



The Global Point Prevalence Survey of Antimicrobial Consumption and Resistance (Global-PPS) 2018 Results of antimicrobial prescribing for healthcare-associated infections in Tunisia



كلية الطب بصفاقس
Faculté de Médecine de Sfax

Contact :
basma_mnif@yahoo.fr

B Mnif¹, I Pauwels², A Versporten², H Amri³, F Medhioub⁴, A Chtourou⁵, A Hammami¹, H Goossens².
¹Laboratory of Microbiology, Habib Bourguiba University Hospital, Sfax, Tunisia; ²Laboratory of Medical Microbiology, University of Antwerp, Antwerp, Belgium; ³Jebeniana regional hospital, Sfax, Tunisia; ⁴Mahres regional hospital, Sfax, Tunisia; ⁵Mtorrech regional hospital, Gabes, Tunisia.

INTRODUCTION AND PURPOSE

Antimicrobial resistance in Tunisia is one of the major health care problems, which is promoted by decades of unrestrictive antibiotic prescribing and poor hospital hygiene. The purpose of the Global-PPS in Tunisia was to use a uniform and standardized method to assess antimicrobial (AM) use in hospitals, especially for healthcare-associated infections (HAI).

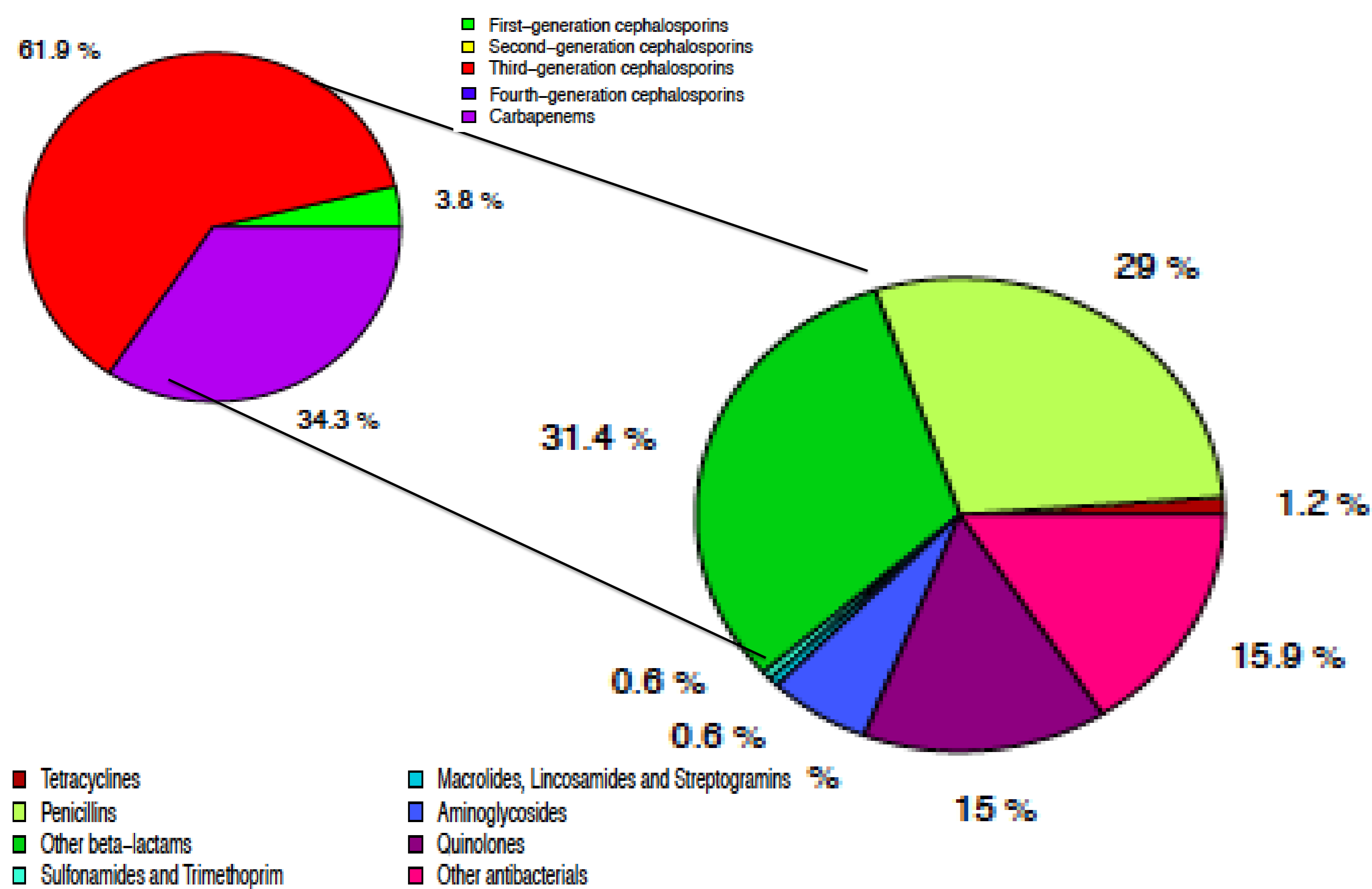
METHODS

A PPS was conducted in 2018, in 4 Tunisian public hospitals. The survey collected details on AM and reasons for treatment as well as a set of quality indicators for all inpatients receiving an AM on the day of the PPS.

RESULTS

468 patients were surveyed in 30 adult wards, of which 48.8% were on AM treatment (43% in medical wards, 47% in surgical wards and 71% in ICU).

