4CPS-193 MEASURING THE IMPACT OF HOSPITAL PHARMACIST PRESCRIPTION REVIEWING IN AN ONCOLOGY SETTING ON THE PHARMACOVIGILANCE REPORTING IN A COMPREHENSIVE CANCER CENTRE

E Omodeo Salè*, D Pezzella, M Piccoli, M Milani, C Jemos, D Malengo, F Carrara, D Cimino. *Ieo-European Institute of Oncology Irccs-Milan, Clinical Pharmacy, Milano, Italy*

10.1136/ejhp-2020-eahpconf.294

Background and importance The reporting of suspected adverse drug reactions (ADRs) in the National Pharmacovigilance Network (NPN) in our country can be done by different professionals (doctor, lawyer, pharmacist, nurse, health worker, etc) or by the patient themselves. However, historically, the physician is the person that most often intercepts and reports ADRs. The total number of ADRs reported in the NPN in Italy from 1 January 2015 to 31 January 2019 was 198 284, of which only 20 068 (10.10%) were reported by pharmacists.

Aim and objectives The aim of the study was to verify the impact of the hospital pharmacist on the number of ADR reports when involved in the review of prescriptions in a comprehensive cancer centre.

Material and methods Data on ADRs reported in our institute between 1 January 2015 and 31 January 2019 were extracted from the NPN and linked to an internal database in Access. The reports were analysed by age, gender, suspect drug, professionals reporting, apparatus involved and type of reaction.

Results The total number of reports was 600, of which 569 were reported by a hospital pharmacist, 30 by the physician, 1 by a pharmaceutical company and none by patients or nurses. The age range most represented was 46–56 years and 78.5% of were related to female patients. The ADRs reported most often by pharmacists were those affecting the haematopoietic and lymphatic systems (375 reports), followed by gastrointestinal disorders (104 reports) and nervous system disorders (70 reports).

The active ingredients with at least one report were 66; the first four actives were paclitaxel, cyclophosphamide, carboplatin and epirubicin. The first reaction among the haematopoietic system reports was neutropenia, while the most reported non-haematologic events were transaminitis and asthenia followed by nausea, skin toxicity, diarrhoea, mucositis and paraesthesia.

Conclusion and relevance The hospital pharmacist, when involved in the prescription review, reported ADRs 19 times more frequently than the physician. Because the hospital pharmacist in our country does not visit the patient but only has access to the doctor visit letter and to the laboratory parameters, the pharmacist's reports are more often related to events detectable by blood examination.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-194 THE UNDERREPORTING RATE AS A PHARMACOVIGILANCE PROCESS INDICATOR IN A COMPREHENSIVE CANCER CENTRE

E Omodeo Salè*, D Pezzella, M Piccoli, M Milani, C Jemos, D Malengo, F Carrara, D Cimino. *Ieo-European Institute of Oncology Irccs-Milan, Clinical Pharmacy, Milano, Italy*

10.1136/ejhp-2020-eahpconf.295

Background and importance Underreporting in oncology practice is a known phenomenon linked to the predictable toxicity of these drugs. Reporting indicators are often calculated on very large catchment areas and this limits the capacity for self-assessment of the performances in each hospital.

Aim and objectives The purpose of the study was to evaluate the feasibility of the underreporting rate index in a single cancer centre as a process indicator.

Material and methods Reports of adverse drug reactions (ADRs), from 1 January 2018 to 31 January 2019 in our institute (230), were collected in a database. The nine most active ingredients reported were subjected to an indepth analysis and their reporting rates were calculated using the formula (number of drug reports X/number of patients treated with drug X)×100 and (number of drug reports X/number of drug administrations X)×100. The expected value was evaluated using the formula (expected frequency×number of patients treated with the drug X)/100, where the expected frequency was calculated by the summary of product characteristics. The rate of underreporting was calculated as a ratio (missing episodes/expected episodes)×100. Only the results of paclitaxel (the most reported drug) are reported in this abstract as an example.

Results In the period January 2018 to January 2019, paclitaxel related ADRs were 51 in 412 patients treated (3293 total administrations). The reporting rate for the number of patients treated was 12.4% while the reporting rate by number of administrations was 1.5%. Severe neutropenia represented the main toxicity with an expected incidence of 39%, while the reported incidence was 6.41%.

The underreporting rate of ADRs related to paclitaxel were: neutropenia 82.17%, febrile neutropenia 97.22%, transaminite 94.49%, thrombocytopenia 98.46% and diarrhoea 91.02%. Some gastrointestinal and musculoskeletal system reactions were very common reactions ($\geq 1/10$) but there were no reports.

Conclusion and relevance The indicator allowed better identification of the area of underreporting over time in a more precise way than the absolute number of reports. It is feasible, but when the expected frequency of the event decreases to below 10%, the indicator loses reliability for samples <1000 patients. It is therefore mainly a quantitative indicator of frequent events.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-195 PHARMACEUTICAL INTERVENTIONS IN PARENTERAL NUTRITION FOR CRITICALLY ILL PATIENTS

M Gonzalez-Padilla, A Jurado-Romero, M Valera-Rubio, JL Ortiz Latorre*, I Moya-Carmona. *Hospital Universitario Virgen De La Victoria, Servicio De Farmacia, Málaga, Spain*

10.1136/ejhp-2020-eahpconf.296

Background and importance The integration of the pharmacist into the intensive care unit (ICU) is very useful to prevent malnutrition and to reduce mortality among these patients, as the pharmacist can advise the prescriber on how to choose the most appropriate parenteral nutrition (PN).

