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The best healthcare in the world

America is an exceedingly attractive destination for patients around the world who seek the best healthcare available and have the means to pay for it. Many hospitals in the United States and Canada – several of which are advertising in this supplement – are recognised as global leaders in healthcare and attract patients from around the world who seek their innovative and cutting-edge treatments. Inbound healthcare tourism to the US continues to grow and this is true for wealthy or government-sponsored Arab patients from the Middle East who continue to put their trust in US healthcare despite the increased immigration difficulties some experience with the heightened security following the 9/11 tragedy.

This supplement provides a platform for some of the US and Canada's leading hospitals to showcase their facilities and Centres of Excellence to a Middle East audience. In these pages you will find out why they are leaders in their fields, what innovative treatments they offer and why patients from the Middle East have put their complete trust in their doctors.

The superior skills of their doctors is testament to the exceptional training they receive in the US and Canada. The US not only leads the way in doctor training at its many academic hospitals, but is also a global leader in pharmaceutical development and medical device and technology innovation. Billions of dollars are spent on medical research every year and their research centres attract the world's top scientists who continually endeavour to break new ground in medical discovery.

Combine these aspects and it is clear why the US is considered a world leader in healthcare and why it will continue to attract patients from abroad who seek the best healthcare available.

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Better connections, better care

By Andrea Mooney,
Senior Writer, Boston
Children's Hospital

Our standards regarding quality information and how we use it to care for children have escalated. New innovations in the research, treatment and the delivery of health-related services and information in North America now extend beyond traditional walls, bringing health care and wellness into the everyday experience of patients and their families. These innovations in sharing knowledge can help physicians work, learn and deliver care that is more efficient, cost-effective and, most importantly, of higher quality.

Pediatric physician education on demand

Trained pediatric personnel, especially those skilled in specialties like respiratory and cardiac care, are in short supply in resource-poor countries. Only 2 percent of worldwide medical expenditures are for education, with striking inequities between countries. According to a 2010 report, 36 countries don't have a single medical school. Medical training missions can enhance local skill sets, but they can't address learning needs that crop up in between visits.

To address these problems, a cloud-based pediatric learning module is being

beta-tested this year in 20 countries to help bring together medical professionals from around the world, and will give doctors and nurses on five continents the next best thing to hands-on training.

The web-based application, which uses advanced social networking, analytics, video and simulation technologies, helps teach providers about medical advances. Customizable to an individual's learning style, the system is designed to promote sharing of knowledge about the care of ill

children, so that doctors and nurses anywhere across the globe can have access to colleagues and vital information when they need it. The goal is to provide useful medical education about general principles and optimal practice in the diagnosis and care of sick children.

The platform is academically rigorous and peer-reviewed, open-source and not-for-profit. It leverages and scales the accrued wisdom of international partners in a global effort to improve the care provided to ill



children, and has already been tested with physicians in Bangladesh, Cambodia, Lebanon, Laos, Vietnam and Yemen.

This kind of on-demand training provides immediate benefits. For example, a doctor in the Middle East who needs to understand how to correctly use a ventilator could watch a video demonstration, read about ventilator best practices and train with a web-based ventilator simulator to increase his or her reflex speed. He or she can hook up to a curated social network, enabling the incorporation of new information, exchange of ideas on best practices and peer discussion.

In the future, the platform will include information on-demand on the care of children, a digital and video social network capability for collaboration and knowledge exchange and curricular pathways for training clinicians on essential concepts related to the care of children.

The Internet serves everyone. Now, for sick children and their parents – including those in rural parts of the world – quality care doesn't have to be dictated by geography.

Improved physician collaboration through telemedicine

Imagine yourself in an emergency department taking care of a very sick child. Should he be transferred to a higher-level care setting? Can he safely go by ambulance, rather than helicopter? As a doctor, you would like to consult virtually with colleagues and experts at remote locations.

Transmitting a child's medical images, conducting an educational seminar, seeking health advice from a pediatric specialist in an emergency and management of health data are all examples of how telehealth has made its way into the foundation of pediatric care. With web-based modules and mobile technology, sharing medical expertise with someone in Africa isn't much different from sending radiology images across town. Also, electronic medical records are starting to help physicians and patients track symptoms more easily and systematically, and incorporate this data into decision-making.

Telemedicine is inherently cost-efficient and has helped achieve better outcomes for children. However, the implementation and maintenance of telemedicine requires dedication. Developing a system that works can

involve extensive coordination between hospitals and physicians at each site who understand the political, operational and clinical landscape of their respective institutions. In addition, telemedicine requires a robust training program for everyone involved, as well as research, support and workflow adoption.

