

## Short communication

# VRE Screening: Surveillance Data of 5 Years

Canan Sever<sup>1</sup>, Ayşe I. Tosun<sup>2</sup>, Özlem Güven<sup>2</sup>

<sup>1</sup>Department of Infectious Diseases, Istanbul Medipol University, 34214 Istanbul, Turkey

<sup>2</sup>Department of Medical Microbiology, Istanbul Medipol University, 34214 Istanbul, Turkey

## Abstract

The aim of the study was to investigate the status of intestinal colonization with VRE in patients admitted to Istanbul Medipol University Hospital in a 5-year period. VRE colonization was determined to be 3.19% in screened rectal swab specimens. The results indicate that there was an increase in 2016, since then VRE isolation rate has been in a decreasing trend.

**Keywords:** *Enterococci*, vancomycin-resistant enterococcal infections, VRE

## Резюме

Целта на изследването е да се проучи състоянието на чревната колонизация с ентерококи, резистентни на ванкомицин (VRE) при пациенти, приети в университетската болница "Медипол" в продължение на 5 години. Установено е, че количеството на VRE при скрининг на проби от ректален тампон е 3,19%. Резултатите показват, че този брой през 2016 г. се увеличава, а след това степента на изолираните VRE показва тенденция на намаляване.

## Introduction

Intestinal colonisation colonization with drug resistant bacteria has been an increasing concern in healthcare settings. Colonised Colonized individuals with vancomycin-resistant enterococci (VRE) are at risk of infection besides playing a role in the dissemination of resistant bacteria in healthcare facilities. Therefore, screening of patients at high risk of colonization and infection is recommended to prevent and control the dissemination of VRE (O'Driscoll *et al.*, 2015). There is no clear recommendation for routine VRE screening of asymptomatic carriers and the implementation represents a financial burden for healthcare facilities especially in the developing countries. However, it is a routine practice in many centers (Faron *et al.*, 2016).

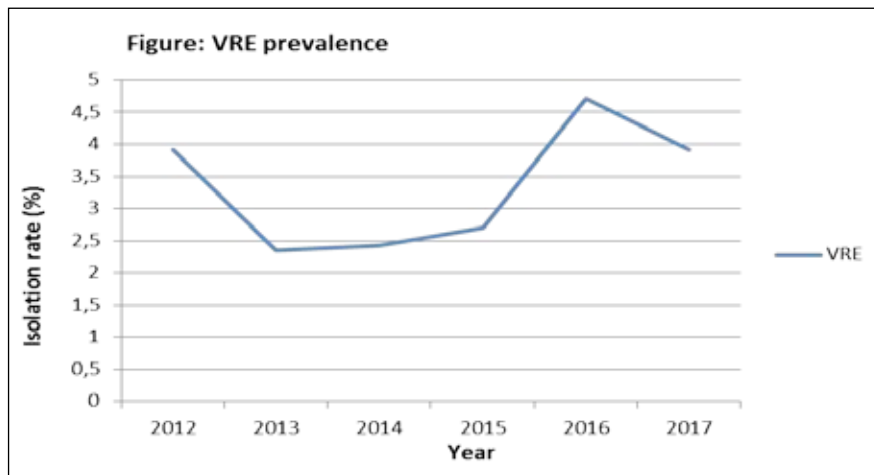
Rapid identification of VRE is crucial in the management of colonized patients and prevention of the dissemination of the resistant bacteria. Surveillance is also important by means of monitoring the prevalence trends over the years and evaluation of the hygiene practices (Humphreys, 2014).

## Material and Methods

A retrospective surveillance study was conducted at Istanbul Medipol University Hospital between June 2012 and August 2017. All specimens were inoculated using ChromAgar VRE (BDTM CHROMagar™ VRE, Beckton Dickenson, USA). After 24 hours, pink to mauve colonies were examined. Antimicrobial susceptibility testing was performed on all VRE strains with Kirby-Bauer disc diffusion method. Evaluation was based on CLSI (M100 S-24, M100 S-26) criteria. Vancomycin intermediate and resistant strains were retested using the VITEK 2 system (bioMérieux, France). Evaluation was based on CLSI (M100 S-24, M100 S-26) criteria.

## Results

VRE was isolated from 301 (3.19%) of 9431 rectal swab specimens. The prevalence of VRE was 3.92% (15/383) in 2012 and declined to 2.35% (33/1403) in the following year. It reached the highest level in 2016 with 4.71% (95/2016). The trends in VRE isolation over the years is given



**Fig. 1.** VRE prevalence in years

### Conclusions

VRE colonization was determined to be 3.19% in a 5-year period. Our hospital has a large group of patients with serious and complicated infections requiring extended spectrum antibiotic therapy, among whom hematological and solid organ transplant patients and a substantial group of foreign patients from the Middle Eastern countries with serious and complicated war infections. This could explain our increasing rates of VRE despite the decreasing global trends.

### References

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