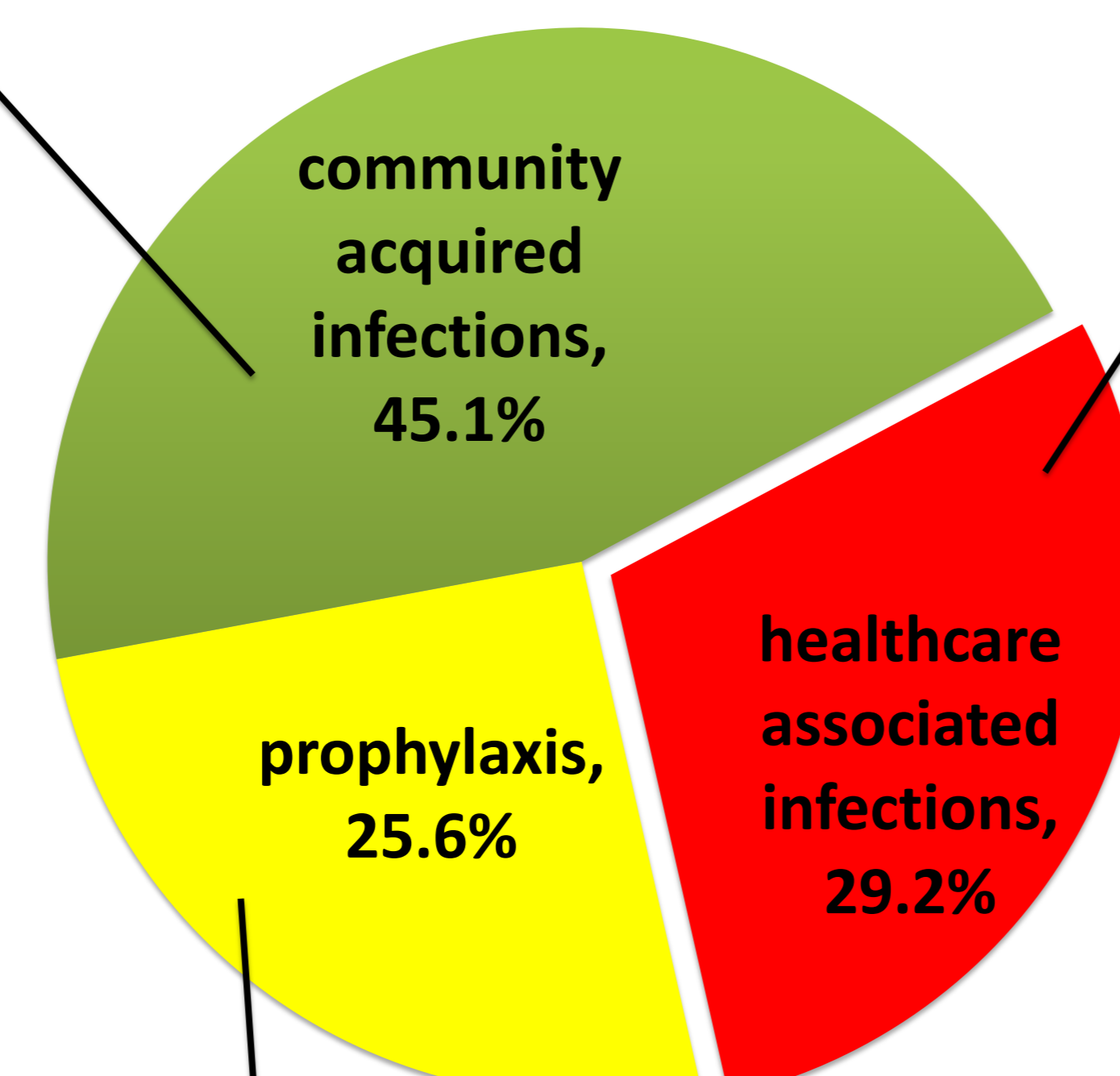
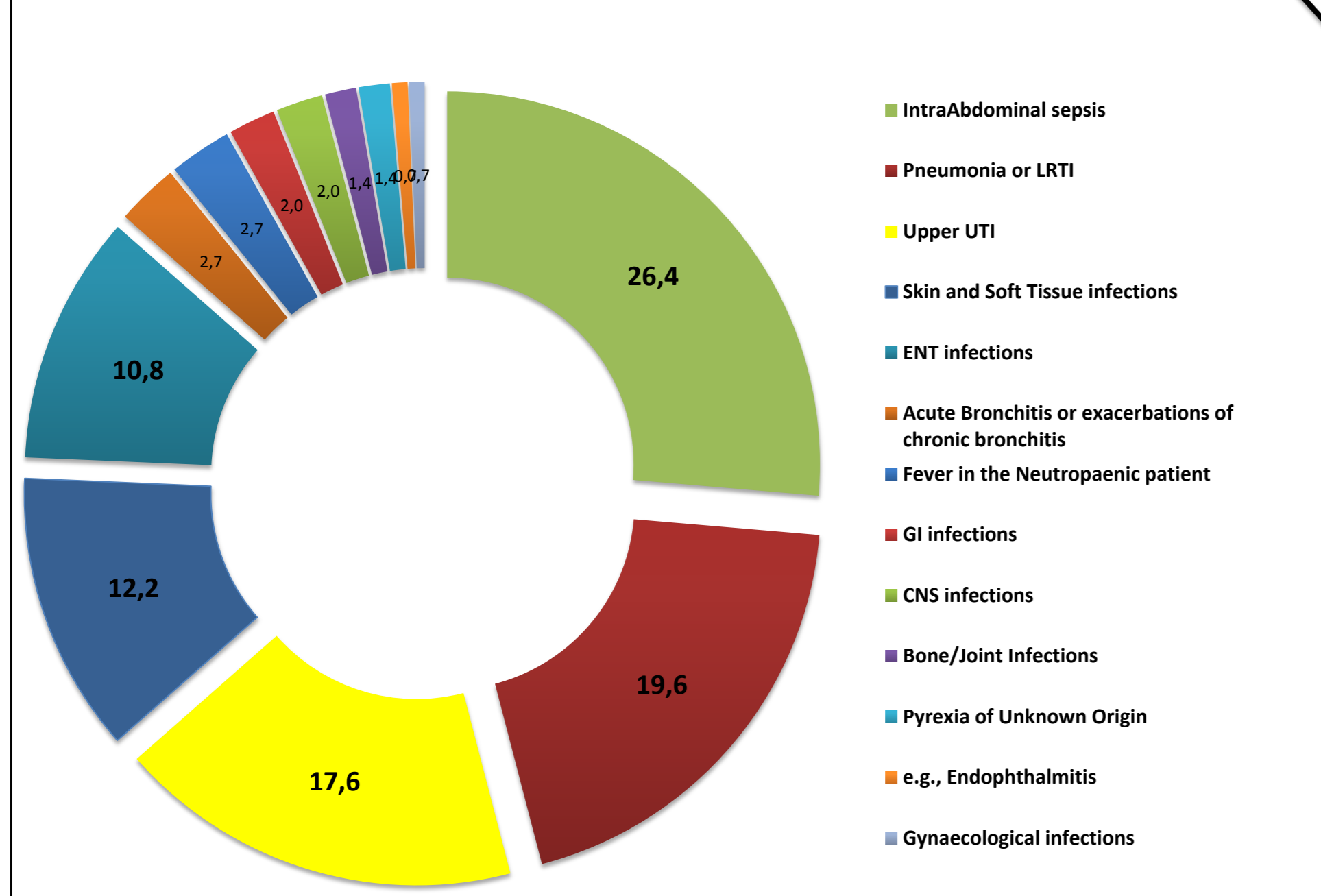
The top 3 antibiotics were amoxicillin and beta-lactamase inhibitor (25.9%), cefotaxime (17.1%) and imipenem (10.3%) and ciprofloxacin (10.3%).



