To the Editor—We read with great interest the article “Guidelines for the Prevention of Intravascular Catheter-related Infections” in the May 2011 issue [1]. We commend the authors for their excellent extensive review of the literature and subsequent guidelines.

These guidelines, however, recommend the use of “>0.5% chlorhexidine preparation with alcohol for skin antisepsis during CVC insertion” [1]. We question the basis of the recommendation that the concentration of chlorhexidine should be higher than 0.5%.

First, the meta-analysis by Chaiyakunapruk et al [2] is included in the guideline to affirm that chlorhexidine reduces the risk of catheter-related infection compared with povidone-iodine. The meta-analysis included studies using
several types of chlorhexidine preparations: 0.5% and 2% chlorhexidine aqueous preparations and also 0.5% and 1% chlorhexidine with alcohol preparation. A subset analysis of the aqueous and alcoholic chlorhexidine preparations showed that only the 5 studies that used alcoholic chlorhexidine (4 studies with 0.5% and 1 with 1% chlorhexidine concentration) produced a significant reduction in catheter-related bloodstream infection [2]. Second, the study by Vallés et al [3], comparing 10% aqueous povidone-iodine, 2% aqueous chlorhexidine, and 0.5% alcoholic chlorhexidine solutions for preventing the colonization of central venous and arterial catheters, was not included in the guideline. This study concluded that both solutions with chlorhexidine were superior to the povidone-iodine solution but that there was no significant difference between the 2% aqueous and 0.5% alcoholic chlorhexidine solutions [3]. Only 1 study showed no difference between a 0.5% “tincture of chlorhexidine” and 10% povidone-iodine for cutaneous antisepsis to prevent central venous catheter–related infection [4].

We concur with the recommendation of the guideline that a chlorhexidine preparation with alcohol should be used for skin antisepsis during central venous catheter insertion. However, we disagree with the recommendation that the concentration of chlorhexidine should exceed 0.5%. Based on the available evidence, we believe that a 0.5% chlorhexidine preparation with alcohol is an adequate skin antiseptic for prevention of central venous catheter–related infections.

Finally, the authors recommend against the femoral vein for central venous access in adult patients. We disagree with this general recommendation. The cited study by Parienti et al [5] compared jugular with femoral venous access for renal replacement therapy. No significant differences in catheter colonization could be demonstrated. Subgroup analyses demonstrated a higher colonization rate for jugular venous access compared with femoral venous access for patients in the lowest tercile for body mass index. The colonization was lower for jugular venous access when patients in the highest tercile were compared. In a secondary analysis by Parienti et al [6], jugular venous access was demonstrated to be noninferior to femoral access with regard to catheter function for renal replacement therapy; left internal jugular venous access was found to be inferior to femoral and right jugular venous access. Therefore, we consider femoral venous access and right jugular venous access both appropriate for renal replacement therapy.

Notes

Potential conflicts of interest. All authors: No reported conflicts.

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