When physicians collaborate in a timely way on technological innovations, they establish a partnership that benefits patients like never before, establishing more affordable, timely and high-quality care to all patients – both locally and globally. Already, collaborations have developed new standards for sharing knowledge and making informed treatment decisions.

Robotic technology: Connecting with children at home

While physician-to-physician communications and education are vital to improving care for children, so is the ability to communicate and educate patients themselves – whether they are in the hospital or at home. New developments in telecommunications and remote monitoring technology can provide that bridge between a clinician at the hospital and a patient at home.

Recently, robots have helped children make transitions as they leave the hospital and move to their home environments, where they can recover in familiar and comfortable surroundings. In the hospital, children have around-the-clock care and monitoring, but after discharge, families lose contact with their physicians and nurses unless there is a problem or complication.

Now, patients can take a robot home with them that uses videoconferencing to connect them with their clinicians. Physicians can talk to and monitor patients, view their home environment and help parents assess their child's status and answer their questions and concerns. Follow-ups that would normally require a doctor's visit can be replaced with real time conversation and observation. Doctors can even identify errors and avoid complications before their patients require emergent and costly medical attention, which has the potential to prevent costly hospital readmissions.

Although simple videoconferencing

While physician-to-physician communication and education are vital to improving care for children, so is the ability to communicate and educate patients themselves.

with patients' personal computers and a platform like Skype can provide a similar function, it isn't always enough. In some situations, there are clinical advantages to moving the device to where the patient is – for doctors to be “embodied” by the device as if they were actually in the room. An orthopaedist or a physical therapist may want to see a patient walk up the stairs. A pulmonologist or a respiratory therapist may want to evaluate a bed-bound patient on a ventilator.

The difference between simple videoconferencing and a robot lies in the quality of the clinical interaction. Patients and families have been shown to interact with mobile robots as though they were a virtual manifestation of their health care provider. They tend to connect better intellectually and emotionally with the robot than with a computer, and commonly report feelings of closer communication with their health care provider when using it. Since these robotic systems exist in the child's home, they transform families' roles and their attitudes toward participating in their children's care.

Sometimes, simple attributes – the robot being able to move, see and live at home – can promote a greater sense of trust, and reinforce the patient's and family's perception that their healthcare providers are paying attention to their concerns and questions. Children in particular seem to bond to the robot (which, at 4'6" high, is an approachable height) and communicate better with it than with a computer screen.

Results are similarly successful when

homebound children are too ill to attend class in person and use robots as their proxy. Reports show that these children are able to experience school as if they were there. When given a more traditional program on a desktop computer, they were less engaged and felt like they were “looking in” rather than being in the classroom. More importantly, when a physical robot was among other children in the classroom, classmates treated the homebound child as if he or she were really there.

Furthermore, these robots will continue to evolve. Their platform is upgradeable and reusable, and robots can be modified so that they will have not just “eyes” and “legs”, but also “hands” to measure vital signs, to sense heat and pressure through touch, and to perform simple blood, urine and respiratory evaluations. Eventually, a “brain” may be added to teach patients about their disease process and help them solve basic health problems independently.

In the future, the robot could help the family recognize what is expected and not expected after surgery, engaging them in their health care and reassuring them. If an unexpected problem arises, the robotic system could contact the doctor and transmit information to aid the diagnosis.

