

## The Global Point Prevalence Survey of Antimicrobial Consumption and Resistance (Global-PPS) Results from public and private hospitals in Kenya and Tanzania in 2021

## Gunturu Revathi<sup>1</sup> on behalf of the GPPS Kenya & Tanzania Study Group, Kiplangat Sigei<sup>2</sup>, Rabecca Barasa<sup>1</sup>, Jack Otieno<sup>1</sup>, Ann Versporten<sup>3</sup>, Ines Pauwels<sup>3</sup>, Erika Vlieghe<sup>4,5</sup>and Herman Goossens<sup>3</sup>

<sup>1</sup>The Aga Khan University Hospital, Nairobi, Kenya; <sup>2</sup>Biomérieux Kenya Ltd, Nairobi, Kenya; <sup>3</sup>Laboratory of Medical Microbiology, Vaccine and Infectious Diseases Institute, University of Antwerp, Antwerp, Belgium; <sup>4</sup>Department of General Internal Medicine, Infectious Diseases and Tropical Medicine, University Hospital Antwerp, Antwerp, Belgium; <sup>5</sup>Global Health Institute, University of Antwerp, Antwerp, Belgium.

**BACKGROUND & OBJECTIVES** 

Point Prevalence Surveys (PPS) are well-known surveillance methods for observing the prescription of antimicrobials in hospitals.

We aimed to assess the prevalence antimicrobial of quality and public & private prescribing in hospitals in Kenya and Tanzania, using the standardized Global-PPS methodology. This is the first survey conducted in Kenya and Tanzania after the COVID-19 outbreak.

## METHODS

The Global-PPS was conducted in March 2021 in public & private hospitals in Kenya (14 hospitals) and Tanzania (1 hospital) and included all inpatients receiving an antimicrobial on the day of the PPS with data on the antimicrobial agents, indications and quality indicators collected. A web-based application designed by the University of Antwerp was used data entry, validation and tor reporting (www.global-pps.com).

General Total pat **Total pat** Total ant % of patie

Antimicrobial use prevalence ranged from 70.6% in neonatal, 40.2% in adult and 32.8% in paediatric wards. Community-acquired infections accounted for 48,5% of antimicrobial prescriptions, whereas 5.7% was for healthcare-associated infections. Up to 27.3% was for medical prophylaxis and 16.2% for surgical prophylaxis. The most common antimicrobials overall were ceftriaxone (23.7%), metronidazole (15.9%) and gentamicin (10.2%).

100%					100%
90%			<ul> <li>multiple dose &gt; 1 day</li> <li>multiple dose &lt; 1 day</li> <li>single dose</li> </ul>		90%
80%					80%
70%				70%	
60%				60%	
50%					50%
40%					40%
30%			_		30%
20%			4.3%		20%
10%					10%
0%		6.8%			0%
Fig 2	Duration	of surgical	antihiat	ic (101) prophylaxis	Fig 2 Anti

We observed a high empirical use of broad spectrum antibiotics, in addition to prolonged use of antibiotics for surgical prophylaxis. There was excellent guideline compliance and documentation of stop/review dates in the notes, however, there was low utilization of laboratory support to guide antibiotic initiation and optimization leading to some antimicrobial agents being inappropriately used. Repeat Global-PPS is recommended to evaluate trends as well as progress of any interventions to optimize antimicrobial use.

results	
tients (admitted)	1,542
tients on antimicrobials	680
timicrobial prescriptions	1,311
ients on antimicrobials	44.1%

Fig 2. Duration of surgical antibiotic (J01) prophylaxis (n=207 prescriptions)

## CONCLUSION



Fig 1. Quality indicators for antibiotic (J01) use



ECCMID 2023 (PJK0908)



The Aga Khan University Hospital

**Contact : gunturu.revathi@aku.edu** 

3.1%	Extended-spectrum penicillins				
3.7%	β-lactamase-sensitive penicillins				
2.3%	β-lactamase-resistant penicillins				
	Penicillins + β-lactamase-inhibitors				
	2nd gen. cephalosporins				
2.0%	3rd gen. cephalosporins				
2.070	Carbapenems				
	Macrolides & lincosamides				
· · · ·	Aminoglycosides				
	Imidazole derivatives				
	Other antibiotics				

Fig 4. Antibiotic (J01) use by subclass (n=1145