Aim and objectives To describe and analyse pharmaceutical interventions (PIs) carried out for medical prescriptions of PN in patients admitted to the ICU.

Material and methods A prospective study (June–September 2019) was carried out. Variables included demographics, duration of PN, indication for PN, type of PI and degree of acceptance. The data were obtained from medical and pharmaceutical nutrition records.

Results Fifty-four patients were registered (71% men, average age 65 years (range 39–87)). The average duration of PN was 11 days (1–39). A total of 176 interventions were recorded (3.3 PIs/patient): 91.5% during follow-up and 8.5% after finishing PN. Distribution of PIs according to diagnosis were: polyvalent critical patients (48.1%); postoperative complications (29.6%); colorectal surgery (9.2%); upper gastrointestinal tract surgery (5.7%); pancreatitis (3.7%); and liver diseases (3.7%). According to the type of PI: 36.6% were related to a change in the composition of macronutrients, and 61% of these PIs were related to proteins (78%—increase in order to cover the nitrogen requirements), 23.7% were related to lipids (71%—restriction due to triglycerides >400) and 15.3% were related with carbohydrates (100%—decrease in the supply due to high levels of glycaemia); 31.7% were related to a change in the amount of electrolytes (53%—extra supply; 47%—restriction), with phosphorus being the electrolyte which generated the highest number of PIs (45%); 18.6% were related to addition of insulin in the PN; 10.6% were related to a request for a nutritional profile; and 2.5% were related to cycling of PN due to cholestasis. Most of the PIs (88.7%) were accepted by physicians.

Conclusion and relevance The majority of interventions were due to changes in the composition of macronutrients and micronutrients of the PN, adjusting to the constant changes in the needs of critically ill patients. The high number of PIs per patient and the high degree of acceptance by physicians highlight the significant role of the hospital pharmacist in the nutritional control of critically ill patients.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-196 STABILITY OF LIPID EMULSION IN PAEDIATRIC PARENTERAL NUTRITION WITH HIGH ELECTROLYTIC LOAD

¹L Otero Millán*, ¹N Lago Rivero, ²JL Legido Soto, ¹C Vázquez López, ³A Blanco Rodicio, ¹G Piñeiro Corrales. ¹Hospital Álvaro Cunqueiro, Pharmacy, Vigo, Spain; ²University of Vigo, Applied Physics, Vigo, Spain; ³Hospital Álvaro Cunqueiro, Emergency, Vigo, Spain

10.1136/ejhp-pharm-2020-eahpconf.297

Background and importance Ternary mixtures in parenteral nutrition (PN) have a complex composition and so interactions between components can lead to instability, compromising safety. Fat globules >5 µm can cause thromboembolisms. Critical aggregation number (CAN) is used to predict stability (calculated with cation concentration).

Aim and objectives To analyse the stability of the lipid emulsion in PN samples with a high CAN using globule size measurements, and to evaluate the influence of temperature and time on emulsion stability.

Material and methods We studied four samples according to the nutritional requirements of a 1 kg neonate during the first days of life. Micronutrient amounts were greater than those recommended, and vitamins and zinc were also added. Samples were prepared in duplicate.

Globule size was measured by laser diffraction (Beckman Coulter LS-I3-320) on the preparation day (day 0) and after 7 days. The samples were stored under refrigerated conditions and at room temperature. CAN was calculated based on the concentrations of cations present in each PN. Statistical analysis was performed using the Student's t test (statistical significance $p < 0.05$).

Results PN composition is shown in table 1 and average globule size (µm) is shown in table 2.

There were no significant differences between measurements on day 0 and day 7 on samples stored at room temperature or in a refrigerator ($p = 0.896$ and $p = 0.171$, respectively).

Conclusion and relevance Average globule size was stable despite a high CAN of samples, but more sensitive analytical techniques may be necessary to detect changes in the fraction of large globules. The study time and different storage temperature did not influence the average globule size of our samples. To establish the overall stability of the PN, more complete studies should be carried out, analysing more stability dependent processes.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

Abstract 4CPS-196 Table 2

Sample	Day 0	Day 7 (25°C)	Day 7 (4°C)
PN1	0.251±0.086	0.263±0.099	0.244±0.081
PN2	0.269±0.115	0.248±0.086	0.257±0.095
PN3	0.266±0.098	0.268±0.112	0.270±0.102
PN4	0.270±0.101	0.273±0.111	0.257±0.082

Abstract 4CPS-196 Table 1

Sample (100 mL)	Nitrogen (g/L)	Glucose (g/L)	Lipids (g/L)	Sodium (mmol/L)	Potassium (mmol/L)	Magnesium (mmol/L)	Calcium (mmol/L)	Phosphorus (mmol/L)	CAN (mmol/L)
PN1	3.7	92.6	17.5	40.0	30.0	3.0	20.0	20.0	1542
PN2	4.2	106.8	21.6	40.0	30.0	3.0	20.0	20.0	1542
PN3	4.7	121.0	25.8	50.0	35.0	3.5	22.5	25.0	1749
PN4	5.2	135.2	29.9	60.0	40.0	4.0	25.0	30.0	1956