

# Urinary Tract Infection in Infants and Children

Benetta Chin  
Sim Grewal

## REFERENCES

- Shaw KN, Gorelick M, McGowan KL, et al: Prevalence of urinary tract infection in febrile young children in the emergency department. *Pediatrics* 102: e16, 1998. [PMID: 9685461]
- Shaikh N, Morone NE, Bost JE, Farrell MH: Prevalence of urinary tract infection in childhood: a meta-analysis. *Pediatr Infect Dis J* 27: 302, 2008. [PMID: 18316994]
- Marild S, Jodal U: Incidence rate of first-time symptomatic urinary tract infection in children under 6 years of age. *Acta Paediatr* 87: 549, 1998. [PMID: 9641738]
- Ma JF, Shortliffe LM: Urinary tract infection in children: etiology and epidemiology. *Urol Clin North Am* 31: 517, 2004. [PMID: 15313061]
- Wiswell TE, Roscelli JD: Corroborative evidence for the decreased incidence of urinary tract infections in circumcised male infants. *Pediatrics* 78: 96, 1986. [PMID: 3725505]
- To T, Agha M, Dick PT, Feldman W: Cohort study on circumcision of newborn boys and subsequent risk of urinary tract infection. *Lancet* 352: 9143, 1998. [PMID: 9851381]
- Wiswell TE, Hachey WE: Urinary tract infections and the uncircumcised state: an update. *Clin Pediatr* 32: 3, 1993. [PMID: 8453827]
- Wiswell TE, Smith FR, Bass JW: Decreased incidence of urinary tract infections in circumcised male infants. *Pediatrics* 75: 5, 1985. [PMID: 3991278]
- Ginsburg CM, McCracken GH Jr: Urinary tract infections in young infants. *Pediatrics* 69: 4, 1982. [PMID: 7070887]
- Craig JC, Knight JF, Sureshkumar P, Mantz E, Roy LP: Effect of circumcision on incidence of urinary tract infection in preschool boys. *J Pediatr* 128: 23, 1996. [PMID: 8551417]
- Shaikh N, Morone NE, Lopez J, et al: Does this child have a urinary tract infection? *JAMA* 298: 2895, 2007. [PMID: 18159059]
- Zaffanello M, Malerba G, Cataldi L, et al: Genetic risk for recurrent urinary tract infections in humans: a systematic review. *J Biomed Biotechnol* 2010: 321082, 2010. [PMID: 20379347]
- Garcia FJ, Nager AL: Jaundice as an early diagnostic sign of urinary tract infection in infancy. *Pediatrics* 109: 846, 2003. [PMID: 11986445]
- Struthers S, Scanlon J, Parker K, et al: Parental reporting of smelly urine and urinary tract infection. *Arch Dis Child* 88: 250, 2003. [PMID: 12598394]
- Shaikh N, Hoberman A, Hum SW, et al: Development and validation of a calculator for estimating the probability of urinary tract infection in young febrile children. *JAMA Pediatr* 172: 6, 2108. [PMID: 29710324]
- Hoberman A, Chao HP, Keller DM, et al: Prevalence of urinary tract infection in febrile infants. *J Pediatr* 123: 17, 1993. [PMID: 8320616]
- Levine DA, Platt SL, Dayan PS, et al: Risk of serious bacterial infection in young febrile infants with respiratory syncytial virus infections. *Pediatrics* 113: 1728, 2004. [PMID: 15173498]
- Oray-Schrom P, Phoenix C, St Martin D, Amoateng-Adjepong Y: Sepsis workup in febrile infants 0–90 days of age with respiratory syncytial virus infection. *Pediatr Emerg Care* 19: 314, 2003. [PMID: 14578830]
- Perkins J, Perkins K, Vilke GM, et al: Is culture positive urinary tract infection in febrile children accurately identified by urine dipstick or microanalysis? *J Emerg Med* 43: 1155, 2012. [PMID: 22795471]
- Roberts KB, Downs SM, Finnell SM, et al: Reaffirmation of AAP clinical practice guideline: the diagnosis and management of the initial urinary tract infection in febrile infants and young children 2–24 months of age. *Pediatrics* 138: e20163026, 2016. [PMID: 27940735]
