CHILDREN'S MERCY HOSPITALS & CLINICS

Physician's Update

January 2006

ICN Expands to 60 Beds

The New Year brought a new reason to celebrate to the Intensive Care Nursery (ICN) with the addition of 15 new beds.

The unit has struggled with space constraints due to a growing patient population. In 2004, the ICN provided care for 626 patient admissions and the unit was on pace to care for more than 700 admissions in 2005.

"When we built the department, we used two-thirds of our space as clinical space to serve patients. The rest we used as office space," says Howard Kilbride, MD, Neonatology Section Chief and Professor of Pediatrics for UMKC School of Medicine.

The offices of several staff involved with the ICN, including educators, managers, nurse practitioners, as well as a conference room and a lounge, have been moved across the hall to create more space for patient care.

Previously, the unit was able to care for 42 children in the Intensive Care Nursery and other clinical locations were used for patient overflow. By relocating office space, the unit has been able to expand to 60 patient beds and keep them all on one floor.

The ICN cared for 626 patients in 2004 and was on pace for more than 700 in 2005.

"Adding 18 more beds truly expands our capacity," says Janet Klein, ICN Nurse Manager. "It means that we will hopefully not have to delay or defer admissions because bed space is unavailable."

In addition to the increased beds, the expansion will allow for more individual parent rooms. "Individual rooms provide a separate place where the parent can stay with the baby," says Dr. Kilbride. "These rooms are monitored but give the parent and child time with each other away from the rest of the ICN." .

As a Level IIIC Intensive Care Nursery – the highest designation possible – the unit will continue to provide the most advanced technology in neonatal and surgical care available in the region. "With this expansion we are able to provide care to even more sick infants who need to be at Children's Mercy for the care that only we can provide," says Klein. "Our goal is to be able to care for every infant who needs our services."

Children's Mercy HOSPITALS & CLINICS
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Kudos & Congrats

Denise Bratcher, DO, has been named Pediatric Residency Director at Children's Mercy. Dr. Bratcher is a graduate of the Children's Mercy Hospital Residency Program and served as Chief Resident. She has worked in the Infectious Disease section since 2000 and is currently the director of the pediatric infectious disease fellowship. In addition to her new responsibilities, Dr. Bratcher will continue to see patients as part of the Infectious Disease Section.

Lisa Lowe, MD, Radiology, has been chosen as an associate editor for the American Association for Women Radiologists *Focus* newsletter. The newsletter is sent to more than 2,000 AAWR members nationwide.

Jay Portnoy, MD, and the Children's Mercy Allergy, Asthma, Immunology program were featured on the cover of the November 2005 issue of Modern Healthcare. The cover story highlighted the success of the asthma disease management program.

Brenda Rogers, MD, has been appointed Associate Dean of Student Affairs at the University of Missouri-Kansas City. Dr. Rogers is the Medical Director for Children's Mercy Family Health Partners and Clinical Director of the Internal Medicine/Pediatrics Resident Ambulatory Council.

Bradley Warady, MD, Nephrology Section Chief and Dialysis and Transplantation Director, has been elected Vice-President of the Midwest Transplant Network. Dr. Warady has also been selected to serve on the pediatric national committee of the national "Kidney Care Quality Initiative."

New Doctor

Carrie Clarke, MD
Anesthesiology
(816) 234-3464

MD Degree: University of Oklahoma, 1999
Residency: Anesthesiology, Duke University, 2004
Fellowship: Pediatric Anesthesiology, University of North Carolina - Chapel Hill

Helpful Tips for Emergency Department Referral

A visit to the Emergency Department is an experience everyone would prefer to be smooth and quick. Theodore Barnett, MD, Emergency Medicine Section Chief, offers these helpful tips for sending a patient to the ED.

• **Call First** - The most important tip is to call and talk with an ED physician before the patient is on the way. This is essentially a consultation with a subspecialist in Pediatric Emergency Medicine. The PEM physician can advise on mode of transportation, availability of specialists, tests and procedures, and whether an ED visit is even necessary.

If you are sending the patient from your office, calling ahead will move the patient forward in the process. This does not necessarily mean the patient will be seen right away, but it usually decreases the wait considerably. There is no substitution for this call; letters, prescriptions and consult forms do not provide the same level of communication.

