfied about this topic, respectively. Overall, the majority of patients (89.7%) indicated that pharmacist counselling and follow-up visits were of added value. All 11 included haematologists in training expressed high levels of satisfaction with the clinical pharmacist service.
Conclusion and Relevance High levels of satisfaction with the clinical pharmacist service was reported by both patients with a haematological malignancy and haematologists-in-training. This survey identified that counselling on drug interactions of oral cancer therapy might be improved. Further studies may include assessment of the association between patient satisfaction and compliance and treatment outcomes. Also the added value and cost effectiveness of the clinical pharmacist service needs to be investigated in future research.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-109 THERAPEUTIC DRUG MONITORING OF VANCOMYCIN IN ONCOLOGIC AND HAEMATOLOGIC PATIENTS: REAL-WORLD DATA

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Background and Importance Vancomycin clearance tends to be higher in patients with neutropenia[1]; consequently, therapeutic drug monitoring (TDM) is highly recommended.[2]
Aim and Objectives To assess the achievement of a therapeutic pharmacokinetics/pharmacodynamics (PK/PD) target of vancomycin in oncologic and haematologic patients using trough-only TDM.
Material and Methods We conducted a retrospective and descriptive study that included oncological and haematological