

Results Of 14.000 preparations, 92 were not administered; 27/92 were totally or partially reused, 65/92 were thrown away causing an economic loss of € 31.461,09. The reasons that led to the non-administration were mainly attributable to the unsuitable clinical condition of the patient at the time of administration (64%-59/92). In 19%(17/92) of cases the administration was not carried out due to errors in the prescribing phase (therapeutic indication inadequate to the protocol, absence of off label authorisation, etc.). In 12%(11/92) of cases, the cause was inadequate communication by the department (therapy confirmed in the absence of the patient). 5%(5/92) of cases were caused by interruption of administration due to adverse reactions during the infusion.

Conclusion and Relevance The results obtained have highlighted the interventions needed. It would be advisable for the confirmation of the therapy to take place on the same day as the specialist visit and clinical tests. In this way, waste related to the patient's non-presentation and/or the presence of clinical conditions incompatible with the administration would be avoided. It is also important that the validation of a protocol is carried out by at least two specialists (including an oncologist) in order to avoid inappropriate prescriptions.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

4CPS-070 THE CLINICAL PHARMACIST: AN ESSENTIAL ACTOR IN TIMES OF CRISIS

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Background and Importance During the health emergency period related to the emergence of the COVID-19 pandemic, clinical pharmacists have played a vital role in mitigating medication errors, especially prescription errors in hospitals.

Aim and Objectives The aim of this study was to carry out a descriptive analysis of the pharmaceutical interventions (PI) on the prescriptions of the patients of the COVID units of our establishment.

Material and Methods A prospective study was conducted on patients with positive COVID-19 status admitted to a hospital COVID unit over a period of four months. The pharmaceutical analysis prompted interventions to rectify medication-related errors.

Results The study included 108 patients. Prescription analysis led to 63 PIs. The sex ratio (M/F) was 0.5 in a favour of female predominance. Hypertension was the most common cardiovascular disease, affecting 34% of patients. Most drug-related problems were overdose accounting for 38% (16/63). The most common PI in 40% of cases was dosage adjustment (18/63). The main drug classes concerned were general anti-infective agents for systemic use 25% (16/63), followed by corticosteroids 23% (15/63) and hydroxychloroquine 19% (12/63) especially in the event of interaction with drugs that lengthen the QT interval.

Conclusion and Relevance The commitment of clinical pharmacy in such a pandemic is therefore important. Its presence has led to a reduction in the problems of drug prescriptions.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-072 REAL-WORLD EXPERIENCE IN HAEMOPHILIA B PATIENTS AFTER SWITCHING TO FIX EXTENDED HALF-LIFE USING PHARMACOKINETIC POPULATION SOFTWARE AND MONOCOMPARTMENTAL MODEL

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Background and Importance New strategies have been developed for the prophylactic treatment of patients with haemophilia B (HB) such as extended half-life recombinant factor IX concentrates (rFIX EHL). These products have shown favourable pharmacokinetic properties, attaining a half-life 3- to 5-fold longer in rFIX EHL compared to standard FIX concentrates

Aim and Objectives Efficiency of a pharmacokinetic-based tailored prophylaxis-dosing schedule versus standard dosing (DS) is compared, in HB, treated with two rFIX-EHL.

Material and Methods Observational, analytical, prospective, multicentre study, involving HB patients, being treated with rFIX-EHL linked to albumin (rFIX-FP) or to fragment crystallisable (rFIX-Fc). Demographic and clinical data, and DS and dosing interval (DI) and actual FIX trough levels were recorded. Pharmacokinetic characterisation was performed following both a population (WAPPS-HEMO) and a linear one-compartment (OC) approach. For each approach and rFIX preparation, an estimation of the time to the target trough (5 IU FIX/dL) was made. Statistical analysis was performed by means of the Student-Fisher t-test.

Results Fifteen patients were included, nine being treated with rFIX-FP (mean age, 33 years; weight 60 kg), and six with rFIX-Fc (49 years, 86 kg). Mean DS was 3222 UI (SD, 1716) every 11,9 days (SD, 4,4) for rFIX-FP patients; and 4333 UI (SD, 606) every 14,0 days (SD, 0,0) for rFIX-Fc patients. The individual tailored DI, for a 0,05 UI/dL trough target was: applying OC; 13,6 days (SD, 5,1), -1,8 days (SD, 5,9) vs DS, representing 240 IU/day (SD, 136,1) for rFIX-FP (p=0,40), and 8,6 days (SD, 1,2), +5,4 days (SD, 1,2) vs DS, representing 508 IU/day (SD, 65,6), for rFIX-Fc, (p<0,001). Applying WAPPS-HEMO; it was 15,0 days (SD, 5,1), -3,1 days (SD, 5,3) vs DS, 217 IU/day (SD, 114,7), for rFIX-FP (p=0,12), and 10,2 days (SD, 2,5), +3,8 days (SD, 2,5) vs DS, 449,7 UI/day (SD, 129,1), for rFIX-Fc, (p=0,012).

Conclusion and Relevance Efficiency of rFIX-EHL treatment following a pharmacokinetic-based tailored prophylaxis-dosing schedule versus DS in HB patients, is significantly better. Depending on the commercial preparation, rFIX-FP or rFIX-Fc. Daily-adjusted dose, for a 5 IU FIX/dL trough target, ranges between 217-240 IU/day for rFIX-FP, or 449-508 IU/day for rFIX-Fc, according to the two pharmacokinetic approaches (OC and population based).

