



Five Things Physicians and Patients Should Question

1 Do not perform diagnostic imaging to establish the diagnosis of cryptorchidism.

Referring providers should not perform or order ultrasound (US) or other imaging modalities in the evaluation of boys with cryptorchidism prior to referral as these studies rarely assist in decision making. This is a standard in the American Urological Association (AUA) Guideline statements with Grade B strength of evidence, based on strong observational studies. More than 70% of cryptorchid testes are palpable on examination by an experienced provider. Ultrasound has a sensitivity of 45% and specificity of 78% for localization of a nonpalpable undescended testis. CT imaging is usually avoided due to the risks of ionizing radiation. MRI has greater sensitivity and specificity compared to ultrasound but is deferred by higher costs and the possible need for anesthesia. As there is no test that is sufficiently accurate, safe, and accessible to confirm testicular absence, a surgical exploration such as diagnostic laparoscopy or open exploration is the gold standard for both diagnostic and therapeutic purposes for non-palpable testes.

2 Do not screen for urinary tract infection in asymptomatic patients who perform clean intermittent catheterization.

Guidance has been published by the American Urological Association (AUA), European Association of Urology (EAU), and the Infectious Diseases Society of America (IDSA) that discourage both the screening for and treatment of asymptomatic bacteriuria (ASB) in non-pregnant patients, including children. Children who perform clean intermittent catheterization may have urinary tract colonization of bacteria sometimes considered to be pathogenic. Typical symptoms of UTI include fever, chills, and/or pain (dysuria, abdominal, flank, suprapubic). Urinary consistency changes, such as cloudy urine, odor, or sediment are commonly described, but when in isolation, can be normal based on hydration and emptying. Atypical symptoms of UTI can include malaise, lethargy, and anorexia.

In children with neurological abnormalities, such as those with neurogenic bladder, UTIs may present with atypical symptoms; however, these symptoms should also prompt providers to assess for constipation and other systemic pathologies.

Low-grade fever and pyuria in the absence of any other UTI symptoms does not necessarily indicate urinary infection, so clinicians must carefully exclude other sources of fever. A multitude of studies have concluded that the treatment of ASB contributes to the widespread problem of resistant bacterial strains.

3 Do not perform newborn clamp circumcision in boys with anatomic penile anomalies including hypospadias, chordee, penile torsion, or penoscrotal webbing without first consulting with a urologist.

In 2012, the American Academy of Pediatrics Task Force on Circumcision listed hypospadias, congenital chordee, and deficient shaft skin (penoscrotal fusion/webbing or buried penis) as contraindications to newborn circumcision. For patients with hypospadias, preservation of the prepuce is important for use in future reconstruction. Additionally, abnormal urethral anatomy may predispose to urethral injury during clamp circumcision. As such, best practice dictates consulting a urologist to help assess these anatomic penile anomalies prior to initiation of circumcision.

Newborns with a circumferentially normal foreskin may undergo completion of clamp circumcision without concern for concealed hypospadias. In this situation, if a hypospadias is present, it is usually on the glans of the penis, and clamp circumcision should not increase the risk for future complications if hypospadias repair is needed.

4

Do not perform a bagged urine specimen for urine culture to confirm urinary tract infection in a non-potty-trained child.

Prospective studies on the use of a bag applied to the perineum for urine collection have shown a high incidence of false-positive culture results, ranging from 85 – 99%. Bagged specimens, when collected appropriately, may be used for screening urinalysis as a first step when a urinary tract infection is suspected. If there are signs of infection, a properly collected urine culture should then be obtained. For children under 2 years of age, it is recommended to perform sterile-technique urethral catheterization. Alternatively, suprapubic bladder aspiration has been shown to have the highest sensitivity but requires skilled providers often with ultrasound guidance, so is often not practical. In older children with sphincteric control, mid-stream clean-catch collection is possible and reliable. AAP, American Academy of Family Physicians (AAFP), and European Association of Urology (EAU) guidelines each issue this recommendation with the support of quality A evidence.

5

Do not treat urinary incontinence in a child with pharmacotherapy (e.g., anticholinergics), before first evaluating and treating constipation.

The association of lower urinary tract dysfunction and constipation is termed bladder-bowel dysfunction (BBD). From 25-30% of children with functional constipation have daytime urinary incontinence. Treatment of constipation alone can eliminate daytime urinary incontinence in many patients and also has been shown to reduce recurrent urinary tract infection. The clinical diagnosis of constipation can be made using the Rome IV criteria. Treatment strategies involve education, fecal disimpaction in many, prevention of re-accumulation with maintenance regimens and close follow-up.

If a child is started on anti-cholinergic medications, the bowel regimen must be continued to obviate worsening constipation.

How This List Was Created

The AAP Section on Urology (AAP SOU) Executive committee worked together to develop five items in the practice of Pediatric Urology of tests or procedures that should not be done routinely. Approximately 11 members of this committee participated in the process. They submitted items from their practices and experiences of tests or procedures they found were commonly over-utilized. The committee then agreed on a final list of 5 based on incidence and importance of the condition. Educational committee fellows then reviewed the appropriate guidelines and literature to provide references and support for each item. The AAP SOU Education committee reviewed the 5 listed items and provided further feedback then approved the list, descriptions, and references. The AAP Executive Committee granted final approval of the list.

AAP's disclosure and conflict of interest policy can be found at www.aap.org.

