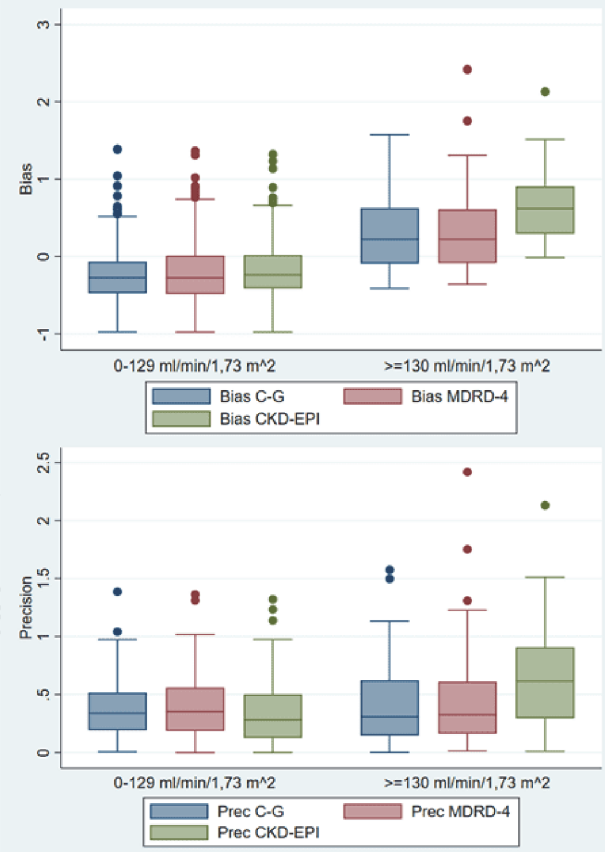

Abstract 4CPS-123 Figure 1

Conclusion and relevance According to the data, no differences were found between formulas to estimate GFR for critically ill patients with a $CrCl_{24h}$ between 0 and 129 mL/min/1.73m^2; whereas for patients with ARC, CG and MDRD-4 seemed to be more appropriate for estimating GFR.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-124 COST OPTIMISATION PLAN IN IMMUNOTHERAPY

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Background and importance Three years ago, posology of nivolumab 3 mg/kg was modified in the Summary of Product Characteristics (SmPC) for a fixed dose (flat-dose) of 240 mg every 2 weeks or 480 mg every 4 weeks after showing equivalence.

Aim and objectives The aim of the study was to assess the potential cost savings if we used individualised dose by weight (3 mg/kg) and apply flat-dose (240 mg or 480 mg) in those patients weighing 80 kg or more.

Material and methods Retrospective study conducted in a second-level general hospital that included all patients treated with nivolumab during 1 year (2020).

A database was designed with the following variables: age, sex, weight, diagnosis, dosage regimen and drug costs expressed in laboratory sale price.

After applying the cost optimisation plan, the dosage of the patients was grouped according to weight: ≥80 kg use of flat-dose and <80 kg use of individualised dose of 3 mg/kg.

Costs of administering nivolumab according to an individualised dose of 3 mg/kg and the flat-dose regimen were calculated.

Results During the study period, 37 patients were treated with nivolumab, 29 received a fixed dose of 240 mg every 2 weeks and eight fixed doses of 480 mg monthly. Patients' mean weight was 71.1 kg (range 52–119). Drug's total cost was € 1 258 560 per year.

Applying the individualised dose of 3 mg/kg in all patients, the cost would be reduced to € 1 177 620, generating a saving of € 80 940.

Applying the individualised dose of 3 mg/kg and scheduling treatment administration on a single day a week, the cost would be € 1 116 558.75, obtaining a saving of € 142 002.

In addition to the above measures, setting the dose at 240 mg in those patients weighing ≥80 kg, the cost would be reduced to € 1 090 096.50, generating a saving of € 168 463.50. Applying this method, based on body weight, only six patients would maintain flat-dose while 31 would require an individualised dose.

Conclusion and relevance The use of individualised nivolumab doses may be a good strategy for optimising treatment costs. The combined use of flat-dose with individualised dose based on patients' weight would reduce the cost associated with nivolumab by 13.4%, corresponding to about € 168 000 per year.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-127 THERAPEUTIC DRUG MONITORING WITH BIOLOGICAL DRUGS IN THE TREATMENT OF INFLAMMATORY BOWEL DISEASE

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Background and importance Inflammatory bowel disease (IBD) is characterised by a chronic inflammation of the gut mucosa. About one-third of patients show primary non-response to biological agents, and up to 50% after an initial clinical response discontinue therapy due to secondary loss of response or a serious adverse event.

Therapeutic drug monitoring (TDM) plays an important role in optimising therapy for these patients.

Aim and objectives Assessing the outcome of optimising biologic drug therapy regimens based on serum dosing results in IBD patients.