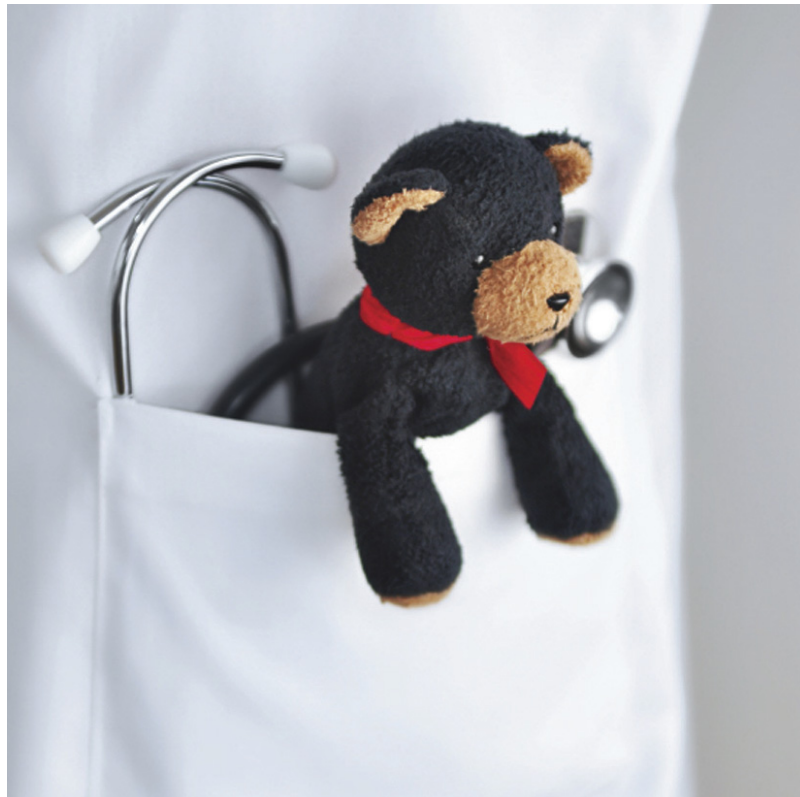
Finally, dedicated robotic systems can go home with any patient who has an electrical outlet – no home WiFi, computer or technical sophistication is necessary. The system operates on a 4G network, making a uniform standard of care available to all patients, regardless of their financial status.

Computers were once large, expensive and of use to just a limited few, but now are an essential and accepted part of our daily lives. Perhaps in the future, robotic systems will become equally essential in medicine, allowing healthcare providers to be more time- and cost-efficient while delivering high quality care to patients.

Better information, better treatments

Just as the sharing of information creates better care, the type and timeliness of information can have a similarly significant impact. Information gleaned from patient’s bodies and diagnostic testing helps accelerate care and bring it to new levels of treatment.

For example, with the genome deci-



phered, the Human Genome Project promised to transform medicine, predicting and preventing all that ails us. The project spawned next-generation technologies, accelerated the development of bioinformatics and shaped new perspectives on research.

Now, whole-genome sequencing has begun moving into the clinic, sleuthing out problems, offering hope for a medicine that’s more effective and more personal. Whole-genome sequencing is providing biochemical insights for numerous diseases with the aim of improving the treatment of individuals.

An increasing number of people are embracing genomic analysis – many of them with rare diseases, but others simply in the hope of advancing science. As costs of genome sequencing fall, we may have the opportunity to focus on how to handle, interpret and communicate to patients about this vital flood of information.

Getting better information doesn’t stop at our DNA. Now more than ever, we are able to find tell-tale signs of diseases earlier. For instance, urinary biomarkers help doctors detect acute kidney disease and injury in children. Urologists can now non-invasively check proteins in the urine to indicate certain types of kidney disease – a process that has only recently been developed.

Doctors are also able to get crucial, life-

Recently, robots have helped children make transitions as they leave the hospital and move to their home environments, where they can recover in familiar and comfortable surroundings.

saving health information about unborn babies, and intervene before birth. Pregnant mothers are now able to detect foetal abnormalities earlier, in some cases allowing them the option to treat their babies in utero by combining adult (for the mother) and pediatric (for the foetus) care simultaneously. Improving procedures and detecting the need for foetal intervention have helped propel the care for unborn babies with abnormalities, who had lacked treatment in the past.

Innovations in pediatric care all boil down to one thing: information. What kind of information doctors have, how early they can get it, what they are able to do with it and who else they can share it with all help advance the treatment and delivery of care for children, both locally and globally. **MEH**

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Cancer Care Services

Accredited by the Commission on Cancer of the American College of Surgeons and recipient of the Outstanding Achievement Award for top performance, St. Luke's Cancer Center offers patients the best in personalized cancer care within a private hospital setting. Experienced physicians employ a full range of leading-edge diagnostic technologies and standard-of-care and effective therapies for patients.

Neuroscience Center of Excellence

St. Luke's Episcopal Hospital offers the only Neuroscience Center of Excellence² in the Texas Medical Center where patients have access to some of the latest and most advanced options in the evaluation, treatment and long-range management of neurological diseases.

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Our International Concierge Service is available to assist you 24/7/365 with any arrangements you need to make your travels and stay here as stress-free as possible. To find out more about our world-class care, please contact us at +1-832-355-3350 or at international@sleh.com.



¹ U.S. News & World Report

² NeuStrategy, Inc.

For more information, please contact the St. Luke's International Patient Center by email at international@sleh.com or call +1-832-355-3350 or visit us on the web at StLukesInternational.com
Texas Medical Center – Houston, USA



Cutting-edge research and treatments

Top-ranked in *U.S. News & World Report* and a Harvard Medical School teaching affiliate, Boston Children's Hospital is world-renowned for developing cutting-edge research and treatments. We also collaborate with healthcare providers around the world to deliver the best possible care to patients from more than 100 countries.

