4CPS-153 ECONOMIC BENEFIT ANALYSIS ON LUNG CANCER CLINICAL TRIALS: MEDICATION AND MEDICAL TESTS

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Background and Importance Clinical trials are the main source of information to establish new treatments' efficacy and safety. Patients' enrolment in these studies may result in economic benefits for the participating sites since usually the costs derived from their inclusion are funded by sponsors. However, these economic benefits are rarely quantified.

Aim and Objectives The primary object of this study was to calculate the economic benefit obtained from patients' inclusion in lung cancer clinical trials in two scopes: medication and medical tests. The secondary object was to determine whether avoided costs in medication were significantly different from those in medical tests.

Material and Methods An observational retrospective study was conducted in all patients enrolled in lung cancer clinical trials from 2017 to 2021 at our hospital.

The avoided costs in medication were calculated considering the medication which would have been given to the patient in the standard of care taking into account their specific data.

The avoided costs in medical tests per patient were calculated from the prices published and the total number of each test performed on each patient from their first treatment visit until the end of the treatment visit.

The homogeneity of the two groups was analysed using a univariate analysis by applying the chi-square test for qualitative variables and the t test or Mann-Whitney test to compare quantitative variables. A p value of <0.05 was considered statistically significant.

Results The economic benefit generated from sponsor-provided drugs in the 35 clinical trials was 3,778,393.93€ .

A total of 642 medical tests were performed in the 117 patients under study. Specifically, 546 were CTs, 58 were MRs, 6 PETs and 32 were gamma graphics. The total economic benefit generated in five years by the sponsor financing these tests was 128,448€ .

The results from the statistical analysis revealed that the economic differences between sponsors providing the medication and financing the medical tests were significantly different with $p<0.05$ ($p=0.0482$).

Conclusion and Relevance In the 5 years studied, over 3.9 million euros were saved by including patients in lung cancer trials in one site, being 96.7% derived from avoided costs in medication. Thus, the participation of patients in clinical trials is economically beneficial for them and society.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

4CPS-154 THERAPEUTIC DRUG MONITORING OF AMIKACIN IN NEONATES: ABOUT A NEW PROTOCOL

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Background and Importance Amikacin is a widely used antibiotic in neonates. An adequate dosing regimen is essential for effective and safe therapy; however, many patients do not achieve adequate plasma concentrations due to high interindividual variability in this population.

Aim and Objectives To compare the amikacin plasma concentrations in neonates according to the administered 15mg/kg/24h dosing regimen (15-DR), a previously established protocol, versus the amikacin 12mg/kg/24h (12-DR) new protocol, with the aim of establishing best initial dosing regimen (DR) that guarantees an effective and safe treatment, as well as analysing differences between subpopulations (preterm or term).

Material and Methods

Retrospective observational study All patients admitted to neonatal unit or neonatal intensive care unit under amikacin treatment and with 12-DR or 15-DR between January-July 2023 were included. Patients with different DR were excluded.

The following variables were collected from the patients' clinical histories (Orion Clínic®): gender, age, weight, preterm (<37 gestation weeks)/term, DR, minimum (Cmin) and maximum (Cmax) plasma concentrations. The optimal levels established were: Cmin <5 µg/mL and Cmax 20–30µg/mL.

Quantitative variables are expressed as mean and standard deviation (SD) and qualitative variables as number and percentage (%). The Chi-square test was used to compare qualitative variables. Statistical significance was considered when $p \leq 0.05$. Statistical analysis was performed with SPSS version 23.0.

Results A total of 88 patients were identified, 11 were excluded because they were not neonates and 27 patients because they presented a different DR. Finally, 50 patients were included, 26 (52.0%) were male, mean age at level time was 7.6 (1.7) days, weight 2.9 (1.0) kg, and 35 (70.0%) were at term.

Regarding treatment, 24 (48.0%) patients were treated with 12-DR and 26 (52.0%) with 15-DR. The mean Cmin was 1.4 (0.2) µg/mL and 2.3 (0.3), respectively, and mean Cmax was 26.0 (0.9) µg/mL for 12-DR group and 33.5 (1.3) µg/mL for 15-DR group. A total of 18 (75.0%) patients with 12-DR achieved target plasma concentrations compared to 7 (26.9%) in the 15-DR group, statistically significant differences were observed. When comparing between premature and term patients, no statistically significant differences were observed.

Conclusion and Relevance This study demonstrates that amikacin 12mg/kg/24h dosing regimen guarantees better results in terms of optimal plasma concentrations in neonatal patients, which allows us to establish this dosage regimen as the initial dose in our patients. Clinical pharmacokinetics is essential for improving outcomes in neonates.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

4CPS-155 PERCEPTION OF HOSPITAL PHARMACIES ABOUT TELEPHARMACY IN THE PROVISION OF HEALTHCARE FOR PEOPLE LIVING WITH HIV

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Background and Importance The aim of telepharmacy (TF) is to maximise the potential of telehealth and transform remote

monitoring by hospital pharmacies (HP) into added value to society. This service should be made available preferably to the most vulnerable patients in terms of mobility, geographic distance, economic capacity or work constraints.

