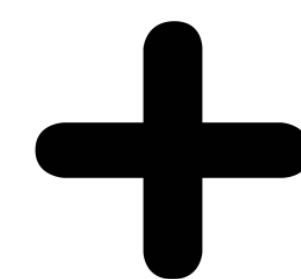


PHARMACOKINETIC EVALUATION OF DRUGS WITH A NARROW THERAPEUTIC RANGE AND THEIR INFLUENCE ON CLINICAL DECISION

BACKGROUND AND IMPORTANCE



DRUGS WITH NARROW THERAPEUTIC RANGE PRESCRIPTION

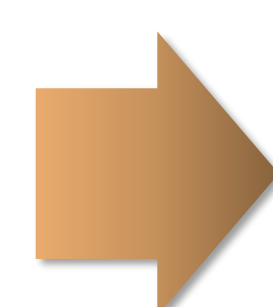


PHARMACOKINETIC REPORTS ON THEIR SERUM CONCENTRATIONS



AIM AND OBJECTIVES

Impact of pharmacokinetic reports



CLINICAL DECISION



MATERIALS AND METHODS

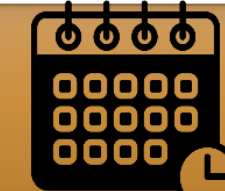
Prospective analysis



Secondary care hospital



March 2020 - August 2020



Dialyzed and non-admitted patients



Adult patients with one or more serum concentrations

amikacin
cyclosporine
gentamicin
phenobarbital
theophylline
vancomycin

carbamazepine
digoxin
lithium
phenytoin
valproic acid
voriconazole

VARIABLES

- ✓ Age
- ✓ Sex
- ✓ Prescribed drug
- ✓ Clinical department
- ✓ Pharmacokinetic report
- ✓ Medical decision

Medical records & pharmacokinetic software

RESULTS

N=166 patients 57.2% women

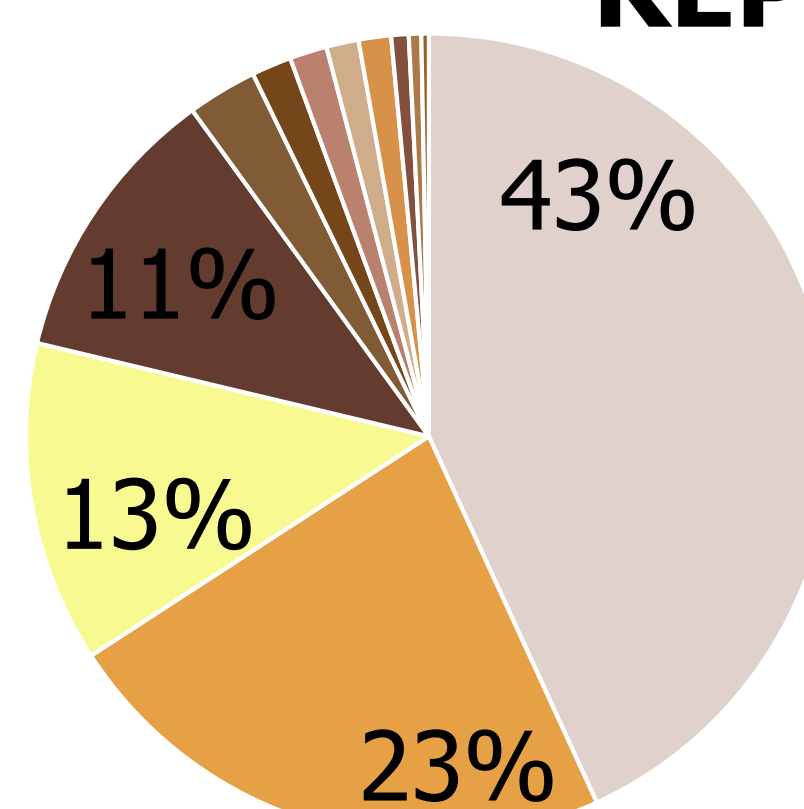
613 pharmaceutical interventions

Mean age: 73 years (28-100)

Mean weight: 66 kg (40.5-139.2)

Mean serum creatinine: 1 mg/dL (0.3-12.5)