• **Tell Us As Much As You Can** - In communicating with ED physicians, Dr. Barnett encourages primary care physicians to give as much information as known about the patient's symptoms and share any concerns. The ED physician may have recommendations which could save a visit or prolonged stay in the ED.

• **Leave a Phone Number** - Children's Mercy ED physicians try to call referring physicians back. It is easiest if you have left a phone number that will reach a live person or accept a message. If you haven't heard back and are anxious about the status of your patient, call the ED and ask to speak with the physician taking care of your patient. You can discuss the current status and future plans. If there is a procedure about which the parents are uncomfortable or unsure, this also gives the ED physician a chance to ask you about it.

For more information, contact Dr. Barnett at (816) 234-3668.

Dosing Guidelines: APAP vs. IBU

We continue to receive questions about "on-going-alternating antipyresis" with the use of acetaminophen (APAP) and ibuprofen (IBU) for fever.

The Children's Mercy "Outpatient Antipyretic Drug Administration Protocol" is intended to represent guidelines for the one-time-dosing treatment of high fever when a patient presents for outpatient care. The protocol encourages maximal dosing of one antipyretic as ideal therapy for fever and is not promoting alternating antipyretic therapies.

Ralph Kauffman, MD, Medical Research Department Chairman, reviewed an article published in Pediatrics, VOL #105: 1009-1012, May 2000. The article referenced previous literature that showed that longer duration of antipyresis with use of aspirin (acetylsalicylic acid, ASA) and acetaminophen (n-acetyl-p-aminophenol, APAP) together could be accounted for simply by the sum of the doses of the two drugs. In other words, giving equivalent dose of either drug alone as the antipyretic mechanism of action is the same. This also was demonstrated comparing ibuprofen (a propionic acid NSAID) and APAP in the 1980s. There has never been a rigorous study to show any advantage of alternating therapy. The most common toxicities of IBU and APAP are diffferent and independent, and therefore exposing the child to two drugs increases the probability of an adverse event or other drug interaction.

Single drug therapy with either of these agents has been shown to be very safe in The Children's Analgesic Medicine Project of 1993-1994 (participated in by Dr. Wasserman and others at Children's Mercy). This study involved approximately 100,000 febrile children.

Summary of pediatric research studies reveal that APAP, IBU and ASA will peak at about the same time and all reduce fever the same percentage amount. However, IBU effectiveness persists for about 30-60 minutes longer and also adds significant adverse effects to the profile. There is evidence (study participated in by Dr. Wasserman in 1983 and French study published in Pediatrics, 2001:108:e73) demonstrating that a supratherapeutic one-time loading dose of APAP could reduce fever more quickly, reduce fever to a greater degree, and maintain lower fever for longer duration of time, when compared to normal dosing. Although there were no serious adverse events during these studies, changing the "normal" dose and/or trying to direct parents to safely follow complex dosing schedules led to confusion, medication errors, and therefore toxicity.

Gary Wasserman, DO
Chief, Medical Toxicology; Professor of Pediatrics, UMKC

Case of the Quarter Mycobacterium Disease

A 14-year-old male with a three-month history of weight loss, fever, abdominal pain was admitted to the GI service. CT scan performed revealed mesenteric adenitis with multiple necrotic nodes as well as thickened terminal ileum consistent with Crohn's disease. Physical exam was positive for diffuse lymphadenopathy cervical, inguinal, and axillary.

The differential diagnosis included Crohn's disease with reactive lymphadenopathy, Brucellosis, and Tuberculosis. The patient was initially started on Meropenem and Flagy for broad spectrum coverage. Colonic biopsy was performed prior to admission to rule out possible Crohn's disease. That biopsy returned during admission with nonspecific Mycobacterium. Lymph node biopsy obtained during admission also showed red acid fast bacilli.

Clinical manifestations of mycobacterial disease in children include most commonly cervical lymphadenitis. Less commonly children present with skin, bone, and pulmonary disease.

Mycobacteria are found in the environment. While many people are exposed to these organisms, few develop chronic clinical disease. In those that do manifest clinical disease, organisms typically gain entry via skin lesions, mucosal breaks, the GI or the respiratory tract. The atypical mycobacteria are M. avium, M. fortuitum, M. kansasii, and M. marinum.

