safety of intravenous drugs, they are still rarely used in our country.

Aim and Objectives The aim of our project was to compare the drug costs and medication safety risks associated with the use of atropine ampoules and atropine prefilled syringes to treat acute bradycardia in ocular surgery.

Material and Methods First, the effects of prefilled syringes on drug costs were investigated by a literature search and by gathering data from other surgical units that already used prefilled syringes. Atropin-related drug costs of other surgical units were calculated before and after transition to prefilled syringes. After that, a Failure Mode and Effects Analysis 'FMEA' conducted by an interprofessional expert group was used to evaluate risks associated with the medication management and use process of both atropine products.

Results The introduction of prefilled syringes had decreased the costs of atropine injections in other surgical units more than 50% in average when compared to atropine ampoules. The savings we observed resulted mainly from wastage minimisation, because the shelf life of ampoule-drawn atropine injection is limited. Our literature search supported this observation. The FMEA analysis identified more medication safety risks related to the use of atropine ampoules (n=14, risk profile number 'RPN' 297) when compared to the prefilled syringes (n=7, RPN 74). The most significant difference came from the risks related to preparation of atropine injection (i.e. limited shelf life) and look-alike, sound-alike 'LASA'-risks associated with the use of atropine ampoules.

Conclusion and Relevance Based on cost analysis and proactive risk assessment by FMEA the transition to prefilled syringes appears to decrease costs and increase medication safety.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

5PSQ-042 FOCUS ON MEDICATION ERRORS ON HIGH-RISK MEDICATIONS IN A HOSPITAL'S ELECTRONIC INCIDENT REPORTING SYSTEM

[1]Y Andersson*, [2]J Mezori, [3]SR Eikeland, [2]AG Granås. *[1]Hospital Pharmacies Enterprise- South-Eastern Norway, Hospital Pharmacies Enterprise, Oslo, Norway; [2]University of Oslo, Department of Pharmacy, Oslo, Norway; [3]Hospital Pharmacies Enterprise- South-Eastern Norway, Hospital Pharmacy Kalnes, Kalnes, Norway*

10.1136/ejhpharm-2024-eahp.376

Background and Importance High-risk medications, i.e. anticoagulants, digoxin, gentamicin, insulin, potassium, opioids and low-dose methotrexate, have an increased risk of causing patient harm when used incorrectly.

Barcode medication administration (BCMA) systems can reduce the risk of medication errors by focusing on the five R's in medication management, i.e., the right patient, the right drug, the right dose, the right route, and the right time.

Aim and Objectives The aims were 1) to analyse and quantify medication errors in an electronic reporting system handling adverse events in a hospital with BMCA, and 2) to quantify the extent of high-risk medications that lacked a barcode at medicine unit level.

Material and Methods We analysed medication errors reported by hospital employees in the hospital's electronic incident reporting system that handles adverse events. We have read and categorised the errors carefully in terms of type, frequency and where in drug handling the errors had occurred.

Results Hospital staff reported 1,777 medication errors and nearly 30% (n=467) were associated with high-risk medications. Most errors occurred during prescribing (n=133, 28%) and drug administration (n=189, 40%). Anticoagulants and opioids were most frequently reported. This also corresponds with that 14% (n=41) of the 293 different high-risk medication packages lacked barcodes at medicine unit level, most of which were anticoagulants and opioids.

Conclusion and Relevance Assigning a barcode to all high-risk medication packages, so high-risk medications can be scanned, can prevent future medication errors. Labelling barcodes at medicines unit level on anticoagulants and opioids should be prioritised.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

5PSQ-043 DESCRIPTIVE STUDY OF MARKETED MEDICINES CONTAINING ASPARTAME

JA Hernandez Ramos*, A Castro Frontiñan, A Gonzalez Gomez, MC Jimenez Leon, F Mayo Olveira, V Garcia Enriquez, F Huecas Jimenez, P Del Palacio Garcia, CE Vaquer Ferrer, JM Ferrari Piquero. *Hospital Universitario 12 de Octubre, Pharmacy, Madrid, Spain*

10.1136/ejhpharm-2024-eahp.377

Background and Importance Recently, the International Agency for Research on Cancer (IARC) has classified aspartame as possibly carcinogenic to humans. Furthermore, the Joint Expert Committee on Food Additives (JECFA) administered by the Food and Agriculture Organization of the United Nations in partnership with the World Health Organization has accepted a daily intake of 40 mg/kg body weight as safety threshold.

