

## From infections to preventive actions monitoring in health facilities: an experience on MDROs

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Healthcare-Associated Infections (HAIs) and Antimicrobial Resistance (AMR) involve high costs both in health and economic terms for patients and health systems. Implementing Infection Prevention and Control (IPC) programs is critical to decrease infectious agents' transmission in healthcare settings. The aim of this study is to assess if the monitoring of Contact Precautions could decrease the incidence of Multi-Drug Resistant Organisms (MDROs) infections. This pilot study was conducted in a teaching hospital in Rome. A checklist of 16 items was developed to assess the compliance to Contact Precautions in 11 hospital wards in which MDROs were detected between November and December 2020. It was administered on-site both interviewing healthcare professionals and through direct observation. A paired t-test with  $\alpha = 5\%$  was used to compare the number of alert organisms in the first quarter of 2020 respect to the first quarter of 2021 before and after implementing the surveillance checklist. A total of 30 checklists were analyzed. The rate of compliance to Contact Precautions was high for the proper use of personal protective equipment (100%), the intensified room cleaning (100%) and the presence of isolation mark (100%), while it was low for the active screening of contacts (53%). Mean MDROs infections rate decreased from 4.94 to 4.37 for every 1000 hospitalization day, with an average decrease of 0.57. However, the paired t-test showed that there was no statistically significant difference between the mean number of MDROs infections before and after the implementation of the checklist ( $p > 0.05$ ). Despite the good adherence to IPC program, the low infection rate decrease, is probably due to the impact of COVID-19 on the HAIs surveillance and prevention practices. Even if the check-list administration could be a useful tool to reduce MDROs infections, it should be associated to other prevention strategies during the COVID-19 pandemic in order to achieve a successful outcome.

### Key messages:

- Preventing Healthcare-Associated Infections represents a priority public health challenge in order to improve patient safety and health system economic sustainability.
- The COVID-19 pandemic has shown that healthcare facilities should enhance efforts in their IPC programs to reduce Healthcare-Associated Infections.