Results Patients' median age at NSCLC diagnosis was 62 (53–67) years; 73.3% (121/165) men; 69.09% (114/165) stage IIIB-V; 59.39% (98/165) adenocarcinoma; 58.18% (96/165) family history of cancer; 24.24% (40/165) previous lung disease; EGFR status: 10.91% (18/165) mutated. Chemotherapy agents: 18.29% (30/164) gemcitabine; 21.34% (35/164) paclitaxel; 24.39% (40/164); 35.98% (59/164). Nephrotoxicity: 17.58% (29/165).

Patients carrying the *CYP27B1*-rs4646536 (p=0.0312; OR 0.32; $CI_{95\%}$0.10 to 0.84; AG vs AA); *CYP27B1*-rs3782130 (p=0.0247; OR 0.22; $CI_{95\%}$0.05 to 0.85; CC vs G); *CYP27B1*-rs703842 (p=0.0121; OR 0.15; $CI_{95\%}$0.03 to 0.67; CT vs CC) and *CYP27B1*-rs10877012 (p=0.0239; OR 4.50; $CI_{95\%}$1.17 to 17.2; TT vs G), were associated with nephrotoxicity. However, for *CYP2R1*-rs10741657 we did not find a statistically significant association.

Conclusion and relevance Our results suggest that rs4646536, rs3782130, rs703842 and rs10877012 influence nephrotoxicity in platinum-based chemotherapy. CYP27B1 is the only enzyme capable of activating vitamin D. Therefore, genetic study of these polymorphisms could be used as a toxicity prediction biomarker in NSCLC patients undergoing platinum-based chemotherapy.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-072 BEZLOTOXUMAB FOR THE PREVENTION OF *CLOSTRIDIOIDES DIFFICILE* RECURRENCE: STUDY IN THE REAL WORLD

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Background and importance *Clostridioides difficile* is the most common cause of infectious diarrhoea in hospitalised patients and causes great morbidity due to the high percentage of recurrence. Bezlotoxumab is a monoclonal antibody against toxin B, intended to prevent relapse. Due to its high cost, it is used in a population and under conditions slightly different to those referred to in the MODIFY clinical trials. Due to the scarcity of real-life studies, it is necessary to collect data on the effectiveness of bezlotoxumab in daily hospital practice.

Aim and objectives To determine the effectiveness of bezlotoxumab in preventing recurrences of *C. difficile* infection (CDI) in patients from a tertiary hospital in Spain.

Material and methods We conducted a longitudinal, retrospective study of a cohort of patients treated with bezlotoxumab between 2 August 2018 and 31 March 2021. All patients received a single infusion of bezlotoxumab at 10 mg/kg. The main variable was the percentage of clinical cure within 12 weeks. As secondary variables, this percentage was analysed in terms of different risk factors.

Results 52 patients were included in the study. The median age was 73.5 years, 32 (61.5%) were women and the median Charlson index was 5.16. ?? (42.9%) patients received bezlotoxumab during the first CDI episode, 22 (30.8%) during the first recurrence and 14 (26.4%) during the second or later recurrences. 32 patients (61.54%) received vancomycin at standard dose during recurrence, 16 (30.77%) used vancomycin tapering and 4 (7.69%) fidaxomicin. There were 9 (18.4%) recurrences within 12 weeks of bezlotoxumab infusion. It should be noted that 6 patients died during the inpatient stay and 3 others did so during the 12 weeks of follow-up, so they were excluded from the calculation of the recurrence ratio. The main risk factor for recurrence identified was severe infection (77.8% of recurrences) followed by age above 65 years and immunosuppression, which were present in 66.7% and 44.4% of the recurrences, respectively.

Conclusion and relevance The recurrence ratio at 3 months of bezlotoxumab administration was 20.9%, which is similar to that found in the pivotal clinical trials (16.5%). The highest prevalence of recurrences was identified in the subgroup of patients with severe CDI.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-075 EVALUATION OF THE COST OF MANAGING ADVERSE EVENTS RELATED TO CYTOTOXIC DRUGS IN CHILDREN

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Background and importance Despite the public health importance of the problems posed by cancer, there are few studies focusing on the economic aspects, particularly those devoted to second-line treatment, to manage the secondary events associated with cytotoxic drugs.

Aim and objectives The objective of this study was to estimate and evaluate the cost of the management of secondary events following chemotherapy treatments in children.

Material and methods This was an 'indirect cost of illness' study conducted by the analysis of 63 medical records of children with eight different types of cancer who all received cisplatin in their chemotherapy protocols and who were being treated in the paediatric hemato-oncology department of Rabat.

Results We analysed 45/63 medical records because of their unavailability at the time of the analysis. 80% of the patients were still undergoing treatment, 7% were under palliative treatment, and 13% died. Median age was 5 years.

Cancer type: neuroblastoma 51%, malignant germ cell tumour 13%, medulloblastoma 11%, osteosarcoma 9%, nasopharyngeal undifferentiated carcinoma 7%, hepatoblastoma 5%, and 2% each for metastatic rhabdomyosarcoma and sacrococcygeal teratoma.

