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Antimicrobial stewardship programme implementation in a Philippine tertiary hospital: a seven-year surveillance of surgical prophylaxis prescribing practices

Gina de Guzman Betito[1], Jay Christian D. Muere[1], Janice C. Caoili[1], Jemelyn Garcia[2], Mari Rose De Los Reyes[2], Ines Pauwels[3,4], Ann Versporten[3,4], Erika Vlieghe[3,5], Ma. Tarcela S. Gler[1]

[1]Makati Medical Center, Makati City, Philippines; [2]Research Institute for Tropical Medicine, Muntinlupa, Philippines;
[3]Global Health Institute, Faculty of Medicine and Health Sciences, University of Antwerp, Antwerp, Belgium;
[4]Laboratory of Medical Microbiology, Faculty of Medicine and Health Sciences, University of Antwerp, Antwerp, Belgium;
[5]Department of General Internal Medicine, Infectious Diseases and Tropical Medicine, University Hospital Antwerp, Antwerp, Belgium

Contact: gina.deguzman@makatimed.net.ph

BACKGROUND & OBJECTIVES

Since 2017, the Makati Medical Center participates bi-annually in the Global-Point Prevalence Survey (PPS) facilitated by the Department of Health (DOH) and monitors the timely discontinuation of Surgical Antibiotic Prophylaxis (SAP). At the start of the study, cefuroxime, a Watch antibiotic, was the most prescribed antibiotic, and prolonged SAP was common. We aim to describe the impact of a multifaceted AMS strategy on the quantity and quality of SAP prescriptions.

METHODS

Following the observations from the baseline Global-PPS in 2017, the following strategies were implemented: an automatic stop SAP policy utilizing an extension request form; adoption and dissemination of DOH's clinical practice guidelines (CPG) with cefazolin as the first-line SAP; encouraged multidisciplinary collaboration with meetings and memos reiterating SAP implementation; roadshows and focus group discussions with surgical departments; inclusion of SAP in training modules and didactic presentations; notification reminders in the medical records; inclusion of cefuroxime in the list of Monitored Antimicrobials and; integration of compliance data into the annual performance evaluations of consultants.

In addition to the results from the PPS, we report the monthly Defined Daily Doses per 1000 patient days (DDD) of the agents commonly used for SAP and the compliance to timely discontinuation of the monitored surgical procedures including antibiotic selection from 2017 to 2023.

RESULTS

From the PPS results, SAP prescribed for one dose and one day increased from 17% (2017) to 95% (2023). A decrease in the DDD of cefuroxime and oral co-amoxiclav with increase in cefazolin were observed. For monitored procedures, the overall compliance to timely SAP discontinuation increased from 19% (2017) to 88% (2023) while cefuroxime and oral co-amoxiclav prescriptions decreased with cefazolin increase. These improved parameters were sustained from mid-2018 until 2023.

Figure 1: Global-PPS: Duration of surgical prophylaxis in adults and children (% of prescriptions; 2017-2023)

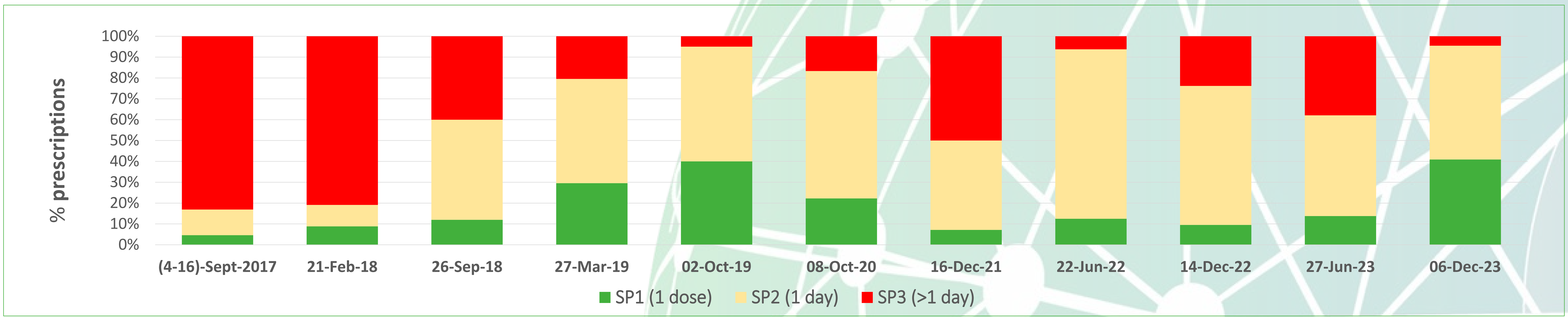


Figure 2: Distribution of number of SAP prescriptions for monitored surgical procedures (2017-2023)