Cancer care

As a world leader in cancer care and gene therapy and a co-founding member of the Transatlantic Gene Therapy Consortium, the Dana-Farber/Children's Hospital Cancer Center has long been an innovator in the treatment of children, adolescents and young adults with cancer. In addition, we have one of the most experienced and successful pediatric stem cell transplant centers in the world. In recent years, the center has performed more than 1,300 transplants, with international patients making up 10 to 12 percent of patient volume for stem cell transplant procedures. In 2010, the center's 100-day survival rate was 97 percent, indicating remarkable skill in the clinical care of complex patients.

Heart care

With combined excellence in imaging, catheterization, electrophysiology, surgery and critical care, Boston Children's Heart Center has a surgical survival rate of 98 percent. The center uses innovative surgical strategies for biventricular repair for patients with borderline hypoplastic left or right heart lesions previously managed with conventional single ventricle palliation. Its Heart Valve Program works toward preservation and restoration of valvular function in infants, children and young adults, and emphasizes valve repair over replacement whenever possible.

Urology care

Boston Children's Department of Urology was the first in the country to buy a robotic

surgery unit, and continues to utilize the technology to better the lives of our patients. We've performed more robotically assisted surgeries than any other pediatric hospital, and have an acclaimed robotics training program for physicians from all over the world. The department also specialized in the management of complex conditions such as exstrophy of the bladder, and does more major reconstructive urological surgery than any other children's hospital in the country. Home to a major tissue engineering enterprise, Boston Children's was the first to use silk biomaterial matrices for the regeneration of bladder tissue. And our Gender Management Services is one of the pioneer programs in the United States to use a unique interdisciplinary approach for patients with disorders of sexual development.

Gastroenterology care

When treating gastrointestinal issues, Boston Children's aims to prevent or reduce complications, promote clinical and basic research and educate families and health care providers. Our Center for Pediatric Polyposis is the only pediatric-oriented center of its kind and the Center for Inflammatory Bowel Disease Treatment and Research is a leading referral center for pediatric patients with inflammatory bowel disease. Committed to discovering and improving treatment for Crohn's disease and ulcerative colitis, our doctors and nurses are focused on reducing the length of time that patients are in the hospital and maximizing health care value.

Neurology care

As the largest pediatric neurology and pediatric neurosurgery department in the world, Boston Children's Brain Center has the most expansive neuroscience research base at a pediatric institution, and more than 45 board-certified child neurologists and eight board-



Dr Alan Retik and Maria Corbo – the International Team at Boston Children's Hospital

certified pediatric neurosurgeons to ensure the very best care and outcomes for children affected by brain and nervous system disorders.

Orthopedic care

Boston Children's has one of the largest and most experienced pediatric orthopedic centers in the world. Within its 13 specialty clinics, it attends to more than 96,000 patient visits and performs more than 6,000 surgeries each year. Historically at the forefront of orthopedic research, our experts established the Clinical Effectiveness Research Center to improve the quality of life of children with musculoskeletal disorders. The staff has also helped develop innovative treatments for hip dysplasia, participated in the early development of the VEPTRTM (vertical expandable prosthetic titanium rib) procedure for spinal conditions like thoracic insufficiency syndrome and has published breakthrough research for anterior cruciate ligament tissue regeneration and repair.

World-class International Health Services

Our International Health Services provides state-of-the-art medical services, access and accommodations to each of its patients from countries all around the world. Our staff connects patients and families with Interpreter Services to help them access and get through medical appointments, and each family will be assigned a case coordinator and a financial counselor to create the best possible outcomes from patients. Patients and families can also receive help arranging accommodations and transportation from the airport to our hospital.

● For more information about International Health Services at Boston Children's Hospital, visit: www.bostonchildrens.org/internationalreferral

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America's premier rehabilitation hospital

The Rehabilitation Institute of Chicago (RIC) is the industry leader in providing comprehensive physical medicine and rehabilitation care in the United States. Ranked #1 by *U.S. News & World Report* every year since 1991, RIC is the only U.S. hospital to hold the #1 for 22 consecutive years. Many wonder what makes RIC the best in its field. Those that have spent time at RIC know – it is ‘The Institute for Advancing Human Ability’.