PHARMACOKINETIC REPORTS

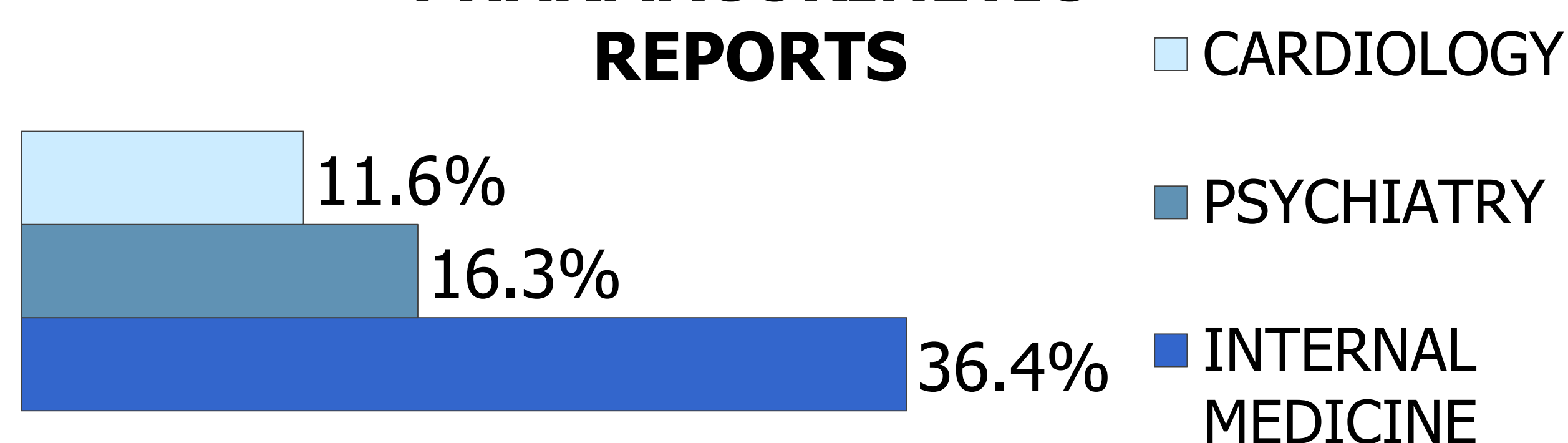


- digoxin
- valproic acid
- amikacin
- theophylline
- gentamicin
- phenobarbital
- vancomycin
- lithium
- carbamazepine
- phenytoin
- cyclosporine
- voriconazole

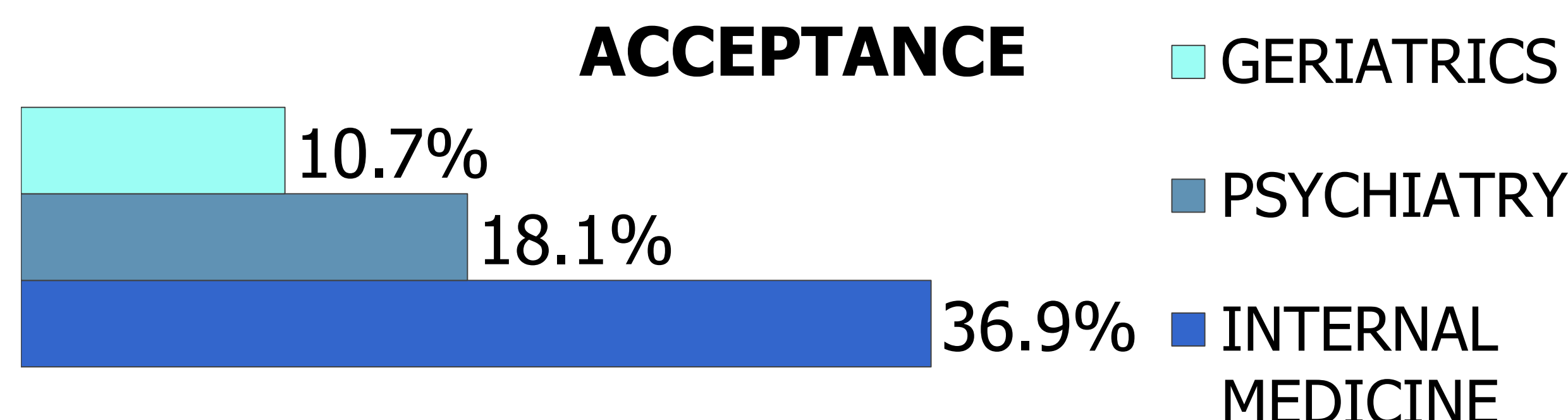
DRUGS

MAIN PRESCRIBING CLINICAL SERVICES

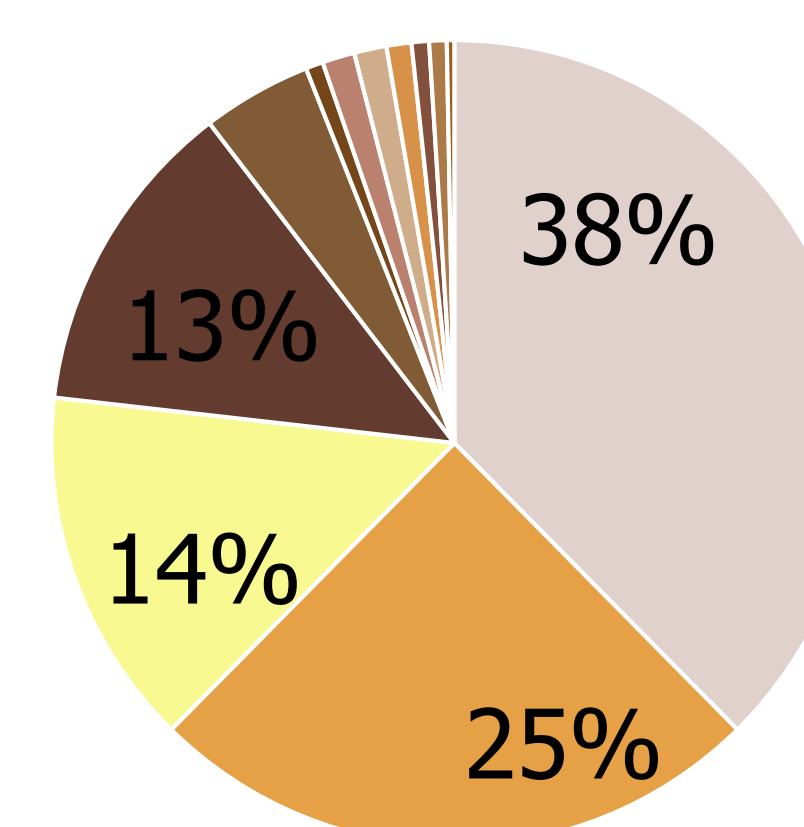
PHARMACOKINETIC REPORTS



ACCEPTANCE



ACCEPTANCE



- digoxin
- valproic acid
- amikacin
- theophylline
- gentamicin
- phenobarbital
- vancomycin
- lithium
- carbamazepine
- phenytoin
- cyclosporine
- voriconazole

Accepted recommendations

- dose maintenance (75.4%)
- dose suspension (72.2%)
- dose reduction (68.3%)
- dose increase (66.7%)

Total pharmacokinetic reports accepted → 73.2%
Not accepted due to discharge or death → 8%

CONCLUSION AND RELEVANCE

- A **pharmacokinetic area supports clinicians** in order to establish the **safest and most effective dosing** regimens.
- A **high percentage of pharmacokinetic reports were accepted**.
- It is necessary to increase this percentage by talking to physicians and **remarking the importance of this activity**.

I. SOLLANO-SANCHO¹, S. GARCÍA MARTÍNEZ², A.L. SALCEDO MINGOARRANZ², A. POVEDA ESCOLAR², I. OROZCO CIFUENTES², C. MORIEL SÁNCHEZ¹, B. GARCÍA DÍAZ².

¹MOSTOLES UNIVERSITY HOSPITAL, HOSPITAL PHARMACY, MADRID, SPAIN.

²SEVERO OCHOA UNIVERSITY HOSPITAL, HOSPITAL PHARMACY, MADRID, SPAIN.

