



LONGITUDINAL TRENDS HIGHLIGHT THE PERSISTENCE OF ANTIMICROBIAL PRESCRIBING PATTERNS IN NIGERIAN HOSPITALS



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Background

Nigerian hospitals have been participating in the Global-PPS since 2015, with increasing engagement over time. We aimed to assess whether overall improvements in antimicrobial use (AMU) patterns evolved over time

Methodology

We analysed standardised Global-PPS data from 10 Nigerian hospitals representing all the geopolitical zones that participated for at least four consecutive years, with a maximum of nine years between 2015 and 2024. Descriptive analysis examined annual trends in patient and antimicrobial characteristics, with a focus on possible improvements in AMU quality indicators.

Results

Ten tertiary care hospitals conducted 78 surveys, including 14,502 patients admitted on adult and 5,206 on child wards of which 63.4% (N=9,201) and 74.9% (N=3,898) received an antimicrobial respectively. A decline in AMU was observed during the COVID-19 period in 2020, followed by a steady increase thereafter (Figure1). On average, AMU was 18% higher in male children (range: 7.4% to 25.7%). Metronidazole (oral or parenteral) remained the most prescribed antibiotic (22.9%), followed by ceftriaxone (18.9%). The indication for use and stop/review date were documented in 62.6% and 41.9% of prescriptions, respectively, over the years. While guidelines were missing in 59.2%, compliance with available guidelines was observed in 69% of prescriptions (Figure2)

Discussion

No major or sustained improvements in prescribing patterns were observed over the years. A detailed hospital-level analysis is needed to identify potential areas for improvement, with an emphasis on linking findings to antimicrobial stewardship efforts. Given that all 10 hospitals participated multiple times, these data offer valuable insights into usage trends over time.

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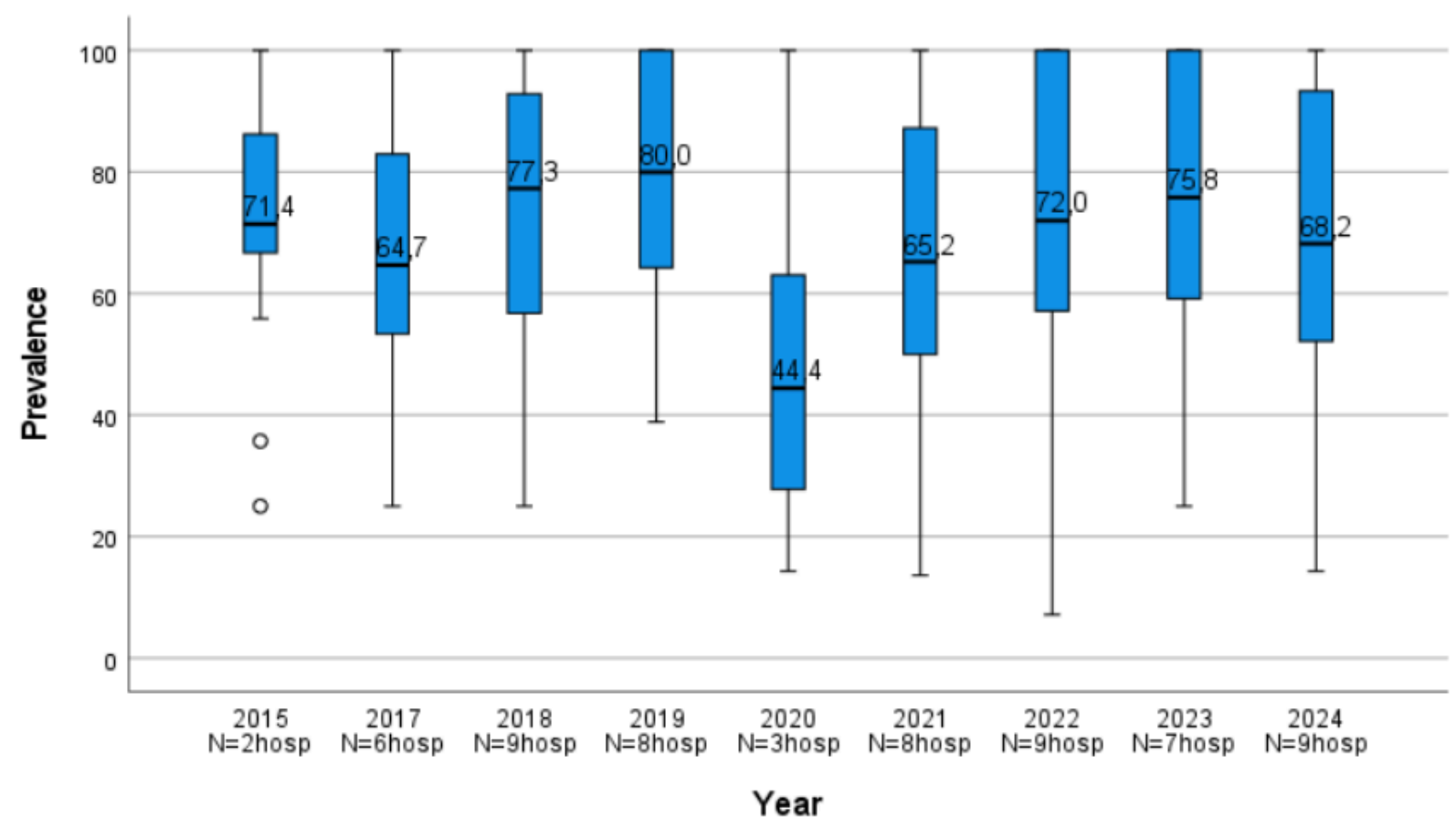


