



# Patterns of Antibiotic Use Among Adult Patients Across Seven Hospitals in Malawi



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## BACKGROUND & OBJECTIVES

Antimicrobial resistance (AMR) is a major global health threat, largely driven by the overuse and misuse of antibiotics, especially in low- and middle-income countries like Malawi. Effective antimicrobial stewardship requires up-to-date data on how antibiotics are currently being prescribed and used in hospitals.

**Objective:** This study aims to assess antibiotic use patterns among adult inpatients across seven Malawian hospitals to identify key opportunities and challenges for stewardship programs.

## METHODS

**Design:** Point prevalence survey (PPS) using modified Global-PPS forms.

**Setting:** Three secondary and four tertiary hospitals in Malawi (30 September–11 October 2024).

**Participants:** All adult patients admitted before 8:00 AM on survey days ( $n = 2,050$ ).

**Analysis:** Descriptive statistics using IBM SPSS v26.

## RESULTS

A total of 2,050 patients were surveyed across the seven hospitals. Overall, 41.0% of patients received at least one antibiotic, with the highest usage recorded in the intensive care unit (62.5%). Ceftriaxone was the most commonly prescribed antibiotic (38.4%). The highest facility-specific usage was recorded at Mangochi District Hospital (61.5%). The most frequent indication for antibiotic use was central nervous system infections. Notably, 74.2% of prescriptions were not supported by infection biomarkers. Despite this, self-reported adherence to treatment guidelines was high among prescribers.

**Table 1. Antibiotic Use Patterns Among Adults in seven Hospitals (N =2,050).**

Hospital Name	Used Antibiotic	Total Number of patients	Usage (%)
Zomba Central Hospital	164	413	39.7%
Kamuzu Central Hospital	216	551	39.2%
Mzuzu Central Hospital	108	311	34.7%
Queens Central Hospital	212	457	46.4%
Malamulo Hospital	16	33	48.5%
Mzimba District Health Hospital	45	155	29.0%
Mangochi District Health Hospital	80	130	61.5%
<b>Total</b>	<b>841</b>	<b>2,050</b>	

## CONCLUSION

The PPS reveals a rising trend in antibiotic consumption across all AWARe categories within hospital settings. Notably, some facilities report increased overall antibiotic use and a higher prevalence of empiric prescribing practices. These findings underscore the urgent need to strengthen adherence to antimicrobial stewardship (AMS) principles. Addressing the overuse and misuse of antibiotics is essential to curb the emergence and spread of antimicrobial resistance (AMR) and to preserve the clinical efficacy of existing antimicrobial agents.

Disclosures: bioMérieux is the sole industrial partner of the Global-PPS. The company has no role in study design, data collection, data analysis, data interpretation, or writing the report. Data are strictly confidential and stored anonymously at the coordinating centre of the University of Antwerp.

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