Treating more than 50,000 adults and children annually from nearly 70 countries around the world, RIC treats a range of conditions from stroke, brain injury, spinal cord injury, and cerebral palsy to cancer-related conditions, chronic pain and other neurologic disorders. RIC has set the standard of care in the post-acute market through its innovative applied research programs, particularly in the areas of neuroscience, bionic medicine, robotics and musculoskeletal medicine. RIC is directly applying its research discoveries to patient care, providing patients the most advanced treatments available. RIC is introducing a novel model of integrated research and care not found anywhere else.

One-of-a-kind ‘Ability Lab’

In 2012, RIC opened a new Patient Recovery Unit that significantly expands the number of inpatient beds and features the world's first ‘Ability Lab’, a unique space that brings researchers into the patient care setting to solve patient problems better and faster. The new recovery

unit also serves as a test-bed for ideas and best practices as RIC designs its new Research Hospital of the future, scheduled to open in 2016. RIC's Ability Lab includes some of the most advanced technology available, including exoskeleton walking devices, upper arm robotic devices that interface with virtual reality, mobility tracking sensors and a number of other state-of-the-art smart technologies.

Latitia's story

In 2010, at 17-years-old, Laetitia Hatem fell off her horse and suffered a devastating spinal cord injury causing high-level paralysis. Initially, Laetitia needed a ventilator to help her breathe and couldn't move anything below her neck. Her family searched the globe to find the very best rehabilitation care to help her regain as much independence as possible. Laetitia's family determined that RIC was the very best place in world for her, and so they traveled more than 5,000 miles from Beirut, Lebanon to Chicago in order to maximize Laetitia's opportunities for recovery.

As an inpatient, Laetitia received comprehensive care including medical oversight by a psychiatrist, specialized rehabilitation nursing care and integrated therapies from physical therapists, occupational therapists, speech-language pathologists and many other experts. She participated in up to six hours of therapy each day and soon learned to sit up on her own, and eventually to stand and to walk. She also regained arm and hand function and

significantly improved her fine motor control. She was able to return to school and graduate.

RIC treats thousands of patients like Laetitia from all over the world who come to RIC for its state-of-the-art care. To see a video of Laetitia's journey, go to www.ric.org/laetitia.

Where world-class care and pioneering research advance patient ability

Perhaps what differentiates RIC most is RIC's record seven multi-year, multi-million dollar federal research designations awarded and funded by the U.S. National Institutes of Health (NIH) and the Department of Education's National Institute of Disability and Rehabilitation Research (NIDRR) in the areas of spinal cord injury, brain injury, stroke, neurological rehabilitation, outcomes research, bionic medicine/rehabilitation engineering research, and pediatric orthopedics. With more than 300 studies underway – the largest portfolio of rehabilitation research in the world – RIC has a global reputation for developing treatments and technologies that translate to better outcomes for patients.

● RIC's Global Patient Services (GPS) department is poised to help answer your questions and support your patient referrals. For more information, visit www.ric.org. To talk to one of our GPS representative about making a patient referral, call 1-312-238-1188 or international@ric.org. **MEH**

THE BEST CARE for KIDS.

**BEST
CHILDREN'S
HOSPITALS**

U.S. News & WORLD REPORT

RANKED IN 10 SPECIALTIES
2012-13

Each year, U.S. News & World Report ranks the top hospitals in the United States in specialties such as neurology, cardiology and neonatology.

For the second year in a row, Children's Mercy Hospitals and Clinics was ranked in all 10 specialties measured. It's a reflection of our world-class pediatric expertise, research and clinical care. And it's more evidence that Children's Mercy is working wonders every day.



To learn more about our world class services, contact the Director of International Services at international@cmh.edu or 1-816-701-4524.



Children's Mercy
HOSPITALS & CLINICS
— Kansas City —



Advancing pediatric medicine with innovation and family centered care

Throughout its 120-year history, Children's Hospital of Pittsburgh of UPMC has helped define excellence in pediatric medical care and research.

Children's Hospital is one of only 12 pediatric hospitals in the United States named to the Honor Roll of America's "Best Children's Hospitals" for 2012-13 by *U.S. News & World Report*. Also, Children's has been recognized by KLAS, an independent research group, as the number one pediatric hospital in its use of health care information technology.

Located in Pittsburgh, Pennsylvania, Children's opened its new, innovative campus in 2009. The 296 bed hospital was designed with children and families in mind with private patient rooms and many home-like amenities. Additionally, it's one of the most technologically advanced facilities in the U.S. for pediatric medicine.

Clinical services that set Children's apart, include innovations in the neurosciences, cardiac care, transplantation, and ophthalmology.