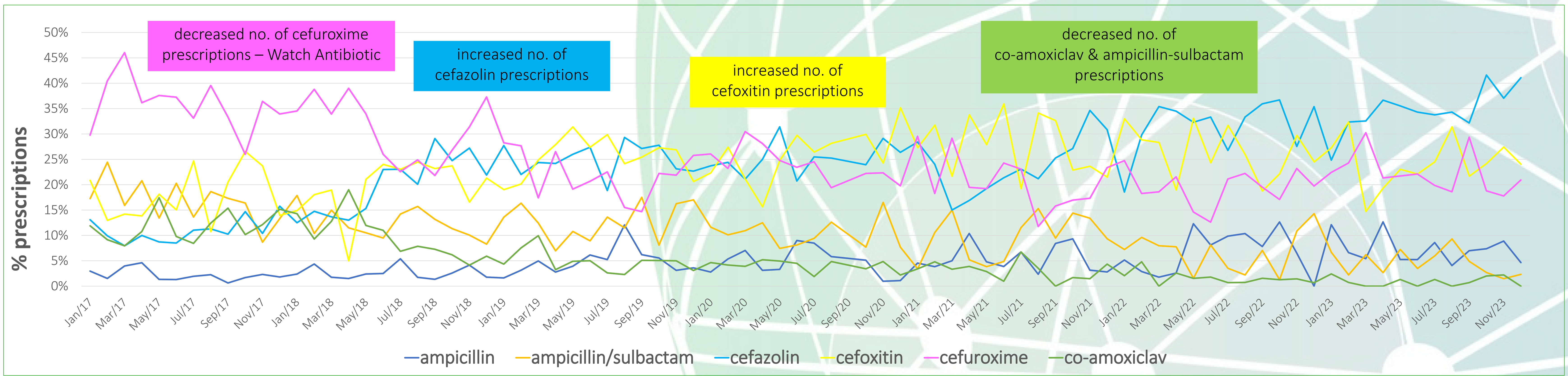
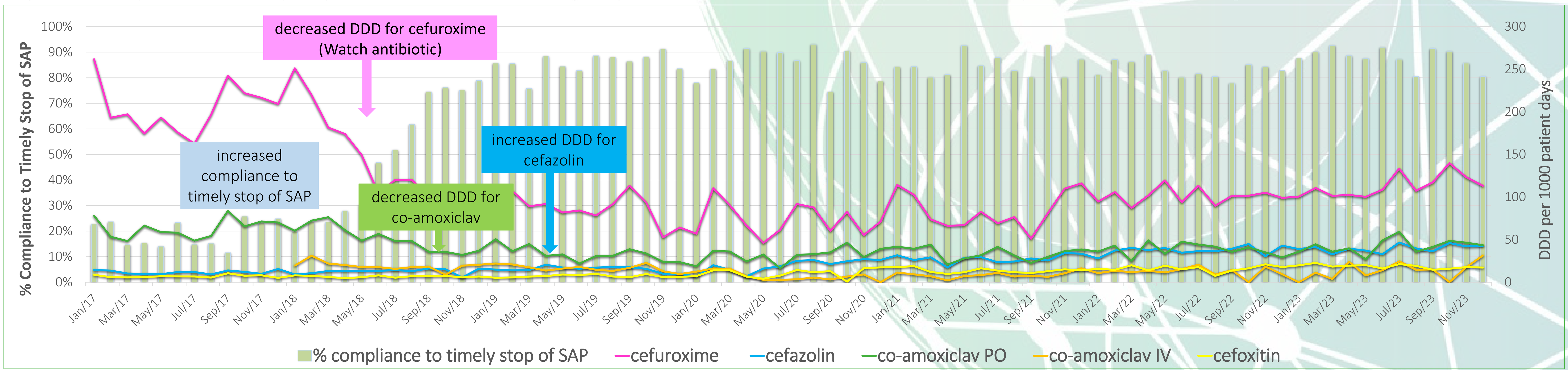


Figure 3: Compliance to timely stop of SAP for monitored surgical procedures versus DDD per 1000 patient days of commonly used agents for SAP (2017-2023)



CONCLUSION

Education, stop policy strict implementation with strong leadership support and multidisciplinary engagement were invaluable in improving prescribing practices. Creating barriers such as extension approvals with audit and feedback provides a point to assess the antimicrobial prescriptions and an avenue for case-based education. The daily review of cases has opened learning opportunities and promoted behaviour change regarding antimicrobial prescribing practices

Keywords: 05 New antibacterial agents, PK/PD & Stewardship
05d Antimicrobial stewardship and prescribing (incl interventions, monitoring, impact, decision-support/prediction tools, behavioural aspects)

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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