**BACKGROUND**

Increasingly frequent and inappropriate prescription of broad-spectrum antibiotics, justifies the use in first-line of effective antibiotics as glycopeptides and aminoglycosides, who were abandoned by their associated adverse effects.

**OBJECTIVE**

To analyze the degree of implementation of the recommendations of setting dosing, by monitoring pharmacokinetics in antibiotic treatments in follow-up by the Spanish PROA Group (Optimization Antibiotics Program).

**RESULTS**

Data of 123 adults were collected (63.4% men), with an average age of 46 years and range (16-91). The pediatric population was 21 patients (12 females) with ages ranging from 2 days to 1.5 months. The average duration of treatment for adults was 17 days and 5 for infants. It was also analyzed a subset of 13 patients in hemodialysis (HD) (61.5% women). 722 determinations of plasma levels, putting the average 3 to 5 monitors per adult patient in the pediatric population was 217 recommended individualized dosing adjustments, 209 were accepted (96.3%), which allowed the use of these antibiotics in the first instance preserving ecological niches and reducing the economic impact.

**METHOD**

Observational and retrospective study on the Unit of Clinical Pharmacokinetics (UFCC) from a University Hospital, during a period of 6 Months (Dic ‘16-Mayo´17). Antibiotics glycopeptides (vancomycin) and aminoglycosides (gentamicin, tobramycin and amikacin) were monitored drugs. For the processing of the information, standard sheets of application of plasma levels and reports made by pharmacokinetics clinical unit in the corporate application Diraya® (Digital single story) were reviewed. Both pediatric and adult population were considered and where the collected parameters were: dosage (mg/hour), weight (kg), size (cm), the infusion duration (min), age (years/days), days of treatment, the time of extraction, Cmin (valley level) and Cmax (peak level)(mcg/ml)

**CONCLUSIONS**

217 recommended individualized dosing adjustments, 209 were accepted (96.3%), which allowed the use of these antibiotics in the first instance preserving ecological niches and reducing the economic impact.