Figure 1. Antimicrobial prevalence(%) in Nigeria from 2015 to 2024, based on combined results from 10 participating hospitals

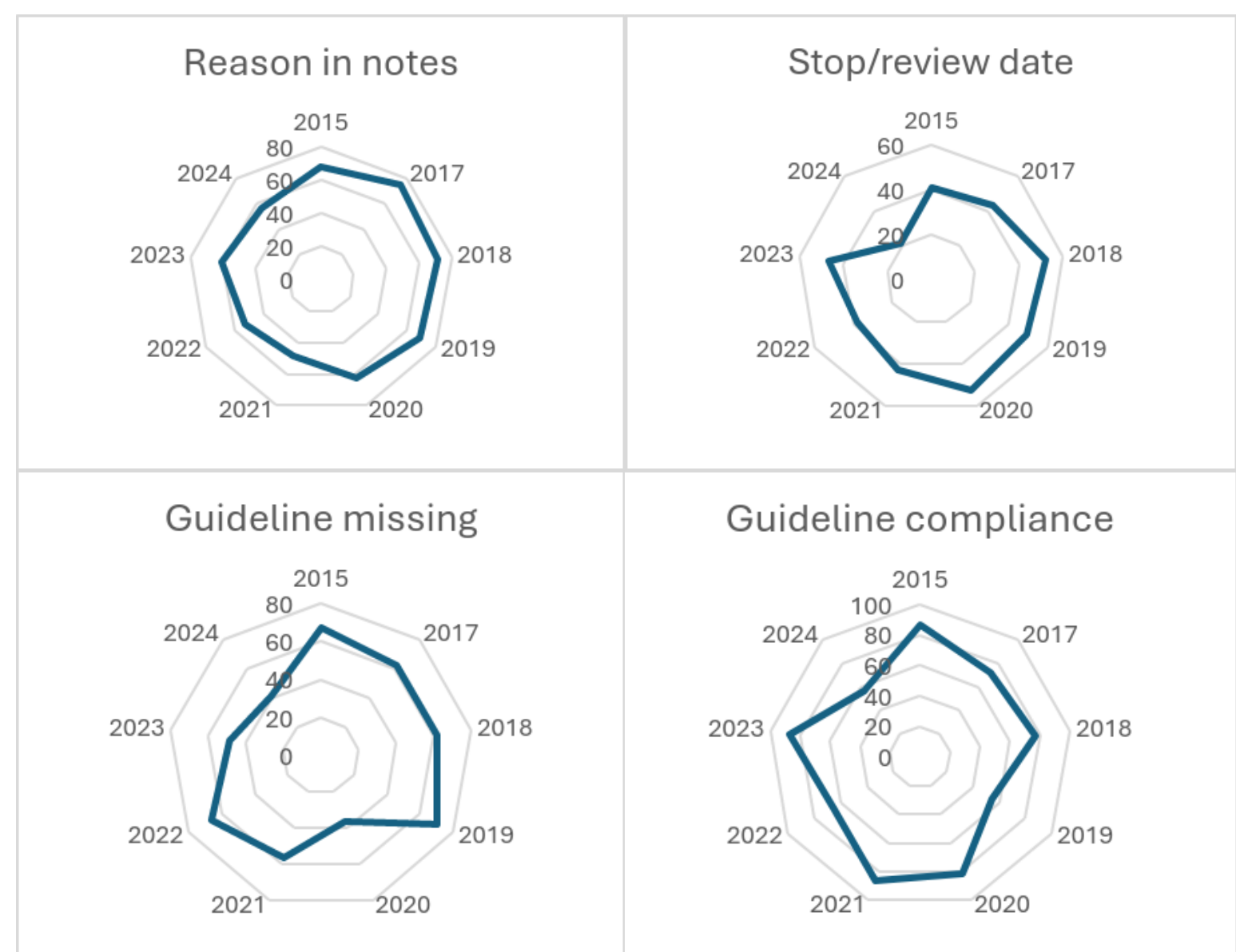


Figure 2. Quality indicators of appropriate antimicrobial prescribing in 10 Nigerian hospitals, years 2015 till 2024.