Material and methods An observational, descriptive and retrospective study was conducted from 1 April 2018 to 31 August 2021. It included all the patients with IBD treated with biological agents (adalimumab, infliximab and vedolizumab), and this study was based on information contained in pharmaceutical records and clinical files.

A total of 71 patients were included. The study analysed the average treatment times of each drug in patients considered primary non-responders (PNR), as well as patients with secondary loss of response (SLR) to biological agents and the

subsequent therapeutic optimisation (dose escalation, interval reduction or therapeutic switch).

Results 58 patients remained in the first line of treatment. 12 patients needed one switch and 1 patient underwent 2 switches. The average number of drugs administered per patient was 1.2.

The overall mean times, in weeks of treatment, were 187 for adalimumab, 94 for infliximab, and 58 for vedolizumab. Patients who remained on the same drug showed a mean treatment time of 193 weeks for adalimumab and 106 for infliximab.

Regarding PNR, it only occurred with infliximab, in 8.1% (3/37) of patients, after an average of 35 weeks of treatment.

20 patients (28%) had undergone 23 therapeutic optimisations by SLR, distributed as follows: 6 increased doses, 2 reduced time interval and 15 therapeutic switches. The time to SLR was, in weeks, 189.5 for adalimumab, 53.3 for infliximab and 18 for vedolizumab.

Conclusion and relevance TDM allowed therapeutic optimisation of biological agents, enabling the maintenance of patients on the selected regimen for more time, and an early switch in PNR.

Serum determination of drug concentrations and antidrug antibody levels may be a good strategy for maintenance and/or optimisation of therapy.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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Conflict of interest No conflict of interest

4CPS-131 SWITCHING AND DISCONTINUATION OF DISEASE-MODIFYING TREATMENTS IN MULTIPLE SCLEROSIS PATIENTS: EXPERIENCE IN A UNIVERSITY HOSPITAL

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Background and importance Currently, there are many approved disease-modifying treatments (DMTs) for the management of multiple sclerosis (MS) with variable potencies (first-line and second-line therapies), different schedules, mechanism of action, route of administration and side effect profile. None of them are curative. Modification between first-line DMTs or switching to second-line are proposed when the disease progresses, and no universal guidelines exist for switching therapies.

Aim and objectives To describe the reasons that brought about treatment modification in routine clinical practice with reference to: switch, temporary interruption or permanent discontinuation.

Material and methods During the retrospective study period (December 2019–December 2020) patients with relapsing MS were analysed.

Collected data were: age, sex, DMT before and after switch, reason for treatment modification, duration of initial therapy, number of changes.

Results Of 200 analysed patients, 106 had treatment modification, 69 were women, mean (SD) age was 39.9 (9.47) years.

82 patients had received one previous treatment with median duration 58 months, and 24 received at least two treatments.

8 patients had temporary interruptions (4 for pregnancy and 4 for other personal reasons) and none had permanent discontinuation. The main drugs used before the modification were the *interferons* IFNb-1a (50%) and IFN-1b (38%), and after the modification teriflunomide (33%) and natalizumab (44%). Reasons for treatment switch were unacceptable breakthrough disease activity (60 patients), treatment intolerance (35 patients) and JC virus (JCV) activation with progressive multifocal leukoencephalopathy risk (11 patients).

Of the patients with a suboptimal response, unfortunately 9 patients with duration of treatment more than 20 years converted to secondary progressive MS with permanent disability.

Regarding treatment intolerance, the most remarkable reasons were IFN-related flu-like symptoms, depression and injection site reactions.

Conclusion and relevance Modification between first-line DMT or escalation to higher potency therapies was a common occurrence during our study. Most patients were treated with first-line drugs before and after the modifications.

Lack of efficacy remains the main driving force behind switching. These results confirmed that some patients can experience disease activity despite injectable or oral DMTs, which necessitates escalating to a more potent treatment for preventing worsening of disability. Determining which DMT is best for which patient and when to switch remains a major challenge, and the patient's personal preferences should be considered.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-133 ANALYSIS AND EVALUATION OF PHARMACEUTICAL INTERVENTIONS PERFORMED IN THE EMERGENCY DEPARTMENT

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Background and importance The emergency department (ED) has been described as a dynamic and complex environment vulnerable to medical errors.

The clinical pharmacist (CP) has proven to be a key part of the multidisciplinary team for improving the quality and safety of patient care.

Services provided by pharmacists in the ED include traditional clinical pharmacy services, responding to medical emergencies, providing consultations on medication issues and identifying drug-related problems.

Aim and objectives To analyse and evaluate the CP's interventions in the ED.

Material and methods A descriptive prospective study of the CP's interventions performed in a 2-month-work rotation period in the ED was performed. The study was conducted in a 400-bed hospital that serves a population of 250 000 inhabitants.

The following variables were collected: type of pharmaceutical intervention, pathology associated with IP, proactive intervention (yes/no) and acceptance of the intervention (yes/no).