Only sacrococcygeal teratoma and metastatic rhabdomyosarcoma, which showed 127 managements in front of the appeared side effects, in 88% of cases the drugs were administered to correct adverse effects, in 5.5% the cures were shifted, in 4.7% the cures were stopped and in 1.8% the dosages were reduced.

Based on the cost of the drugs administered to treat and correct the side effects of these two types of cancer, we noted a total of € 4500 in addition to the cost of chemotherapy.

Conclusion and relevance According to our results, the cost of management of secondary events related to cytotoxic drugs is considerable, so it is necessary to focus on other studies to evaluate the pharmacoeconomic impact of the indirect costs of these diseases.

REFERENCES AND/OR ACKNOWLEDGEMENTS
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4CPS-077 GENETIC VARIANTS AFFECTING BISOPROLOL RESPONSE IN CARDIOVASCULAR DISEASES

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Background and importance β-Blockers are commonly prescribed to treat multiple cardiovascular (CV) diseases, but, frequently, adverse drug reactions and intolerance limit their use in clinical practice. Interindividual variability in response to β-blockers may be explained by genetic differences. In fact, pharmacogenetic interactions for some of these drugs have been widely studied, such as metoprolol. But studies that explore genetic variants affecting bisoprolol response are inconclusive, limited or confusing because of mixed results with other β-blockers, different genetic polymorphisms observed, endpoint studied, and so on.
Aim and objectives The aim of this study was to perform a systematic review in order to find relevant genetic variants affecting bisoprolol response and to perform a meta-analysis.
Material and methods Systematic review of genetic variants affecting bisoprolol. We performed a search in Pubmed on 15 January 2021 using MESH terms in the following argument: ('Bisoprolol' OR 'Metoprolol' OR 'Adrenergic Beta antagonist') AND ('Pharmacogenetic' OR 'Single Nucleotide Polymorphism (SNP)' OR Polymorphism'). We included 'metoprolol' and 'adrenergic beta antagonist' to detect research with combined results of various β-blockers.

We conducted a random-effects meta-analysis in recessive, dominant, codominant and overdominant models for the G risk allele in order to assess the association between *ADRB1* A389G (rs1801253) and bisoprolol.

We used R statistics software, version 3.6.2, package 'meta' to conduct the meta-analysis (https://CRAN.R-project.org/package=meta) and Harbord's test in order to quantitatively assess publication bias, considering a p value < 0.1 as significant statistical publication bias.
Results We found 13 publications studying the association of genetic polymorphisms with patients' response to bisoprolol (Figure 1). Most of them focused on *ADRB* variants, and even though the *ADRB1* Arg389Gly variant seems to have an influence on bisoprolol efficacy, the results are inconclusive and our meta-analysis did not find any statistically significant results in this regard.
Conclusion and relevance Many genetic polymorphisms have been assessed with respect to their influence on patients' response to bisoprolol and *ADRB1* Arg389Gly (rs1801253) seems the most relevant genetic polymorphism in this regard but the results have not been confirmed with a meta-analysis.

Our results support the need of further studies about the impact of genetic variants on bisoprolol response, considering different genetic polymorphisms, conducting single and multiple single nucleotide polymorphisms (SNPs) analysis, including other clinical parameters in a multivariate study.

REFERENCES AND/OR ACKNOWLEDGEMENTS
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4CPS-078 MOTIVATIONAL INTERVIEWING IN CLINICAL PHARMACIST INTERVENTIONS: A SYSTEMATIC REVIEW OF RANDOMISED CONTROLLED TRIALS

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Background and importance The role of clinical pharmacists in delivering services with patient-focused care is growing. Motivational interviewing (MI) is an effective intervention for changing patient behaviour; however, the role of MI in clinical pharmacist interventions has not yet been well established.
Aim and objectives The aim of this systematic review was to investigate the existing evidence on the effect of MI in clinical pharmacist interventions in hospitals, primary care practices and specialised outpatient clinics. The types of MI interventions, their characteristics and outcomes were examined.
Material and methods A systematic literature search using the databases PubMed, PsycINFO, EMBASE and The Cochrane Library was conducted. Randomised controlled trials (RCTs) about MI interventions performed by clinical pharmacists in hospitals, primary care practices and specialised outpatient clinics working in close collaboration with physicians were included. Studies performed in community pharmacies were excluded. No restriction criteria were applied for the population type, delivery mode of the intervention, the comparator, or outcome. A bias assessment was performed by two reviewers according to the Cochrane collaboration risk of bias tool.
Results The literature search yielded eight RCT studies. More than 10 different outcome variables were reported across the studies. Four of eight studies showed a statistically significant effect on primary outcomes like medication adherence, hospital readmissions, and emergency department visits. Five studies reported training of pharmacists in MI, and three studies reported fidelity assessment.
Conclusion and relevance The main limitation of the study was the small number of studies and their heterogeneity. Beneficial effects of MI were found in some clinical pharmacist interventions. These interventions could have a positive impact on medication adherence and other health outcomes; however, more trials are needed to establish the effects of MI and determine MI characteristics and training associated with the success of the intervention.

REFERENCES AND/OR ACKNOWLEDGEMENTS
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4CPS-079 ANALYSIS OF CURRENT RESEARCH IN WEARABLES: TOWARDS GREATER DIGITAL HEALTH

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