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INFECTION CONTROL

LETTERS TO THE EDITOR

To the Editor:

I am writing in reference to the article "Guideline for Prevention of Catheter-Associated Urinary Tract Infections" [Infect Control 1981; 2(2):125-130.]

According to the article, it is recommended to refrain from daily meatal care with povidine-iodine solution and daily cleansing with soap and water. However, no substitution for catheter care was made. Could you please elaborate on this, since it sounds rather risky to just drop the above procedure for meatal care?

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This letter was referred to Drs. Wong and Hooton, who wrote the following reply:

Meatal care has been advocated for years as one measure to reduce the risk of urinary tract infection in catheterized patients. Studies have demonstrated that patients who are colonized at the meatal-catheter junction with certain microorganisms such as gram-negative bacteria and enterococci are more likely to develop bacteriuria than are patients who are not so colonized.[1,2]

It is believed that microorganisms migrate retrograde from the meatus along the periurethral mucous sheath into the bladder where they cause infection. Therefore, it has been theorized that removal of these microorganisms through meatal care would reduce the risk of infection. Early studies, in fact, did show some beneficial effects of meatal care,[3,4] but these studies were conducted with patients who were maintained on an open drainage system or who were subjected to other kinds of interventions, such as antibiotic irrigation, which confounded the results.

In the only controlled prospective study of the efficacy of meatal care to date done with patients on closed drainage systems, Burke and his associates found that patients subjected to the two most commonly used regimens of meatal care (twice daily cleansing with povidone-iodine solution followed by application of povidone-iodine ointment, and daily cleansing with soap and water) had no lower incidence of cathether-associated bacteriuria than patients who received no special meatal care.[5] In a subgroup of female patients at high risk of infection, special meatal care regimens resulted in significantly higher rates of bacteriuria, suggesting that there may be some hazard associated with these regimens.

Given the statistical association between meatal colonization and bacteriuria,[2] the rationale for including meatal care procedures in the care of patients with indwelling urinary catheters is strong. The careful study by Burke and his associates, however, suggests that the two commonly practiced meatal care regimens are not effective and may even be harmful. Thus, we are faced with a dilemma when trying to make specific recommendations to hospitals regarding meatal care. Clearly, Burke's results should be confirmed by other investigators, and further studies should be conducted to evaluate the value of alternative regimens of meatal care, such as more frequent application of povidone-iodine solution or ointment and the use of other antimicrobial formulations that have a more sustained antibacterial action. Until definitive data are available, hospitals may elect to continue regular meatal care, following regimens that have not specifically been shown to be ineffective in reducing the risk of infection, or to provide only the perineal cleansing that patients generally receive with the daily bath.

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