Aim and Objectives The primary objective was to compare the maximum daily intake of aspartame (MDIa) for every oral medicine marketed in our country with the safety threshold established by the JECFA. MDIa was defined as the daily amount of aspartame taken if using the maximum dose of the corresponding drug according to its label dosage recommendations.

Secondary objectives included describing the main features of these medicines and analysing their association with MDIa.

Material and Methods Bibliographic unicentric study carried out in a tertiary hospital.

Collected variables included medicine name, dosage form, authorised indication and milligrams of aspartame per unit in solid forms or per millilitre in liquid forms. Data were expressed as amount (percentage) for qualitative variables and median (interquartile range) for quantitative variables. Difference of medians was assessed through Mann-Whitney U test.

Results 370 medicines declared containing aspartame. According to their respective authorised indications, 222 (60.0%) were considered medication for chronic use and 148 (40.0%) acute care drugs. Regarding dosage form, 283 (76.5%) were fast disintegrating tablets, 68 (18.4%) oral solutions/suspensions or powders for oral solution/suspension and 19 (5.1%) other.

Median dose of aspartame was 3.0 mg/unit (1.3–8.0) for solid forms, and 12.5 mg/mL (5.0–30.0) for liquid forms. For the total population of study, MDIa was 9.0 mg per unit or mL (3.0–20.8) and the absolute largest observation was 420.0 mg/mL. Specifically, median MDIa for solid forms was 8.0 mg/unit (2.1–11.2) and for liquid forms was 75.0 mg/mL

(30.0–90.0); the difference between these medians was statistically significant ($p<0.001$).

Conclusion and Relevance All medicines marketed in our country containing aspartame remain under the threshold established by the JECFA for most adult population. However, since liquid forms contain considerable amounts, their suitability as chronic treatments should be reconsidered for children or other very-low weight patients during medication review, especially if polymedicated.

These results should be comparable to the rest of European countries.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

5PSQ-044 SAFETY OF PEMBROLIZUMAB +/- CHEMOTHERAPY IN FIRST-LINE METASTATIC NON-SMALL-CELL LUNG CARCINOMA IN REAL-WORLD PRACTICE

M Cardenas Sierra*, FJ Goikolea Ugarte, A Gomez De Segura Sarobe, I Nuñez Ceruelo, G Miron Elorriaga, M Palacios Filardo, A Martin Torrente, Y Viseda Torrellas, L Torio Alvarez, O Ibarra Barrueta. *Hospital Galdakao Usansolo, Pharmacy Service, Galdakao, Spain*

10.1136/ejhpharm-2024-eahp.378

Background and Importance Cancer patients with comorbidities are usually excluded from clinical trials. Real-life observational studies are of particular interest to elucidate the safety of these new therapies.

Safety of pembrolizumab +/- chemotherapy in metastatic non-small-cell lung carcinoma (NSCLC) was assessed in KEYNOTE-024, 189 and 407 pivotal trials.

Aim and Objectives To assess the safety of pembrolizumab +/- platinum-based chemotherapy in first-line treatment of metastatic NSCLC in real-world practice.

Material and Methods Observational, retrospective, single-centre study including 130 adult patients with stage IV NSCLC treated in first-line from 1 December 2017 to 31 December 2022, without EGFR or ALK mutations, autoimmune diseases or brain metastases, and performance status 0–1.

Patients with PD-L1 $\geq$ 50% received pembrolizumab 200 mg or 2 mg/kg IV every 3 weeks. Those with non-squamous histology and PD-L1 < 50% received pembrolizumab + cisplatin IV 75 mg/m2 or carboplatin IV 6 AUC plus pemetrexed IV 500 mg/m2 every 3 weeks for 4 cycles plus maintenance with pembrolizumab + pemetrexed. Squamous cells and PD-L1 < 50% received pembrolizumab + IV carboplatin 6 AUC and IV paclitaxel 200 mg/m2 every 3 weeks for 4 cycles plus maintenance with pembrolizumab. Treatments were prolonged until progression or toxicity for a maximum of 2 years.

