

POSTER PRESENTATION

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# Algorithm for empirical glycopeptide treatment in patients with hematologic malignancies and enterococcus faecium blood stream infection

X Zhou<sup>1\*</sup>, M Kerkhof<sup>2</sup>, L Span<sup>3</sup>, A Friedrich<sup>1</sup>, J Arends<sup>1</sup>

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## Introduction / objectives

*Enterococcus faecium* has become a major cause of nosocomial infections especially in patients with hematologic malignancies. The aim of this study was to determine risk factors in those patients who are at risk of *Enterococcus faecium* blood stream infection (BSI) and should be considered for empirical treatment.

## Methods

Retrospectively demographic, clinical and microbiological data in 33 patients with an *E. faecium* BSI were compared to 66 control patients during a 5-year period at the hematology ward. Multivariate logistic regression was used to explore the independent risk factors in order to develop a prognostic model to determine the risk of *E. faecium* BSI.

## Results

Significant associations of *E. faecium* BSI were found with age, hospital stay prior to blood culture, duration of hospitalization 1 year before admission, fever prior to blood culture, severity and duration of neutropenia, CRP (C-reactive protein) at time of blood culture withdrawal, colonization with *E. faecium* prior to blood culture and diarrhea. *E. faecium* BSIs were found associated with more severe disease and higher mortality rates. Independent risk factors for *E. faecium* BSI were colonization with *E. faecium* 30 days prior to blood culture (OR 3.83; CI 1.1-12.8), fever > 1 day (4.02; 1.3-12.8), hospital stay prior to blood culture > 14 days (4.78; 1.3 -18.0), age > 59 years (5.47; 1.6-18.2) and abdominal pain, diarrhea or neutropenia (5.95; 1.1-31.4).

## Conclusion

Using prognostic modeling, risk stratification is possible for development of *E. faecium* BSI in patients with hematological malignancies. Empirical treatment should be considered in patients who are at high risk.

## Disclosure of interest

None declared.

## Author details

<sup>1</sup>Medical microbiology, University Medical Centre Groningen, Groningen, Netherlands. <sup>2</sup>Epidemiology, University Medical Centre Groningen, Groningen, Netherlands. <sup>3</sup>Hematology, University Medical Centre Groningen, Groningen, Netherlands.

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<sup>1</sup>Medical microbiology, University Medical Centre Groningen, Groningen, Netherlands

Full list of author information is available at the end of the article