

Examination of the efforts of the Antimicrobial Stewardship Team and their impact on the appropriate use of antimicrobials

RES-214

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BACKGROUND AND OBJECTIVES

In Japan, a reimbursement incentive for Antimicrobial Stewardship Team (AST) activities was introduced in the 2018 medical fee revision, allowing hospitals to obtain reimbursement by establishing and operating an AST. At Ehime University Hospital, a dedicated pharmacist has been assigned since April 2018, and the AST—**organized with pharmacists playing a central role**—has been actively functioning. The main activities of the AST include **monitoring patients receiving broad-spectrum antibiotics, patients with positive blood cultures, and patients treated with intravenous antifungal agents**. In addition, weekly conferences are held to review antimicrobial consultations and report on monitored cases. In this study, we evaluated the impact of AST implementation on antimicrobial use at our hospital.

METHODS

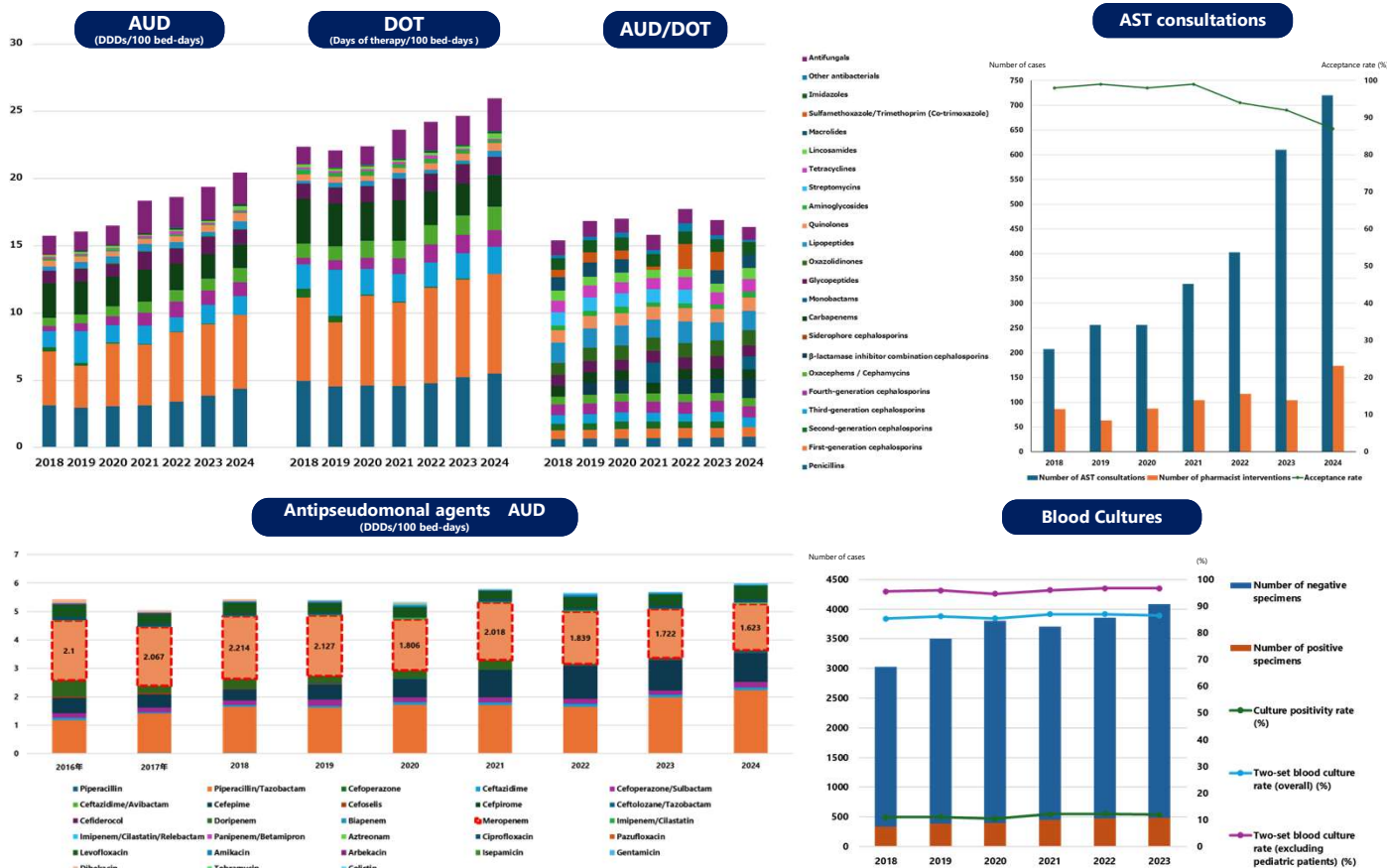
✓ Study period:

April 2018 to March 2024. Blood cultures in 2024 were excluded due to a shortage of blood culture bottles.

✓ Study parameters:

- AST-related indicators: the number of AST consultations, the acceptance rate of recommendations, and pharmacist interventions.
- Blood culture practices: including positivity rates and the proportion of two-set collections.
- Antimicrobial use indicators: antimicrobial use density (AUD), expressed as defined daily doses per 100 patient-days; days of therapy (DOT), defined as the number of days a patient received at least one dose of a specific antimicrobial; and the AUD/DOT ratio, used as an index of potential over- or under-dosing relative to treatment days. AUD was expressed per 100 patient-days in accordance with the standard commonly used in Japan.

RESULTS



CONCLUSION

AST consultations increased annually, while the **acceptance rate** of recommendations remained consistently high at around **90%**. Although the acceptance rate slightly declined in 2024, this was likely due to the growing number of cases continuously followed by the AST. **Blood culture sampling also increased** year by year. Despite the overall rise in antimicrobial use, the AUD of **carbapenems showed a decreasing trend**. These findings indicate that AST activities have contributed **substantially to promoting the appropriate use of antimicrobials**.