

GRP-138 PHARMACEUTICAL INTERVENTIONS IN THE SETTING OF LIPIDS IN PAEDIATRIC PARENTERAL NUTRITION

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Background The preparation of paediatric parenteral nutrition (PPN) is subject to a great deal of variability in clinical practise. Standardization in the process is indispensable to ensure stability and improve patient safety. The pharmacist plays an essential role in the proper preparation of all-in-one PPN, and in interventions to avoid problems associated with instability.

Purpose The 2008 Spanish consensus on the preparation of parenteral nutrient mixtures established a minimum lipid percentage of 1.5%. The aim of this study was to detect PPN prescriptions with a lipid percentage below 1.5%, considered the safe limit for lipid emulsion stability in ternary mixtures.

Materials and Methods Observational retrospective descriptive study of PPN requirements in a tertiary level hospital. It was conducted between September 2011 and June 2012. Prescriptions in which the lipid composition of the PPN was less than 1.5% of the mixture were reviewed. In all cases, the intervention involved having the pharmacist contact the prescribing physician. Proposed alternatives to preserve the stability were: a) increase the proportion of lipid; b) exclude lipids from the mixture; or c) decrease the mixture volume.

Results A total of 107 interventions were made during this period. 100% of the physicians contacted accepted the intervention. In 81.3% of cases they agreed to increase the weight of lipids by an average of 1 g; the median was 0.8 g. The 18.7% remaining cases chose to exclude lipids from the mixture during the first few days, and add lipids gradually thereafter. In these cases the initial average of lipids was 1.1 g, and the median 0.8 g. In no case was the total volume changed.

Conclusions The results support the role of the pharmacist in the proper management of paediatric PPN, and in ensuring the quality and safety of the mixture. The results also support the importance of pharmacist-physician collaboration.

No conflict of interest.

GRP-139 PHARMACIST INTERVENTIONS IN THE EMERGENCY ROOM OF A TERTIARY-LEVEL HOSPITAL

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Background The presence of a full-time pharmacist in the ER is well established and acknowledged in many institutions to be of great value.

Purpose To analyse and assess the clinical impact of the pharmacist's interventions in the ER of a tertiary-level teaching institution.

Materials and Methods Patients >65 years-old on >4 medications were included. Drug-related problems (DRP) were classified according to: (a) therapeutic group; (b) intensity: mild, moderate, severe, and very severe; and (c) type (from Martí *et al*, 2005): indication, safety, adherence, and effect. Patients were monitored for up to 72 h upon subsequent admission to a ward.

Results 111 patients were included, 70.2% male, median age 78.9 years [65–94]. 34 pharmaceutical recommendations were made (one for every 3.2 patients included), of which 85.2% were subsequently accepted. The largest number of interventions concerned

antithrombotics, followed by antihypertensives (29.4 and 5.4% of the interventions, respectively). 18.01% met an indication (81.1% of them were off-label conditions), 5.4% were to do with safety (mostly overdose), 1.8% concerned compliance and 0.9% involved under-dosing. Overall, 75.86% of the interventions had a mild-to-moderate impact, whilst 17.25% were moderate-to-severe (involving mainly anticoagulants), and 6.89% (immunosuppressants) were serious or very serious.

Conclusions Real time support to physicians and nurses in the ER allowed the early detection of potential DRPs in one third of the patients. Cardiovascular disease required almost two thirds of interventions, with antithrombotic drugs as the drugs mainly involved (1/10 patients in need of thromboprophylaxis lacked it). However, the clinical impact was minimised by the short time spent in the unit (slightly under one day), and by the further revision of their medicines upon admission to a ward. In addition, the narrower the therapeutic range of the drugs involved (such as immunosuppressants), the more important is the timely contribution of the pharmacist. In conclusion, the presence of a full-time pharmacist in the ER would reduce DRPs by an exhaustive assessment of pharmacotherapeutic needs, which is particularly important for older or polymedicated patients.

No conflict of interest.

GRP-140 PHARMACIST INVOLVEMENT IN CYTOSTATIC DOSES: IN AN OBESE POPULATION

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Background The dosing of chemotherapy according to the body surface area (BSA) in obese adult patients, who present a BSA above 2 m², is usually set to an established BSA maximum limit of 2 m². The recent publication (April 2012): 'Appropriate chemotherapy dosing for obese adult patients with cancer' in the American Society of Clinical Oncology Clinical Practice Guidelines (ASCO), considers the benefit of full dosing, without adjusting to a maximum BSA, especially when the goal of treatment is curative.

Purpose To suggest recommendations for adult obese people according to the current ASCO guidelines and evaluate the medical prescribers' level of acceptance.

Materials and Methods Prospective observational study of all patients from the oncology, haematology and palliative care services receiving chemotherapy from April to June 2012. In those obese patients where the cytostatic dose was adjusted to BSA 2 m², it was recommended to dose according to their actual BSA. The article was disseminated in these services and a spreadsheet was created to record the level of acceptance from the medical prescriber in each of the clinic units.

Results 368 patients (56% female) were included: 82.3% from the oncology service, 16.6% from haematology and 1% from the palliative care service. The average \pm standard deviation age was 61.2 \pm 1.6 years, 69.3 \pm 14.1 Kg and 1.7 \pm 0.2 m². The number of patients with a BSA above 2 m² was 26 (7%): 50% were from the oncology service and none from the palliative service.