- Vaillancourt S, McGillivray D, Zhang X, Kramer MS: To clean or not to clean: effect on contamination rates in midstream urine collections in toilet-trained children. *Pediatrics* 119: e1288, 2007. [PMID: 17502345]
- Kaufman J, Tosif S, Fitzpatrick P, et al: Quick-Wee: a novel non-invasive urine collection method. *Emerg Med J* 34: 1, 2017. [PMID: 27565196]
- Herreros Fernandez ML, Gonzalez Merino N, Tagarro Garcia A, et al: A new technique for fast and safe collection of urine in newborns. *Arch Dis Child* 98: 1, 2013. [PMID: 23172785]
- Mori R, Lakhanpaul M, Verrier-Jones K: Guidelines: diagnosis and management of urinary tract infection in children: summary of NICE guidance. *Br Med J* 335: 395, 2007. [PMID: 17717369]
- Robinson JL, Finlay JC, Lang ME, et al: Urinary tract infections in infants and children: diagnosis and management. *Paediatr Child Health* 19: 6, 2014. [PMID: 25332662]
- Adler-Shohet FC, Cheung MM, Hill M, Lieberman JM: Aseptic meningitis in infants younger than six months of age hospitalized with urinary tract infections. *Pediatr Infect Dis J* 22: 1039, 2003. [PMID: 14688561]
- Syrogianopoulos GA, Grivea IN, Anastassiou ED, et al: Sterile cerebrospinal fluid pleocytosis in young infants with urinary tract infection. *Pediatr Infect Dis J* 20: 927, 2001. [PMID: 11642625]
- Schnadower D, Kuppermann N, Macias G, et al: Febrile infants with urinary tract infections at very low risk for adverse events and bacteremia. *Pediatrics* 126: 1074, 2010. [PMID: 21098155]
- Hoberman A, Charron M, Hickey RW, et al: Imaging studies after a first febrile urinary tract infection in young children. *N Engl J Med* 348: 195, 2003. [PMID: 12529459]
- Honkinen O, Jahnukainen T, Mertsola J, et al: Bacteremic urinary tract infection in children. *Pediatr Infect Dis J* 19: 630, 2000. [PMID: 10917221]
- Piotti RD, Choi S: Utility of blood cultures in febrile children with UTI. *Am J Emerg Med* 20: 271, 2002. [PMID: 12098170]
- Hoberman A, Wald ER, Hickey RW, et al: Oral versus initial intravenous therapy for urinary tract infections in young febrile children. *Pediatrics* 104: 79, 1999. [PMID: 10390264]
- Strohmeier Y, Hodson EM, Willis NS, et al: Antibiotics for acute pyelonephritis in children. *Cochrane Database Syst Rev* 7: CD003772, 2014. [PMID: 25066627]
- Magin EC, Garcia-Garcia JJ, Sert SZ, et al: Efficacy of short-term intravenous antibiotic in neonates with urinary tract infection. *Pediatr Emerg Care* 23: 83, 2007. [PMID: 17351406]
- Shaikh N, Mattoo TK, Keren R, et al: Early antibiotic treatment for pediatric febrile urinary tract infection and renal scarring. *JAMA Pediatr* 170: 9, 2016. [PMID: 27455161]
- Bitsori M, Maraki S, Raissaki M, et al: Community-acquired enterococcal urinary tract infections. *Pediatr Nephrol* 20: 1583, 2005. [PMID: 15971072]
- Borysewicz-Sanczyk H, Porowski T, Hryniewicz A, et al: Urolithiasis risk factors in obese and overweight children. *Pediatr Endocrinol Diabetes Metab* 18: 53, 2012. [PMID: 22781881]
- Dwyer ME, Krambeck AE, Bergstrahl EJ, et al: Temporal trends in incidence of kidney stones among children: a 25-year population-based study. *J Urol* 188: 247, 2012. [PMID: 22595060]
- Habbig S, Beck BB, Hoppe B: Nephrocalcinosis and urolithiasis in children. *Kidney Int* 80: 1278, 2011. [PMID: 21956187]
- Hoppe B, Kemper M: Diagnostic examination of the child with urolithiasis or nephrocalcinosis. *Pediatr Nephrol* 25: 403, 2010. [PMID: 19104842]