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4CPS-073 ANALYSIS OF EFFECTIVENESS AND POSITIVE PREDICTIVE VALUE OF ANTIMICROBIAL STEWARDSHIP ALERTS USING A CLINICAL-DECISION SUPPORT SYSTEM

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Background and Importance Clinical-decision support systems (CDSS) are commonly used in clinical practice to generate antimicrobial stewardship (ASP)-alerts, which could help implement evidence-based recommendations.

Aim and Objectives To analyse use, effectiveness, and positive predictive value (PPV) of a bundle of ASP alerts generated by CDSS in a first-level hospital.

Material and Methods Observational, retrospective study. Inclusion criteria: ASP alerts generated between 1 November 2021 and 31 August 2022. The bundle of alerts included (1) >7 days of intravenous antimicrobial therapy (IAT), (2) transition from IAT to oral therapy, (3) antimicrobial dosage adjustment in renal impairment, (4) therapeutic antibiotic monitoring (TAM) and (5) duration of restricted antimicrobials (RA) (carbapenems, daptomycin, piperacillin/tazobactam, linezolid, tigecycline, ceftazidime/avibactam, echinocandins and voriconazole) >72 hours. Total number of generated alerts, number of patients with at least one alert during their hospital stay, type of alert and antimicrobial related that triggered the alert were recorded and analysed.

Effectiveness was calculated as a proportion between alerts requiring intervention and total number of alerts. PPV was calculated as a proportion between accepted interventions and total number of alerts. Both proportions were expressed as percentages (%).

Results A total of 2,546 alerts (on 927 patients) generated during the time of study. Most frequent antimicrobials that triggered the alerts were: 28.6% piperacillin/tazobactam (727/2,546), 13.6% meropenem (346/2,546), 7.5% linezolid (190/2,546), 6.7% levofloxacin (171/2,546) and 6.2% ceftriaxone (158/2,546). The type of ASP-alert generated was: >7 days of IAT (32.0%), duration of RA >72 hours (31.6%), antimicrobial dosage adjustment in renal impairment (19.2%), transition from IAT to oral therapy (13.2%) and TAM (4.0%).

The effectiveness was 14.5%, with a PPV of 9.6%. By type, effectiveness was 9.5% (type 1), 21.1% (type 2), 11.0% (type 3), 19.6% (type 4) and 18.1% (type 5). PPV for these alerts was 6.2% (type 1), 19.9% (type 2), 9.2% (type 3), 11.8% (type 4) and 8.7% (type 5).

Conclusion and Relevance The most frequently triggered ASP-alerts were duration of IAT and RA, and antimicrobial dosage adjustment in renal impairment. However, those alerts with a higher PPV were transitions from IAT to oral therapy and TAM. Further studies are needed to determine ASP-alerts with a higher effectiveness to optimise their use and to avoid alert fatigue.

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4CPS-074 EFFICACY AND SAFETY OF SOTROVIMAB: RESULTS OF A RETROSPECTIVE OBSERVATIONAL STUDY IN A FRENCH HOSPITAL

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Background and Importance COVID-19 results in hospitalisation or death in older patients and those with underlying conditions. Sotrovimab is a monoclonal antibody that was designed to prevent progression of COVID-19 in high-risk patients early in the course of disease.

Aim and Objectives We aimed to assess the efficacy and safety of sotrovimab for adults infected with COVID-19 in a 400-bed French hospital.

Material and Methods This is a monocentric retrospective observational study conducted on 36 patients, which received sotrovimab from January to March 2022 in our hospital. Adult patients who had a positive result on rt-PCR or antigen SARS-CoV-2 testing and an onset of COVID-19 symptoms within the previous 5 days were eligible to treatment by sotrovimab. The patients were at high risk of progression because of older age (≥ 80 y) or diabetes, obesity, chronic kidney disease, congestive heart failure, chronic obstructive pulmonary disease, asthma and cancer. All the patients provided written informed consent.

Results Out of the 36 patients treated, mean age was 82.6 ± 9.5 y with 80% patients ≥ 75 y, BMI 25.3 ± 4.7 and sex ratio 0.3. Almost all of them were living in nursing homes (30 patients). 83% had ≥ 2 conditions considered to be risk factors for progression of COVID-19. The most common risk factors were: age ≥ 80 , congestive heart failure and cancer. 30 patients (83%) had received a complete schema of COVID-19 vaccine and 18 patients (50%) had already been infected with the SARS-CoV-2 virus. Among hospitalised patients, none who received sotrovimab was admitted to ICU. Among those living in nursing home, none was admitted to hospital. Most of the patients had few symptoms. 3 patients had disease progression leading to low flow oxygenation. 2 patients died the month following the infection, including 1 related to COVID-19. Among unvaccinated patients, 33% (2/6) had disease progression. 3 patients received corticosteroid, 5 anti-coagulant and 4 antibiotic therapy. Adverse event was reported for 1 patient (itchy skin reaction) but none had serious adverse event.

Conclusion and Relevance Sotrovimab reduces the risk of disease progression to hospitalisation or death among patients with mild-to-moderate COVID-19. This seems to be legit in our study, as does the safety, especially for elderly patients. Also, the effectiveness of this antibody against disease progression appears to be better for vaccinated patients.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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