

4CPS-029 USE OF TOPICAL 1% CIDOFOVIR ON SKIN LESIONS IN A PATIENT WITH MONKEYPOX

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Background and Importance Monkeypox (MPX) is a zoonosis caused by an orthopoxvirus transmitted by droplets, direct contact or fomites. Different signs and symptoms are caused, including a variety of skin lesions.

Aim and Objectives The aim is to evaluate the response of vesiculo-pustular lesions to treatment with a topical magistral formulation (MF) of cidofovir.

Material and Methods On a second-level hospital, during September–November 2022, a MF of topical 1% cidofovir in Base Beeler was developed by the pharmacotechnical area for the treatment of papillomatous lesions in the facial region, perianal area and extremities associated to the MPX diagnosis.

The patient's evolution was monitored for 4 months, variables were collected, based on the electronic medical records and the centre's prescription records.

Results A 31-year-old male was admitted in July 2022 after 7–10 days of uncontrolled pain in the perianal area and skin lesions on the face and torso of 3–4 days of evolution. Suspicion of MPX led to a request for Orthopoxvirus real-time PCR. Diagnosis was confirmed with complete serology and positive detection for HIV (stage C3) and coronavirus.

Initially, the lesions were treated with 1/1000 zinc sulfate and topical fusidic acid every 12 hours. Given the poor response, fusidic acid was modified for topical Liade® (antibiotic ointment: polymyxin B sulfate, neomycin and bacitracin). It was also added Apodrex®, sterile dressing applied to the perianal lesion for the absorption of exudate.

Due to lack of response the Pharmacy service was requested to develop a topical 1% Cidofovir MF; Zinc sulfate was discontinued and Liade® was maintained.

The regimen was one application to each lesion twice a day, as well as Liade®.

Vesiculo-pustular lesions in necrotic phase evolved to crusty phase and then to lesions with granulation tissue and some of them even to healing process.

Four months later, due to lack of response and without achieving the complete disappearance of the lesions, it was returned to the initial treatment.

Conclusion and Relevance In the absence of consensus on the treatment of lesions caused by MPX, the application of topical 1% cidofovir improves these lesions partially, some of them up to the scarring phase. It can be considered as an alternative to zinc sulfate treatment.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

4CPS-030 ANALYSIS OF ADHERENCE TO GROWTH HORMONE TREATMENT IN PAEDIATRIC PATIENTS

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Background and Importance Adherence to growth hormone treatment is critical as it is associated with increased growth velocity and improved adult height. However, because it requires daily injections, adherence may decline in paediatric patients.

Aim and Objectives The objectives of this study are to measure patient adherence to growth hormone treatment, evaluate the influence of age on adherence, and identify patient groups needing close pharmacist monitoring.

Material and Methods A retrospective and descriptive study included all patients undergoing growth hormone (somatostatin) treatment from 1 January 2017, to 31 December 2022. Variables considered included age (calculated from the last dispensation), gender, dispensation dates, and dispensed quantities.

Adherence was estimated using the indirect method of measuring medication dispensed over an interval (CSA: Continuous Single Interval Measure of Medication Acquisition); percentage of days covered relative to the total days in the interval, using the computer software Farmatools® (Dominion).

Results The study included 160 patients (52.5% girls, 47.5% boys), aged 4–18 years, with an average age of 12.5 years and a mean treatment duration of 3.2 years. Age groups comprised 4–6 years (10 patients), 7–9 years (21 patients), 10–12 years (39 patients), 13–15 years (53 patients), and 16–18 years (37 patients).

Regardless of age, 80.63% of the patients had an adherence rate of over 90% (68.13% over 95% adherence).

When analysing adherence within these age ranges, 30% (three patients) had adherence below 90% in the group aged 4–6 years, 4.76% (one patient) aged 7–9 years, 15.38% (six patients) aged 10–12 years, 13.21% (seven patients) aged 13–15 years and 37.84% (14 patients) aged 16–18 years.

Only one patient (10%) in the group aged 4–6 years had adherence below 85%, 0% in the group aged 7–9 years, 5.13% (two patients) in the group aged 10–12 years, 7.55% (four patients) in the group aged 13–15 years and 16.22% (six patients) in the group aged 16–18 years.

Conclusion and Relevance Most patients had optimal adherence, with the worst adherence in the extreme age groups. In younger children this may be due to fear of injections and in adolescents due to relaxation over time and lack of family supervision.

These age groups could benefit from closer pharmaceutical care.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

4CPS-031 A POPULATION PHARMACOKINETIC MODEL OF VEDOLIZUMAB IN ADULT PATIENTS WITH INFLAMMATORY BOWEL DISEASE: A PRELIMINARY ANALYSIS

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Background and Importance Understanding determinants of vedolizumab clearance may enhance treatment optimisation as there are limited data on therapeutic drug monitoring (TDM) in patients with inflammatory bowel disease (IBD).