Brain Care Institute

At the Brain Care Institute (BCI), innovative medical and surgical treatment options are available to help patients afflicted with neurological disorders. The BCI brings together a number of pediatric specialties – including neurology, neurosurgery, neuro-critical care, and neuro-oncology – a unique combination of international specialists all dedicated to the care of children with injuries or conditions related to the brain and spinal cord.

Heart Institute

The Heart Institute is one of the most active and innovative centers for the care of children who are born with or who acquire heart problems. Achievements include:

- One of only two high-volume pediatric cardiovascular programs in the United States with a surgical mortality rate of less than 1 percent, according to data for 2008-2009 compiled by the Society for Thoracic Surgery.
- One of the most experienced centers in the use of the Ventricular Assist Device (VAD), a mechanical heart pump that offers lifesaving support to keep patients alive until heart transplantation or recovery occurs.

First in pediatric transplantation

Children's Hospital established the world's first and largest pediatric transplantation center in 1981 under renowned transplant pioneer Thomas E. Starzl, MD, PhD. The Hillman Center for Paediatric Transplantation has:

- performed more transplants in children than any other facility
- patient survival rates that are among the world's best

Transplant specialties include liver, intestine, kidney, heart, lung, and blood and bone marrow. Children's is also recognized as a leader in transplant-related research and is dedicated to helping patients live longer, healthier lives through scientific study.

World-class ophthalmology Care

Children's Division of Pediatric Ophthalmology, Strabismus, and Adult Motility is led by one of the world's fore-

most pediatric eye specialists, Ken K. Nischal, MD, FRCOphth. As part of the UPMC Eye Center, it combines best practices and interdisciplinary collaboration to deliver exceptional care for visually impaired patients – from infants to adults.

Groundbreaking research

Children's Hospital's has a rich heritage in pediatric research and today is recognized as one of the fastest growing National Institutes of Health (NIH)-funded pediatric research programs in the U.S.

Experts in telemedicine


Children's Hospital is a leading center for the use of telemedicine services to bring pediatric specialists to hospitals worldwide through high-definition teleconferencing and store-and-forward e-mail consultation.

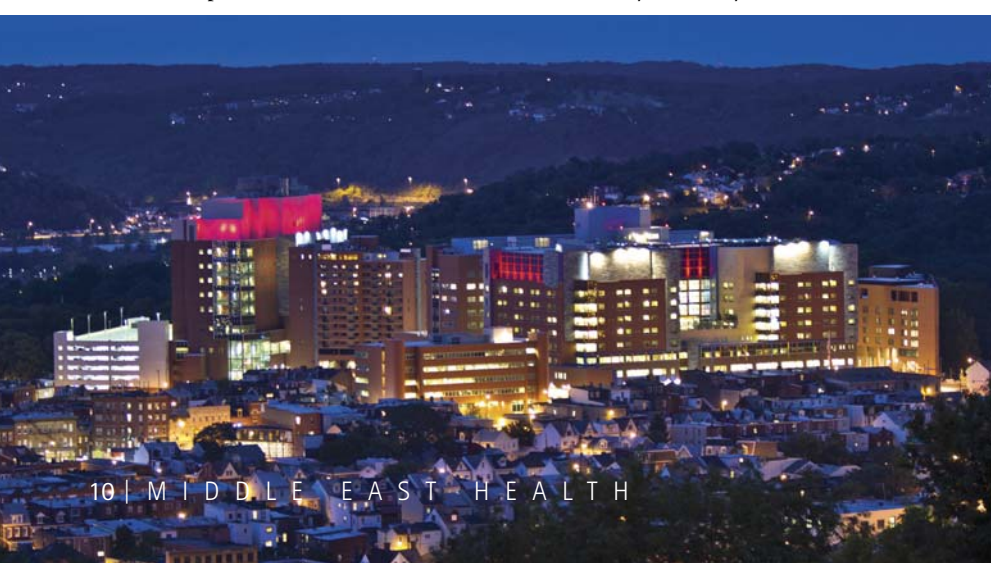
Children's offers remote physician-to-physician consultation of critical care units to hospitals around the world in need of pediatric intensivists. Video consultations are provided through rounding and care management requests. Children's provides telemedicine consultative services with pediatric cardiac critical care units in various cities in Colombia and post-operative management of pediatric liver transplant patients in Palermo, Italy.

International services

Children's International Services team is available to assist physicians, parents, health ministries, and embassies around the world who are seeking leading-edge clinical services, consultation, education and training, and more. International liaisons are fluent in multiple languages including Arabic, to ensure proficient communication.

