data confirmed the main problem with parenteral products' primary packaging and indicated an increased risk of medication errors caused by soundalikes–lookalikes in the anaesthesia and intensive care sector. The university hospital pharmacy's product portfolio must be regarded as a limitation of this work, as it only has a selected range of pharmaceuticals throughout Austria. A further limiting factor is CIRSmedical itself, as there is a general focus on errors, and there is no specialisation for identifying medication errors.

Conclusion and relevance Evaluation of the manufacturer's implementation showed an inconsistent fulfilment of the recommendations of the working group SaLa and existing security gaps in the design of drug packaging. Some companies' pharmaceutical packaging is very well thought out, while labelling on ampoules is hardly legible in others. Still, many pharmaceutical companies tend to prioritise marketing considerations when selecting the design of labels and packaging, and ignore human factors. Professionals, legislation and the pharmaceutical industry must be involved to reduce medication errors caused by misleading manufacturer specific drug packaging and labelling.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-212 NUTRITIONAL SUPPORT AND INTERACTION WITH ONCOLOGICAL TREATMENT IN BREAST CANCER

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10.1136/ejhpharm-2021-eahpconf.331

Background and importance Nutritional support in breast cancer patients has an important role during oncological treatment, which varies according to the stage of the breast tumour. When surgery is performed followed by radiotherapy or chemotherapy, some of the possible adverse effects that may occur are caused by the interaction of this treatment with nutritional support.

Aim and objectives To investigate the possible drug–food interactions that can occur in breast cancer patients.

Material and methods We conducted a systematic review through searches in the databases PubMed, Scielo, Medline-Plus, Google Scholar and other sources, such as the National Cancer Institute and the World Health Organization, on possible food–drug interactions in patients with breast cancer. Inclusion criteria were works published in English or Spanish, from 2008 to 2019, and related to the treatment used in breast cancer. Key terms used were: breast cancer, drug–food interaction, treatment, nutritional support, chemotherapy and grapefruit juice.

Results 23 articles met the inclusion/exclusion criteria. Possible interactions were a consequence of decreased efficacy in treatment, increased toxicity of treatment, poor tolerance to nutritional support or nutritional deficiencies. Interactions could be physical, pharmacokinetic, pharmacodynamic or pharmacological. The probability that patients might experience adverse effects increased as drug plasma concentrations increased and by extrapolating the dynamic response. This situation has been evidenced for exemestane, a treatment in breast cancer whose absorption is influenced by food, particularly by grapefruit juice. It acts as a potent inhibitor of the intestinal activity of CYP3A4 and increases the bioavailability of various drugs. The identified substances in grapefruit juice that act as clinically important inhibitors of CYP3A4 are bergamotin and 6',7'-dihydrobergamotin.

Conclusion and relevance There is a proven interaction between grapefruit juice and cancer treatment, particularly in breast cancer. Grapefruit juice contains bergamotin and 6',7'-dihydrobergamotin, inhibitors of the CYP3A4 cytochrome P450 isoenzyme involved in the metabolism of various drugs. The inhibition increases plasma concentrations of several drugs, creating a risk of overdose and development of adverse effects. They also block other P450 isoenzymes and protein carriers, such as p-glycoprotein. Therefore, its consumption should be avoided during the treatment of breast cancer.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-213 HOSPITAL ADMISSIONS AFTER DISCHARGE FROM THE EMERGENCY DEPARTMENT TO HOME WITH COVID-19 TREATMENT

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10.1136/ejhpharm-2021-eahpconf.332

Background and importance During the March and April, over 700 patients were discharged from the emergency department (ED) in a third level hospital to home with treatment for COVID-19. Their characteristics and final outcomes remain unknown.

Aim and objectives To analyse the characteristics and clinical course of COVID-19 patients that were discharged from the ED with home treatment, having to be hospitalised afterwards due to clinical deterioration, and to record the most commonly prescribed drugs for COVID-19.

Material and methods An observational retrospective study was conducted between 1 March and 10 April 2020. Hospitalised patients diagnosed with COVID-19 who had previously attended the ED and were discharged home were included. The following data were recorded: demographic, comorbidities, COVID-19 treatment, fever $\geq$38°C, tachypnoea, reason for consultation and admission, days between the first and second visit to the ED, days of hospitalisation, length of intensive care unit (ICU) stay if any and reason for discharge.

Results 741 patients were discharged from the ED with home treatment for COVID-19, of whom 68 (9.2%) needed to be hospitalised. Median age was 55.5 years (IR 22–88) and 66.1% were men. 64.7% had comorbidities, mainly: hypertension 44.2%, dyslipidaemia 16.2% and asthma 8.8%. Patients were prescribed as home treatment hydroxychloroquine (100%), azithromycin (75%) and lopinavir/ritonavir (22.1%). Median number of days until patients went back to the ED was 4. The main reasons for consultations were dyspnoea (80.8%), fever (61.7%), coughing (42.6%) and anosmia/dysgeusia (10.3%). 32.4% had tachypnoea and 26.5% had fever. The main reasons for admission were clinical and radiological worsening (85.3%). Median inpatient stay was 7 days (IR 4–13), and 67.7% were hospitalised for

less than 10 days. 8.8% needed critical care and stayed in the ICU for a median of 10.5 days (IR 6–16). The following drugs were prescribed as COVID-19 treatment during hospitalisation: lopinavir/ritonavir (86.8%), hydroxychloroquine (86.8%), corticosteroids (63.2%), ceftriaxone (58.8%), azithromycin (50%), tocilizumab (14.7%), remdesivir (4.4%) and anakinra (2.9%). One patient died and the rest were discharged to home.