Recommendations were made in 17 (65%) of the patients with a BSA >2 m², of which the haematology service was the largest cohort (58%). The acceptance level was 53% (66.6% haematology service). Recommendations were not made to 35% (66.6% oncology service) because the treatments were started after the article had been disseminated and full doses were prescribed.

The use of full doses was well tolerated by all patients, no adverse outcomes were observed of the use of greater doses of chemotherapy.

Conclusions Following the recommendations, full dosing in patients commencing treatment was observed.

Those recommendations not followed were due to patients whose treatment was not curative or those where a dose increase would cause a degree of toxicity.

The involvement of the Pharmacist responsible for updating the cytostatic unit led to a change in chemotherapy dosing in obese adult patients.

No conflict of interest.

GRP-141 PHARMACOTHERAPY FOLLOW-UP AND ANALYSIS OF CHANGES IN ANTIRETROVIRAL THERAPY

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Background Antiretroviral therapy (ART) has markedly decreased the morbidity and mortality due to HIV. However, toxicity, comorbidity and treatment failure, among others, may result in frequent initial ART regimen change.

Purpose To identify and analyse the changes in ART and the reasons for it in HIV patients over two years of follow-up in our hospital.

Materials and Methods We retrospectively reviewed all patients who attended the outpatients pharmaceutical care unit who received ART during a two-year period (2010–2011)

For each patient whose ART was changed we created a database of pharmaceutical care and recorded and analysed the following data: previous and new treatment, reason for treatment change, viral load, CD4 cell count, resistance profile and differential cost of change.

Results The table below summarises the total of patients reviewed

Abstract GRP-141 Table 1

Period of study	Number of patients in follow-up	Number of patients with treatment changes	Number of treatment changes
2010	111	22 (24.4%)	23
2011	113	14 (15.8%)	16

The most frequent reason for change was adverse reaction to treatment 15 patients (38.4%); the most common were dyslipidaemia (5 cases) and neuropsychiatric disorders (4 cases); the other reasons were simplification of antiretroviral therapy 10 patients (25.6%), treatment failure 4 patients (10.2%), resistance to treatment 4 patients (10.2%) and other causes 6 patients (15.4%) (non-compliance, interactions, cardiovascular risk and unknown). The most common treatment regimens preceding the change were tenofovir/emtricitabine (TDF/FTC) + lopinavir/ritonavir (LPV/r) and tenofovir/emtricitabine/efavirenz (TDF/FTC/EFV) (6 and 5 patients respectively), after the change tenofovir/emtricitabine (TDF/FTC) + darunavir/ritonavir (DRV/r) 600/100 mg was the most usual regimen (7 patients).

The average monthly differences in cost per patient after a change of antiretroviral treatment were 125.5 and 99.0 euros in 2010 and 2011 respectively.

Conclusions The identification and description of the changes in ART can act as a support tool in the overall monitoring of HIV patients.

It should be noted that adverse effects and desire to simplify ART contribute greatly to the reasons for change.

No conflict of interest.

GRP-142 PHARMACOVIGILANCE AND NON-MEDICAL PRESCRIBERS: EXPLORING PERCEPTIONS OF TRAINING, CONTRIBUTION AND POTENTIAL FOR ENHANCEMENT

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Background The UK-based process for spontaneous reporting of adverse drug reactions (ADRs), known as the 'Yellow Card Scheme' (YCS), [1] encourages reporting by healthcare professionals, patients and the general public. Poor reporting rates are a long-standing limitation of YCS. [2] The introduction of prescribing rights for pharmacists, nurses and other healthcare professionals has the potential to enhance participation in regulatory pharmacovigilance processes. [3]

Purpose The aim of this research was to determine nurse and pharmacist prescribers' perceptions of their training, contribution and potential for enhancement of their pharmacovigilance role.

Materials and Methods Participants completed an online survey on: prescriber demographics (13 questions); pharmacovigilance training (9); YC reporting (13); attitudes toward ADR reporting (13); comments encouraging YC reporting (4). Nurse prescribers were sampled through the Association of Nurse Prescribers (n = 912); pharmacist prescribers (n = 2439) through professional organisations. Quantitative data were analysed using SPSS; open question responses analysed thematically. Ethical review was not required.

Results Responses were received from 293 nurse (32.2%) and 320 pharmacist (13.1%) prescribers. Asked whether pharmacovigilance featured in their prescribing training, a third 'couldn't remember' (35.6%); nurses indicated greater recall (p < 0.001). While a third (34.2%) strongly agreed/agreed that they needed further training, fewer (29.6%) were unsure/did not agree that they were competent in pharmacovigilance. Less than half (41.4%) had never submitted a YC. Pharmacist prescribers were more likely to have reported (p < 0.001). A third (35.1%) expressed concern about legal implications of ADRs from their prescribing. Most commonly suggested measures to enhance reporting were publicity and education.

Conclusions Although the response rate was low, respondents provided detailed answers. Respondents felt competent and aware of their pharmacovigilance role with further training indicated. Findings may not be generalisable; no information is available on non-respondents. Increased publicity and education are identified as key measures for enhancing non-medical prescribers', other healthcare professionals' and patients' YC reporting.

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No conflict of interest.