Its Passport Care program helps patients and families feel at home until they return home, providing a wide range of concierge services such as assistance with housing, transportation, administration, translation, financial counselling and religious and cultural matters.

- To learn more about Children's Hospital of Pittsburgh of UPMC, visit: www.chp.edu or contact our International Services team at: +1-412-692-3000 or by email: international@chp.edu. 



Committed to a global vision of Healthier Children

One of the world's leading pediatric health centres, The Hospital for Sick Children (SickKids) is committed to a global vision of *Healthier Children. A Better World.* SickKids is affiliated with the University of Toronto, Canada's largest university and a global leader in research and teaching.

An innovator in child health for over 137 years, SickKids actively leads and partners to improve the health of children locally and internationally through the integration of high-quality care, pioneering research and comprehensive educational opportunities.

Located in Toronto, Canada's most multicultural city, SickKids brings together a diversity of knowledge and experience. Highly trained and skilled healthcare professionals from around the world join SickKids because of its fine reputation and visionary strategic planning for children's health.

Global impact

SickKids International collaborates with global partners to improve the health of children through the advancement of child health education, research and clinical initiatives. We work with healthcare organizations in more than 75 countries, helping to build sustainable, integrated programs dedicated to children's health.

Drawing on the experience and expertise of the SickKids community, SickKids International provides collaborative and consultative services to regulatory bodies, government organizations and institutions engaged in health care delivery. SickKids' expertise focuses on pediatric clinical services planning and patient care, global research priorities, and education and training.

We position our partners for success, striving to help them achieve desired outcomes and measurable progress in the rapidly evolving environment of children's health.

Reputable advisory services

Through SickKids International, we formally share our experience, knowledge and expertise in providing advisory services and needs assessments to our global partners.

SickKids International has been present

in the Middle East since 2003, and is focused on providing expert counsel in such areas as pediatric medicine, surgical services, inter-professional practice and education, family-centred care and research. Our goal is to support hospitals in the region attain long-term self-sufficiency and sustainability through joint initiatives focused on knowledge transfer and capacity building.

Innovative education

At SickKids, education is how we change the world around us. One example of this is our pediatric nurse training program in Ghana, funded by the Canadian International Development Agency, designed to lay the preliminary groundwork that will be required for training over 1,500 pediatric nurses within the next 15 years. With our local partners, SickKids will be fostering education in pediatrics and improving child health systems. The curriculum developed by our nurse educators incorporates an understanding of the social determinants of community health - essential for Ghanaian nurses working in rural communities.

Exceptional patient care

More than 275,000 patients come through SickKids' doors each year. We strive to ensure that each experience is positive, respectful and effective. We aim to be a world leader in family-centred care, and believe the best health outcomes are achieved when healthcare professionals work together with patients

and their families. SickKids is committed to developing the ability of our staff in working with different cultures through cultural competency training.

Groundbreaking research

The SickKids Research Institute is the largest child health research institute in Canada, and is a centre for excellence that places SickKids on the world stage of healthcare expertise. Researchers from around the world are drawn to SickKids to help understand and prevent disease, find cures and transform children's health.

SickKids clinicians and scientists have been pioneers since the Hospital was founded in 1875. It is the home of innovative thinkers, resulting in inventions such as the high frequency oscillator, and discoveries including the gene that causes cystic fibrosis.

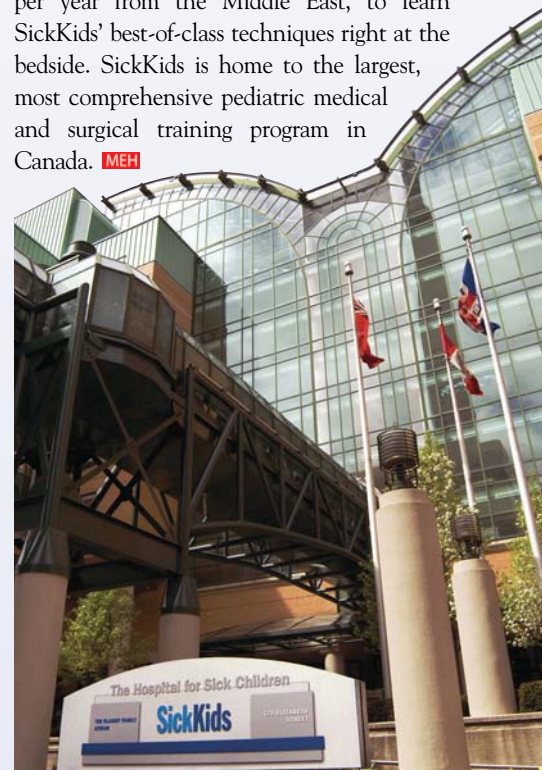
International learning

Our Fellowship and International Learner Programs bring in healthcare professionals from around the world, including almost 100 per year from the Middle East, to learn SickKids' best-of-class techniques right at the bedside. SickKids is home to the largest, most comprehensive pediatric medical and surgical training program in Canada. **MEH**

