

VARIATIONS IN CONSUMPTION OF ANTIMICROBIALS IN INTERNAL MEDICINE WARDS OF HOSPITALS

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Background and Importance :

- ✓ Relationship between rates of antibiotic use and emergence of antimicrobial resistance is often observed, documented and described
- ✓ Evaluation and analysis of consumption of antimicrobials in relation to variability in the general hospital environment support decision making in the choice of the appropriate therapeutic regimen



Aim and Objective:

- ✓ Presence of variations in consumption of antimicrobials in internal medicine wards
- ✓ Investigation of potential variables in the choice of therapeutic regimen



Materials and Methods:

- ✓ Antibiotic consumption of 3 internal medicine wards (2 clinics in a general hospital + 1 semi autonomous (independent) clinic) as Daily Defined Doses per 100 beddays (DDD_s/100bBD)
- ✓ Average length of stay (LOS) of patients in 2019, in the 3 internal medicine wards of the same healthcare region

Results

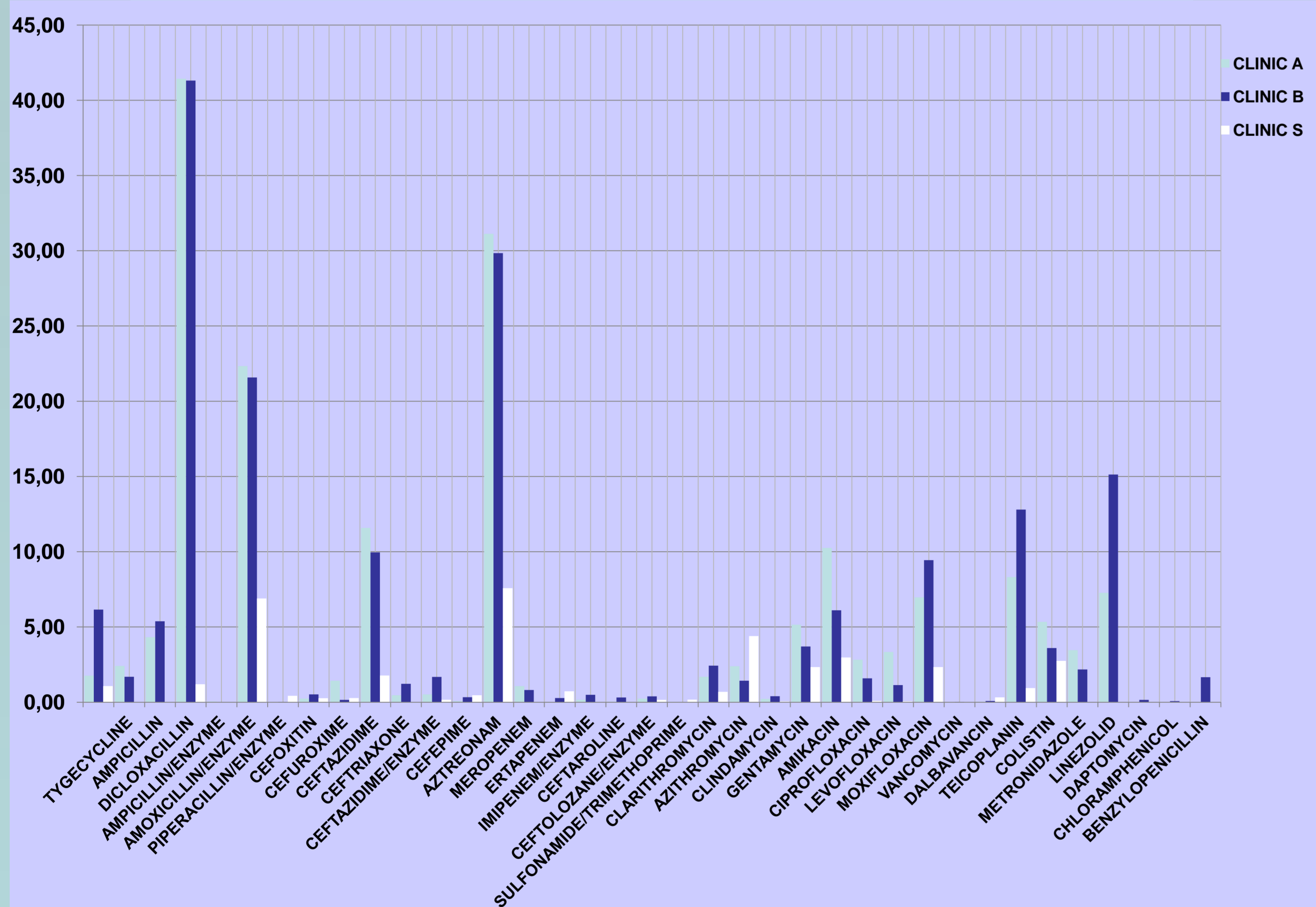
Comparison:



