DO PATIENTS RECEIVE MEDICATIONS ADJUSTED TO THEIR INDIVIDUAL REQUIREMENTS?
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Background
To ensure the effectiveness and / or avoid the toxicity of drugs with narrow therapeutic and / or renal elimination margin, it is essential to adjust the dose according to the glomerular filtration rate (GFR). To collaborate in such patient care activities, a growing number of acute care hospitals have pharmacists participating in ambulatory care clinics and hospital-based home health care services.

Purpose
To assess the adequacy of medicines prescribed in our health district in patients with decreased GFR.

Material and Methods
Retrospective observational study.

1 Study Population
Patients with a serum creatinine (SC) determination in our health district during February 2016.

2 Inclusion/exclusion Criteria
Inclusion: ≥18 years with GFR ≥45 ml/min/1.73m². Exclusion: patients whose characteristics make them unsuitable to use the CKD-EPI formula to calculate GFR.

3 GFR
GFR was calculated from the SC provided by the laboratory.

4 Dosage adjustment
Through electronic medical records, prescribed doses of the medications which needed dosage adjustment were recorded. Correct doses according to GFR of these medications at that time were also recorded.

5 Prescriptions modified by GP
Data from prescription changes made by the primary care physicians (GP) were collected.

6 Variables studied
- age,
- sex,
- GFR,
- ATC groups requiring dose adjustment,
- Adequacy of the prescriptions was calculated as: (prescriptions adjusted correctly according to GFR) / (total number of prescriptions susceptible of modification).

Results
116 Patients selected
76.7% female mean age of 80.8 years

52.6% of patients had prescriptions suitable for adjustment (93 prescriptions in total)

Percentage of patients with prescriptions adjusted by their
GP

90.2

Distribution of patients according to their GFR

% 80 60 40 20 0
44 - 30
29 - 15
< 15

GFR (ml/min/1.73m²)

ATC groups that needed adjustment more frequently according to GFR
A10A  25.8%
A10B  23.65%
B01A  10.75%

Conclusions
The adequacy of medicines prescribed in our health district in patients with decreased GFR was very low. More than half of patients with a GFR ≤45 ml/min/1.73m² needed adjustment in at least one of their medications, since very few prescriptions were adjusted by their corresponding GP.