prior to the patient leaving the PICU, and paediatric CCPs perform discharge medication reviews. By involving the PICU team in the medication discharge process, we aim to improve the quality and safety of step-down prescribing.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

Section 6: Education and research

6ER-024 WHAT OUR PATIENTS KNOW ABOUT ANTIBIOTICS AND ANTIMICROBIAL RESISTANCE. ARE THEY AWARE OF HOW TO MAKE GOOD USE OF THEM?

¹M Herrera Expósito, ¹A Martos-Rosa, ¹M Aznar-García, ²CM Pinto Nieto*, ¹MA Castro-Vida. ¹Hospital De Poniente, Hospital Pharmacy, El Ejido-Almería, Spain; ²Hospital De Guadix, Hospital Pharmacy, Guadix-Granada, Spain

10.1136/ejhp-2021-eahpconf.348

Background and importance Antimicrobial resistance is the ability of microorganisms to evade the effect of antibiotics. The use and abuse of these drugs has increased, as well as the number of resistant microorganisms capable of continuing their life cycle despite the effect of the drug. Rational use of antibiotics with health education are fundamental tools to avoid resistance problems.

Aim and objectives To assess the degree of knowledge of the population about the correct use of antibiotics, antimicrobial resistance and to detect irrational uses.

Material and methods A descriptive, observational, cross sectional study was conducted by patient surveys carried out on the European Day of the Prudent Use of Antibiotics (18 November 2019). 12 questions with yes/no answers and multi-responses were used. Leaflets from the World Health Organization on the prudent use of antibiotics were distributed and key concepts in antibiotic related health education were explained.

Results 39 patients, 24 women (61.5%), 12 of whom were <30 years old (30.76%), 21 were between 31 and 59 (53.84%) years and 6 were >60 (15.38%) years were studied. 23 (58.97%) had taken antibiotics in the last year; 33 (84.62%) had been recommended by healthcare professionals, 3 (7.7%) started on their own initiative and another 3 (7.7%) did not remember who recommended it. 19 (48.72%) acknowledged having antibiotics at home and 10 (25.64%) had bought them without a medical prescription. 28 (71.79%) stated that they knew the consequences of taking antibiotics incorrectly and 35 (89.74%) were aware that not all antibiotics have the same indication. However, 14 (35.90%) admitted to abandoning the treatment before finishing it if they experienced improvement. 25 (64.10%) claimed to have heard about antimicrobial resistance and when specifically asked about it, 1 (2.56%) answered that it was the ability of antibiotics to fight infection, 24 (61.54%) that it was the ability of microorganisms to resist the action of antibiotics and 14 (35.90%) were unaware of what it was. After a brief explanation about them, patients were asked if they believed that more general information about the appropriate use of antibiotics was necessary and 27 (69.23%) answered affirmatively.

Conclusion and relevance Many patients claim to know the indications and consequences of antibiotic misuse but they

make reckless use of them. It is a priority to spend time doing interventions to achieve better results in the future, and thus reduce resistance rates and the possible associated problems that these entail.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

6ER-025 IMPORTANCE OF APPROPRIATE BEFORE-AND-AFTER QUASI-EXPERIMENTAL DESIGN TO EVALUATE THE IMPACT OF ANTIMICROBIAL STEWARDSHIP PROGRAMMES: COMPARATIVE RESULTS USING STATISTICAL HYPOTHESIS TESTING OR INTERRUPTED TIME SERIES ANALYSIS

¹T Lopez Viñau Lopez*, ²M Saez-Torres De Vicente, ¹L García Martínez, ¹J Hernandez Parada, ¹G Ruiz Arca, ¹A Perea Perez. ¹Hospital Reina Sofia, Pharmacy Unit, Córdoba, Spain; ²Hospital Universitario De Badajoz, Pharmacy Unit, Badajoz, Spain

10.1136/ejhp-2021-eahpconf.349

Background and importance Most antimicrobial stewardship programmes (ASP) use a before-and-after research design, which has a high risk of bias. Efforts to enhance the conduct of these quasi-experimental studies are urgently needed to more rigorously evaluate interventions.

Aim and objectives The aim was to compare the results of an interrupted time series analysis (ITS) versus statistical hypothesis testing in a before-and-after study to evaluate the impact of ASP on cephalosporin consumption in a tertiary university hospital.

Material and methods A quasi-experimental study was designed before (January 2013–January 2014) and during the intervention (February 2014–February 2016). We recorded the impact of ASP on cephalosporin consumption in defined daily dose (DDD)/1000 hospital stays according to the anatomical therapeutic chemical classification system. For this task, all patients prescribed cephalosporins were identified daily through the prescription system (Farmatools). Statistical hypothesis testing was conducted using the Mann–Whitney U test, evaluating means (SD). The null hypothesis assumed both periods had the same averages ($p > 0.05$). In contrast, ITS regression analysis was carried out to compare time trends before and after the intervention. It was performed using a longitudinal segmented regression with a generalised least squares approach to estimate changes in level and/or trend after the intervention. Autocorrelation was considered using moving average autoregressive models. Normality of residuals was verified, and the autocorrelation structures were validated. We also calculated, for a time point equivalent to 2 years after ASP, relative differences between observed changes and estimated values expected in the absence of the intervention. Data analyses were performed with R software, V.3.6.1. A p value < 0.05 (two tailed) was considered significant.

Results Results of statistical hypothesis testing showed a significant increase in cephalosporin consumption (83.12 (SD 12.35) vs 104.87 (SD 10.48); $p < 0.001$) in the intervention period. However, ITS regression analysis showed that the intervention led to a significant change in trend of -1.90 DDD/1000E, moving from a pre-intervention upward slope of 2.17 DDD/1000E to an almost horizontal slope of 0.27 DDD/1000E. Therefore, 2 years after the intervention, there was a

significant decrease in measured consumption compared with that expected of -28.07%.

