

# Medical Devices management: consumption in surgical practice with RFID system

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## Introduction

The Satellite Pharmacy analyzes organization, processes, information flows and logistics related to the management of materials, mainly optimizing the preparation of the Procedural Kits, the reinstatement of the stock of Medical Devices (MD) at the storage locations of the Surgery Blocks Operators, and returns management. By the very advanced RFID (Radio Frequency Identification) technology according to which the products are equipped with a label containing the information of the product, we can trace the MDs from the acceptance in the pharmacy to the deposit in RFID basket for surgical intervention and patient, computerizing the management procedures, rationalizing the inventory management of the devices, and managing the procurement and purchasing processes with a minimum requirement of activity by the operators.



## Purpose

Improve clinical practice in health care system by RFID technology, which shows efficiency and ability to manage a rational use of human resources and materials.

## Materials and methods

With the aim of providing some indicators that show summary information on the success of the activities of all the operators involved, we analyze:

- Allocated Index: Ratio between Specific Cost Center (CC) allocations vs. Generic CC allocations;
- Employment index: ratio between the total number of interventions performed and those that result without registering basket consumption;

The monitoring of these parameters makes it possible to check the progress of the improvement objectives.

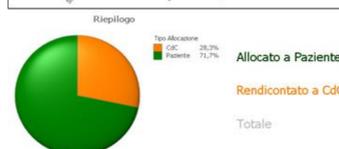
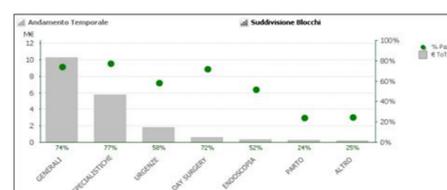
## Results

The analyses of amount of the cost (by intervention) recorded for the first 9 months of 2017 and 2018 on same perimeter of surgical specialists, shows an increase from 34% in 2017 of the total report, of which the amount of allocated direct to the patient goes from 78.5% to 85.3%.

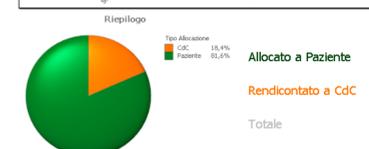
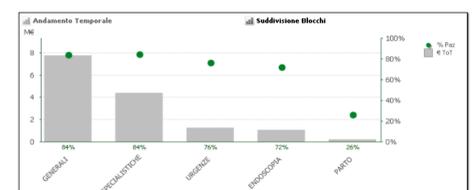
In addition, in 2018 there was a reduction of 80% of loss of consumption recorded on intervention compared to 2017, of which the overall percentage of operations without associated MD passed from 3,4% (year 2017) to 0.7% (2018).

### ALLOCATED INDEX

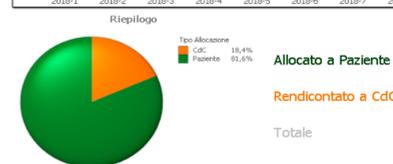
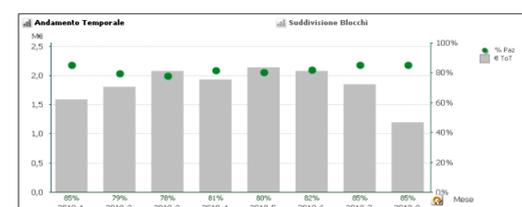
2017



01/01 – 31/08/2018



### Firstly months 2018



## Conclusions

The analysis and reports, processing through the collaboration between the various professions, has allowed a constantly control of consumption and costs for each intervention, per patient, cost center/operating room, ensuring better management of reporting flows at cost. The transformation of healthcare through effective innovative system and workforce may alleviate the impending rise in demand for health services.

