4CPS-199 PHARMACEUTICAL INTERVENTIONS IN HAEMODIALYSIS PATIENTS: A 2 YEAR OVERVIEW

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Background and importance Following the implementation of an integrated disease management model for end stage renal disease in 2008, pharmaceutical services throughout Portuguese haemodialysis centres are responsible for medication management, promoting its rational use, safety and effectiveness. Patients in end stage renal disease undergoing haemodialysis have multiple comorbidities, complex pharmacotherapeutic regimens, high pill burden and significant haemodynamic changes to mild medication alterations. The evidence of pharmacists' interventions in patients with chronic kidney disease is sparse and its evaluation is necessary to improve the quality of interventions and patient healthcare.

Aim and objectives To assess drug related problems and related pharmaceutical interventions registered by each pharmacist in haemodialysis centres since 2018.

Material and methods Pharmacists in 37 haemodialysis centres voluntarily registered drug related problems identified during clinical practice in an internal database, providing data on the drug, patient name, pharmaceutical activity and suggested pharmaceutical intervention. Whenever possible, the result of the intervention was assigned.

A retrospective descriptive study with review and analysis of the database information was performed.

Results Since 2018, a total of 6836 drug related problems with pharmaceutical interventions were registered in 2761 patients. The most frequent were inadequate dosage, duration or pharmacotherapeutic regimen (33%), prescription error (32%) and non-adherence (22%). Pharmaceutical interventions were grouped as prescription changes (84%), patient intervention (9%), information to nephrologist (6%) and other (1%). When registered (62%), the result was accepted in 37% of cases, not accepted in 18% and not applicable in 7%.

Drug related problems were identified mainly in prescription review (65%), adherence assessment (18%), drug dispensation (12%) and pharmacist interview (2%), and occurred predominantly with hypertensive agents, vitamins and phosphate binders.

Conclusion and relevance The results suggest that using a database to register drug related problems and pharmaceutical interventions is an applicable tool to assess the development of pharmacists' interventions, although underreporting was admitted. Pharmaceutical interventions were mainly directed at prescription optimisation, with parameterisation for effective distribution/administration and administration time changes, especially regarding drugs used in dialysis. Accordingly, hypertensive agents and vitamins, used mostly in ambulatory dialysis patients undergoing haemodiafiltration, were predominant. Pharmaceutical interventions were generally accepted and suggested effective influence on drug therapy management of patients undergoing haemodialysis although clinical outcomes should be considered.

REFERENCES AND/OR ACKNOWLEDGEMENTS

1. Foro de Atención Farmacéutica. PRM Y RNM: conceptos. *Farmacéuticos* 2006;**31**:28–29.

2. Sabater D, Fernández-Llímós F, Parras M, Faus MJ. Tipos de intervenciones farmacéuticas en seguimiento farmacoterapéutico. *Seguim Farmacoter* 2005;**3**:90–97.

No conflict of interest.

4CPS-200 DIFFERENCES IN ALLELIC FREQUENCIES OF RELEVANT PHARMACOGENETIC POLYMORPHISMS MAY LEAD TO LOCAL GENE PANEL DEVELOPMENT

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Background and importance Pharmacogenetics allows identification and prediction of different responses to drugs in patients. During the past few years, pharmacogenetic dosing guidelines have been developed and implemented in daily clinical practice around the world. Furthermore, different companies and institutions have developed gene panels, including clinically relevant genes, to make genetics useful in clinical practice. But not all single nucleotide polymorphisms (SNP) in these genes affecting drug responses are similarly relevant among populations if we look at their allelic frequencies, even in the same country. In the future, this may lead to the design of local gene panels for pharmacogenetic implementation in clinical practice, depending on the population.

Aim and objectives The aim of this study was to find, among the SNPs studied by the pharmacogenetics unit of our hospital, those with different allelic frequencies compared with the Iberian Peninsula population.

Material and methods The patients' genotypes of all the SNPs studied by the pharmacogenetics unit were recorded since the first pharmacogenetic test in 2012. The SNPs were genotyped using predesigned TaqMan genotyping assays or KASP assay and analysed on a7900HT Fast Real Time PCR System (Applied Biosystems). Allelic frequencies of the studied SNPs were calculated and compared with those reported in the *1000 Genomes Project* for the Iberian Peninsula population using the χ^2 test or Fisher's exact test. A p value <0.05 was considered statistically significant.

Results Since the first pharmacogenetic test performed by our department, 7678 tests in 2287 patients, affecting 7 drugs, were performed. Altogether, 27 different SNPs were genotyped. From these, we found that three SNPs showed significant differences in their allelic frequencies compared with those reported by the *1000 Genomes Project* for the Iberian Peninsula population. These were: *ABCB1 C3435T* (c3435T>C; rs1045642) that showed a minor allele frequency of 53.7% in the Iberian population and 54.8% in our population (p=0.011); *CYP2D6* gene duplication (10% vs 2.6%; p=0.049); and *CYP2D6*5* (gene deletion) (7% vs 0%; p=0.014)

Conclusion and relevance There were differences in allelic frequencies between relevant pharmacogenetic polymorphisms comparing a subpopulation of the *1000 Genomes Project* and one of its sub-subpopulations.

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