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