

faecalis (1). The initial antibiotic treatment included a beta-lactam in 28 cases, associated with vancomycin in 12 cases and daptomycin in another 12. Maintenance treatments included rifampin (n = 9), linezolid (n = 6), and dalbavancin. (n = 3). 15 patients (48.4%) died in the first 2 years: six from a septic process, six from gastrointestinal bleeding due to aortoenteric fistula, and five from unrelated causes (lung neoplasia and cerebral haemorrhage). The median survival time was 18.7 months (1–60 months).

**Conclusion and Relevance** The identification of the causative microorganism occurred in less than 40% of cases, emphasis is required on said identification to carry out targeted treatment. Half of the patients who suffered AIE died within 2 years.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of Interest** No conflict of interest.

#### 4CPS-214 MONITORING OF TACROLIMUS IN A KIDNEY TRANSPLANTED COHORT

<sup>1</sup>C Carcieri\*, <sup>2</sup>G Soragna, <sup>3</sup>S Allegra, <sup>1</sup>S Scalpello, <sup>1</sup>A Bosio, <sup>1</sup>E Cerutti, <sup>1</sup>G Fazzina, <sup>3</sup>S De Francia, <sup>4</sup>A Bo, <sup>2</sup>C Vitale, <sup>1</sup>A Gasco. <sup>1</sup>Mauriziano Hospital, Hospital Pharmacy, Turin, Italy; <sup>2</sup>Mauriziano Hospital, Nephrology And Dialysis Department, Turin, Italy; <sup>3</sup>University of Turin, Clinical And Biological Sciences Department, Turin, Italy; <sup>4</sup>Mauriziano Hospital, Management Control Department, Turin, Italy

10.1136/ejpharm-2024-eahp.318

**Background and Importance** Tacrolimus (TAC) is the first-choice immunosuppressant for patients undergoing kidney transplantation. However, it has considerable drug interactions likelihood, high inter/intra-patient variability and a narrow therapeutic index. Therefore, constant monitoring is requested, to avoid organ rejection or adverse events. From this perspective, a multidisciplinary team of clinicians, hospital pharmacists and nurses, provides to outpatients: recognition and reconciliation of drug therapy, therapeutic drug monitoring (TDM) of TAC concentrations in whole blood, professional counselling to verify therapeutic adherence and correct drug intake.

**Aim and Objectives** To examine tacrolimus plasma concentration variability in a cohort of transplanted patients in order to identify significant correlation useful for guiding clinician in optimising therapy.

**Material and Methods** Tacrolimus TDM values were analysed in a cohort of 160 patients (72% male). A total of 5562 tacrolimus measurements over a 4 years period were evaluated. In the descriptive statistics, continuous and non-normal variables were shown as median values. Statistical dispersion of data measured in the interquartile range (IQR, quartile 1–quartile 3). The Mann-Whitney test was used to evaluate the influence of sex (male and female patients) on creatinine levels, eGFR levels and plasma concentrations of tacrolimus (level of statistical significance p-value < 0, 05). All tests were performed with IBM SPSS Statistics 25.0 for Windows.

**Results** The distribution analysis by sex shows that 73.7% (N=4171) of the 5662 measurements analysed were from male. Considering all the samples, the median TAC concentration (µg/ml) was 6.60 (IQR 5.20–8.50). Separately evaluating sexes show that median TAC concentration was 6.60 (IQR 5.30–8.50) and 6.50 (IQR 4.90–8.60) for males and females respectively. The Mann-Whitney test shows that sex influences tacrolimus plasma concentration with statistical significance (p<0.001). Sex influence was statistically significant also on

creatinine levels (mg/dL) (p=0.007) and eGFR levels (mL/min) (p<0.001).

**Conclusion and Relevance** Data disaggregation by sex variability can be the key to improve patients' quality of life and better individualise treatment and care. The multidisciplinary approach allows to optimise processes and obtain useful and reliable results. Further analysis is needed to further stratify patients and determine correlations useful to guide clinicians in monitoring drug therapy especially in polypharmacy patients.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of Interest** No conflict of interest.

#### 4CPS-215 ADJUSTMENT OF ANTIBIOTICS THROUGH THE HEMOFILTER: A CASE REPORT

<sup>1</sup>M Miranda Magaña, <sup>1</sup>A Salamanca Casado\*, <sup>2</sup>A Caballero Cadenas De Llano, <sup>1</sup>V Faus Felipe, <sup>1</sup>M Nieto Guindo, <sup>1</sup>B Tortajada Goitia. <sup>1</sup>Hospital Costa Del Sol, Clinical Pharmacist, Marbella, Spain; <sup>2</sup>Hospital Costa Del Sol, Intensive Care Unit, Marbella, Spain

10.1136/ejpharm-2024-eahp.319

#### Background and Importance

**Aim and Objectives** In renal support therapies, the amount of drug eliminated will depend on the therapeutic modality used (convection/diffusion) and dosage, the fluid replacement site (prefilter/postfilter), as well as the filter surface and material, but also on intrinsic characteristics of the drug itself: volume of distribution (DV), plasma protein binding (PPB), molecular weight (MW) and patient characteristics.

**Material and Methods** Our case is a 67-year-old woman admitted to the ICU for septic shock of probable urinary origin. Given the urea levels, metabolic acidosis with severe electrolyte disturbance and acute on chronic renal failure, extrarenal depuration therapy was started with continuous venovenous hemodiafiltration (CVVHDF) and empirical antibiotic treatment with ertapenem 1g/24h. Literature review was made to evaluate the adjustment of antibiotic therapy in hemofiltration until antibiogram results were obtained. The most dialysable drugs are those with low MW, low DV, high renal clearance and low PPB.

**Results** Among the carbapenems, the most studied is meropenem. It presents low UPP (2%), PM 383.4 Dalton and a VD between 11–27L, resulting in a better alternative to ertapenem. Antibiotherapy was modified to meropenem adjusted to HDFVVC 1g/6h in 3h extended perfusion prior loading dose of 2 g to ensure an MIC >40% of the time to achieve both bacteriostatic and bactericidal effect. After antibiogram, it was downgraded to ceftriaxone, a hydrophilic molecule, with high UPP (85–95%) and a PM 554.58 Dalton. Hydrophilic drugs such as cephalosporins and penicillins generally do not cross cell membranes, so they only diffuse to the extracellular space and their DV is lower than that of lipophilic drugs, in addition to renal elimination. Ceftriaxone, however, despite being a hydrophilic drug, is preferentially eliminated through bile and, since it has such a high affinity to protein, it is hardly dialyzed and therefore does not require adjustment. To ensure correct antibiotic dosage, it was decided to use ceftriaxone 1g/12h prior loading dose of 3g for reaching levels early.

**Conclusion and Relevance** The prescription of the appropriate dose of antibiotic is fundamental in the critical patient since it allows avoiding the establishment of excessive doses that can