

A placebo-controlled, double-blind, randomized controlled trial of 115 children younger than 2 years old found no significant difference when 2% lidocaine gel was compared with a nonanesthetic lubricant. The lubricant was applied to the genital mucosa for 2 to 3 minutes and liberally applied to the catheter but not instilled into the urethra (Vaughn, Paton, Bush, et al, 2005).

Apply the Evidence: Nursing Implications

There is **moderate-quality evidence** with a **strong recommendation** (Guyatt, Oxman, Vist, et al, 2008) for using a lidocaine lubricant to decrease pain associated with urethral catheterization.

Three published research studies were found to support the use of anesthetic before urethral catheterization and one found topical application alone insufficient to reduce pain. Several publications support its effectiveness in clinical practice. Topical application followed by one or two transurethral instillations of 2% lidocaine gel before urethral catheterization minimizes distress and reduces pain prior to urinary catheterization.

Quality and Safety Competencies: Evidence-Based Practice*

Knowledge

Differentiate clinical opinion from research and evidence-based summaries.

Describe use of lidocaine gel for pain reduction during urethral catheterization.

Skills

Base individualized care plan on patient values, clinical expertise, and evidence.

Integrate evidence into practice by using lidocaine gel for pain reduction during urethral catheterization in children.

Attitudes