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# The Global Point Prevalence Survey of Antimicrobial Consumption and Resistance (Global-PPS): 2020 Results of Antimicrobial Prescribing in Cote d'Ivoire


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## INTRODUCTION

Antimicrobial resistance is an emerging problem, also in low-income countries, such as Cote d'Ivoire. A uniform and standardized method for surveillance of antimicrobial use in hospitals was used to assess the variation in antimicrobial prescribing.

## AIM

We aimed to describe the use of antimicrobials in the different levels of care.

## METHODS

The standardized Global-PPS method was conducted in November-December 2020, in 11 hospitals including 4 at tertiary level and 7 at secondary level in Cote d'Ivoire (Abidjan District). The survey included all inpatients receiving an antimicrobial on the day of PPS. Data collected included details on the antimicrobial agents, reasons and indications for treatment as well as a set of quality indicators. A web-based application was used for data-entry, validation and reporting as designed by the University of Antwerp (www.global-pps.com)


Figure 1: Map of Abidjan district , Cote d'ivoire

## RESULTS

- Overall, 740 admitted patients were included; 561 adults, 121 children and 58 neonates.
- The global antimicrobial prevalence was 69,3% (adults: 65.4%; children: 81%; neonates: 82,8%).
- Of 1020 antimicrobial prescriptions, the most prescribed classes of antimicrobials were systemic antibacterials (84.3%), antimalarials (7.5%) and antituberculosis drugs (4.5%).
- The most commonly used antibiotics were ceftriaxone (34%), metronidazole (17%) and gentamycin (17%).
- Malaria (13.8% ), sepsis (8.4%) and pneumonia (6.6%) were the most reported indications.
- Antimicrobials were used for therapeutic treatment in 51.1% of prescriptions versus 48.9% for prophylaxis. Therapeutic antimicrobial use for community-acquired and healthcare-associated infections was respectively 90.8% and 9.2%. Surgical prophylaxis (SP) versus medical prophylaxis (MP) accounted for 58.4% and 41.6% of prophylaxis prescriptions.
- The duration of surgical prophylaxis was 82.1% for a single dose. The parenteral route was used in 84.2% of prescriptions.
- No patient received antibiotic treatment based on microbiological data.

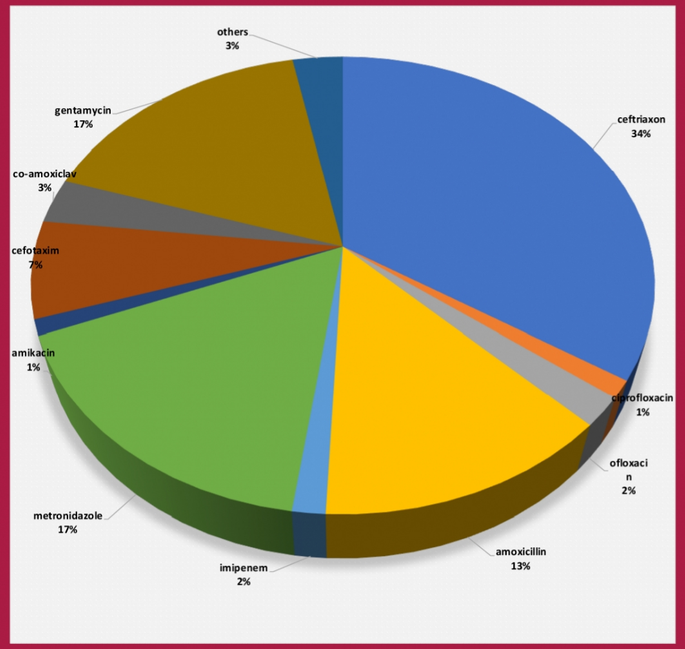


**Figure 2: Proportion of the most antibacterials prescribed for systemic use (ATC J01) (%)**

**Table 1: Overview of antibiotic quality indicators by activity**

| | Reason in note (%) | Stop/review date (%) | Guide compliance (%) |
|---|---|---|---|
| ICU (n=31) | 100 | 19.35 | 9.68 |
| Medical (n=465) | 90,1 | 15.05 | 29.46 |
| Surgical (n=241) | 96.26 | 8.3 | 26.55 |
| neonates and pediatric (n=228) | 93.75 | 17.7 | 66.66 |
| TOTAL | 93 | 14.4 | 38.5 |

Globally, according to the quality indicators, the reason for antimicrobial prescription was documented in 93%, the guideline compliance reached 38,5% and a stop/review data was only documented in 14.4%.

## CONCLUSIONS

The prevalence of antimicrobial prescriptions is high in Côte d'Ivoire hospitals. Antimicrobials are most often prescribed empirically, hence the interest in strengthening the capacities of microbiological laboratories. It appears important to set up an antimicrobial stewardship program in these hospitals and to use this G-PPS tool to monitor antimicrobial prescribing nationally.


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