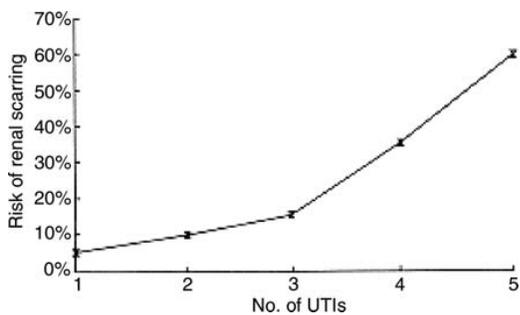


Evidence-based Recommendation: Change in the Management of Initial Febrile UTIs in Patients 2-24 Months of Age

In September 2011, the American Academy of Pediatrics changed the clinical practice guideline for the management of first-time febrile UTIs in patients 2-24 months of age, and because of this change, you may notice a difference in how such patients are treated at Cincinnati Children's Hospital Medical Center.

AAP Clinical Practice Guideline	Evidence												
<p>VCUG should not be performed routinely after the first febrile UTI in children 2-24 months of age.</p> <p>VCUG is indicated if renal and bladder ultrasound reveals <i>“hydronephrosis, scarring or other findings that would suggest either high-grade vesicoureteral reflux (VUR) or obstructive uropathy, as well as in other atypical or complex clinical circumstances.”</i></p> <p>A VCUG is still recommended after a second UTI.</p> <p>The full text of this guideline and CCHMC focused recommendations will be available online at www.cincinnatichildrens.org/evidence</p>	<p>Historically, the strategy to protect kidneys from damage after an initial UTI has been to detect genitourinary abnormalities. The most common abnormality is VUR which is detected with a VCUG. Children with persistent VUR have often been given continuous antimicrobial administration as prophylaxis to prevent future infections. However, the effectiveness of prophylaxis is in question.</p> <p>Data from the most recent 6 studies do not support the use of antimicrobial prophylaxis to prevent recurrent febrile UTI in infants without VUR or with grade I to IV VUR. In the absence of an effective treatment, there is little reason to detect VUR by VCUG.</p> <p>The guideline acknowledges that further data regarding the effects of prophylactic antibiotics on children 2 months to 6 years are forthcoming when the national Randomized Intervention for Children with Vesicoureteral Reflux (RIVUR) Study is complete. This new data will be reviewed by the AAP as soon as it is available.</p>												
<p>Benefits</p>	<p>Data from current studies indicate that, of a hypothetical cohort of 100 infants with first febrile UTIs, only 1 has grade V VUR; 99 do not. Further, only 10 of the initial 100 are likely to develop a second UTI. At that time, these 10 patients will need to undergo VCUG to identify the 1 with grade V VUR.</p>												
<p>The vast majority of infants with first febrile UTI will avoid unnecessary radiation exposure, expense, and discomfort.</p>	<p>The graph to the right describes the potential damage done after each subsequent UTIs. There is a relatively small increase in risk of renal scarring between the first and second UTI.</p>												
<p>Implementation at CCHMC</p>	<p>References</p>												
<p>The new recommendations for imaging are being implemented for children 2-24 months old hospitalized for first febrile UTI at CCHMC now. In order to educate families at CCHMC, the A6 South nursing education team has developed a parent handout. This handout is available online in the CCHMC Health Topics at www.cincinnatichildrens.org/patients/child/health</p>	<p>1. American Academy of Pediatrics, Subcommittee on Urinary Tract Infection, Steering Committee on Quality Improvement and Management. Urinary tract infection: clinical practice guideline for the diagnosis and management of the initial UTI in febrile infants and children 2 to 24 months. <i>Pediat-</i></p>												
<p>We welcome your questions and comments. Please feel free to contact Karen Jerardi (Karen.Jerardi@cchmc.org) or Dena Elkeeb (Dena.Elkeeb@cchmc.org) by email</p>	 <table border="1"> <caption>Risk of renal scarring vs. Number of UTIs</caption> <thead> <tr> <th>No. of UTIs</th> <th>Risk of renal scarring (%)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>~5%</td> </tr> <tr> <td>2</td> <td>~10%</td> </tr> <tr> <td>3</td> <td>~15%</td> </tr> <tr> <td>4</td> <td>~35%</td> </tr> <tr> <td>5</td> <td>~60%</td> </tr> </tbody> </table>	No. of UTIs	Risk of renal scarring (%)	1	~5%	2	~10%	3	~15%	4	~35%	5	~60%
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