based on quality criteria from different societies when it is carried out in a generalised, standardised and regulated way.

**Aim and objectives** To describe the implementation of a computerised checklist for the validation of prescriptions of oncological chemotherapy (ChemO) according to recommendations and clinical practice guidelines; and to evaluate the results of its implementation in terms of safety interventions.

**Material and methods** The checklist was designed in database format. This included the BOPA and GEDEFO recommendations for validation by having a series of different coloured alerts when laboratory values were not within normal limits for administration of ChemO. From this database the variables number of validations, interventions, type, and acceptance or not by the oncologist were collected from 1 January to 30 June 2019. Demographic data of the patients (age and sex) were also collected. Frequencies and means were analysed for the variables studied.

**Results** The data of 3050 validated prescriptions were included, with the checklist corresponding to 1162 patients of whom 593 (51%) were women. Mean age of the patients was 59.3 years (±15.0). A total of 293 interventions were performed (9.6% of prescriptions). The most common reasons for intervention were related to the diagnosis not reflected in the prescription (165 interventions (5.4%)), the periodicity of the chemotherapy scheme (46 (1.5%)) and the location of the patient within the hospital (63 (2.1%)). Seventeen (0.6%) interventions were related to the scheme, cystostatic, volume and prescribed serum. Regarding the severity of the intervention, 31 (1.0%) required consultation with the oncologist, 22 (70.1%) of which were accepted. Among the latter, the main reason for the consultation was related to laboratory parameters outside normal limits.

**Conclusion and relevance** The application of a checklist to the validation of the prescription served to improve patient safety as it standardised the process and marked the order for all the items reviewed. It was also useful for unifying the criteria among pharmacists and was helpful in the training of resident pharmacists.

**REFERENCES AND/OR ACKNOWLEDGEMENTS**

No conflict of interest.

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**Abstracts**

**IMPACT OF DRUG INTERACTIONS IN HIGH DOSE METHOTREXATE ELIMINATION**

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Background and importance High dose methotrexate (HDMTX) chemotherapy, defined as a dose >500 mg/m², is used to treat several oncological and haematological malignancies. Despite appropriate hydration, urine alkalisation and leucovorin rescue, nephrotoxicity remains a risk which can lead to significant morbidity and mortality. Different drugs have been associated with altered elimination (AE) of HDMTX due to delayed elimination or nephrotoxicity.

**Aim and objectives** To describe the incidence of AE and assess the impact of drug interactions in HDMTX induced AE.

**Material and methods** A bibliographic research in the Lexi-comp database was conducted to identify drug interactions with HDMTX. A retrospective study was carried out including all patients who received HDMTX between 2010 and 2019. Data collected were age, sex, methotrexate dosage, number of HDMTX cycles, creatinine level before and after HDMTX, serum levels of methotrexate and potentially interacting medications (PIM) prescribed 24 hours before HDMTX infusion and during methotrexate elimination. AE was defined as plasma concentration >1 μmol/L at 48 hours and/or 0.1 μmol/L at 72 hours, or nephrotoxicity according to the Common Terminology Criteria for Adverse Events criteria V4.0.
The association of PIM with AE was determined by OR and the $\chi^2$ test or Fisher’s exact probability test.

**Results** Sixty-four patients were treated with HD mtx for 160 cycles with a median HD mtx dose of 11760 mg (IQR 3370–14 207.5 mg). Median age was 66.4 years (IQR 55.6–75.3) and 42.2% were women. Eleven patients were treated for leukaemia and 53 for lymphoma. Median baseline creatinine was 0.66 (IQR 0.57–0.78) mg/dL. AE was present in 80 cycles (50%). In 91.3% of these, patients were receiving concomitant PIM with methotrexate elimination. In 52 cycles methotrexate elimination was altered only after 72 hours.

PIM associated with AE were: levetiracetam (OR=6.9, 95% CI 1.5–32.4; p<0.05), non-steroidal anti-inflammatory drugs (OR=10.9, 95% CI 2.4–49.4; p<0.05) and doxycycline (OR=0.5, 95% CI 0.4–0.6; p<0.05). There were no significant differences between use of proton pump inhibitors, loop diuretics, amphotericin B, penicillin and derivative, amino-glycosides, ciprofloxacin or p-glycoprotein/ABCB1 inhibitors.

**Conclusion and relevance** There was a high prevalence of patients with AE of HD mtx. Potentially interacting medications with HD mtx are frequently used during treatment. Only levetiracetam and non-steroidal anti-inflammatory drugs were associated with methotrexate AE in our patients.

**REFERENCES AND/OR ACKNOWLEDGEMENTS**

No conflict of interest.

**Abstracts**

**OLARATUMAB: WHAT IS THE ECONOMIC IMPACT ON THE NATIONAL HEALTH SYSTEM?**

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Background and importance Olaratumab is a monoclonal antibody that binds to PDGFR alpha and beta receptors on the surface of tumor cells. It is indicated in the treatment of advanced soft tissue sarcoma (STS) and bone metastases in breast cancer patients. The primary outcome of the authorisation study showed a better progression free survival (6.6 months). The cost of their therapy was €294 596 (48 total cycles for 5 patients).

**Conclusion and relevance** After conditional marketing authorisation, further research costs of the approved drug are necessary at the expense of the NHS. The cost of olaratumab, that resulted in it not being effective. This was the case for olaratumab, that resulted in it not being effective. For this reason, for fast track authorisation, the reimbursement price of the drugs should be taken into account in the post-authorisation costs. Furthermore, it is important to provide hospital monitoring of the clinical effects of the drug and consequent cost.

**REFERENCES AND/OR ACKNOWLEDGEMENTS**

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2. ClinicalTrials.gov Identifier: NCT01185964

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**PREVALENCE OF NIVOLUMAB ADVERSE EVENTS IN ROUTINE CLINICAL PRACTICE**

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Background and importance Nivolumab was authorised in Spain in 2015. It is a human immunoglobulin monoclonal antibody that binds to PD-1 receptor and blocks its interaction with PD-L1 and PD-L2. It is indicated in adjuvant or metastatic melanoma (MC), metastatic non-small cell lung cancer (NSCLC), renal cell carcinoma (RC) and squamous cell carcinoma of the head and neck (HNC), among others. Its recent commercialisation means there are no data on adverse events (AE) following long term treatment in routine clinical practice.

**Aim and objectives** To assess the tolerability of nivolumab, to identify and calculate the prevalence of AE related to nivolumab and to compare its frequency with the that described on the data sheet (DS).

**Material and methods** A descriptive, retrospective, observational study was carried out from March 2016 to September 2019 in a tertiary hospital. It included all patients treated with nivolumab since it was commercialised. Medical records and blood tests of all treated patients were reviewed from the start of nivolumab treatment. Information was collected from the applications Abucasis, Mizar, Farmis-Oncofarm and Gestlab. Variables collected were sex, age, diagnosis, number of nivolumab doses, AE, if the patient died, nivolumab start/end date and reason for stopping treatment. AE were classified according the prevalence described on the DS: very common (>10%), common (1–10%), not common (0.1–1%), rare (0.01–0.1%) and very rare (<0.01%).

**Results** A total of 48 patients were included, 77% were men and median age was 63 years. The main diagnoses were NSCLC (40%), followed by RC (29%), MC (21%) and HNC