

POSTER PRESENTATION

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P212: Antimicrobial resistance and healthcare associated infections: one and only battle

ML Moro*, C Gagliotti, M Marchi, R Buttazzi, V Cappelli, M Morandi, F Morsillo, A Pan, M Parenti, E Ricchizzi

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Introduction

Integrated surveillance of Healthcare infections (HAIs), antimicrobial resistance (AMR) and antimicrobial consumption (AC) is essential. Its impact in Emilia-Romagna (4.5 million inhabitants) is described.

Methods

The following surveillance systems exist: electronic-lab-based surveillance covering all public and private hospital; AC monitoring system, covering both hospital (HA) and community; alert system of sentinel HAIs and outbreaks, both in HA and long-term care facilities (LTCFs); surgical site infection and intensive care unit surveillance system; repeated prevalence surveys both in HA and LTCFs; regional databases linkage for selected infections (eg *Clostridium difficile*); ad hoc surveillance for high priority AMR microorganisms (ie carbapenemase-producing *Klebsiella pneumoniae*-CPK); monitoring of HAIs and antimicrobial stewardship programs in each LHT and of hand hygiene products consumption.

Results

Selected results are presented below. The incidence rates of bacteremia raised from 146 in 2005 to 228 cases per 100.000 inhabitants/year in 2011 (+56%); the increase was significant for *K. pneumoniae* (+188%) and *E.coli* (+99%), due to spread of multiresistant strains. An intervention program, launched in July 2011 to fight the spread of CPK, had a positive impact on this trend. The AC significantly increased until 2009; subsequently, the trend is still increasing for hospitals (90.8 DDD/100 in hospital-days in 2011) while in the community the consumption has decreased (following educational campaigns), being still high (18.4 DDD/1.000 inhabitants-day in 2011). In 2007-2011 the coverage of the regional alert system progressively

improved: in 2007 26 HAI outbreaks were notified, and 54 in 2011; 17.9% occurred in LTCFs and 82.1% in HA. Data on 59,281 non orthopaedic surgeries from 33 categories of surgical procedures have been collected by 41 hospitals (2007-2011): in HAs participating to the surveillance for at least two years, the incidence of surgical wound infections was reduced by 24% (Odds Ratio 0.76, 95%CI 0.66-0.88).

Conclusion

An integrated surveillance system, covering both HAIs and AMR, is essential to identify critical areas, to monitor interventions and to demonstrate the success of dedicated efforts.

Disclosure of interest

None declared.

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Area di Programma Rischio Infettivo, Agenzia Sanitaria e Sociale Regione Emilia-Romagna, Bologna, Italy