

## LETTERS TO THE EDITOR

**Staphylococcus aureus Bacteremia and Peripheral Vascular Catheters**

*To the Editor*—We were interested in the article by Trinh et al<sup>1</sup> that reported on the risks of peripheral vascular catheters for *Staphylococcus aureus* bacteremia (PVC-SAB). We (E.T.C. and J.R.) have also commented on the importance of PVCs as a cause of *S. aureus* bacteremia (SAB) on the basis of the following data:<sup>2</sup> (1) a national prevalence of PVCs among hospitalized patients of 30.3%; (2) a report that PVCs cause more SABs than are caused by central vascular catheters; (3) reports of PVC care, when audited, being suboptimal; and (4) studies of mortality indicating that PVCs pose a considerable risk.

Trinh et al<sup>1</sup> report that PVCs associated with SABs had a longer mean dwell time than did PVCs that were not associated with SABs ( $P < .001$ ).<sup>1</sup> Their comparison was based on completed PVC episodes for the group of patients who developed SABs. They compared these times with the PVC dwell times obtained from a group of patients who were identified in a point-prevalence study. However, it is clear that this latter group included PVC episodes that could not have been completed, because the PVCs were still in situ. This would have resulted in the dwell times of the comparator group being underestimated, leading to a likely overestimation of the SAB risk associated with the duration of insertion of PVCs.

Although we concur with Trinh et al<sup>1</sup> that patients' risks of developing SABs increase with an increased duration of PVC insertion, we do not believe that their analysis supports this conclusion. We believe that additional work is still needed to highlight the importance of duration of PVC exposure, to reduce patients' risks of developing SABs while receiving healthcare interventions. It would also be useful to understand the rationale for variation in PVC prevalence (30.3% in Scotland<sup>3</sup> and 76% reported by Trinh et al<sup>1</sup>).

In addition, the use of the PVC point-prevalence data, multiplied by bed occupancy data, to serve as a denominator for incidence density may have also underestimated or overestimated incidence if the PVC use varied during the study period.

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**Reply to Curran et al**

*To the Editor*—We appreciate the interest in our recent publication regarding peripheral venous catheter-related infection.<sup>1</sup> Curran et al<sup>2</sup> raise a concern that our patients with peripheral venous catheter-related *Staphylococcus aureus* bacteremia were compared with a control group that consisted of patients with peripheral venous catheters who were identified in a point-prevalence survey. They erroneously conclude that all of our patients with peripheral vascular catheter-related *S. aureus* bacteremia had their episodes at the completion of therapy through the catheter. This was not the case. Some of the patients had infections that were detected while the peripheral venous catheter was indwelling, and the catheter would otherwise have been left in place had the event not occurred, whereas others received a diagnosis at the time that the catheter was scheduled to be replaced. We realize that our control group was less than ideal; however, the increased dwell time in the study patients cannot be solely attributed to the detection of infection at the completion of therapy through the peripheral venous catheter that was in place at the time that the infection was suspected. We agree with Curran et al<sup>2</sup> that more data are needed regarding the relationship between peripheral venous catheter dwell time and the risk of infection.

Regarding the number of patients who received a peripheral venous catheter during a hospitalization, other authors have suggested on the basis of the available literature that 30%–80% of patients receive such catheters.<sup>3</sup> Differences in the prevalence of peripheral venous catheter use in different