Aim and Objectives To evaluate the knowledge of HP about TF in Portugal with regards to possible benefits and barriers for the implementation of a regulated and funded model for antiretroviral therapy (ART) delivery proximity programme for people living with the Human Immunodeficiency Virus (PLHIV).

Material and Methods A quantitative, cross-sectional and analytical study was carried out through application of a previously validated questionnaire to 32 HP in Portugal that provide ART. Outpatient care for HP and their perception of follow-up using TF was characterised. It was assessed whether there was a statistical correlation between medicines delivery proximity programme and remote follow-up of PLHIV.

Results Our data shows that more than two thirds of the HP have opening hours outside regular hours and >90% are opened during lunchtime. More than half of PLHIV live close to the hospital, >80% have outreach programmes that are close to PLHIV, and around 60% have long-distance follow-up for this pathology. More than 60% of HPs believe that TF is useful in the absence of face-to-face contacts. There is a consensus about the advantages of TF for patients, HP and health systems. All HP have considered an elaboration of a TF regulation manual and its inclusion in hospital funding. We have found correlation between the existence of ART delivery proximity programme to PLHIV and high rurality ($p<0.05$) and low population density ($p<0.05$). The existence of ART delivery proximity programme to PLHIV has also been associated with adherence to this service ($p<0.05$).

Conclusion and Relevance The results of this study suggest that medicines delivery proximity programme and the follow-up of patients through TF enhance the adherence of PLHIV, thus avoiding unnecessary trips to the hospital. Distance or time constraints are minimised and health outcomes are maximised.

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4CPS-156 ANALYSIS OF THE PRESCRIPTION PATTERN AND DAYS OF HOSPITALISATION AVOIDED BY OUTPATIENT INTRAVENOUS ANTIBIOTIC THERAPY AND THE SAFETY OF THIS PRACTICE

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Background and Importance The use of intravenous anti-infective therapy for non-hospitalised patients is an increasingly common practice that allows prescribers to treat patients with intravenous therapy without lengthening hospital stay.

Aim and Objectives To assess the prescription pattern and days of admission avoided with outpatient intravenous antibiotic therapy (OPAT). Also, to analyse the safety of this practice.

Material and Methods We made a retrospective observational study including patients who received out-of-hospital intravenous anti-infective treatment in a tertiary-level hospital in Madrid between 1 August 2021, to 31 August 2022. We collected from the electronic prescription indication, etiologic agent, prescribing physician as well as days of hospitalisation avoided, understood as total days of hospitalisation avoided by the number of days of intravenous treatment duration. Also, we recalled adverse reactions that occurred during the therapy period.

Sociodemographic, clinical and pharmacological variables were collected from the electronic medical record.

Results We included 85 patients (52.9% women) in the study, with a median age of 75 years (62–86).

Among the most frequently prescribed anti-infectives we found ertapenem (32.6%), dalbavancin (15.3%), amoxicillin/clavulanic acid (9.2%), ceftriaxone (7.1%) and piperaziline/tazobactam (7.1%). The most frequent indications were urinary tract infections (26.5%), skin and soft tissue infections (18.4%) and respiratory infections (14.3%). As for those infections caused by bacteria (64.7%), 44.6% were gram-negative multi-resistant. Fungi accounted for 4% of the causative agents, protozoa for 1% and viruses for 1%.

Infectious diseases department was responsible of 61.2% of the prescriptions. In 68.4% of cases, there was a complete antibiogram at the time of prescription.

The median of hospitalisation days avoided was 7 (19–6). The highest amount of days avoided was 365 days for three patients, treated for visceral leishmaniasis, mycobacteria infection and infection of sanitary material.

Only 1 patient (1%) presented adverse events (renal toxicity due to amphotericin) that did not require hospitalisation, only suspension of treatment.

Conclusion and Relevance OAPAT receivers in our hospital are mostly elderly patients with bacterial infections. Prescribers made prescriptions based on the results of an antibiogram on more than half of the occasions . The out-of-hospital administration of these drugs saves a median of 7 days for patient, being a practice with low appearance of adverse effects during treatment.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-157 PERSPECTIVES OF PATIENTS AND MEDICAL PROVIDERS ON MULTIDISCIPLINARY MEDICATION RECONCILIATIONS SERVICE IN ADULT PATIENTS UNDERGOING THORACIC AND CARDIOVASCULAR SURGERY (MERITS STUDY)

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Background and Importance The implementation of medication reconciliation (MR) services is a global endeavour, but still faces technological and data-related barriers. To promote widespread adoption, understanding the perspectives of patients and medical providers on MR services is crucial.