five received palbociclib in combination with an aromatase inhibitor and four with fulvestrant. The median number of cycles received per patient was 4.5 (3–7). All presented neutropaenia in G3 (78%) or G1–2 (22%), experienced it after the first 15 days of treatment and although recovered, reappeared in ulterior cycles, leading to various discontinuations in seven patients (delays or interruptions of 7–14 days). Sixty-six per cent required dose reductions down to 100 or 75 mg, but no one had to stop treatment. Other AE with an incidence <24% were: rash and stomatitis G2, asthaenia, diarrhoea, leucopaenia and anaemia G1. No infections were reported.

Conclusion In clinical practice, the proportion of patients affected by neutropaenia was higher than in CT, with a 23% more incidence of G3. Close monitoring contributed to managing neutropaenia and preventing ulterior infections. In the future, it would be interesting to evaluate if discontinuations or dose reductions of palbociclib affect its efficacy.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-049 ATEZOLIZUMAB: EFFICACY AND SAFETY IN ADVANCED NON-SMALL CELL LUNG CANCER

D Fernandez*, C Otero, A Álamo, E Mateos, M Lombardero, ME Lujan, D Dorta, A Dominguez. *Complejo Hospitalario Insular Materno-Infantil de Gran Canaria, Pharmacy, LAS Palmas de Gran Canaria, Spain*

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Background Results of the OAK study demonstrated that atezolizumab improved median overall survival and progression-free survival of patients with advanced non-small cell lung cancer (NSCLC).

Purpose Evaluate the efficacy and safety of atezolizumab treatment in patients with metastatic or advanced NSCLC in second and successive lines.

Material and methods Retrospective observational study in which patients with NSCLC were included who started treatment with atezolizumab in the second or successive line, during the period from April to September 2018. Data were collected on demographic variables (age and sex) and clinical variables (ECOG, smoking habit, previous chemotherapy, dose, number of cycles and adverse reactions) through clinical history (Selene) and the oncological prescription program (Farmatools). The descriptive statistical analysis was carried out through the SPSS vs22.0 program. Efficacy was evaluated in terms of progression-free survival (PFS) and overall survival (OS), calculated by the Kaplan–Meier method. To assess safety, the severity of adverse events (AA) was measured according to CTCAEv4.0.

Results We analysed 14 patients, 9 males and 5 females. Ninety-three per cent were smokers or ex-smokers, and 7% had never smoked. Eleven patients had ECOG 0–1 and three ECOG 2% and 93% had metastases at the start of treatment with atezolizumab. All patients had received prior platinum-based chemotherapy as first-line treatment. The dose administered was 1200 mg every 3 weeks and the average of cycles was four. The median of PFS was 4.8 months (95% CI: 1.0 to 8.6) and the average of OS 4.5 months (95% CI: 3.6 to 5.4). 57.14% of the patients presented some AA of any degree and only 12.5% were grade 3–4. The most frequent

were renal failure (37.5%), diarrhoea (25%), rash (25%), hypersensitivity (12.5%), thrombocytopenia (12.5%), lung infection (12.5%), oedema (12.5%), emesis (12.5%) and decreased appetite (12.5%).

Conclusion The efficacy in terms of OS obtained was lower than that of the OAK study (13.8 months). However, when the PFS was analysed in our study, it was superior to that of the OAK study (PFS 2.8 months). In general, atezolizumab presents an acceptable safety profile, the most frequent AEs coincide with those described in the literature.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-050 TOXICITY WITH 5-FLUOROURACIL AND IRINOTECAN: INTEREST OF GENOTYPING IN PATIENT CARE

¹M Gallard*, ¹J Arcizet, ¹B Dalifard, ¹M Laplace, ²V Moulin, ¹B Lefranc. ¹GH La Rochelle Ré Aunis, Pharmacy, La Rochelle, France; ²GH La Rochelle Ré Aunis, Oncology Unit, La Rochelle, France

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Background Twenty-five per cent of patients treated by 5-fluorouracil and 40% treated by irinotecan had serious adverse events (SAE).¹ Forty per cent of 5-fluorouracil toxicities are due to a partial deficit of dihydropyrimidine dehydrogenase (DPD). Fifteen per cent of caucasians also have a uridine diphosphate glucuronosyltransferase 1A1 (UGT1A1) enzymatic polymorphism. When one of these deficits exists, patients require chemotherapy dosage adjustment in order to limit haematological and/or digestive toxicities. This year, new recommendations from our National Health Institute have been issued concerning the systematic prospective genotyping of DPD. Despite numerous SAE, this preventive genetic research is not systematically performed by oncologists.

Purpose This study highlights the medico-economic interest of the genetic screening for DPD and/or UGT1A1 deficits before the initiation of chemotherapy with 5-fluorouracil and/or irinotecan in order to optimise patients' therapeutic care.

Material and methods The patients from one oncologist who received genetic screening between January 2015 and April 2018 were analysed. The following criteria were collected: diagnosis, cancer status, prospective or retrospective screenings, screening results, types of SAE, dose reductions, shifts of chemotherapy treatments, and hospitalisations for adverse reactions and their costs.