Sources

- Kolon T, Herndon C, Baker L, et al. Evaluation and Treatment of Cryptorchidism. 2014 Guideline [online]. American Urological Association. Available at: <https://www.auanet.org/guidelines/cryptorchidism-guideline> [Accessed 11 Nov. 2019].

Tasian GE, Copp HL. Diagnostic Performance of Ultrasound in Nonpalpable Cryptorchidism: A Systematic Review and Meta-analysis. *Pediatrics*. 2011 Jan;127(1):119-128.

Kanaroglou N, To T, Zhu J, et al. Inappropriate Use of Ultrasound in Management of Pediatric Cryptorchidism. *Pediatrics*. 2015 Sept;136(3): 479-486.
- Averch T, Stoffel J, Goldman HB, et al. Catheter-Associated Urinary Tract Infections: Definitions and Significance in the Urologic Patient. 2014 White Paper Guidelines [online]. American Urological Association. Available at: <https://www.auanet.org/guidelines/catheter-associated-urinary-tract-infections> [Accessed 20 Nov 2019].

Nicolle LE, Gupta K, Bradley SF, et al: Clinical Practice Guideline for the Management of Asymptomatic Bacteriuria: 2019 Update by the Infectious Diseases Society of America. *Clin Infect Dis*. 2019 May;50: 83-110.

Grabe M, Bartoletti R, Bjerkklund Johansen TE, et al: European Association of Urology: Guidelines on Urological Infections. 2015 Mar.

Gerber D, Forster CS, Hsieh M: The Role of the Genitourinary Microbiome in Pediatric Urology: a Review. *Curr Urol Rep*. 2018 Nov;19(1): 13.
- American Academy of Pediatrics Task Force on Circumcision. Circumcision policy statement. *Pediatrics* 2012;130(3) e756-e786; DOI: 10.1542/peds.2012-1990

Lerman, S. E. & Liao, J. C. Neonatal circumcision. *Pediatr Clin North Am* 48, 1539-1557, doi:10.1016/s0031-3955(05)70390-4 (2001).

Snodgrass, W. T. & Khavari, R. Prior circumcision does not complicate repair of hypospadias with an intact prepuce. *J Urol* 176, 296-298, doi:10.1016/S0022-5347(06)00564-7 (2006).

Chalmers, D., Wiedel, C. A., Siparsky, G. L., Campbell, J. B. & Wilcox, D. T. Discovery of hypospadias during newborn circumcision should not preclude completion of the procedure. *J Pediatr* 164, 1171-1174.e1171, doi:10.1016/j.jpeds.2014.01.013 (2014).

Zamilpa, I., Patel, A., Booth, J., Canon, S. To Finish the Cut or Not: Should Neonatal Circumcisions Be Completed or Aborted in Patients with Unrecognized Glandular Hypospadias? *Clin Pediatrics*. 2017 Feb;56(2):157-161. Doi: 10.1177/0009922816648287
- Grabe M, Bartoletti R, Bjerkklund Johansen TE, et al: European Association of Urology: Guidelines on Urological Infections. 2015 March.

Koch VH, Zuccolotto SMC: Urinary tract infection: a search for evidence. *J Pediatr (Rio J)* 2003 79(1): S97-S106.
- Colombo, J. M., Wassom, M. C. & Rosen, J. M. Constipation and Encopresis in Childhood. *Pediatr Rev* 36, 392-401; quiz 402, doi:10.1542/pir.36-9-392 (2015).

van Summeren, J. J. G. T. et al. Bladder Symptoms in Children With Functional Constipation: A Systematic Review. *J Pediatr Gastroenterol Nutr* 67, 552-560, doi:10.1097/MPG.0000000000002138 (2018)

Drossman, D. A. Functional Gastrointestinal Disorders: History, Pathophysiology, Clinical Features and Rome IV. *Gastroenterology*. 150 (6), 1262-1279.e2, doi:10.1053/j.gastro.2016.02.032 (2016)

Loening-Baucke, V. Functional fecal retention with encopresis in childhood. *J Pediatr Gastroenterol Nutr* 38, 79-84, doi:10.1097/00005176-200401000-00018 (2004).

Burgers, R. E. et al. Management of functional constipation in children with lower urinary tract symptoms: report from the Standardization Committee of the International Children's Continence Society. *J Urol* 190, 29-36, doi:10.1016/j.juro.2013.01.001 (2013).

About the ABIM Foundation

The mission of the ABIM Foundation is to advance medical professionalism to improve the health care system. We achieve this by collaborating with physicians and physician leaders, medical trainees, health care delivery systems, payers, policymakers, consumer organizations and patients to foster a shared understanding of professionalism and how they can adopt the tenets of professionalism in practice.

To learn more about the ABIM Foundation, visit www.abimfoundation.org.



About the American Academy of Pediatrics Section on Urology

The American Academy of Pediatrics is an organization of 66,000 primary care pediatricians, pediatric medical subspecialists and pediatric surgical specialists dedicated to the health, safety and well-being of infants, children, adolescents and young adults. The Section on Urology, founded in 1971, provides an educational forum for the discussion of problems and treatments related to pediatric urologic disease and strives to stimulate research in, and the teaching of, pediatric urology.

For more information, visit www.aap.org.

American Academy
of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



For more information or to see other lists of Things Clinicians and Patients Should Question, visit www.choosingwisely.org.