

Surgical Antibiotic Prophylaxis Multimodal Project



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Introduction

- **Surgical Antibiotic Prophylaxis (SAP)** refers to the practice of antibiotic administration to reduce surgical site infection (SSI).
- **Inappropriate SAP**, such as extended duration, was identified in the Point Prevalence Survey results (2021/2022) => This contributes to the overall burden of antibiotic use and exposes patients to adverse reactions and development of resistance.
- **Multimodal strategy** is the use of multiple approaches that, in combination, will contribute to influence the behaviour of health care workers that will impact patients outcomes and contribute to organizational culture change.

Context

Réseau Hospitalier Namurois (RHN) includes 6 hospital sites, located in the province of Namur, in Belgium.
SAP, a major project of the Hospital Outbreak Support team - Antimicrobial Stewardship (HOST-AMS) team, started in 2022, and is planned until 2024 in collaboration with GGA (local antimicrobial stewardship groups) teams.

Objective

The objective is to improve surgical prophylaxis **quality indicators** (drug choice, dose, duration and timing) to reach 90% conformity to local guidelines.

Method

1. Overview of local practices

Survey

Functional and subjective questions about the local processes. Sent to anesthesiologists, surgeons and nurses working in the operating room or in surgical units.

Process analysis

Analysis of the **local processes**: prescription, delivery, administration, documentation ...

Audit

Retrospective audit **before intervention**.
Measure of **quality indicators** (drug, dose, timing, duration) for selected types of surgery.

Feedback to prescribers, directors and GGA teams.

3. Follow Up

Institution culture

Integration of the project in quality program and HOST/GGA strategic plan.

Audit

Same methodology to the pre-intervention audit.

Results compared with the first audit and feedback to prescribers, directors and GGA teams.

2. Guidelines: update and implementation

Writing of local guidelines

Creation/update, validation, sharing.

Adapting tools and processes

Review of antibiotic stocks, optimization of processes, definition of responsibilities, creation of templates in the prescribing program ...

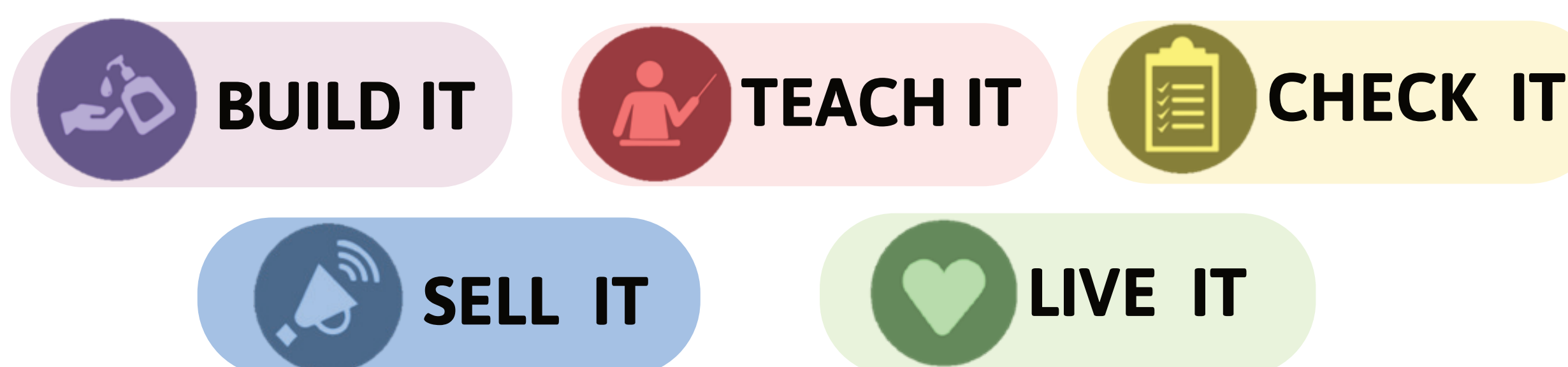
Promoting

Diffusion of the guidelines (e-mails to prescribers, guidelines available in the operating room, ...)
Communication of keys messages during the "World Antimicrobial Awareness Week" (WAAW) in 11/2023 (posters)

Educating

Teaching modules for surgeons, anesthesiologists and nurses

Multimodal Strategy



Results

- The progression of the project is different at each hospital site. The project needs local adaptation and planning.
- The overview of local practices is achieved in 2 hospital sites and is in progress at the 4 other sites.
- For 3 hospital sites, guidelines are updated and validated, implementation is in progress.
- RHN WAAW campaign focuses on promoting good practices of SAP.

Conclusion

SAP is a challenging project that requires involvement, flexibility and collaboration from all stakeholders. Change in prescribing practices to adhere to guidelines can be hard to obtain. A multimodal approach including behavioural interventions and system changes appears to be the best way to get results.

Bibliography

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