

IMPACT OF THE ANTIMICROBIAL STEWARDSHIP PROGRAM ON ANTIBIOTIC CONSUMPTION IN TWO INTERNAL MEDICINE UNITS

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BACKGROUND AND IMPORTANCE | AIM AND OBJECTIVES

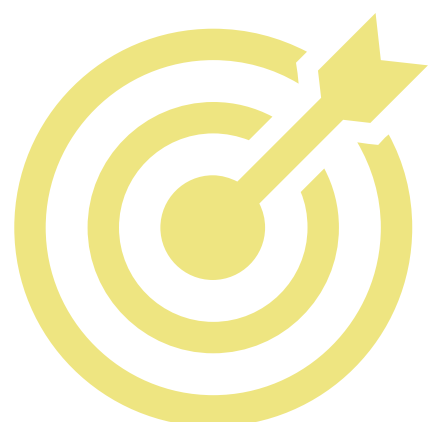
Antimicrobial Stewardship Programs (ASPs)



Plan Nacional
Resistencia
Antibióticos



- ✓ Improve clinical outcomes
- ✓ Reduce antimicrobial resistance



Compare antimicrobial consumption between two Internal Medicine units (A vs.B) of the same healthcare complex, but physically separated. Unit-A has the presence of an ASPs team.

MATERIAL AND METHODS

Observational and retrospective study in a public tertiary care hospital:

Data base:
- Pharmacy Management System
- Admissions Service

Data analysis:
- ATC/DDD system (WHO)
- DDD values for 2023
- Unit: DDD/100-bed days
- Chi-squared test (p value = 0,1)



HOSPITAL COMPLEX



ASPs
team

Unit-A

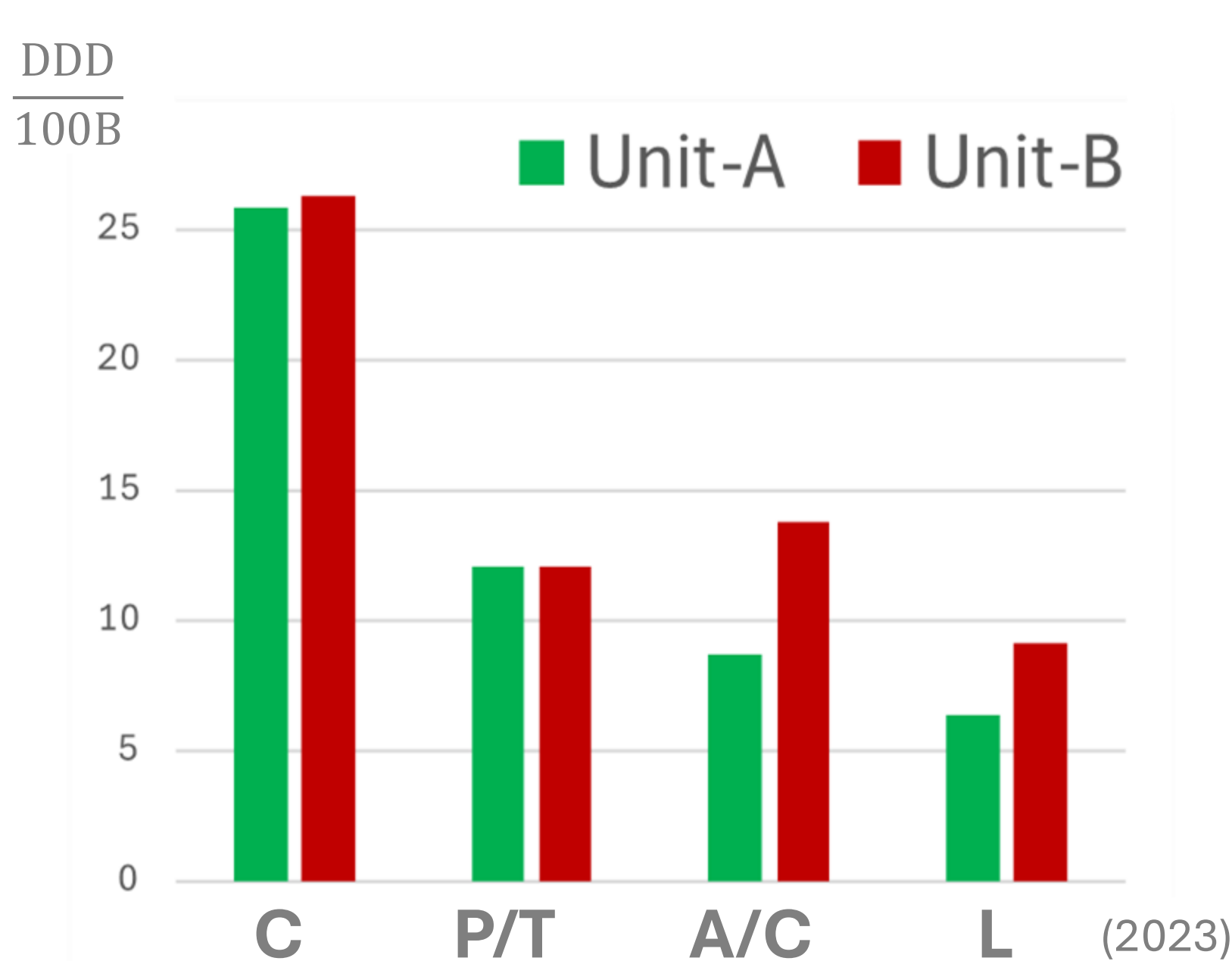
Unit-B

	HOSPITAL COMPLEX	Unit-A	Unit-B
Beds (n)	888	174	94
Average length of stay (days)	6,6	8,7	8,4
Occupancy rate	70,3%	70%	84,88%
Mortality rate (per nº of admissions)	---	11,9%	14,2%



Analysis of Antimicrobial Consumption (AC)
(DDD per 100 bed days; Groups: J01-J04; Years: 2021-2023)

RESULTS



(C) Ceftriaxone (25,87 vs.26,27)
(P/T) Pipetacilin/Tazobactam (12,12 vs.12,11)
(A/C) Amoxicilin/Clavunated (8,71 vs.13,81)
(L) Levofloxacin (6,39 vs.9,23)

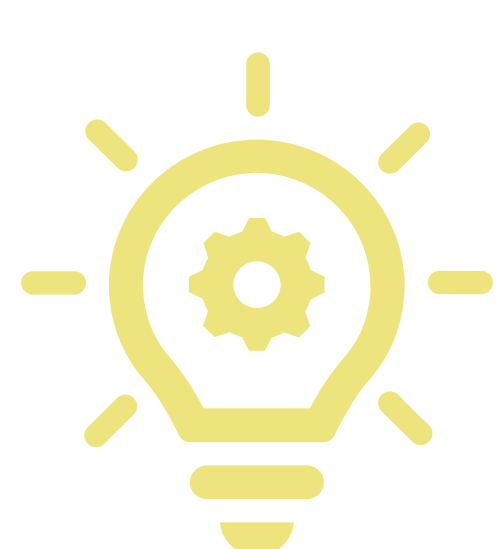
AC (DDD/100B)	YEAR	Unit-A	Unit-B
Antimicrobials Overall consumption	2021	72,34	61,38
	2023	91,34 (+26,26%)	94,49 (+53,95%)
Anti-Pseudomonal-Antimicrobials	2021	18,33	18,52
	2023	25,52 (+39,23%)	28,97 (+56,43%)
Methicillin-Resistant-Antimicrobials	2021	7,61	7,32
	2023	11,52 (+51,38%)	12,01 (+51,38%)

p = 0.001



The increase in Antibiotics Consumption was **greater in Unit-B (no ASPs)**

CONCLUSION AND RELEVANCE



Although the origin of these differences may be multifactorial, the presence of a multidisciplinary ASPs team (Unit-A) appears to have a positive impact on optimizing antimicrobial consumption.

It is essential to implement ASPs in all hospital units to improve clinical outcomes, ensure cost-effective and safe use, and reduce antimicrobial resistance

References:

WHO Collaborating Center for Drug Statistics Methodology. Last updated: 2023-05-30.
Available from https://www.whocc.no/atc_ddd_methodology/who_collaborating_centre/



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