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BATTERIOLOGIA

CONTROL OF THE SPREAD OF VANCOMICIN-RESISTANT ENTEROCOCCUS FAECIUM IN A REHABILITATION UNIT: ONE-YEAR OBSERVATION

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INTRODUZIONE

In most cases, the spread of vancomicin-resistant Enterococcus faecium (VRE) in hospitals causes colonization alone, whereas infections are rare. Because it is a challenge to differentiate colonization versus infection, source control is first priority in management of VRE infections.

This study reports the evaluation of surveillance and control measures adopted to contrast VRE colonization/infection in a rehabilitation unit of Territorial Socio-Sanitary Authority (ASST) of Lodi.

METODI

Since August 2018, in the 40-bed rehabilitation unit of ASST of Lodi all patients are screened for VRE rectal colonization by collecting a rectal swab at admission and weekly until discharge. The laboratory detection of VRE is performed using selective, differential, and chromogenic agar plates or by Xpert vanA/van B Cepheid GeneXpert, when rapid detection is required.

VRE-specific hygienic precautions have been implemented: 1) consistent hand disinfection 2) patient-dedicated gown and glove precautions 3) spatial isolation 4) use patient-dedicated equipment 5) specific standard surface disinfection 6) patient's hygiene with 2% chlorhexidine gluconate bathing 7) room disinfection with hydrogen peroxide dry-mist after patient discharge. The trend in colonization was measured using the coefficient of transmission as per GiViTi, which expresses the number of transmissions/1000 days for patient at risk.

RISULTATI

A total of 545 patients (93% bedridden) underwent screening for VRE during one-year of observation: 403 (74%) of them had a negative rectal swab, while 142 (26%) were colonized by VRE at admission. Thanks to the weekly active screening program, colonization by VRE after admission could be identified in 117 (29%) patients, with a median admission-to-colonization time of 12 days (3-80) days. Until November 2018, all the 7 control measures were applied with great work load and economic commitment. Since December 2018, spatial isolation was changed into organizational isolation, daily bathing with chlorhexidine was extended also for neighbouring patients and the use of hydrogen peroxide was limited to specific cases. The coefficient of transmission varied from 1.32 in August 2018 raising to 1.84 in January 2019 (χ^2=0.44, p=0.49) and subsequentely decreased to 0.36 in August 2019 (χ^2=6.1, p=0.09). VRE was isolated in urine of five patients with urethral catheters and in blood coltures of only one patients, without a clear clinical meaning.

CONCLUSIONI

The value of VRE screening in a rehabilitation unit remains contentious: VRE colonization is of no concern, VRE are "wimpy" pathogens, VRE control is difficult and costly, however in the absence of control measures, VRE colonization rates increase.