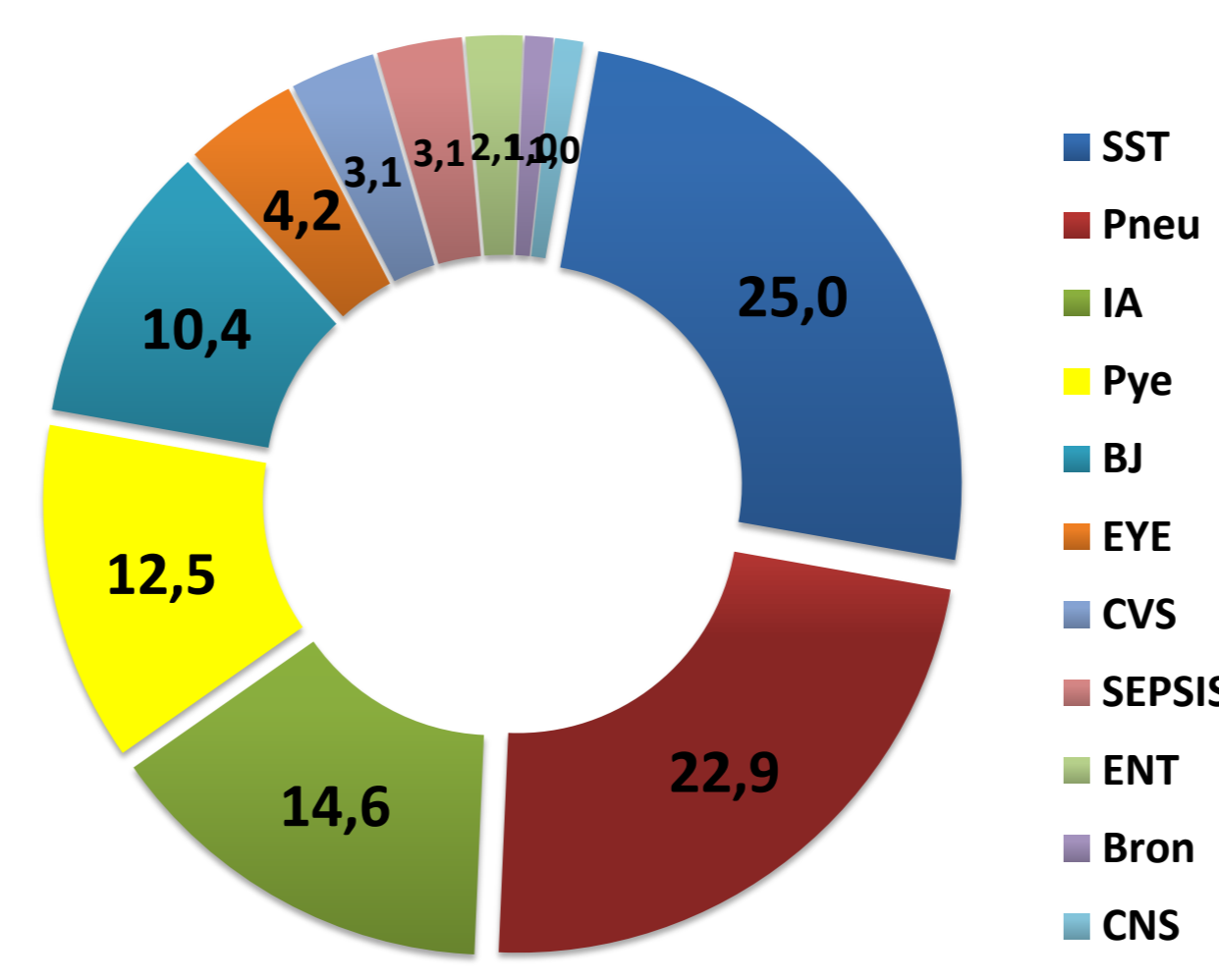
Quality indicators for antibiotic use (%)

