

capsules

THE CURRENT LITERATURE IN BRIEF

Aseptic Urinary Catheter Technique

In previous studies, as many as 55% of hospitalized dogs developed catheter-associated urinary tract infections (UTIs). This prospective study used a standard protocol for aseptic catheter placement, and risk for infection was greatly decreased. Dogs were included in the study if they had negative bacterial culture of a urine sample in the 12 hours before catheter placement. A standard aseptic technique was followed for placement of the urinary catheter. Four of the 39 dogs in the study developed UTIs. The probability of remaining free from UTI after 1 day in the intensive care unit was 94.9%. Results suggest that as long as an aseptic technique for catheter placement is used, risk for UTI during the first 3 days after placement is low.

COMMENTARY: This prospective study documents that with proper technique indwelling urinary catheters can be used in dogs for 1 to 3 days without a high risk for UTI. Aseptic catheter placement and maintenance are critical issues and involve the following: 1) clipping hair around vulvar or preputial openings; 2) chlorhexidine scrubbing of vulvar or preputial regions; 3) use of sterile barrier drapes and gloves; 4) flushing vulva or preputial vaults with 0.05% chlorhexidine solution; 5) in males, extruding penis and cleaning any gross exudate; 6) use of silicone-coated Foley catheters with balloon inflation and sterile saline; 7) use of closed, sterile urine collection systems; 8) wiping exposed portion of catheter with 0.05% chlorhexidine solution every 8 hours (or sooner if catheter is visibly soiled) as well as flushing vulvar or preputial area with chlorhexidine solution; and finally 9) preventing urine reflux through catheter by keeping collection bag below the level of the patient. In this study, sex of the dog was not associated with risk for catheter-associated UTI. In dogs that acquired UTI, urine culture was more predictive than was culture of the tip of the catheter after removal. Although 31 of the 39 dogs in this study received prophylactic antimicrobial treatment before and during catheter placement, the authors advised against this practice due to concerns about antimicrobial resistance.—Gregory F. Grauer, DVM, MS, Diplomate ACVIM-Internal Medicine

Incidence of catheter-associated urinary tract infection among dogs in a small animal intensive care unit. Smarick SD, Haskins SC, Aldrich J, et al. JAVMA 224:1936-1940, 2004.