This patient was started on four-drug therapy including Isoniazid, Rifampin, Ciprofloxacin, and Pyrazinamide. Ethosuximide was started prior to discharge per recommendations from the health department for better M. Bovis coverage.

Therapy needs to be monitored by multiple factors including clinical response, blood culture, and at times tissue culture. Most show clinical improvement in a matter of four to six weeks although elimination of the organism may take as long as 12 weeks.

Ashley Daly, MD and Lily Nguyen, DO
Interim Pediatric Residency Co-Chiefs

Just for Kids

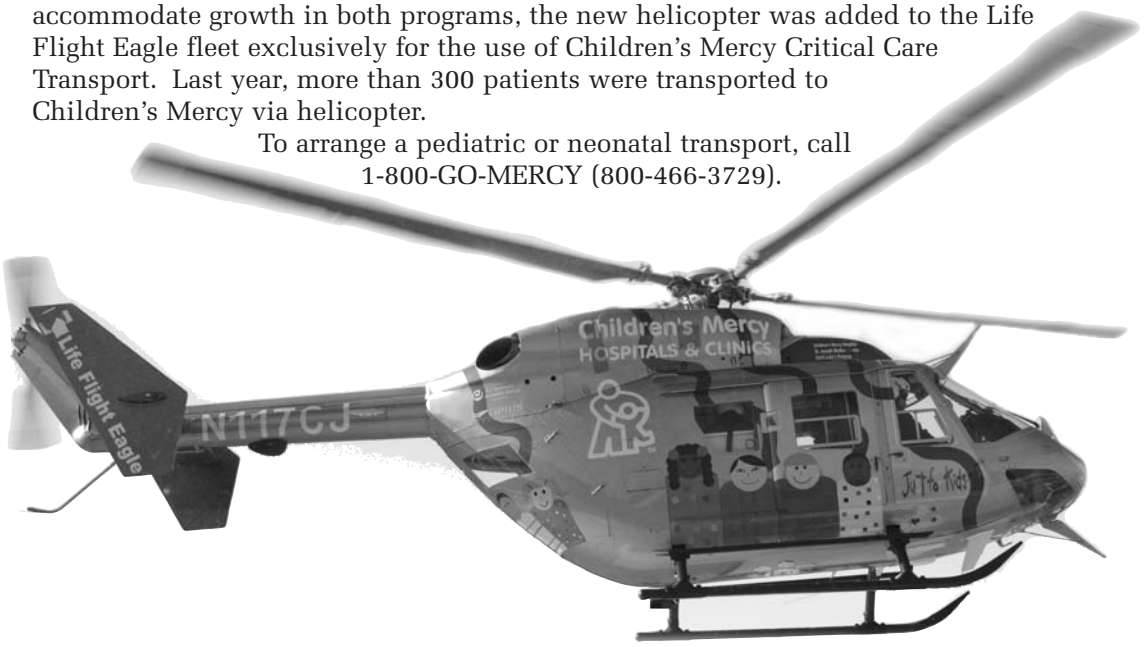
Kid-friendly Helicopter Saves Time, Lives

When it comes to saving a child's life, every second counts. That is why the addition of a new neonatal/pediatric-equipped helicopter at Children's Mercy Hospital is so critical to care for children throughout the region.

With the helicopter stationed atop Children's Mercy Hospital, and dedicated pilots and staff based at the hospital as well, the new helicopter can be enroute in less than 10 minutes following a transport request. The brightly-colored, child-friendly helicopter transports patients from a 100-150 mile radius from Kansas City.

Previously the hospital shared the use of one of the Life Flight Eagle's three aircraft. To accommodate growth in both programs, the new helicopter was added to the Life Flight Eagle fleet exclusively for the use of Children's Mercy Critical Care Transport. Last year, more than 300 patients were transported to Children's Mercy via helicopter.

To arrange a pediatric or neonatal transport, call 1-800-GO-MERCY (800-466-3729).



Physician's Update is produced monthly by Community Relations and Physician Services. For more information, contact Shawn Arni, (816) 346-1371 or e-mail to sarni@cmh.edu.

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