Welcome to this edition of Pediatric Pulse, a Kentucky Children’s Hospital newsletter for referring physicians. In this quarterly newsletter, we update you on new or interesting services and events at Kentucky Children’s Hospital.

In January, we opened the new home for pediatric sedations and procedures. Currently it is the home for our pediatric sedation team, but over the next few weeks we will begin to do minor surgical procedures (such as incision and drainage) and then add endoscopy to the suite.

This area has a spacious waiting room sponsored by our Tiffany Circle of Blue supporters and a very inviting open space for sedations, infusions and other services. John Draus, MD, and Lars Wagner, MD, are the respective surgical and medical directors.

Cheri Landers, MD, is in charge of sedation. In this edition of Pediatric Pulse, Dr. Landers addresses the role of a specialized sedation services team when children need medical tests, procedures and minor surgery.

In March, we began remodeling the fourth floor Welcome Center. Soon, we will start revamping the Child Life Center. We have numerous projects ahead of us, and we hope your patients enjoy the changes.

Also in this edition, Ali Ziada, MD, and Ellie Conley, PA-C, discuss voiding dysfunction and the special clinic for children suffering with these problems. Hatim Omar, MD, describes the special care given to teens in the Adolescent Medicine Clinic.

I remind you again, numerous Kentucky Children’s Hospital records are now available through the physician portal. The most utilized information to date is the online discharge notes from the newborn nursery and units, along with lab results and procedural notes. More and more daily progress notes are also becoming available online. Our liaisons will be glad to assist you or your office staff in accessing the portal.

As always, we continue to focus on improving communication with our referring providers. In the meantime, if you have trouble getting in touch with your patient’s attending physician, please contact me through UK•MDs toll free at 800-888-5533, email at cwall4@uky.edu, or my office phone at 859-323-1432.

Carmel Wallace, MD
Physician-in-Chief, Kentucky Children’s Hospital
Chair, Department of Pediatrics
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Pediatric urology Voiding Dysfunction clinic

Voiding dysfunction can account for up to 40 percent of pediatric urology visits. Voiding dysfunction is a deviation from the normal voiding pattern. It includes symptoms such as:

- Dribbling of urine
- Urinary hesitancy
- Urinary frequency
- Urgency
- Repeated urinary tract infections
- Nighttime wetting (enuresis)

While most children will usually gain control of their bladders during the day by the age of 4, it can take up to the age of 6 to gain full control at night. However, some children do not achieve these milestones.

It is imperative to identify problems by getting a detailed history and using tools like voiding diaries as well as constipation charts. Further work-up including renal ultrasound and bladder urodynamic studies should be reserved for more complicated cases.

When a child presents with voiding dysfunction, it is essential to reassure the family that, more often than not, it is not a physical abnormality. Much more often, these children will have issues with constipation as part of what is now called “dysfunctional elimination syndrome.” More than 80 percent of our patients with voiding dysfunction can have their symptoms improve or resolve by simply treating their constipation.

Once constipation is treated, we can treat any remaining symptoms. We have several drugs that can help the child, depending on what symptoms he or she has. Medications include anticholinergics, alpha blockers and DDAVP. These medications can increase the bladder storage capacity or lower the pressure of storage, thus helping reduce accidents. They can also help reduce nighttime urine production in cases of primarily bedwetting.

Bladder retraining should be used as a tool, especially for older children who don’t have any underlying anatomic abnormality. Biofeedback is a therapy method that does not include medicines and is used to retrain the children how to properly use the bathroom. This gives us the ability to more effectively treat children with these symptoms and produce a lifelong positive effect on them.

Because of the frequency of this problem in our patient community, we have clinic time devoted to seeing children with voiding dysfunction symptoms every week. If you feel your patient would benefit from one of these appointment times, please call us at 859-257-3533 to set up an appointment.
Our providers address problems unique to adolescents

By Hatim Omar, MD, FAAP
Professor of pediatrics
Chief, Division of Adolescent Medicine and Young Parents Program

Although adolescence can be an exciting time, teenagers face unique health issues and concerns.

From physical exams to counseling services, the UK Adolescent Medicine Clinic provides a variety of care and treatment options. Our multidisciplinary team addresses health issues with confidentiality and care. Our team includes experts in adolescent medicine, nursing, psychology, nutrition, health education and social work.

We offer routine care including well adolescent care, sports physicals and acute care visits. In addition, we provide specialized services including treatment for eating disorders; care for issues related to drugs, alcohol or sexual development; reproductive care for boys and girls; and help for families transitioning adolescents with special health care needs into adulthood.

We offer counseling services for:
• Mental health issues, including substance abuse and depression
• Nutrition
• Weight management
• Fitness
• School-related disorders

The Division of Adolescent Medicine also works in the community through the public school systems in Lincoln and Boyle counties. In conjunction with the local school boards, we provide medical and mental health services to a number of area high school and middle school students.

Teachers and school counselors play an integral part in this process by referring those students who most need our evaluation and treatment. Students receive care in both the school and the clinic setting. This both increases the availability of services and reduces stress on families associated with missed school and work.

We look forward to working with any of your patients who might benefit from the UK Adolescent Medicine Clinic.

Outreach Corner

Each year, cold and influenza season increases the number of children who require the services of Kentucky Children’s Hospital.

