

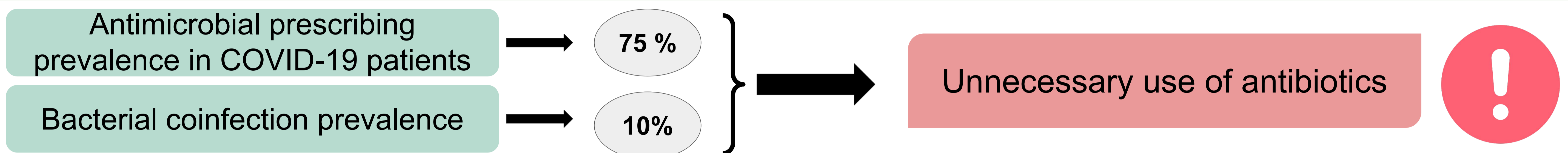
EVOLUTION OF ANTIMICROBIAL USE IN COVID-19 PATIENTS

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BACKGROUND AND IMPORTANCE



AIM AND OBJECTIVES

To compare the evolution of antimicrobial consumption in COVID-19 patients between the beginning of the pandemic and the third COVID-19 wave in our hospital.

MATERIAL AND METHODS

Observational retrospective study conducted in a tertiary care hospital during march-june 2020 and may-august 2021 in COVID-19 Intensive Care Unit (CICU) and COVID-19 medical ward (CMW) patients. We extracted antimicrobial consumption data from the Pharmacy database (Silicon) and bed-days data from Admission Service.

We standardised antimicrobial consumption to defined daily doses (DDD)/100 bed-days. The descriptive analysis was performed with SPSS. We conducted a normality, an independence and a correlation test.

RESULTS



	MARCH-JUNE 2020			MAY-AUGUST 2021			EVOLUTION 2020-2021		
	CICU	CMW	GLOBAL	CICU	CMW	GLOBAL	CICU	CMW	GLOBAL
BED-DAYS	573	2346	2919	493	2114	2607			
Co-amoxiclav DDD/100BED-DAYS	0,9	22	17,9	1,2	21,1	17,3	+0,3 (33,3 %)	-0,9 (-4%)	-0,6 (-3,4%)
3 rd generation cephalosporins DDD/100BED-DAYS	32,3	8,9	13,5	35,7	3,5	9,6	+3,4 (10,5%)	-5,4 (-60%)	-3,9 (-28,9%)
Antipseudomonal antibiotics DDD/100BED-DAYS	16,1	9,1	10,5	27,8	5,9	10	+11,7 (72,7%)	-3,2 (-35,1%)	-0,5 (-4,%)
Quinolones DDD/100BED-DAYS	2,3	3,6	3,4	10,8	1,4	3,2	+8,5 (370%)	-2,2 (-61,1%)	-0,2 (-5,9%)
Anti-MRSA antibiotics DDD/100BED-DAYS	23,4	3,4	7,3	18,6	2	5,1	-4,8 (-20,5%)	-1,4 (-41,2%)	-2,2 (-30,1%)
Antifungal treatments DDD/100BED-DAYS	4,4	1	1,6	22,9	0	4,4	+18,5 (420%)	-4,4 (-100%)	+2,8 (175%)
Total antimicrobial consumption DDD/100BED-DAYS	135,1	62,6	76,8	187,3	43,7	70,8	+52,2 (38,6%)	-18,9 (-30,2%)	-6 (-7,8%)

CONCLUSIONS AND RELEVANCE

- There is a light decrease of antimicrobial prescriptions in all COVID-19 patients.
- There is an important decrease in antimicrobial use in CMW and a considerable increase in CICU.
- These results suggest the need for more antimicrobial stewardship programs in CICU.

