Background and importance Patients with multiple relapses and/or refractory multiple myeloma are difficult to manage as the therapeutic options become limited and the response to chemotherapy is often short lived. Despite significant advances in treatment options, some patients have developed resistance to existing therapies. High risk MM is considered challenging to treat because of the risk of early relapse and increased mortality.

Aim and objectives A 60-year-old Caucasian female patient with a rare IgD-lambda-RRMM received six VTD courses and an autologous stem cell transplant (ASCT) before a new relapse at 3 months, 14 KRD cycles and another extramedullary relapse. The physicians then asked the pharmacists which regimen could be used and to explain the treatment details.

Material and methods The pharmacists and physicians chose VD-PACE as savage off-label therapy, using the Stony Brook University Medical Centre, NY, USA regimen, according to guidelines and available literature. This regimen uses cisplatin and etoposide, which most patients with MM are not exposed to. The 24 hour infusion of PACE was aimed at providing continuously high plasma drug levels to target slowly dividing, resistant plasma cell clones, and to reduce cardiotoxicity related to doxorubicin. Bortezomib in the TOTAL-THERAPY-3 protocol and comparative studies have shown sustained remissions and improvement in OS.

Results The patient received six 28 day cycles of the VD-PACE regimen, before a new meningeval involvement, that consisted of: bortezomib (1 mg/m²) subcutaneously (days 1, 4, 8, 11); dexamethasone (40 mg) orally once daily (days 4–7), 30–60 min before starting chemotherapy; cyclophosphamide (400 mg/m²), etoposide (40 mg/m²), cisplatin (10 mg/m²) mixed in 1 L of a 0.9% NaCl bag infused over 24 hours (days 4–7) via a 0.2 µm in-line filter; and doxorubicin (10 mg/m²) IV infused over 24 hours (days 4–7) mixed in 250 mL D5W.

Conclusion and relevance The pharmacists played an important role in promoting the use of rational chemotherapy and suggesting the most fitting regimen for this patient. In conclusion, cycles of VD-PACE can be used to reduce disease burden in patients with RRMM who have exhausted most other available therapies. In healthy patients with aggressive disease, VD-PACE can help in obtaining a window for SCT or can be used to reduce disease burden while waiting on enrolment in a clinical trial or for innovative less intensive chemotherapy.

Background and importance Cancer patients receive multiple medications, exposing them to an increased risk of drug-drug interactions (DDI). Moreover, DDIs represent an escalating concern for older adults. Screening for DDI is not generally performed with endovenous chemotherapy.

Aim and objectives The aim of this study was to evaluate the influence of DDI in the elderly treated with endovenous chemotherapy (EVC).

Material and methods A retrospective study was performed in a tertiary hospital. Patients who initiated EVC during 2019 were included. All DDI were screened and categorised. Data collected were: demographic, cancer by site, chemotherapy treatment and concomitant drugs. DDI in patients aged ≥70 and < 70 years were analysed. Continuous data were expressed as mean (95% CI) and qualitative data as percentages. The Mann–Whitney U test for continuous variables and the χ² test for qualitative data were used.

Results 679 patients were included. 65 (9.6%) presented 127 DDI (median 1.95 interactions/patient). Differences between groups are shown in table 1.

The most implicated chemotherapy drug was paclitaxel (104, 81.9%), interacting mainly with antihypertensive agents, enhancing a blood pressure lowering effect. For all category D DDI, six resulted in an increase in chemotherapy concentrations, potentially increasing toxicity, with two decreasing chemotherapy concentrations and one causing higher anticoagulant drug concentrations.

Conflict of interest No conflict of interest

Conflict of interest Older patients presented a higher number of DDI although they seemed to be less severe DDI than in younger patients. Future studies need to identify the relevant DDI with clinical implications to optimise medication safety in older adults.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest