

SEEDLINGS

News from the UNIVERSITY OF CHICAGO DEPARTMENT OF PEDIATRICS
the UNIVERSITY OF CHICAGO COMER CHILDREN'S HOSPITAL

Spring 2008

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New Virulent MRSA Strains Spreading Through Community

Despite the fact that we no longer use methicillin as an antibiotic to treat staph infections, the name now represents other antibiotics that have become similarly ineffective in treating the new virulent strains of skin and soft tissue infections. In fact, "we are confronting an MRSA epidemic," says Robert S. Daum, MD, professor of pediatrics and infectious disease specialist.

Initially MRSA (Methicillin-Resistant Staphylococcus Aureus) infections were found in people exposed to the healthcare environment. Then, in the mid-1990s, everything changed. As Daum explains, "Our laboratory saw that something new was happening. Serious staph infections with MRSA strains were emerging, at first mostly with children who had not been in a healthcare setting, and then rapidly affecting other groups. Infected patients were not necessarily with other sick people."

The University of Chicago Children's Hospital reported its findings in the Journal of the American Medical Association (JAMA) in 1998, the first study to address community-acquired infections, or CA-MRSA.

The rate of infection has risen from 10 to 15 percent to approximately 60 percent nationally. Today, the University of Chicago Medical Center's Emergency Room MRSA rate can be as high as 85 percent. "It's the highest attack rate for an invasive disease, an average of 30-35 per 100,000 people per year, and it's higher for children under one year of age."

MRSA skin and soft tissue infections can also progress to more serious diseases, such as necrotizing pneumonia, severe sepsis, and meningitis Hib. "More people have died from MRSA in one year than from HIV," Dr. Daum says. However, "government research funding for bird flu research is \$7 billion, but only \$3 million for MRSA. Awareness must increase."

Clinicians have to be more thoughtful about diagnosis of high risk groups, such as: house-



Robert S. Daum, MD, professor of pediatrics, section of infectious disease
Photo by Lloyd Degrane

hold contacts with high risk individuals, children, day care centers, men who have had sex with men, military personnel, incarcerated individuals, athletes, Native Americans and Pacific Islanders, and IV drug users.

"That's why an incision and drainage (I&D) and cultures have become so important for a correct diagnosis," Dr. Daum says. "MRSA is no longer a rare disease. It has become common, and it has a high re-occurrence rate." While the paradigm has changed, a practitioner still has to assume that some antibiotics will be effective with CA-MRSA, such as Clindamycin or Bactrim (trimethoprim-sulfamethoxazole).

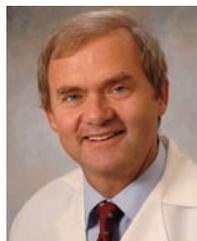
If you have any questions, or want to consult on a specific patient case, please feel free to contact us at 773-702-6176.



Letter from Michael Schreiber, MD
Professor of Pediatrics,
Interim Chair, Department of Pediatrics
Associate Fellowship Director, Neonatology

My fellow colleagues,

While this issue of the Seedlings focuses on our internationally recognized infectious disease experience, we also discuss other areas and resources that will interest you.



For example, Mohan S. Gundeti, MD, an expert in minimally invasive urologic surgery, recently performed the first pediatric robotic-assisted pyeloplasty in the Chicago area. The article explains how Dr. Gundeti also successfully repaired a teenager's complex kidney condition with robotic-assisted laparoscopic surgery. His parents were grateful that their son avoided invasive surgery.

Another article will introduce you to the International Adoption Clinic at the University of Chicago Medical Center, the only clinic of this type for children in Chicago. As rewarding as foreign adoptions can be, they are challenging in many ways. We work with referring physicians to identify and address the unique health and developmental needs that children adopted from other countries may present. The Clinic's experienced staff serves as a liaison between the child's primary care provider and the diverse pre- and post-adoption resources we offer.

The University of Chicago Medical Center's Infectious Disease Travel Clinic also offers parents vaccinations to prepare for travel to different countries. While primary care physicians can administer many immunizations, some are only available through an authorized travel clinic such as ours.

Other articles in this issue address infectious diseases, a section of the University of Chicago Medical Center with a long tradition of clinical excellence and research accomplishment.

For example, Kenneth Alexander, MD, PhD, section chief for pediatric infectious diseases, discusses the new vaccination for HPV and how important it is for pediatricians and other primary care providers to educate parents and young people about the vaccine's importance and safety. HPV infection is most common in women and men in their late teens and early 20s and can lead to serious and fatal diseases.

We look forward to answering any of your questions and consulting with you.

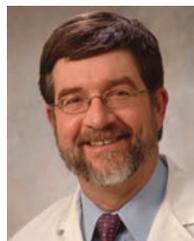
A handwritten signature in black ink, appearing to read "Michael Schreiber".

Professor of Pediatrics
Interim Chair, Department of Pediatrics
Associate Fellowship Director, Neonatology

Letter from Kenneth Alexander, MD, PhD
Associate Professor of Pediatrics
Chief, Pediatric Infectious Diseases

Dear Fellow Physicians,

I am delighted to "reintroduce" you to the University of Chicago Comer Children's Hospital section of pediatric infectious diseases as we continue our expansion plans and build on our many clinical and research accomplishments. Our nationally recognized experts



are here for you and your patients whose conditions are caused by bacteria, viruses, fungi and parasites.

Our cover story underscores the fact that CA-MRSA is now an epidemic. Robert S. Daum, MD, professor of pediatrics and infectious diseases specialist, and his staff first noticed the changes in staph aureus infections in the

mid-1990s. In fact, the University of Chicago published the first study in the Journal of the American Medical Association (JAMA) in 1998 describing new strains that were drug-resistant and had originated in community settings, not in healthcare settings.

We follow this discussion up with a focus on CA-MRSA in the sports community, a very high risk population. Holly J. Benjamin, MD, underscores the importance of incision and drainage and an abscess wound culture as the gold standard approach to diagnosis and treatment. Our hospital offers quick turn-around so you can quickly and accurately treat your patients.

Another article discusses a perinatally infected teen with HIV. He was born in 1991, just as new retroviral drugs were transforming the treatment of HIV/AIDS patients. Infectious diseases specialist John Marcinak, MD, is medical director of the HIV/AIDS Pediatric and Adolescent Care Team (PACHT) at Comer Children's Hospital. He and his team are very optimistic about new combination medications that offer life-long potential. And, our hospital is one of three sites in Chicago to offer access to pediatric HIV studies sponsored by the National Institutes of Health.

We currently research and treat dozens of infectious diseases. As we grow, our commitment is to be at the forefront for those that are serious threats to the public health, such as HIV infection, hepatitis C, bioterrorism, and other emerging infectious diseases, here in our communities and also abroad.

If you have any patient questions about research studies, diagnosis or treatment, we would welcome the opportunity to work with you.

A handwritten signature in black ink, appearing to read "Kenneth Alexander".

Associate Professor of Pediatrics
Chief, Pediatric Infectious Disease

International patients, please call toll-free 1-877-482-8318

Infectious Disease Specialists Respond to Today's "Super Bug": CA-MRSA



Holly Benjamin, MD, FACS speaks with a concerned teen and her mother.

Community-Associated Methicillin-Resistant *Staphylococcus Aureus* (CA-MRSA) infections are now internationally recognized and associated with high morbidity and mortality if not accurately diagnosed and treated. Because CA-MRSA – caused by different strains than healthcare-associated MRSA infections – is resistant to common antibiotics, prevention, awareness and early diagnosis are critical.

CA-MRSA high risk groups include urban children and elderly populations, correctional facility inmates, military personnel, and athletes.

“The sports community is at the highest risk,” says Holly J. Benjamin, MD. “Athletes engaged in skin-to-skin contact, such as American football, wrestling and rugby, are the most vulnerable. The first documented sports outbreak, for example, occurred in 1993 when six high school wrestlers in Vermont developed CA-MRSA abscesses. Athletic teams throughout the world have been affected.”

The University of Chicago Comer Children's Hospital treats athletes and other victims of CA-MRSA every day. “Our experienced infectious disease specialists include experts in diagnosis and treatment who are respected for their quick turn-around and personalized treatments,” says Dr. Benjamin. “The Duchossois Center for Advanced Medicine and its state-of-the-art laboratory, our satellite clinics in sports medicine, and our other resources help physicians make prompt, accurate diagnoses and choose effective treatments.”

Typical presentations and symptoms include pain, redness, swelling, an area of pus drainage, a history of breaks or other skin lesions, and exposure to other symptomatic athletes. However, Dr. Benjamin explains that “the symptoms can be subtle and even look like a little spider bite.”

CA-MRSA is “difficult to distinguish from MSSA (methicillin-sensitive *S. aureus*) and other streptococcal skin infections,” Dr. Benjamin adds. “That's why incision and drainage (I&D), with an abscess wound culture to identify the bacteria and testing for antibiotic resistance and sensitivity, is considered the

gold standard approach.” Furthermore, Dr. Benjamin adds, “different strains can mutate and change resistance, so antibiotics frequently have to be changed. And, each individual on the same team requires a unique treatment.”

Sports teams and other vulnerable populations should, of course, be attentive to hygiene and avoid exposure to infected individuals. When an athlete is identified and diagnosed with CA-MRSA, immediate follow-up with all team members should be initiated.

Comer Children's Hospital's experienced infectious disease specialists are here to help you effectively identify and respond to your patients facing CA-MRSA.

Perinatally Infected Teen With HIV Plans for the Future

When asked if he ever gets tired of taking his daily medicine for HIV, T* considers the question and responds, “Yes, but then I think about my future.”

T was perinatally infected with HIV. He was born in 1991, just as new anti-retroviral drugs were transforming the medical treatment of HIV/AIDS patients. Children born with HIV began to survive and, for the first time, had to learn how to grow up with the disease.

A handsome and polite young man, T will be 17 years old this spring. The high-school junior likes math and auto-body class. He is a sprinter on both the winter and spring track teams and is taking driver's education this semester. He enjoys listening to R&B and hip-hop music and watching both scary and funny movies.

Most of the time, T is too busy to think about his illness. “I only think about it when I take my medicine,” he says.

Ruth Martin, MSW, MPA, director of social work for the Pediatric and Adolescent HIV Care Team (PAHCT) at the University of Chicago Comer Children's Hospital, says, “In the early 90's, we took care of children with a terminal illness, but now we are teaching them how to manage a chronic disease. They are being encouraged to finish high school, go to college and think about careers, marriage or having their own family someday.”

Providing primary and subspecialty medical care, psychosocial support and social work medical case management to HIV-infected or -exposed infants, children and teenagers is the mission of PAHCT. The team of highly trained doctors, nurses and social workers offers HIV evaluation, diagnosis, treatment and support services to more than 100 pediatric patients each year.

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The goal of therapy for patients is to have the virus undetectable in their blood. But there are challenges on many levels. In the early 90's, the treatment regimens were not optimal. Doctors found that the virus developed a resistance to some of the drugs. And the pill burden, as high as 10 or 12 pills, taken two or three times a day, resulted in "treatment fatigue" in many patients. The long-term effects of taking anti-retroviral drugs for many years are not yet known.

Infectious diseases specialist John Marcinak, MD, associate professor of pediatrics and the medical director of PAHCT, has a hopeful view of future outcomes. "In the past four years, new combination medications with different mechanisms of action have given us much to be optimistic about," he says. "In the last year, three completely new medications have been approved for the treatment of HIV. The life span and quality of life for these young people continues to improve as new drugs are developed."

When T was young, he took the medicine, Ritonavir, twice a day. This liquid medicine, with a particularly awful kerosene-like taste, caused T to vomit regularly. In the last year, he started taking the drug, Atripla, the first one-pill, once-daily complete regimen of different types of medications. The three drugs in Atripla work to slow down the disease by blocking transcriptase, a protein that HIV needs to replicate itself.

For T, taking care of his medical needs is not his biggest concern. Like other teenagers living with HIV, issues of privacy and disclosure weigh heavily on his mind.

"I am still working on how I might tell a serious girlfriend someday," he says. "I'll ask her to stay calm and not yell. And I hope she will love me enough to stay with me."

Linda Walsh, NP, a nurse practitioner on the care team says she finds that teens with HIV are strong and courageous kids. "They have a lot to deal with because HIV is a physical, mental and spiritual diagnosis."

In the near future there may not be any more children growing up with the disease. Advances in the testing and medical care of HIV positive pregnant women have lowered transmission rates to infants to less than two percent. Even so, the battle against HIV/AIDS in the adolescent population will continue. Pediatric infectious diseases specialists agree they must stay focused on teenagers who could contract HIV through risky behaviors.

"Unfortunately HIV is still alive and well in the United States," says Linda Walsh. "Today's teens have a choice, yet they are still contracting the disease through unprotected sexual activity and drug use."

PAHCT is committed to reducing the transmission of HIV among at-risk adolescents in the Chicago area through its community-based HIV prevention program in local schools. (See box). The team makes 20 to 30 visits to some middle and high schools each year.

When HIV/AIDS is discussed at T's school, he rarely speaks up. When he does, his classmates ask him if he has HIV and how he knows so much about it. He has his response ready.

"I tell them that I pay attention in health class and that they should get the facts and get educated, too."

To refer a patient or for a physician consultation, please call 773-702-6176.

* To protect the patient's privacy, an initial is used.



The PAHCT team: back row Jennifer Burns, NP, Ruth Martin, MSW, John Marcinak, MD; front row: Monica Hagerty, LCSW, Denika Wheat, LCSW, Linda Walsh, NP

Community-based HIV Prevention

PAHCT is committed to reducing the transmission of HIV among at-risk adolescents in the Chicago area. Working closely with schools and youth groups in Chicago's south side, the team presents HIV prevention workshops directed toward educating at-risk youths. This community-based intervention program aims to:

- Increase awareness of risk factors for HIV/AIDS and knowledge of prevention strategies,
- Motivate youth to reduce high risk behaviors and test to know HIV status
- Decrease the perceived or real barriers to HIV testing
- Provide links to HIV services to ensure that those who test positive follow up for referral and treatment

PAHCT is also developing HIV prevention workshops for public school personnel who have daily contact and influence with the student population. These include teachers, social workers, counselors, support staff and student leaders who will train to become peer educators. PAHCT will provide these future HIV-educators with the necessary tools to regularly talk to youth about HIV.

For more information, call Linda Walsh (773) 702-3853 or Ruth Martin (773) 702-6970.

HPV: Promoting Parental Compliance for a ‘Most Important’ Vaccine



Kenneth Alexander, MD, PhD, section chief, pediatric infectious disease

“I think this is the most important vaccine to come our way since the measles vaccine,” says Kenneth Alexander, MD, section chief for pediatric infectious disease and an associate professor of pediatrics. Dr. Alexander is referring to the vaccine for genital human papillomavirus (HPV). In June 2006, the U.S. Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices voted to recommend this vaccination, commonly known by its brand name: Gardasil®.

Despite strong recommendations from the CDC, the American Academy of Pediatrics, the American Academy of Family Physicians and other medical associations, many parents remain reluctant to vaccinate their preadolescent and adolescent daughters against this sexually transmitted virus. Parents’ slow acceptance of the HPV vaccination often is grounded in attitudes and lack of awareness about HPV infection.

First, administration is recommended for girls age 9 to 12 -- ideally before sexual activity and potential exposure to the HPV. Parents’ reluctance to envision their preadolescent daughter growing into a sexually active young woman is one cause for low compliance with HPV vaccination.

Another reason for slow acceptance of vaccination is simply lack of understanding about its importance and the prevalence of HPV infection. Most parents readily accept immunizing their children against diseases that are very rare or virtually nonexistent in the U.S., diphtheria, mumps, rubella, polio or meningitis.

In contrast, most parents don’t realize how common HPV infection is; an estimated 80% of women will contract HPV by age 50. The virus is most common in young women and men in their late teens and early 20s. Importantly, HPV is a major cause of cancers of the cervix, vulva, vagina and anus. HPV infection also can cause genital warts. Nearly American 4,000 women die from cervical cancer each year.

Public education is critical to gaining parental compliance with this vaccine. Pediatricians and other primary care providers have the most influential impact on educating parents about the vaccine’s importance and safety.

Here are some of the key messages primary pediatricians can convey to parents and families:

- HPV infection is common and easy to contract. Over 6 million women and men contract HPV each year in the U.S. Anyone who has genital contact with another person can get HPV.

- HPV infection can lead to serious, life-threatening, complications. HPV infection increases a woman’s risk for cervical cancer, as well as cancers of the vagina, vulva and anus. Less-serious complications include genital warts and cervical dysplasia (a pre-cancerous condition).

- Cervical cancer can be deadly. About 40% of American women who develop cervical cancer will die from the disease. Worldwide, cervical cancer is the number two cause of cancer death among women.

- Women should continue to get annual Pap smears to detect the earliest stages of dysplasia or cervical cancer, even if they have been vaccinated.

- Both men and women can contract HPV, but only women can develop cervical cancer. At this time, HPV vaccination is available for only girls/young women.

- The Gardasil vaccination is administered in three shots over a 6 month period. Optimal protection is achieved when the three shots are given within six months (at months 0, 2 and 6).

- The vaccination offers protection against four of the most common types of HPV infection which, together, cause about 70% of cervical cancers and 90% of genital warts. There are about 200 known types of human papillomavirus, about 12 cause cancer.

- The vaccine is expensive, and is now covered by most insurance. However, public health programs offer coverage. The current retail price is about \$120 per dose, times the three doses. The federal Vaccines for Children (VFC) program covers costs for the HPV vaccine for children who are uninsured, Medicaid-eligible or otherwise eligible for public health coverage. The Illinois VFC program offer coverage up to age 20.

- The vaccine is safe and causes only minor side effects. Some girls experience soreness at the site of injection or fainting after the vaccination. There appears to be no negative impact on a girl’s future fertility.

- The CDC ACIP endorsed this vaccine as “recommended.” This puts HPV vaccination on par with CDC endorsements for well-established immunizations such as MMR, DPT, hepatitis.

- Optimally, the vaccine should be given between the ages of 9 and 13 – before sexual activity that might expose a girl to the HPV. However, the vaccine is licensed for use up to age 26 for young women who did not receive it when younger. Nonetheless, the vaccine will not offer protection against any human papillomavirus already contracted.

More information about HPV and the Gardasil vaccine is available on the CDC’s website: <http://www.cdc.gov/std/hpv/hpv-vaccine.pdf>. Providers can print these easy-to-understand pages for their patients and families.

International Adoption Clinic Addresses Unique Health Needs of Children Born Abroad

The number of children adopted from foreign countries more than doubled over the past decade, from about 11,300 in 1996 to 22,700 in 2005, the most recent year reported. Primary care providers and adoptive parents should be alert to potential health concerns for foreign-born children who are brought to the U.S.

The Centers for Disease Control and Prevention (CDC) warns that “international adoptions bring a host of special considerations, as these adopted children come from diverse cultural backgrounds, living conditions and medical histories. Adoptive families should be aware of the unique medical, nutritional, environmental and psychological issues they may face.”

These issues and health concerns can vary significantly, depending on the child’s birth country and living environment. Nearly half of these children come from mainland China or Russia. In all, six countries accounted for about 86% of international adoptions in 2005: China, Russia, Guatemala, South Korea, Ukraine and Kazakhstan, with growing numbers of adoptive children coming from Ethiopia, India, Colombia and Philippines in recent years.

The International Adoption Clinic at the University of Chicago Medical Center provides counseling, comprehensive diagnostics and referrals for specialized services to address the unique health and developmental needs of children adopted from foreign countries.

Services are available before and after the adoption, including:

Pre-Adoption Assessment and Counseling – Our team often meets with parents before the adoption to review the child’s medical records, recommend immunizations and diagnostic tests for the child, and to discuss concerns the parents may have regarding the child’s future. In conjunction with the University of Chicago Medical Center’s Travel Clinic, parents also may obtain vaccinations to prepare for their travel to Asia, Africa, South America or other regions. [See Travel Clinic story, page 7.]

Post-adoption Medical Evaluation – Once the child comes to the U.S., the clinic provides a thorough medical examination and testing. This evaluation should be conducted as soon as possible after the child arrives here because early identification of potential concerns allows for the earliest and most effective intervention. (Parents often arrange this exam before they travel to adopt their child.)

This initial checkup provides a foundation for the child’s healthy growth, and creates a baseline to gauge the child’s future growth, health, development and behavior. The assessment includes:

- Comprehensive physical examination
- Thorough battery of tests to detect hepatitis B or C, HIV in-

fection, intestinal parasites, tuberculosis, syphilis or other infectious diseases. It’s important to note that every country has its own standards for medical documentation and disclosure, so children adopted internationally may arrive with incomplete medical records. The extensive testing enables the medical team to identify any concerns that may not be detailed in the child’s medical record.

- Behavioral and developmental evaluation, which includes testing to identify possible underlying medical conditions, behavioral problems or developmental delays, including issues that are rare in children born in the U.S. For example, a young child from a war-ravaged country or those who have been abandoned in an orphanage may exhibit emotional and behavioral symptoms that would be uncommon for children born into a more stable environment in the U.S. Our physicians have experience evaluating and identifying unique concerns so that they may be addressed early.

- Referral to sub-specialists for any recommended ongoing care. The child may be referred to a sub-specialist at the University of Chicago Medical Center or another medical center closer to home.

- Coordination with the referring pediatrician to assure that the child receives all necessary immunizations. These immunizations are usually administered by the referring pediatrician. Results from the Adoption Clinic’s lab workup indicate which immunizations the child already received and which are needed.

Follow-up evaluation. The International Adoption Clinic generally follows the development of newly adopted children for their first 6-12 months in the U.S. The clinic partners with referring pediatricians to assure that the child receives any needed interventional therapies. The team is available for physician consultation or additional testing as needed.

The clinic is led by Larry Gray, MD, a University of Chicago pediatrician with subspecialty training in developmental pediatrics and particular expertise in developmental issues of Asian- and African-born children.

“The International Adoption Clinic is an important first step children for being adopted internationally,” says Linda Walsh, NP, pediatric nurse practitioner with the clinic. “We’re not trying to be the child’s primary care provider. Instead, we serve as a liaison between the primary care provider and an array of other services that may be needed during the child’s growth and development.”

For more information or to refer a child or parents, contact the International Adoption Clinic at: (773) 834-8925 or email adoption@uchospitals.edu.



Travel Clinic Offers Protection Against Rare Infectious Diseases

Children and families traveling to locations in South America, Asia (including India) and Africa are advised to obtain immunizations for illnesses that are unseen in the U.S., yet can be prevalent in different parts of the world. Many of these immunizations – such as hepatitis A or meningitis – can be administered by a primary care physician.

However, specialized vaccinations – such as immunizations for typhoid, malaria, cholera, Japanese encephalitis or yellow fever – are only available through an authorized travel clinic. The Pediatric Infectious Disease Travel Clinic at the University of Chicago Comer Children's Hospital works with primary care physicians to assure that children and their parents are appropriately immunized before their travels. Although focused on pediatric care, the University of Chicago clinic can provide immunizations and infectious disease intervention for the entire family. Dosing is carefully calibrated to each individual's size and age. (An adult-focused Travel Clinic also is available at

the University of Chicago Medical Center.)

The Pediatric Travel Clinic is directed by John Marcinak, MD, a University of Chicago specialist in pediatric infectious diseases. In addition to prophylactic measures, the clinic offers consultation services for those planning international travel. The clinic also works with families who are traveling abroad to adopt a foreign-born child.

Once a child or family returns from abroad, Dr. Marcinak and his team are available to intervene if a family member experiences fever, rash or other unusual symptoms.

This is a fee-for-service clinic. After payment to the clinic, patients can file claims with their insurers for reimbursement. To refer your patient, please call (773) 702-3853. For more information, please contact Jennifer Burns, NP, at (773) 702-7555.

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In a robotic-assisted procedure, the surgeon has a three-dimensional view of the surgical field and a greater range of motion and precision than in traditional laparoscopic and open surgeries. "Justin's anatomy was complex and required delicate work," says Dr. Gundeti. "But I did not see any reason to separate the kidney."

Justin's parents were happy with Dr. Gundeti's approach. "We were looking for a laparoscopic operation," says Michael Ham, Justin's father. "When we learned that robotic-assisted laparoscopic surgery gives greater surgical accuracy, has shorter recovery times and has fewer complications, we knew we were in the right place."

On Tuesday, February 5, 2008, Dr. Gundeti performed the robotic-assisted, minimally invasive surgery through four tiny incisions. Seated at a console just a few feet away from Justin while viewing the image of the surgical field on a screen, Dr. Gundeti used open-surgery hand movements that were precisely replicated by four robotic arms. During the surgery, Dr. Gundeti discovered that Justin had another abnormality -- an extra renal artery and an extra vein, both located at the lower part of the kidney.

"The extra blood vessels made the surgery more challenging," says Dr. Gundeti. "While this is expected in a horseshoe kidney, the surgery requires meticulous work so kidney function isn't compromised." Assisted by Arie Shalhav, MD, professor of urology and director of minimally invasive surgery at the University of Chicago, Dr. Gundeti repositioned the extra artery and vein along with the pyeloplasty.

Justin returned home and was back at school on Monday, Feb-



Justin's post-surgical scars are barely visible because robotic minimally invasive surgery requires only tiny incisions.

ruary 11. A basketball player on his school's team, he was soon eager to demonstrate his high vertical jump.

"I had to stop him and remind him to take it easy for a few more weeks," says Justin's mom, Sherri Ham. "His body felt and looked so good, he didn't seem to realize what happened to him inside."

To refer a patient or for a physician consultation, please call (773) 602-6150 or mgundeti@surgery.bsd.uchicago.edu.

Robotic-Assisted Surgery Repairs Complex Kidney Condition In Teen

When blood was detected in the urine of 14-year-old Justin Ham of Crown Point, Indiana, his parents suspected it might be related to some congenital urologic anomalies that were corrected when Justin was a baby. A visit to a local urologist confirmed that the teenager had an ureteropelvic junction obstruction (UPJ) at the junction of the ureter and the kidney. This abnormal narrowing of the ureter, most likely formed during fetal development, was leading to hydronephrosis (dilation of the collecting system of the kidneys) and the hematuria.

The urologist inserted a stent to temporarily open the ureter. A follow-up CT and MAG-3 scan revealed that Justin's UPJ was more complicated than most. The test showed that his right ureter was completely blocked and his left ureter was narrowing and partially blocked. In addition, Justin had a horseshoe kidney -- the lower pole of the kidneys was fused together. While congenital malformations involving kidneys are fairly rare, the horseshoe kidney is one of the most common kidney birth defects, occurring in one of every 500 births.

Doctors agreed that Justin needed to undergo pyeloplasty -- surgery to remove the narrow part of the ureter and then reconnect the ureter to the kidney. Uncomfortable with the sug-



Justin Ham and Mohan S. Gundeti, MD

gestion by some urologists that the horseshoe kidney be separated during the pyeloplasty, Justin's parents, Mike and Sherri Ham, looked for other options. Their search brought them to Mohan S. Gundeti, MD, assistant professor of surgery and director of pediatric urology at the University of Chicago Comer Children's Hospital. Dr Gundeti, an expert in minimally invasive urologic surgery, had recently performed the first pediatric robotic-assisted pyeloplasty in the Chicago area.

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