Conclusion and relevance Patients who needed hospitalisation due to clinical worsening after being discharged from the ED were mostly middle age men with hypertension. About 80% were admitted for presenting with dyspnoea and rapid radiological progression. Less than 10% needed intensive care, and only one died. Most showed clinical improvement in less than 10 days and were discharged home. Drugs most commonly prescribed for COVID-19 were hydroxychloroquine, azithromycin and lopinavir/ritonavir.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-214 'UNIT DOSE': CLINICAL RISK MANAGEMENT OF COVID-19 PATIENTS TREATED WITH HYDROXYCHLOROQUINE

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10.1136/ejhpharm-2021-eahpconf.333

Background and importance The use of unit dose (UD) has been proved to be a critical tool in supporting the phases of prescription, preparation and administration of therapies, and most importantly in the management of the COVID-19 emergency. All drugs managed in the UD are screened and validated by the pharmacist; during this stage, if any prescription presents a potential risk of adverse events for a patient, the pharmacist is required to insert notes requesting modification of the prescription. These notes provide information about the risk of potential errors such as therapy duration, dosage, administration frequency, interactions, therapeutic indications, dilution, type of formulation and double prescriptions.

Aim and objectives The aim of this work was to demonstrate the key role that pharmacists play in patient safety and clinical risk management, particularly in the prescription of hydroxychloroquine (HCQ) for COVID-19 patients.

Material and methods We analysed therapies from all patients managed with UD in the period 1 March 2020 to 31 July 2020, and reviewed the notes entered by the pharmacists. These notes were further divided based on the potential risk of event/error, latent/active and high and low risk (HR, LW), where high risk refers to potentially harmful events for the patient.

Results During the observed period, hospitalised patients receiving the UD regimen were 4649 patients, 413 resulting from COVID-19, including 231 men and 182 women, with a median age of 70 (20–99) years and average number of hospitalisation days of 19 (SD±17). In 334 (81%) prescriptions for these patients, one or more notes were reported from the pharmacist, including 283 HR and 51 LR. The total number of notes entered were 445, with 322 (72%) related to HCQ interactions as follows: (1) 67% medicines that prolong the QT interval which can induce heart rhythm disorders (class IA and III antiarrhythmics, tricyclic antidepressants, antipsychotics, macrolides and quinolones); (2) 3% digoxin; (3) 20% antidiabetics; and (4) 10% antiepileptics.

Conclusion and relevance This study showed that in 72% of notes reported in advance by the pharmacist in the prescription, there was a HR of potential adverse events resulting from the interaction with HCQ. This led to interruption in the use of this drug, as subsequently confirmed by the decision of the EMA (29 May 2020) to recommend its use only in clinical trials.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-215 CLINICAL RISK MANAGEMENT THROUGH THE 'UNIT DOSE' SYSTEM

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10.1136/ejhpharm-2021-eahpconf.334

Background and importance In clinical practice, the unit dose (UD) system allows minimisation of potential errors during prescription, preparation and therapy administration phases. In this context, the intervention of a pharmacist in clinical choices may optimise this process by assessing the appropriateness of prescriptions. At the time of UD therapy validation, the pharmacist takes part in the evaluation of the most appropriate therapeutic options through the inclusion of annotations on each individual prescription for each patient.

Aim and objectives The aim of this work was to demonstrate how the intervention of pharmacists in this process is essential for patient safety and improving clinical risk management.

Material and methods Therapies of all patients receiving the UD system in the period 1 March 2019 to 28 February 2020 were analysed, and all of the annotations included by the pharmacist were reviewed. The annotations were classified into seven subgroups, based on the type of potential errors identified regards: (1) duration of therapy; (2) dosage/frequency of administration; (3) interactions; (4) therapeutic indications; (5) method of reconstitution/dilution; (6) type of formulation; and (7) double prescriptions. These subgroups were further divided based on the potential risk of event/error, latent/active, and high and low risk (HR, LR) where high risk refers to potentially dangerous effects for patients.

Results In the observed period, 11 881 patients were admitted to the UD regimen, of whom 5414 carried one or more annotations by the pharmacist, requesting specific changes to the prescriptions. In particular, based on the indicated subgroups, 10 537 notes were inserted and divided as follows:

1. Notes 1235; (HR) 531 (43%); (LR) 704 (57%)
2. Notes 4558; (HR) 1595 (35%); (LR) 2963 (65%)
3. Notes 2329; (HR) 2073 (89%); (LR) 256 (11%)
4. Notes 192; (HR) 192 (100%); (LR) 0 (0%)