There were therapeutic indications in 129 of the prescriptions, of which 22.5% were for skin and soft-tissue infections, followed by 15.5% complicated urinary tract infections and 9.3% pneumonia. Amoxicillin-clavulanate was the most prescribed antibiotic for treatment and prophylaxis purposes (48.1% and 29.8% respectively). According to syndrome, worst guideline compliance was observed in complicated urinary tract infections 57.9% and skin and soft-tissue infections (65.5%).

Conclusion In our setting, adequate acquisition definition, compliance with local guidelines, obtaining of microbiological samples and certain clinical syndromes (skin and soft tissue and urinary) were the main variables identified to prioritise ASP-targeted intervention.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-249 IMPLEMENTATION OF AN INTEGRATED SOFTWARE FOR CLINICAL TRIALS MANAGEMENT AND AUTOMATED PREPARATION OF INVESTIGATIONAL DRUGS IN A HOSPITAL PHARMACY

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Background In conducting clinical trials (CT), the hospital pharmacy is responsible for receiving, handling and dispensing investigational drugs while ensuring a high level of quality. All CT-related data are to be documented and reported in compliance with the CT protocol and good clinical practice, thereby encouraging the implementation of an information technology system to support and improve standard operating procedures management.

Purpose The aim of this pilot study was to evaluate a software, specifically designed for managing investigational and non-investigational medicinal products (IMPs/NIMPs), fully integrated into the robotic compounding platform of injectable drugs.

Material and methods The software was installed in the pharmacy-based Clinical Trials Unit in July 2018. IMPs/NIMPs, individual patient data, sponsor and investigator data were entered into the software database according to the ongoing CT protocols. Detailed reports were recorded, including the delivery to the CT site, the inventory at the CT site, the use by each patient, the accountability, and the return to the sponsor or alternative disposition of unused investigational drugs. Any changes to the CT protocols were traced. In addition, through the integration with the robotic compounding platform, individually prescribed doses for parenteral administration were prepared by using the supporting device for manual preparation which verifies dosing accuracy by gravimetric control and ensures identity by photographic recognition.

Results Two months after the installation, about 20% of the 60 ongoing cancer CT were managed through the software, involving, overall, 25 patients. In total, 10 investigational medicinal products were entered, of which four for oral administration and six injectable drugs. Overall, 39 individually prescribed doses were manually prepared by using a workflow system for compounding. Before implementation, the dose errors were not recorded. After implementation, the mean absolute dose error amounted to ±1.56% ranging from ±0.13% to±4.29%. The automated data handling and record-keeping were ensured, thus improving quality in the preparation process and reports' traceability. The centralised management of all documents reduced time for data entry by the pharmacy staff and minimised human errors.

Conclusion The software for managing cancer CT in the hospital pharmacy, currently under validation, was successfully implemented, thereby encouraging the insertion of further CT protocols.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-250 INFLUENCE OF TIME AND STORAGE CONDITIONS IN THE STABILITY OF NEONATAL TOTAL PARENTERAL NUTRITION ADMIXTURES

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Background Ternary mixtures in parenteral nutrition have a complex composition. Thus, interactions between those components can occur and lead to instability of the mixture, compromising its safety. It is possible that a process of destabilisation of the lipid emulsion starts due to aggregation of fat globules.

Purpose To analyse the stability and safety of neonatal total parenteral nutrition admixtures (TPN) as a function of globule size, time and storage conditions.

Material and methods We studied eight TPN compositions (100 ml) designed following the premature infants' protocol in our hospital for TPN prescription and elaboration. All the samples were macronutrients (glucose, lipids and proteins) and micronutrients ternary mixtures, calculated according to the nutritional requirements of a 1 kg neonate during the first 8 days of life. The 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 at refrigerated and room temperature. They were prepared in duplicate. We used the SPSS v20 program to perform the statistical analysis.

Abstract 4CPS-250 Table 1

		Globule size (microns)	Globule size (microns)	Globule size (microns)
Sample	lipids (g)	DAY 0	DAY 7 (ambient)	DÍA 7 (refrigeration)
TPN1	0.714	0.373	0.390	0.396
TPN2	1.138	0.401	0.395	0.397
TPN3	1.478	0.257	0.249	0.203
TPN4	1.750	0.250	0.263	0.244
TPN5	2.160	0.270	0.273	0.256
TPN6	2.580	0.266	0.267	0.269
TPN7	2.990	0.269	0.247	0.257
TPN8	4.000	0.256	0.247	0.256

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Results The TPN1 and TPN2 have larger globule size, but the differences are not statistically significant (p=0.396) with respect to the rest of the samples.

No significant differences were observed between the globule size at day 0 and day 7 (p=0.520).

No significant differences were observed between the globule size of the samples according to the form of storage (p=0.225).

Conclusion The preliminary results suggest that TPNs with lower lipid concentration have an increase in globule size. We will require confirmation by further experiments.

Our results in globule size demonstrate that TPNs are stable and safe during the study period and independently of the storage conditions.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-251 IMPACT OF A MULTIDISCIPLINARY TEAM IN REDUCING POLYPHARMACY AND TREATMENT COMPLEXITY IN HOME CARE PATIENTS

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Background Frail and multimorbid patients are often prescribed multiple medications.[1] Polypharmacy, along with drug-drug interactions and potentially inappropriate medications (PIMs), are known as the iatrogenic triad. Consequently, this population has an increased risk of negative health outcomes.

Purpose To review the medication plan of chronic patients in the home care programme by a multidisciplinary team (integrated by doctors, nurses and clinical pharmacists) to adjust and optimize drug therapy and to reduce treatment complexity and polypharmacy.

Material and methods This was a prospective interventional study in a primary care centre. Domiciliary patients were visited by the multidisciplinary team. The clinical pharmacist interviewed the patient and/or caregiver to obtain a comprehensive medication history (including over-the-counter drugs) and to assess medication adherence. The review process was conducted by the multidisciplinary team and consisted of four steps: deprescribing strategies according to current clinical evidence; simplification of the dosing regimen; identification of drug-related problems; and replacement of PIMs. The final medication plan was agreed with the patient and/or caregiver. The Medication Regimen Complexity Index (MRCI) before and after medication review was recorded.[2]

Results Thirty-three patients were included with a median age of 88.1±6.3 (72.7% female). A total of 4.0±1.9 therapy modifications per patient were performed (ranging from 0 to 10). The main modifications (n=132) were: deprescribing (43.2%, in 25 patients), dose or dosage adjustment (25.0%, in 20 patients) and drug substitution (18.9%, in 21 patients). The number of prescribed treatments before and after the review was 11.0±3.8 vs 9.4±3.9, whereas the MRCI was 27.5 ±11.2 vs 23.6±10.7, respectively.

Conclusion Medication review by a multidisciplinary team is an effective strategy for tailoring drug therapies, reducing polypharmacy and treatment complexity in home care patients.

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4CPS-252 ABSTRACT WITHDRAWN

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