

An educational programme for the control of hospital outbreaks

Healthcare associated infections due to microorganisms resistant to multiple antimicrobial drugs (Multidrug Resistant Organisms-MDROs) represent a concern for healthcare facilities worldwide. Because of the difficulties in the management of MDRO infections, various guidelines containing recommendations have been published: according to these documents, the education of the healthcare workers plays a very important role, in particular in outbreak prevention.

Aim of this work is to describe an educational programme implemented in an Italian hospital for preventing and controlling nosocomial outbreaks of these threatening pathogens. The programme was designed for all the healthcare workers of two hospital units involved in a carbapenem-resistant *Klebsiella pneumoniae* outbreak. This MDRO, in particular in hospital settings, is involved in the development of several clinical conditions such as pneumonia and urinary tract/bloodstream infections, and the acquisition of resistance to the antibiotic class of carbapenem makes this microorganism extremely dangerous for patients' health. Four different editions of the educational programme were carried out in October and November 2017. Following a multidisciplinary approach, lessons were performed by: i) a microbiologist describing the characteristics which make this pathogen so dangerous for the health of the patients; ii) an infectious diseases specialist reporting measures implemented to successfully control of a previous *Klebsiella pneumoniae* outbreak; iii) an intensive care specialist discussing and comparing different available guidelines about prevention and control of MDRO infections; iv) an infection control skilled nurse describing the correct management of patients colonized or infected by MDROs. Moreover, during each edition a video performed by the hospital staff about "dos and don'ts" in isolation precautions and hand hygiene was showed.

Overall, the educational programme was voluntarily followed by 79 hospital healthcare workers: 54 nurses (68.4%), 20 medical assistants (25.3%) and 5 physicians (6.3%). In addition, it was considered "effective" or "very effective" by 56/74 (75.7%) of the participants.

In conclusion, the high participation to the educational programme showed the intent of the hospital staff to improve knowledge about MDROs. Bundles for preventing and controlling outbreaks of pathogens such as carbapenem-resistant *Klebsiella pneumoniae* (including measures such as screening cultures, environmental cleaning, etc.) cannot exclude the implementation of educational interventions for healthcare workers.

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Publication

[A multi-disciplinary educational programme for the management of a carbapenem-resistant *Klebsiella pneumoniae* outbreak: an Italian experience.](#)

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