January 2013 was unusually harsh as influenza, RSV and other respiratory diseases took their toll on Kentucky’s children. The neonatal/pediatric critical care transport team typically transports about 60 children per month from community hospitals to KCH. During January, the team transported a record 88 children to KCH. This represents a 36 percent increase over the expected number for this time of the year.

The KCH critical care transport team is also involved in many other endeavors beyond the transport and stabilization of neonates and pediatric patients. We have several educational offerings, and we promote child health and safety at various events across the Commonwealth.

Furthermore, last year, we joined six other children’s hospitals to form the first ever national consortium to benchmark and set guidelines for quality and safety on critical care transports. Members of our team presented their research this year at the American Academy of Pediatrics Conference in New Orleans.

If you would like more information, feel free to contact Scottie B. Day, MD, pediatric medical director at 859-257-5522 or Shelly Marino, BSN, RN, C-NPT, at 859-257-4678.
With the advance of medical therapies come increased benefits, however, these advancements bring more potentially painful or anxiety-provoking procedures to children undergoing treatment.

Sedation helps us perform these tests safely and helps guard against the child developing post-traumatic stress disorder because of inadequate pain control.

Sedation carries risks, however, and deeper depths of sedation bring increased risks of complications, particularly in children developing active upper respiratory illness. Studies illustrate that inadequate monitoring (including pulse oximetry and capnography or end tidal carbon dioxide monitoring) is a common cause of severe adverse outcomes from sedation, including death.

Historically, agents chosen for sedation for procedures were long-acting, unpredictable and inadequate to provide the depth of sedation and analgesia required. The introduction of more potent and titratable medications such as propofol now allows a reliable depth of sedation with shorter recovery times.

However, more potent medications have higher risk of complications. A dedicated sedation provider must focus on the patient’s response to sedation while the proceduralist focuses on the procedure. In many children’s hospitals, this dedicated team is composed of non-anesthesiologists (such as pediatric intensivists or emergency medicine physicians).

Since 1999, the Kentucky Children’s Hospital pediatric sedation service has provided sedation and analgesia. The KCH pediatric sedation team is composed of pediatric critical care physicians and pediatric nurses and is overseen by the anesthesia department. The service has grown to provide sedation for more than 1,000 tests and procedures each year. Sedation is now performed during more minor procedures (NG in special situations) as well as more invasive procedures (surgical procedures moving outside the operating room).

The KCH pediatric sedation team has two goals:
1. Match the correct provider to the patient. Our screening process helps us identify patients with chronic health conditions, airway anomalies or other conditions that require the tools and expertise of the pediatric anesthesiologist.
2. Provide safe and effective procedural sedation. A safe sedation begins with patient screening and history and includes asking questions related to recent upper respiratory illness, which increases the risk of respiratory compromise. Safety measures continue throughout the sedation process, from monitoring during the procedure to recovery and discharge.

The focus on children and their procedural sedation needs has led to the creation of the Kentucky Children’s Hospital Sedation and Procedure Unit, a central location where all children needing sedated tests or procedures can come and feel more relaxed in a child-friendly environment.

As this area develops and grows, we anticipate being able to increase the types of sedated procedures as well as the variety of sedation options to even better fit the sedation to the child’s specific needs.
According to a 2012 report released by Safe Kids Worldwide, about 165 kids are treated in U.S. emergency rooms each day for accidental poisoning from medicines.

Among young children, 95 percent of emergency visits for unintentional medication overdose are caused by a child ingesting medication while unsupervised. The remaining 5 percent are because of dosing errors made by caregivers. These emergency room visits could be prevented. While the overall number of child deaths from poisoning has been cut in half since the late 1970s, medicine is now responsible for more of those poison-related deaths.

**Contributing factors to this disturbing trend:**

- More medications are in the home, including prescription and over-the-counter drugs, dietary supplements, vitamins and herbal remedies.
- Children have greater access to grandparents’ medications in households where multiple generations live.
- Multiple caregivers don’t coordinate the timing of children’s dosages.
- Children’s medications are often designed to taste good, which may tempt children to take them when unsupervised.
- Kids are curious, and young children especially love to put things in their mouths.

**Injury prevention strategies from Safe Kids:**

**Safe storage**

- All medications must be stored out of children’s sight and reach.
- Do not leave medicines in a purse, in an unlocked cabinet or on a table.
- Keep medications separate from items such as toothpaste, soap and other things that are used every day.
- Never leave medicines unattended while in use.
- Do not leave out loose pills.
- Utilize child-resistant packaging when available.

**Safe dosing**

- Always read labels, follow directions and give medicines to children based on their weights and ages.
- Avoid confusion by keeping all medicines and potentially poisonous household products in their original packages.
- Do not take medicine or vitamins in front of kids or involve children as helpers with your medication.
- Tell grandparents and friends about avoiding medication poisoning when your family visits their homes.

Learn the toll-free nationwide poison control center number, **800-222-1222**, program it into all phones and keep it near every phone.

For additional information and to read the full report, visit [www.safekidsfayettecounty.com](http://www.safekidsfayettecounty.com)
Save the date

2013 Contemporary Pediatrics for the Healthcare Professional

Thursday – Saturday, May 16-18, 2013
Griffin Gate Marriott Resort & Spa
Lexington, Ky.

Featuring:
Gary S. Marshall, MD
Professor of pediatrics
Chief, Division of Pediatric Infectious Diseases
Director, Pediatric Clinical Trials Unit
University of Louisville School of Medicine

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