

SYSTEMATIC PHARMACEUTICAL REVIEWS IN THE DISPENSING OF RESERVE ANTIMICROBIAL DRUGS

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What was done?

- A system for **reviewing reserve antimicrobial prescriptions** was established.
- Each prescription is **evaluated by a pharmacist**, who determines whether to **dispense the drug or suggest therapy adjustments**.
- Each dispensation of the antimicrobial drug is **recorded in the patient's medical documentation**.

Why was it done?

- The **misuse of antimicrobials** has contributed to **antimicrobial resistance** and an **increase in adverse reactions**.
- This **issue has been recognized** as a significant concern.
- A **system was implemented to monitor the dispensing and use of reserve antimicrobials** throughout the hospital.

How was it done?

- A **dedicated prescription form** was created exclusively for **ordering reserve antimicrobials, separate** from other medications.
- The form is **reviewed by a pharmacist** who:
 - **Calculates** the patient's **creatinine clearance**.
 - Examines inflammatory markers.
 - Checks **treatment alignment with the antibiogram**.
 - **Reviews potential interactions** with other therapies.
- The **pharmacist decides whether to dispense the drug or suggests modifications** to the treatment if needed.
- **Each dispensation is recorded** in the patient's medical documentation to facilitate treatment tracking.

What is next?

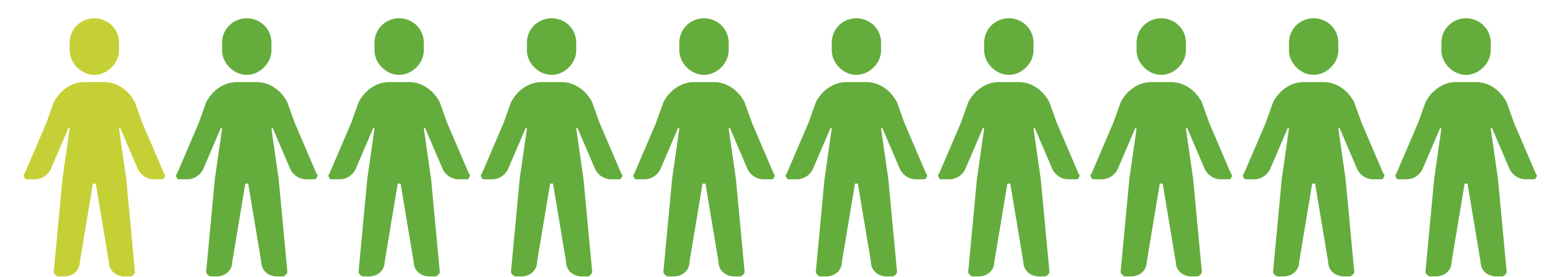
- The **ordering system is being digitized**, enabling departments to request antimicrobial drugs **via the hospital information system**.
- An **application is being developed** to calculate kidney function and verify the correct antibiotic dosage for each patient **in one place**.

What has been achieved?

- This approach has established **systematic control over the prescription of reserve antimicrobial drugs**, with an additional **prescribing checkpoint** introduced by a clinical pharmacist.
- Analysis of data from our work between 2020 and 2023:

	No. of dispensings	No. of pharmacist interventions	Proportion of pharmacist interventions
2020	3,356	535	15.9 %
2021	4,049	526	13.0 %
2022	4,674	578	12.4 %
2023	4,385	572	13.0 %
total	16,464	2,211	13.6 %

- pharmacists recommended therapy adjustments in **more than 1 out of 10 cases** (13.6 %)



- On average, we recommended:

