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URINARY TRACT INFECTION MANAGEMENT - WHAT'S NEW?

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Abstract: *Urinary tract infection, one of the commonest bacterial infections in pediatric population requires a structured approach and treatment. This article presents an overview of the recently published guideline on urinary tract infection management. Some of the key changes from the earlier guidelines are as follows. Clean catch should be tried even in non-toilet trained children as the initial method for urine collection. Urine culture of ≥10^5 colony forming units/mL in a clean catch is considered significant in the presence of symptoms, especially in infants. Urine dipstick can be used as a first line screening test alternative to urine microscopy in urinary tract infection. Oral antibiotics can be used in acute pyelonephritis treatment in non-toxic infant for 7-10 days. Micturating cystourethrography is indicated in children with (a) abnormal kidneys in ultrasound, (b) <2 years of age with non-E. coli urinary tract infection, (c) recurrent urinary tract infection. Dimercaptosuccinic acid scan is performed in children with high grade (3-5) vesicoureteric reflux and recurrent urinary tract infection after 4-6 months of an urinary tract infection episode to diagnose scarring. Antibiotic prophylaxis is indicated in children with low grade vesicoureteric reflux with recurrent urinary tract infection, high grade vesicoureteric reflux and bowel bladder dysfunction. Antibiotic prophylaxis can be stopped in children >2 years if the child is toilet trained, free of bowel bladder dysfunction and has not had urinary tract infection in the last 1 year. Surgical intervention is considered for parental preference or in high grade vesicoureteric reflux with recurrent urinary tract infection despite antibiotic prophylaxis. During follow-up, ultrasound is done periodically to monitor the kidney growth in children with persistent high grade vesicoureteric reflux. Repeat micturating cystourethrography is indicated only in case of recurrent urinary tract infection to detect new scarring. Routine repeat micturating cystourethrography is not indicated for documenting resolution of reflux.*

Keywords: *Urinary traction infection, Vesicoureteric reflux, Bowel bladder dysfunction.*

Points to Remember

- ***UTI diagnosis requires a positive culture in symptomatic children, not just leukocyturia.***
- ***Oral antibiotics can be used in acute pyelonephritis treatment in non-toxic infant for 7-10 days.***
- ***Renal ultrasound is universally done in all young children with the first febrile UTI.***
- ***Micturating cystourethrography (MCU) is indicated in children with recurrent UTI, abnormal kidney ultrasound, and in patients below 2 years of age with non-E. coli UTI.***
- ***Dimercaptosuccinic acid scan (DMSA scan) is indicated in children with recurrent UTI and high-grade vesicoureteral reflux (VUR).***
- ***Antibiotic prophylaxis is indicated in children with low grade VUR with recurrent UTI, high grade VUR and bowel bladder dysfunction (BBD).***

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