Urinary incontinence can be a very embarrassing problem for children and a worrisome problem for their parents and caregivers. It can be socially devastating to children at a very vulnerable time in their lives. It also increases the likelihood of other health concerns like urinary tract infections (UTIs) and dysfunctional voiding.

CAUSES AND DIAGNOSTIC TOOLS

There are many causes for incontinence and UTIs, and quite often the cause is multifactorial. Causes can include neurologic disorders, birth defects of the urinary tract or functional bladder and bowel disorders. Frequently, serious behavioral issues are a contributing factor or can be a consequence of untreated incontinence. Diagnostic tools that are utilized include urinalyses, post-void bladder measurements, uroflow screenings (to help determine the child’s urine flow pattern), renal and bladder ultrasounds and abdominal X-rays.

Constipation is a major contributing factor for voiding dysfunction and is often the first thing that is screened for and treated before other therapies are implemented. Sometimes other therapies are not needed once constipation is managed.

Heidi H. Vanderpool, MSN, CPNP-PC, APNP, is a pediatric urology advanced practice provider at Children’s Hospital of Wisconsin and the Medical College of Wisconsin.

John V. Kryger, MD, is a pediatric urologist and medical director of Urology at Children’s Hospital of Wisconsin. He also is a professor and chief of Pediatric Urology at the Medical College of Wisconsin.
TREATMENT OPTIONS FOR PERSISTENT PROBLEMS
For children with persistent voiding problems despite treatment of constipation, other therapies are instituted such as behavioral modifications, dietary modifications and medications. Some of the behavioral modifications that are often very effective in managing incontinence problems or recurrent infections include:

- Scheduled voiding every two hours
- Positioning on the toilet with the legs spread and leaning forward or with feet elevated on a stool
- Relaxed breathing during voiding

Dietary modifications also are extremely important in the management of urinary incontinence and associated constipation. This is the most misunderstood and undertreated element of bladder problems. Some of the basic dietary recommendations include:

- Increasing water intake during the day and decreasing in the late afternoon and evening
- Restricting intake of caffeinated beverages and artificial red dyes
- Appropriate amount and choices of fiber intake combined with adequate water intake

Anticholinergic medications commonly are used to treat patients with urinary frequency or urge incontinence. There are medications that are safe and commonly utilized in children. Medications and bedwetting alarms also can be used to treat nocturnal enuresis. In children with recurrent UTIs, a limited course of preventative antibiotics may be prescribed to prevent further infections.

When children are refractory to behavior modifications and initial treatment, more complex investigations or treatment options may be necessary. The investigation may include voiding cystourethrougrams or urodynamic studies. A urodynamic study helps assess bladder and abdominal pressures during bladder filling and voiding. Urodynamic testing also helps to determine if there is a problem with the sphincter muscle when filling or voiding. Children with refractory incontinence may be treated with biofeedback and pelvic floor exercises. EMG patches are placed on the perineum and the child is taught exercises to help relax the pelvic floor muscles with voiding or to tighten the pelvic floor muscles to prevent incontinence with bladder contractions. Biofeedback therapy can be conducted over several sessions and the software includes interactive programs to help engage the child and make the session fun.

Voiding issues are often a very sensitive issue to address with patients and their families and require establishment of trust between the patient and provider. In addition to treating voiding problems, providers must counsel and educate patients and their families about this complex, multifaceted problem.

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