The Global Point Prevalence Survey of Antimicrobial Consumption and Resistance (Global-PPS): Results on outpatient antimicrobial prescribing in Calabar, Nigeria

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BACKGROUND & OBJECTIVES

The Outpatient Global Point Prevalence Survey was a recently developed standardized tool to measure antimicrobial consumption to inform antimicrobial stewardship interventions in the clinic.

METHODS

Global-PPS was conducted in October 2023, at the **University of Calabar Teaching Hospital**, Nigeria. The survey included all outpatients receiving an antimicrobial on the day of PPS. Data collected included details on antimicrobial agents, reasons for treatment, and a set of quality indicators. A web-based application was used for data entry and validation (www.global-pps.com). CwPAMS-2/THET provided funding for this study.

RESULTS

124 patients
37 antimicrobials
7 units

Top 3 Reported symptoms in all patients

13.3% Musculo-skeletal pain
8.1% Abdominal pain
4.4% Cough & Headache

Overall **antimicrobial prevalence was 21%**, varying between departments (**Table 1**). "Watch" antibiotic usage was high (55%). Most common antibiotics were levofloxacin (10.8%), metronidazole (8.1%) and amoxicillin/clavulanate (8.1%) (**Figure 1**).

**Figure 1**: Proportion of antibiotic types among AWaRe categories
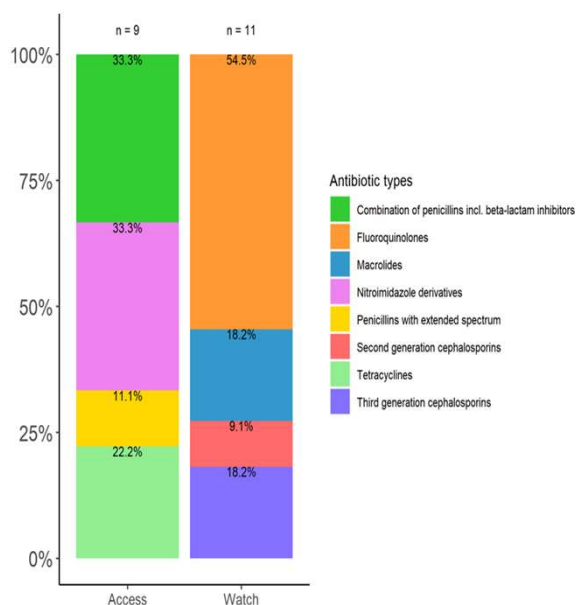
The most common indications for antimicrobial use were >1-day surgical prophylaxis (18.9%), community-acquired infection (16.2%) and single-dose surgical prophylaxis (10.8%). The most common diagnosis for antimicrobial use was Malaria and prophylaxis for the gastro-intestinal tract (**Figure 2**).

Drug, dosing and duration guideline compliance was unknown for most prescriptions (76.3%). Antimicrobials were not based on biomarker/POCT/RDT results.

Table 1: Antimicrobial prevalence among outpatient departments, age groups and sex

	Antimicrobial prevalence among outpatients(%)
Outpatient hospital departments	
Dermatology	2 (50.0%)
General Practioner Practise	6 (12.2%)
Gynaecology	8 (30.8%)
Haematology-Oncology	0 (0.0%)
HIV-Tuberculosis	3 (100.0%)
Nephrology	4 (22.2%)
Surgical Mixed	3 (16.7%)
Age groups (years)	
20-29	10 (8.1%)
30-39	9 (7.3%)
40-49	10 (8.1%)
50-59	3 (2.4%)
60-69	5 (4.0%)
Sex	
Female	21 (26.2%)
Male	4 (9.3%)
Unknown	1 (100.0%)
Antimicrobial types	
Antibiotics for systemic use	20 (54.1%)
Antimalarials	10 (27%)
Antivirals	7 (18.9%)

Figure 2: Proportion of clinical diagnoses among all antimicrobial prescriptions
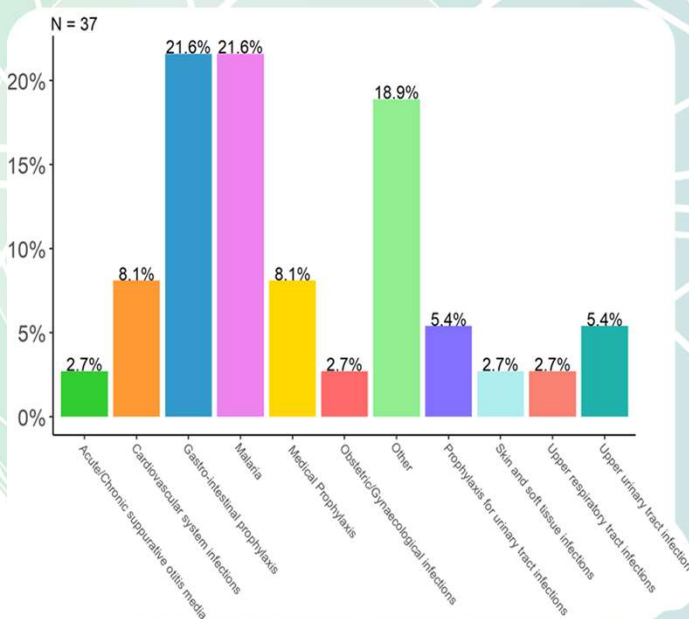
CONCLUSION

High variation of antimicrobial use between clinics, age groups, sexes and clinical symptoms was found. Most antimicrobials were prescribed for surgical prophylaxis and community-acquired infections. While empiric prescribing guidelines exist, also biomarkers and POCT were not routinely used to guide antimicrobial treatment or prophylaxis, "Watch" antibiotics use was common.