Aim and Objectives The objective of this study was to perform a preliminary pharmacokinetic (PK) model of vedolizumab in real-life to evaluate covariates potentially responsible for the PK variability in adult patients with IBD.

Material and Methods A 5-year retrospective unicentre study was performed including adults (>18 years) diagnosed with IBD and treated with intravenous vedolizumab. Demographic and clinical data were collected, including serum albumin, C reactive protein (CRP) and faecal calprotectin (FCal). Vedolizumab trough levels (VTL) were obtained before administrations. Vedolizumab concentrations and anti-vedolizumab antibodies (AVA) were determined by ELISA. The model was developed in NONMEM v7.4 by approximating the non-linear mixed effects models. The first order conditional estimation method with interaction (FOCEI) was used for model building. Body weight (WGT) was included in PK parameters following an allometric relationship.

Results Sixty-one patients (27 women) were included, 34 (56%) were diagnosed with ulcerative colitis and 27 (44%) with Crohn's disease. Median age (range) was 43 (IQR:35–59) years and weight 70.9 (CI 95%: 67.2–74.7) kg. A total of 101 concentrations were determined, with a median concentration of 25.9 (IQR:10.4–47.1) µg/mL. Median serum albumin, CRP and FCal levels were: 4.5 (IQR: 4.2–4.7)g/dL, 3.6 (IQR:1.3–8.0) mg/dL and 404.2 (IQR:105.3–1329) µg/g, respectively. Any patient has developed AVA. Population PK model (PopPK): a one compartment with first order elimination described adequately the VTL. Among the clinical variables analysed, none was found significant on clearance (CL) and distribution volume (Vd). The final PopPK model in the absence of AVA was as defined as: $V=4.55L$ and $CL(L/day)=0.15 (WGT/70kg)^{0.75}$. Interindividual variability associated with CL (IIVCL) from 14.2%. Proportional residual error estimated was 15.1%.

Conclusion and Relevance Vedolizumab PK in adult patients with IBD was best described by a one compartment model with first order elimination. WGT was included in CL, following an allometric relationship. Further investigation is required in order to find possible covariates and validate this PK model.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-032

PHARMACEUTICAL INTERVENTIONS FOR MEDICATION RECONCILIATION IN COMPLEX CHRONICALLY ILL PATIENTS

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Background and Importance Elderly patients who receive chronic medication for multiple pathologies have a high risk of suffering from medication discrepancies and adverse drug events. The role of pharmacists is vital to improve health outcomes by avoiding these medication errors.

Aim and Objectives To analyse the pharmaceutical interventions (PIs) of medication reconciliation in hospitalised multipathological patients over 65 years of age and to evaluate the degree of acceptance by the physicians.

Material and Methods A prospective observational study was conducted between 1 March 2023 and 15 April 2023. We analysed the PIs on therapeutic conciliation performed in multipathological patients admitted to the hospitalisation ward where the pharmacist has recently been integrated in collaboration with an internist and a nurse.

The following variables were collected number of patients admitted to the ward and those on whom PIs were performed, pathologies involved according to the drugs used, number and type of PIs identified. In addition, the degree of acceptance of the PIs was measured and PIs were identified with drugs considered high-risk in chronic patients according to the MARC list.

Results Eighty-three patients were admitted to the Internal Medicine hospitalisation ward. Of the total number of patients, 52 PIs were performed in 33 patients. The nature of the diseases associated with PIs were cardiovascular (n=16.48%), metabolic-renal (n= 9.28%), neurological (n= 5.15%) and respiratory (n=3.9%).

The recommendations made in the PIs were: discontinuation of medication (n=16), dosage adjustment (n=14), prescription of medication (n=11), substitution of the drug for a more effective one (n=7), exchange of the drug for a therapeutic equivalent (n=3) and change of the route of administration (n=1).

The degree of acceptance was 86.54%.

Of the PIs performed, 27% (n=14) involved a high-risk drug. Specifically, loop diuretics (4), anticoagulants (4), antiplatelet agents (1), beta-blockers (2), NSAIDs (1), hypoglycaemic agents (1) and insulins (1).

Conclusion and Relevance Most of the PIs were related to the addition or discontinuation of a drug, as well as to the dose adjustment of a drug. The degree of acceptance of the PIs was very high, which reinforces the role of the pharmacist within a multidisciplinary team.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

4CPS-033

REAL-WORLD TREATMENT PATTERNS AND OUTCOMES OF SELECTIVE CYCLIN-DEPENDENT KINASE (CDK) 4/6 INHIBITORS UTILISATION IN METASTATIC BREAST CANCER – REVEAL STUDY

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Background and Importance Active involvement of hospital pharmacists in real-world effectiveness studies is paramount to generate evidence about the value of innovative