Results For 40 months, 51 patients (average age: 66.4 years old) were genotyped out of 310 treated (132 by fluorouracil, two by irinotecan and 176 by both). Twenty of them were prospective. The study discovered 31 deficits: five DPD deficits, 21 UGT1A1 deficits and five combined deficits without complete deficit. Among them, 18 (58%) reported significant toxicities to chemotherapy with 5-fluorouracil and/or irinotecan while four (13%) had been screened before the initiation of chemotherapy. Half (n=9) required a shift to the next chemotherapy. Five hospitalisations were identified following a serious adverse event induced by the chemotherapy. Four of them (costing € 14,500) could probably have been avoided by prospective screening and a dosage adjustment at the initiation of treatment.

Conclusion SAE have led some oncologists to systematically screen for DPD and/or UGT1A1 deficit before the initiation of chemotherapy by 5-fluorouracil and/or irinotecan in order to prescribe individualised and optimised dosages. This personalised medicine takes all its significance from the new concept of care's eco-conception.

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No conflict of interest.

5PSQ-051 ANALYSIS OF CARDIOVASCULAR EVENTS ASSOCIATED WITH CARFILZOMIB IN PATIENTS WITH MULTIPLE REFRACTORY MYELOMA

D Garcia*, G Lizeaga Cundin, MJ Garcia de Andoin Barandiaran, A Zurutuza Lopez, J Landa Alberdi, T Gonzalez Fernandez, A Lizardi Mutuberria, M Urretavizcaya Anton, L Leunda Eizmendi, MA Aranguren Redondo, MP Bachiller Cacho. *University Hospital of Donostia, Pharmacist, San Sebastian, Spain*

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Background In the pivotal authorisation trial of carfilzomib, patients with severe cardiovascular abnormalities (NYHA III or IV), clinically significant and uncontrolled, were not included.

Purpose The aim of this study was to analyse the cardiovascular events (CVAE) associated with carfilzomib in patients in whom an electrocardiogram was performed prior to starting treatment and compare these data with those of the pivotal trial.

Material and methods Retrospective observational study in which all patients treated with carfilzomib were included. The data obtained from the electronic medical record were: age and comorbidities at diagnosis, schemes used prior to carfilzomib, dose of carfilzomib and development of CVAE after the use of carfilzomib.

Results Thirty-six patients (19 males) with a median age 59 years (RIQ 53–67) were included. Seventy-eight per cent had comorbidities at the time of diagnosis, the most frequent being arterial hypertension (HTA) (16), followed by diabetes mellitus and dyslipaemia (seven in both). The average of previous regimens was one (30), with VCD (bortezomib, cyclophosphamide and dexamethasone) in 28 patients. In 34 patients the scheme used was KRd (carfilzomib, lenalidomide and dexamethasone) at a dose of 27 mg/m². In two patients the dose was reduced due to adverse effects (hepatotoxicity and non-specific toxicity).

The incidence of all grades CVAE was 19.4% (three congestive heart failure, two paroxysmal atrial fibrillation, and one transient ischaemia and new onset HTA). Of all of them, 71% presented as comorbidity to the diagnosis of hypertension. Median age of patients was 65 years (RIQ 65–76). Two patients discontinued the treatment, three patients required modification of the diuretic treatment and in one patient the infusion time of carfilzomib was modified.

Conclusion As in the ASPIRE study, patients are referred to the cardiology service prior to starting treatment and the expected results are similar (19.4% vs 22.3% in ASPIRE). The most vulnerable patients of developing CVE were those over 65 years of age, since they present more comorbidities pre-treatment. However, it should be mentioned that myeloma

itself, or the corticosteroids, can also contribute to cardiovascular deterioration.

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No conflict of interest.

5PSQ-052 THE ERROR ROOM: A FUN TRAINING TOOL FOR THE PHARMACEUTICAL CHEMOTHERAPY UNIT

M Jaffuel*, J Mangavelle, S Vernardet, I Lefort. *Centre Hospitalier D'ardèche Nord, Pharmacie, Annonay, France*

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Background A significant part of hospital activity is now dedicated to the handling of oncology, and the chemotherapy production by the pharmacy is an essential stage. This activity is still currently human-dependent and one error can therefore have serious consequences. Through a 'room of errors', a participating training in real-work conditions can improve ongoing staff training and the security of this cytotoxic production path.

Purpose To evaluate the critical capacity of the pharmacy technicians to track the major deviances in the preparation of injectable anticancer drugs.

Material and methods A list of errors was established by the pharmacist and the resident and then implemented in the controlled atmosphere zone. A level of criticality had been assigned to each error. The usual technicians and pharmacist could participate in this 'room of errors'. The time left to find errors was 15 min by participants. An information sheet was filled anonymously. In the following days, an error analysis and debriefing were conducted to discuss the most critical errors.

Results The six usual technicians and one pharmacist participated in this 'room of errors'. Fourteen errors were distributed in the area. On average, 7.7 errors out of 14 total errors were discovered by the seven participants. Four out of seven participants reported 50 per cent or fewer errors. Nine errors out of 14 were classified as high criticality level. For these nine high criticality errors, one error was not found by any of the participants, four errors by less than five participants and three errors by all participants. Only one-third of this category of high-risk error was detected by all manipulators.

Conclusion It was the second time we had this experience. This 'room of errors' is a fun way to train staff to minimise and prevent potential errors related to the production of chemotherapy. It is also an opportunity to provide reminders of good manufacturing practices. In view of the results, it would be interesting to continue training by this approach or other learning process such as e-learning. This would maintain and bring new knowledge to pharmacy technicians to ensure the safety of the patient in their care process.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.