A database was created to record adverse events (AEs) obtained from electronic medical records and according to Common Terminology Criteria for Adverse Events (CTCAE) Version 5.0.

Results In total, 491 AE of any grade and 78 of grade 3–4 were recorded. 10 patients discontinued treatment due to toxicity. AEs with incidence > 15% were (any grade – grade 3–4): anaemia (36–11), anorexia (51–2), asthenia (96–10), nausea (43–3), diarrhoea (25 -2), constipation (20–0), mucositis (21–2), neurotoxicity (22–1). Immune-mediated AEs were (any grade – grade 3–4): hepatotoxicity (7–3), nephritis (3–1), myocarditis (1–1), duodenojejunitis (1–1), pneumonitis (1–0).

Conclusion and Relevance Most patients suffered more than one AE. Even so, no deaths were related to toxicity (there were no grade 5 AEs). The six grade 3–4 immune-mediated AEs should be highlighted.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

5PSQ-045 ANALYSIS OF A PHARMACEUTICAL INTERVENTION IN POLYMEDICATED PATIENTS WITH DEMENTIA AND IN TREATMENT WITH HIGH ANTICHOLINERGIC ACTIVITY DRUGS

MC Sánchez Argaiz, M Gallego Galisteo, A Trujillano Ruiz, AJ Villa Rubio, E Campos-Davila*. *Hospital Nuevo La Línea de La Concepción, Hospital Pharmacy, La Línea de La Concepción, Spain*

10.1136/ejhpharm-2024-eahp.379

Background and Importance Medicines with anticholinergic properties are frequently prescribed in older populations for different medical conditions increasing the risk of cognitive and functional disorders. Patients with dementia in treatment with acetylcholinesterase inhibitors (donepezil, rivastigmine, galantamine) are also more vulnerable to these drug-related problems, not only because of the adverse impact of the cumulative anticholinergic effect but also because the effects of anticholinergics and acetylcholinesterase inhibitors (AChEi) oppose each other and may result in a diminished therapeutic effect.

Aim and Objectives To analyse the pharmaceutical intervention carried out in polymedicated patients with dementia and taking high anticholinergic activity drugs.

Material and Methods Observational, descriptive and prospective study in which the pharmaceutical interventions performed between June to August 2023 in five primary healthcare centres. Polymedicated patients ($\geq$ 5 drugs) with dementia and AChEi drugs and concomitant treatment with high anticholinergic burden were selected. The clinician received a review of the potential drug interaction with clinical evidence and a list of patients eligible for deprescription. After one month we reviewed if the pharmaceutical intervention was accepted or not with any patient prescription change: reduced dose of anticholinergic drug, suspension or substitution of any drug.

Results During the study period, 49 polymedicated outpatients were included, 29% men, 79 (75–96) years median age. Median prescribed drugs 12 (10–22). According to the ATC classification, the high anticholinergic activity drug prescribed were: 21% (10) Antimuscarinic overactive bladder, 4% (2) Antimuscarinic spasmolytic, 8% (4) Antihistamines, 8% (4) Antipsychotropic, 41% (20) Tricyclic antidepressants, 18% (9) Selective serotonin reuptake inhibitor. Acceptance of pharmaceutical intervention with any change in prescription: 43% (21). 14 (66%) anticholinergic drugs were suspended, 2 (10%) reduce dose of anticholinergic drug, 2 (10%) increase dose of AChEi drugs or added memantine, 3 (14%) change the high anticholinergic activity drug.

Conclusion and Relevance This study highlights the need and importance to review the chronic medication and to measure the anticholinergic burden in old patients above all in dementia diagnosis. Most guides recommend the avoidance of the combination of anticholinergic drug and acetylcholinesterase inhibitors drugs if it is possible and this study gives us an