



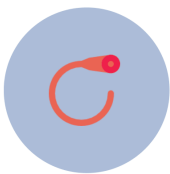
DIAGNOSTIC URETHRAL CATHETERIZATION

Quantifying Adverse Events in the Pediatric ED

UTI is a Frequently Diagnosed Condition in the Pediatric ED



UTIs are present in 5% of young children with fever of unidentified source



Urethral catheterization (UC) is the gold standard for obtaining urine cultures from these patients



However, UC is traumatic for pediatric patients and may cause adverse events

What proportion of pediatric patients develop complications following a diagnostic UC in the ED?

An Observational Study



Location:
Single Pediatric ED: Saint-Justine University Hospital, Montreal



Inclusion Criteria:
1) 3-24 months of age
2) Fever ≥ 38 C
3) UC in the ED



Consent Process:
240 parents approached following UC in the ED with 219 enrolling in the study



Follow-up Survey:
199 participants contacted by phone 7-10 days after ED visit (9% lost to follow-up)



Record adverse events, which include dysuria, genital pain, urinary retention, gross hematuria and secondary UTI

The Results



1 41 children out of 199 (21%) reported at least one complication. Two or more complications were reported in 6% of children.



2 Most common complications were: dysuria (10%), genital pain (8%), urinary retention (6%) and gross hematuria (4.5%).



3 Three children (1%) visited a health care facility for a complication possibly related to UC.



4 Male sex and an age between 12 to 23 months were statistically associated with a higher risk of having an adverse event.

Conclusions



Urethral catheterization was associated with an adverse event in approximately 1/5 of young children in the week after the procedure. This is likely to be underestimated by physicians, as most parents rarely seek medical help for these complications.



Limitations of the study include the single center design without a control group, the reliance on parental judgment about the occurrence of an adverse outcome, and the lack of data about longer term outcomes

References:

- Ouellet-Pelletier, J., Guimont, C., Gauthier, M. & Gravel, J. Adverse Events Following Diagnostic Urethral Catheterization in the Pediatric Emergency Department. CJEM. 2016:1-6
- Catheter icon made by Freepik from www.flaticon.com



This infographic was created by Simon Huang for the CanadiEM website and CJEM with editing from Calvin Yeh, Alvin Chin, Heather Murray, Will Sanderson, Lynsey Martin & Rohit Mohindra