Conclusion and relevance Although both quasi-experimental designs showed significant changes in cephalosporin consumption after the intervention, the interpretation of results was contradictory. While hypothesis testing showed an increase after the intervention, ITS analysis revealed that this consumption was even less than expected. This suggests the programme may have been useful in reducing the consumption of these antimicrobials. Therefore, a robust design is essential in ASP, enabling appropriate interpretation of the results.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

6ER-026 CREDIBILITY OF SUBGROUP CLAIMS IN HAEMATOLOGY CLINICAL TRIALS

N Báez Gutiérrez, H Rodríguez Ramallo*, L Abdel-Kader Martín, S Flores Moreno, B Fernandez Rubio. *Hospital Universitario Virgen Del Rocío, Pharmacy, Seville, Spain*

10.1136/ejhp-harm-2021-eahpconf.350

Background and importance Interpretation of subgroup analysis (SA) is potentially important for treatment decisions in medical practice. SA can provide clinicians with a better perspective on the individualised treatment of patients. However, SA can introduce analytical challenges, which may result in denial of a beneficial treatment or even receiving a potentially harmful or ineffective treatment.

Aim and objectives The aim of this study was to assess the credibility of subgroup claims in haematology randomised clinical trials (RCT).

Material and methods A systematic review of Medline of haematology phase III RCT published between January 2013 and October 2019 was carried to identify SA reported. Claims of subgroup effect were classified according to their strength, as: strong claim, claim of a likely effect or suggestion of a possible effect based on the Sun *et al* 2009 classification. To evaluate the credibility of subgroup claims for RCT primary outcomes, 'the 10 criteria for assessing the credibility of a subgroup claim' by Sun *et al* 2012 were applied.

Results 98 studies reported SA. Of these, 24 RCT reported 46 claims of subgroup difference. 44 were claims for the primary outcome: 25 were strong claims, 17 suggestions of a possible effect and two claims of a likely effect. The authors included subgroup variables for the primary outcome measured at baseline for 38 claims ($n=86.36\%$), used the subgroup variable as a stratification factor at randomisation for 15 (34.09%), clearly prespecified their hypothesis for 11 (25%), the subgroup effect was one of a small number of hypothesised effects tested for 17 (38.36%), carried out a test of interaction that was statistically significant for 18 (40.91%), documented replication of a subgroup effect with previously related studies for 11 (25%), identified consistency of a subgroup effect across related outcome for 10 (22.72%) and provided a biological rationale for the effect for 8 (18.18%). 34/44 claims for the primary outcome met 4 or fewer of the 10 credibility criteria.

Conclusion and relevance Subgroup claims reported in haematology RCT lack credibility, even when claims were strong.

Subgroup analysis should be carried out because of the potential information they can provide but researchers should be more cautious before claiming the existence of a subgroup effect.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

6ER-027 IMPROVEMENT IN SELF-MANAGEMENT OF BIOLOGICAL DMARDS FOR PATIENTS WITH CHRONIC INFLAMMATORY ARTHRITIS WHEN A PHARMACIST PARTICIPATES IN A MULTIDISCIPLINARY CONSULTATION

¹C Bottois*, ¹J Hubert, ²C Lopez-Medina, ¹S Dumas, ¹S Belo, ²C Roux, ²M Dougados, ¹O Conort. *¹Hôpital Cochin, Clinical Pharmacy, Paris, France; ²Hôpital Cochin, Rheumatology, Paris, France*

10.1136/ejhp-harm-2021-eahpconf.351

Background and importance Enhancement of information for patients with chronic inflammatory arthritis (IA) on the management of subcutaneous (SC) biological DMARDs (bDMARDs) by the intervention of several successive health professionals should improve their necessary safety knowledge and skills for optimised self-management of their treatments.

Aim and objectives To assess the pharmacist's contribution to improving knowledge and skills of patients with IA treated with SC bDMARDs during multidisciplinary consultations (MC). The secondary objectives were to assess the impact on therapeutic adherence and patient satisfaction.

Material and methods This was a prospective, single centre, 6 month trial, approved by the ethics committee. Inclusion criteria were patient with IA receiving SC bDMARDs. The intervention was an interview aimed at enhancing the patient's knowledge and adherence. At baseline (M0), 3 months (M3) and 6 months (M6), knowledge and adherence were assessed using self-administered questionnaires, respectively, Biosecure and CQR-5. A patient satisfaction questionnaire was sent at M3. The main outcome was comparison of the Biosecure score at baseline, M3 and M6. Secondary outcomes were comparison of the rate of patients with a high level of knowledge and high adherence at baseline, M3 and M6, and patient satisfaction. For statistical analysis, different tests were used: repeated measures ANOVA, Bonferroni and generalised estimating equation.

Results The study was conducted from October 2019 to July 2020. 79 patients were included (aged 50.4 ± 14.7 years; sex ratio 1.1). At M0, M3 and M6, Biosecure scores were 70.9 ± 18.1 , 81.7 ± 15 and 84.3 ± 13.7 , respectively. A significant difference between scores was found as well as between each time point ($p < 0.001$). At M0, M3 and M6, the rate of patients with a high level of knowledge was 24.1%, 54.4% and 45.6%, respectively, with a significant difference ($p < 0.001$). No difference was observed concerning the rate of patients with high adherence ($p = 0.077$). Patient satisfaction regarding the pharmaceutical interview was 24.9 ± 3.1 ($\max = 28$).

Conclusion and relevance Participation of the pharmacist in the MC allowed for a significant improvement in patient knowledge of their bDMARDs. Regarding adherence, no significant