Consorci Sanitari Integral
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IMPACT OF A MEDICATION REQUEST TOOL FROM THE NURSING ADMINISTRATION VIEW IN HOSPITALIZATION

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WHAT WAS DONE?

This tool is part of "Safe Medication Administration in Hospitalization/Avoid Interruptions" project.
A "button" was included in nursing administration view of electronic prescription program, which when activated automatically generates a request to Pharmacy service for a dose of required medication. Hospital Information Systems were contacted for design.
All requests generated during the administration of medication were automatically received in Pharmacy service. They were grouped by plant, listed, deducted from stock and dispensed at the agreed times.

WHY WAS IT DONE?

Lack of stock delays medication administration by nurses. This situation also generates hospital warden displacements to Pharmacy Service and telephone interruptions of Pharmacy technicians work.
Main aim was to amend stock lack management to improve patient security during medication preparation and administration. The secondary objectives were: reduce interruptions of other health professionals and automate warehouse exits avoiding errors of manual update of Pharmacy stock.
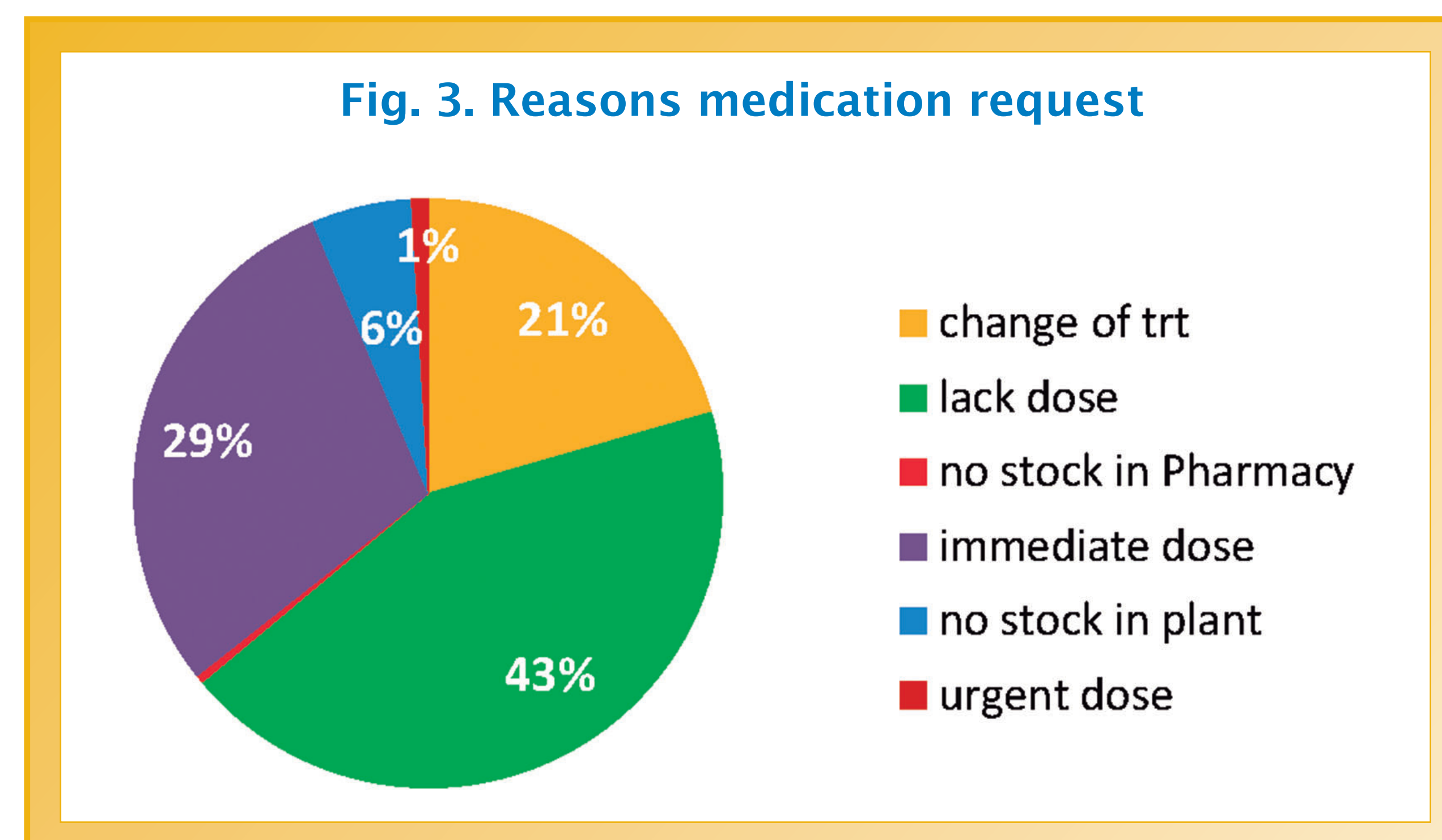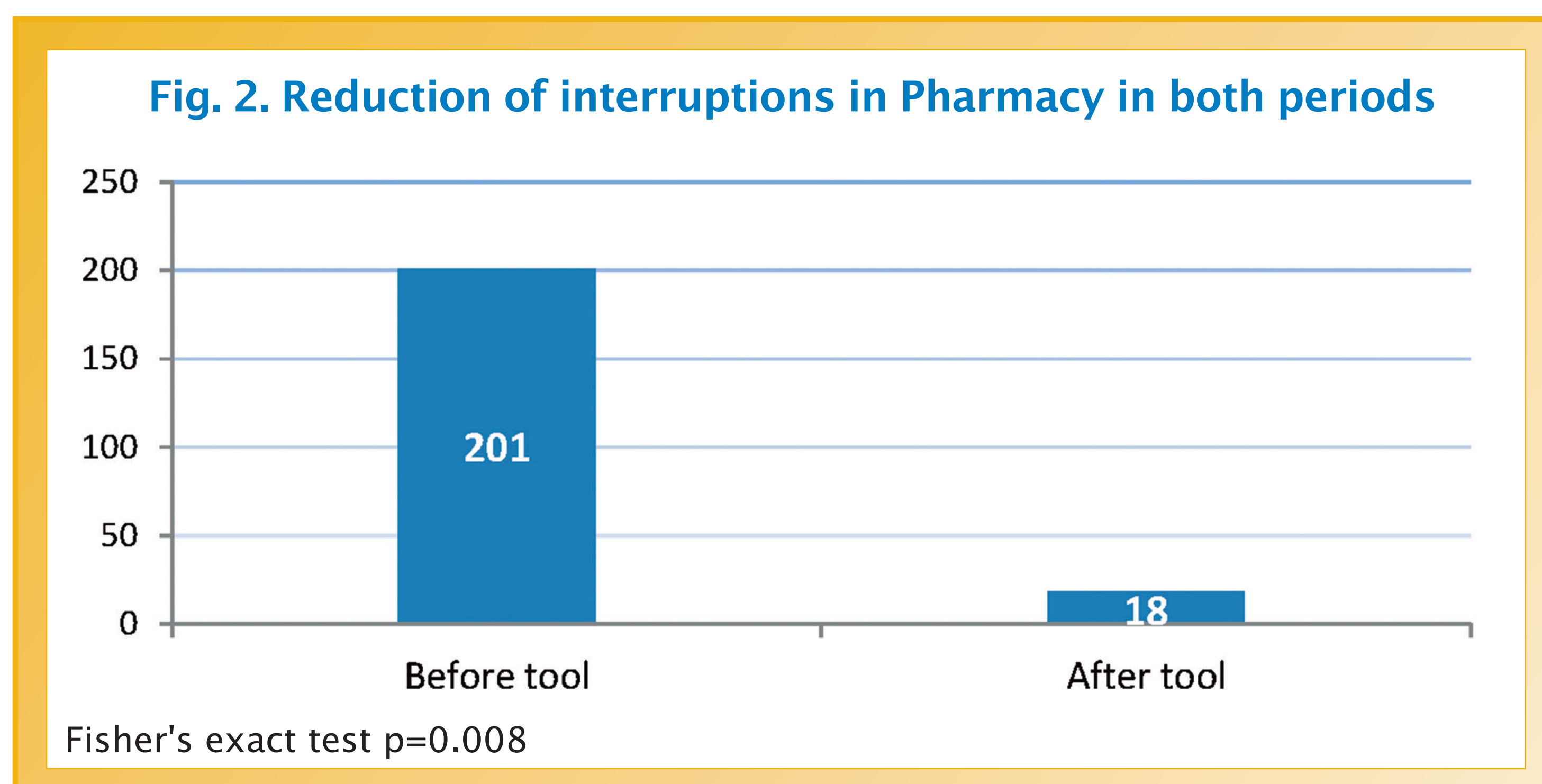
HOW WAS IT DONE?