	Medical	surgical	ICU
Reason in notes	20,4	15	16,7
Guidelines missing	85,2	97,7	81,8
Guideline compliant	66,7	100	100
Stop/review date documented	3,7	1,9	15,2
Multiple ATB patient	40,5	33,1	63,9
IV therapy	88,1	86,4	97,3
Targetted ATB	14,7	9,2	31

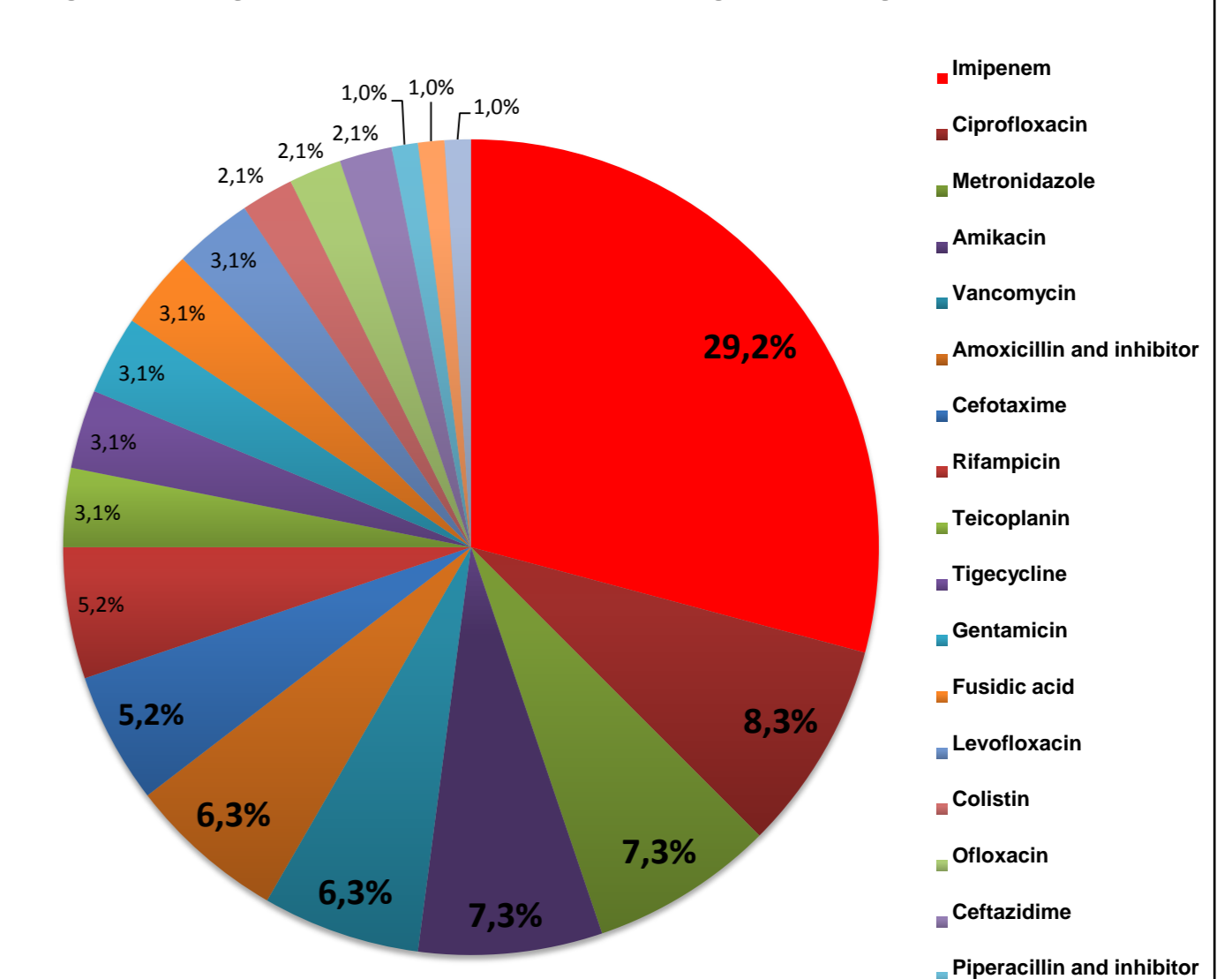
The most frequently reported diagnoses for CAI were IAI (26.4%) and pneumonia (19.6%).



The most frequently reported diagnoses for HAI were SSI (25%) and pneumonia (22,9%).



The most used antibiotics for HAI were imipenem (29.2%), ciprofloxacin (8.3%), metronidazole (7.3%) and amikacin (7.3%)



- Prolonged prescribing for surgical prophylaxis (>24 hours) reached 98%
- The Top 5 most frequently used antibiotics for surgical prophylaxis : Amoxicillin and enzyme inhibitor (57.5%) , Cefotaxime (13.8%), Gentamicin (7.5%), Ciprofloxacin (6.3%) and Metronidazole Parenteral (6.3%).

34.3% (N=33) of HAI prescriptions were targeted, of which 93% were against one or more multidrug-resistant (MDR) microorganisms

- 1 MRSA
- 8 ESBL-producing Enterobacteriaceae
- 5 Carbapenemase-producing Enterobacteriaceae
- 5 Multidrug-resistant Acinetobacter baumannii

CONCLUSION

This Global-PPS identified several targets to improve in AM in Tunisia : high rate of AM, wide use of broad-spectrum antibiotics, huge lack of guidelines and continuous monitoring of AM. G-PPS was an excellent tool to assess the current situation of AM in Tunisia. Finally, his study showed the need to implement an Antimicrobial Stewardship Program in Tunisian hospitals to improve antibiotic prescribing, especially reducing broad-spectrum antibiotics such as carbapenems, thus controlling MDR microorganisms dissemination.