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LETTER TO THE EDITOR

Outcomes of therapy vancomycin-resistant enterococcal bacteremia in hematology and bone marrow transplant patients

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Dear Dr. Rolston,

We appreciate your comments in regards to our study assessing outcomes of therapy for vancomycin-resistant enterococcal (VRE) bacteremia in hematology and hematopoietic stem cell transplant patients. As you presumed, we did use an absolute neutrophil count (ANC) of $\leq$500/mm^3 for the definition of neutropenia. The overall duration of neutropenia was assessed and documented in Tables 1, 2, and 3 within the manuscript. In regards to recovery from neutropenia, all treatment failure patients recovered their neutrophils prior to their blood cultures becoming negative except for three patients. One patient had neutrophil recovery 2 days later, one had neutrophil recovery 19 days later, and one patient had neutrophil recovery on the same day cultures became negative.

To provide additional data regarding the length of neutropenia, we assessed duration of neutropenia pre- and postinfection, and there was no difference between groups (Tables 1 and 2 below). We did see a nonsignificant trend of longer neutropenia prior to infection for day 7 failures compared to successes (19.1 versus 10.5 days, P=0.05) as well as a nonsignificant trend of longer postinfection neutropenia for day 7 failures compared to successes (10.8 versus 6.2 days, P=0.05). We do recognize that this nonsignificant difference may be due to sample size limitations.

Although possible, we did not explore an analysis assessing the degree of neutropenia between groups. Given the differences in diagnosis between groups (greater number of acute myeloid leukemia patients in the linezolid cohort and greater number of bone marrow transplant in the daptomycin cohort), it is possible that there was a difference. However, in both groups, patients are likely to be absolutely neutropenic for the majority of their duration of neutropenia, with less time spent with an ANC close to 500/mm^3.

Table 1 Length of neutropenia stratified by treatment

Variable	Linezolid (N=29)	Daptomycin (N=43)	P value
Length of neutropenia, preinfection (mean days)	11.7±12.4	12.3±11.8	0.84
Length of neutropenia, postinfection (mean days)	7.1±5.7	6.7±7.3	0.76

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Table 2 Length of neutropenia stratified by outcome

	Day 7 failure (N=10)	Day 7 success (N=62)	P value
Length of neutropenia, preinfection (mean days)	19.1±14.0	10.5±11.4	0.05
Length of neutropenia, postinfection (mean days)	10.8±8.7	6.2±6.1	0.05
	Day 14 failure (N=4)	Day 14 success (N=68)	P value
Length of neutropenia, preinfection (mean days)	19.0±13.5	11.7±11.9	0.23
Length of neutropenia, postinfection (mean days)	17.3±8.6	6.6±6.5	0.17

Finally, while a daptomycin dose for VRE bacteremia has not been elucidated, we recognize the growing body of literature that high-dose daptomycin may be associated with higher response rates and in vitro synergy may exist with combination therapy. Unfortunately, these data were not available at the time of our study (January 2004–January 2007), and we were unable to assess outcomes with high-dose daptomycin given our doses were median (range) 5.5 (4.5–6 mg/kg). We agree and reiterate your final comment that empiric therapy with agents active against VRE should be considered when such patients develop episodes of neutropenic fever [1]. Thank you again for your comments.

Conflict of interest The authors have full control of the primary data, and the *Journal of Supportive Care in Cancer* is able to review the data if requested. Dr. DePestel was a consultant for Pfizer and Cubist Pharmaceuticals and had received funding for other projects from Cubist Pharmaceuticals at the time of the study. The current affiliation is Cubist Pharmaceuticals, Lexington MA. All other authors have nothing to disclose.

References

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