The tool was developed by Hospital Information Systems, in collaboration with nursing, and staff training was carried out for correct handling of the tool. Also, medication dispensing schedules were agreed with hospital warden. 15 days before tool implementation, Pharmacy service analyzed all medication requests made from hospitalization. Data collected were: plant and shift requested, reason, existence of pattern, requested medication, requested units, notice to auxiliaries to collect medication.
After the first week of implementation, same assessment of requests was made during the same period to compare and evaluate impact of this tool implementation. (Fig. 1)

Fig. 1	Before tool	After tool
Nurse	2 telephone calls by request and patient	1 on line request grouped by plant
Technicians	confirm prescription one by one	dispensing medication in agreed times
	manual dispensing	automatic procesing by request and plant
	medication processing one by one	
Auxiliaries	1 desplacement every call	3 agreed deplacements a day

WHAT HAS BEEN ACHIEVED?

When both periods were compared, prescribed medication requests decreased from 201 to 18. This difference being statistically significant (Fisher's exact test p=0.008). This difference meant significant reduction of interruptions in Pharmacy technicians daily work. (Fig. 2)

Requests reasons were lack dose in 43.4% (n=95) of cases, immediate prescriptions in 29.2% (n=64) of cases and treatment change in 20.5% (n=45) of cases. (Fig. 3)

Fig. 2. Reduction of interruptions in Pharmacy in both periods

Before tool: 201
After tool: 18
Fisher's exact test p=0.008

Fig. 3. Reasons medication request

- change of trt — 21%
- lack dose — 43%
- no stock in Pharmacy
- immediate dose — 29%
- no stock in plant — 6%
- urgent dose — 1%

29.2% of all requested medications belonged to antimicrobial and antiviral group.
62% (n=135) of the total requests were received in the morning shift.
Hospital warden displacements were significantly reduced when comparing both periods from 102 to 3 (Chi square test, p=0.006). This meant a significant reduction in interruptions in hospital warden work.
It has been possible to standardize and improve efficiently nursing management of medication stock lack.

WHAT NEXT?

The incidents technical improvement is pending, as well as training of new nursing staff. It is possible to implement this tool in all hospital units that have electronic prescription.