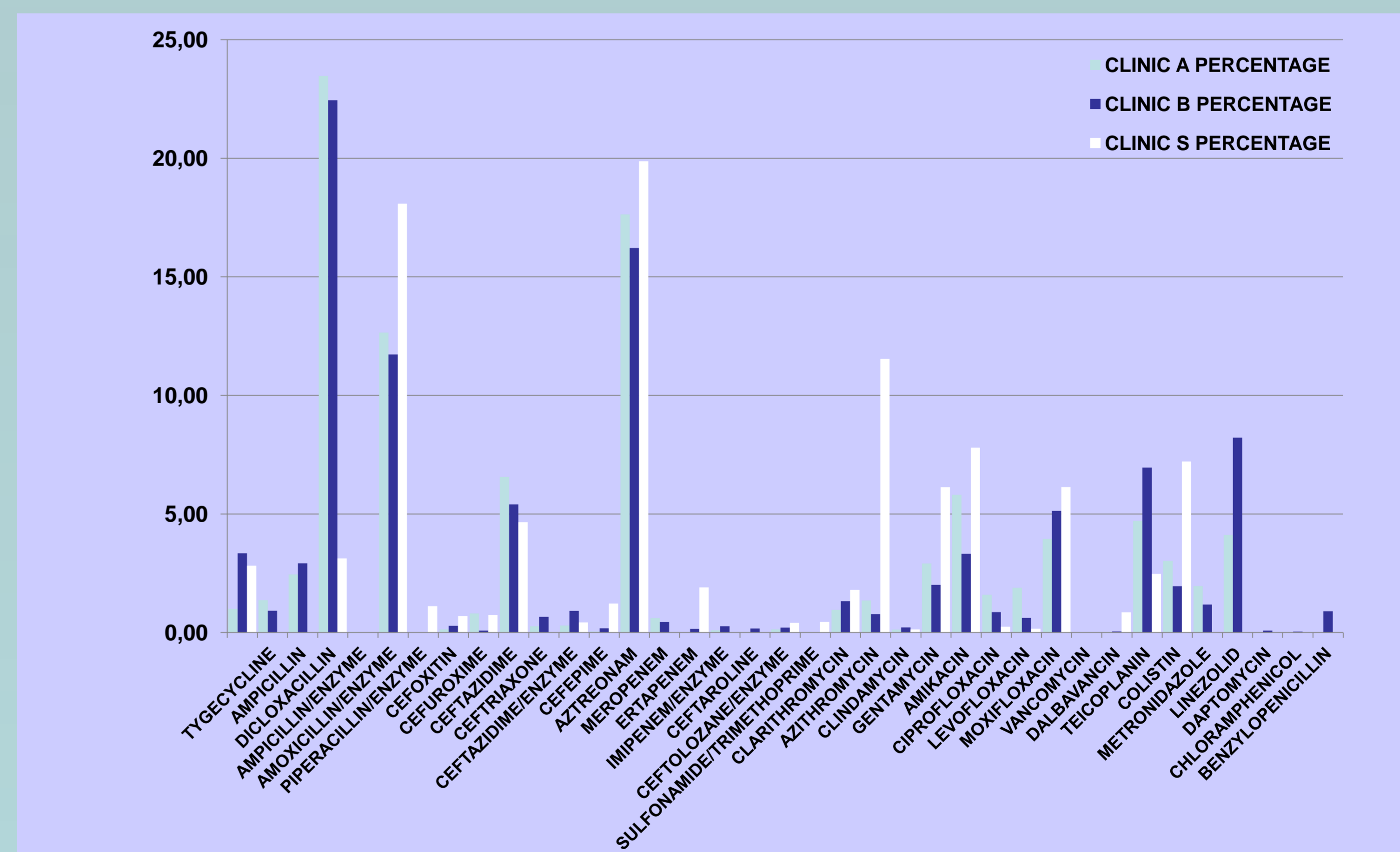
WARD	CLINIC A (GENERAL HOSPITAL)	CLINIC B (GENERAL HOSPITAL)	CLINIC C (INDEPENDENT)
BED DAYS	13576	16881	6380
NUMBER OF PATIENTS	1522	1714	265
AVERAGE LENGTH OF STAY (days)	8,92	9,85	24,07
ANTIBIOTIC INDEX (DDDS/100BD)	176,53	184,03	38,12
NUMBER OF ANTIBIOTICS USED	33	35	25
EMERGENCY ADMISSIONS	>90%	>90%	<5%
MOST USED ANTIBIOTICS	AMPICILLIN/SULBACTAM MEROPENEM PIPERACILLIN/TAZOBACTAM	AMPICILLIN/SULBACTAM MEROPENEM PIPERACILLIN/TAZOBACTAM	MEROPENEM PIPERACILLIN/TAZOBACTAM CLINDAMYCIN

DDDs/100bBD: Daily Defined Doses per 100 beddays

ANTIBIOTICS CONSUMPTION IN INTERNAL MEDICINE WARDS (DDDs/100BD)



ANTIBIOTICS CONSUMPTION AS PERCENTAGE (%) OF THE TOTAL INDEX



CONCLUSIONS



- ☐ Only small differences in the choice of therapeutic regimen within each hospital internal medicine wards
- ☐ Significant variations in choice of antimicrobials between hospitals need to be attributed
- ☐ Variables (e.g. intensive care profile, increased probability of multiresistant pathogens) related to the general hospital environment may explain the observed variations
- ☐ Such variables should be considered in antimicrobial stewardship programs and/or other initiatives