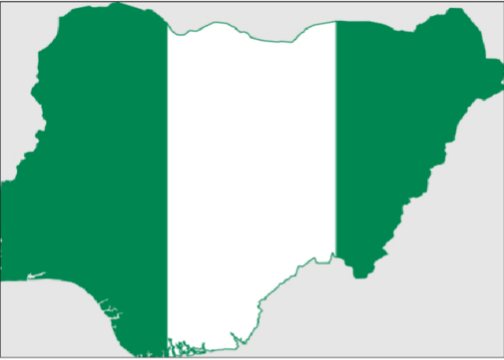


Pattern of surgical antibiotic prophylaxis in 18 Nigerian hospitals: A need for urgent intervention

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INTRODUCTION

Surgical antibiotic prophylaxis (SAP) is designed to reduce the incidence of surgical site infections¹. Inappropriate antibiotic prescribing and overuse for this purpose contribute to antibiotic resistance in the healthcare environment². We describe the pattern of SAP prescribing from data collected between 2015 to 2019 in 18 Nigerian hospitals.

AIM

To determine the pattern of antibiotic prescribing by surgeons in 18 Nigerian hospitals for surgical prophylaxis and how they comply with guidelines

METHOD

A global point prevalence survey (GPPS) of antimicrobial consumption and resistance was conducted at least once between 2015 and 2019 in 18 hospitals across the six geo-political zones of Nigeria, using the GPPS protocol. Data were collected on patient characteristics, antimicrobials prescribed, indications for antimicrobial use, stop/review date, reason in notes and diagnosis. We analysed prescriptions for SAP and antibiotics prescribed were further classified as ‘Access’, ‘Watch’, ‘Reserve’ or ‘Not recommended’ using the 2019 WHO AWaRe classification list.

RESULTS

A total of 1,343 patients on surgical prophylaxis with 2510 prescriptions were analysed. Patients commonly received SAP for obstetrics and gynaecological surgeries (854, 33.0%), bone-joint and skin- and soft tissue surgeries (754, 28.7%) and gastrointestinal surgeries (427, 16.8%). The commonest antibiotics used for SAP were metronidazole (34.3% of SAP prescriptions), ceftriaxone (20.2%), cefuroxime (10.0%) and ciprofloxacin (7.9%). Overall, 50.2% (range 24.6% - 65.0%) of the antibiotics prescribed for SAP were on the Watch list of the WHO AWaRe classification, while 47.5% were on the Access list (figure 1). Only 3.1% of prescriptions were for single-dose SAP, 93.8% were continued for more than 24 hours. About 67.5% of the patients were on multiple antibiotics for SAP and only 58.5% of SAP prescriptions had stop/review date documented and 79.7% had documented reason for prescription.

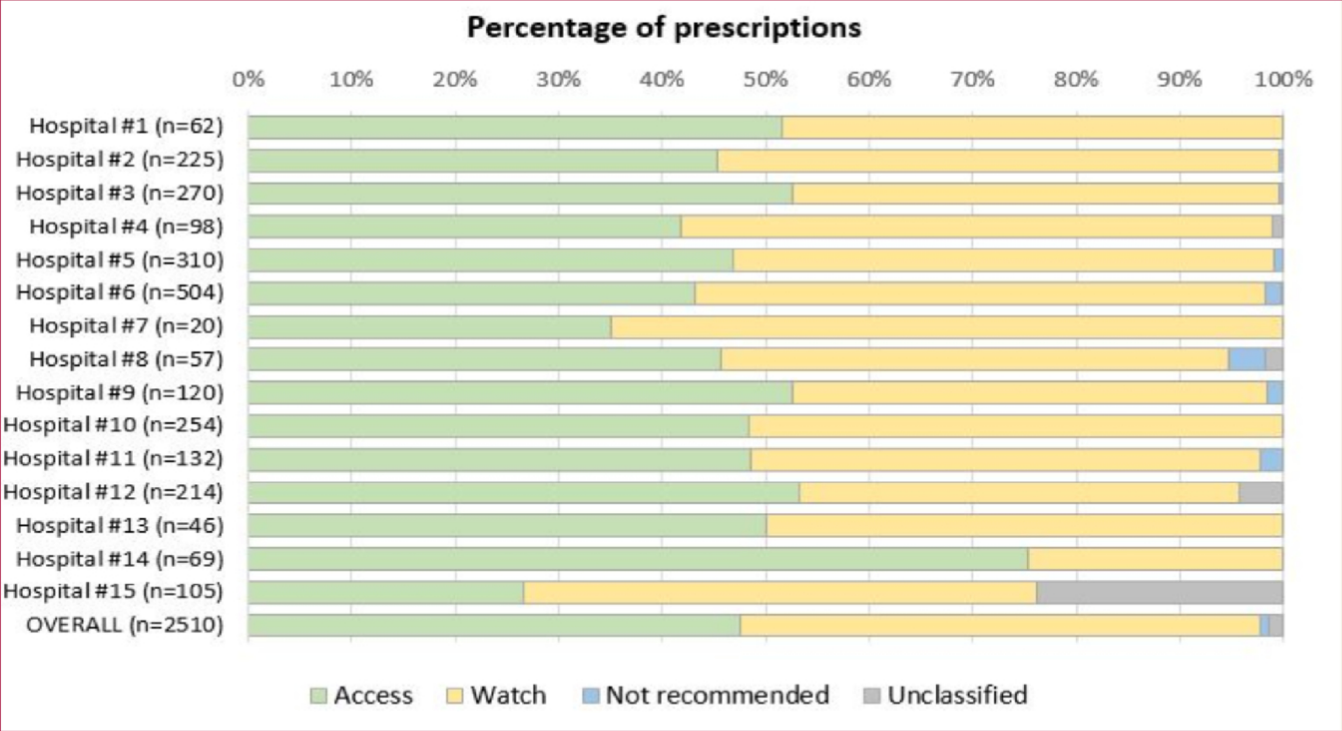


FIG 1: Proportion of class of Antibiotics in the AWaRe classification groups prescribed in each hospital

CONCLUSIONS

There is low and variable compliance with SAP guidelines. Patients are placed on surgical prophylaxis for a prolonged period of time with poor documentation of stop review date, similar to findings in a previous study³. There were more antibiotics on the Watch list for SAP compared to the Access list. This might impact negatively on the choice of antibiotics for therapy due to possibilities of resistance. These situations require immediate interventions including policy development, and engagement of stakeholders to reverse the trend.

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