

POSTER PRESENTATION

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Prevalence of colonisation with vancomycin-resistant enterococci on admission - a cross-sectional study in 6 German university hospitals, 2014

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Introduction

The survey presented here is part of the multicenter study ATHOS (antibiotic therapy optimisation study) on prevalence and incidence of nosocomial carriage of multi-drug resistant organisms (MDROs) in Germany.

Objectives

The aim of this survey was to assess the prevalence of rectal colonisation with VRE in patients on hospital admission. Additionally, we performed a risk factor analysis for VRE carriage.

Methods

We recruited adult patients within 72 h after admission to non-intensive care units in six German university hospitals to obtain rectal swabs that were screened for VRE. Each patient was asked to answer a short questionnaire on potential risk factors for colonisation with MDROs, such as sex, age, antibiotic therapy in the last 6 months, previous colonisation with any MDRO, travel abroad in the last 6 months, stay in a nursing home or hospitalisation in the last 6 months. Univariable and multivariable risk factor analyses were performed to identify those factors which were associated with VRE colonisation.

Results

In 2014, 4372 patients were included in the admission survey. Overall, 35 patients were colonised with VRE (admission prevalence of 0.8%). The following factors were

associated significantly with VRE carriage: centre (OR = 3.61, CI 95% 3.05-4.27, $p < 0.001$), previous MDRO colonisation (OR = 3.23, CI 95% 1.47-7.11, $p = 0.004$), antibiotic use (OR = 2.91, CI 95% 1.47-5.74, $p = 0.002$), stay in a nursing home (OR = 3.19, CI 95% 1.87-5.46, $p < 0.001$), and hospitalisation (OR = 3.19, CI 95% 2.06-5.42, $p = 0.000$). Interestingly, travel abroad had a protective effect on VRE carriage (OR = 0.51, CI 95% 0.29-0.91, $p < 0.001$).

Conclusion

This admission survey in Germany revealed a moderate colonisation rate of 0.8%, whereat prevalence differed significantly by centre. Well-known risk factors for VRE carriage were identified: previous colonisation with any MDRO, antibiotic use in the last 6 months, and admission to nursing homes or hospitals in the last 6 months. We observed that not travelling abroad was significantly associated with VRE carriage which we cannot explain. Thus, we cannot exclude a confounding factor we have not considered so far and should be addressed in further studies.

Disclosure of interest

None declared.

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