This is SickKids

- Providing high-quality patient care and treatment informed by world-leading research.
- Implementing innovative practices and processes to ensure patient safety, equitable access and timely care.
- Translating ideas into treatments and sharing knowledge to benefit all children, in an environment characterized by ongoing professional development and constant learning.

www.sickkids.ca





Expert international teleradiology services

The Nebraska Medical Center Department of Radiology has been recognized as a “Top 25 Connected Health care Facility” in the United States for the past two years by *Health Imaging & IT Magazine*, indicating a “facilities dedication to connectivity across the enterprise.” This dedication to connectivity extends well beyond the local facility and throughout the world. The Nebraska Medical Center’s Teleradiology services are unsurpassed and provide seamless solutions to access its world renowned medical resources. An expert review of images and consultation by highly specialized and knowledgeable radiologists is at the disposal of any health care facility desiring cutting edge, accurate and rapid radiological diagnosis and care for its patients.



Dr. Craig Walker

The Nebraska Medical Center has also been nationally ranked in 2012-13 by *U.S. News & World Report* in five specialties – cancer, orthopedics, neurology and neurosurgery, gastroenterology and nephrology. These are core specialties that require expert and reliable guidance by the radiology department. This national ranking comes with the institution’s as well as the Radiology Department’s absolute dedication to the highest level of patient care, research and clinical outcomes.

Although quality clinical care, advancement of radiological technology, innovative radiology research and the commitment to highly sub-specialized radiological interpretations are of utmost importance to the radiology department, the one factor which really sets The Nebraska Medical Center apart from other U.S. academic institutions is the extreme dedication to service. The appropriate clinical care of patients and

interpersonal interactions with its international partners’ healthcare specialists are their utmost priorities. Whether its clinical colleagues practice locally on campus in Nebraska or thousands of miles across the globe, each clinician is viewed the same as an esteemed and valued colleague. The Nebraska Medical Center is committed to the complete satisfaction of all of its patients and participating international specialists and clinicians and strives to accomplish this goal 100 percent of the time.

Department of Radiology

Founded in 1917, the Department of Radiology at The Nebraska Medical Center is steeped in history as a leading academic radiology department in the United States. The department has set the standard for academic and clinical excellence for decades. As a result, the radiology department and medical center have become a world renowned referral center for advanced treatment of a variety of critical and complex medical conditions.

The radiology department is comprised of multiple fellowship trained radiologists in every radiology subspecialty. Leading experts in oncologic imaging, neuroradiology, musculoskeletal radiology, women’s imaging, cardiothoracic imaging, body imaging, interventional radiology and pediatric radiology provide the most technologically advanced medical care with rapid and accurate diagnosis of a variety of health concerns. These specialists utilize their intensive training, innovative research and cutting edge technology to advance the field of radiology, setting the gold standard for academic radiology departments.

In decades past, sharing medical knowledge and expertise amongst physicians in separate geographical regions was formidable. However, with the advent of modern technology and connectivity, radiologists have been thrust to the forefront of opportunities in telemedicine in the form of teleradiology. The Nebraska Medical Center is dedicated to providing its teleradiology services to extend radiological expertise at the highest level to even the most remote locations.

The Nebraska Medical Center offers its services to its partners throughout the world. It has collaborative partnership relationships with 123 institutions in 44 countries. Its technological infrastructure, subspecialty expertise and personalized customer centric service provide an ideal option for medical facilities desiring a comprehensive solution for world class radiological care. The medical center’s teleradiology department reaches across the globe and provides depth of expertise to underserved and understaffed medical institutions all over the world.

In addition to providing cross-border teleradiology services, The Nebraska Medical Center also provides customized training services for international healthcare professionals, including radiology, pathology, oncology, neurology and transplantation. The Nebraska Medical Center is proud to be the teaching hospital for their academic partner, the University of Nebraska Medical Center.

● Please contact Nizar Mamdani, executive director, International Healthcare Services of The Nebraska Medical Center for more information on teleradiology, training and education and partnership opportunities, at +1-402-559-3656, nmamdani@nebraskamed.com www.unmc.edu/international **MEH**

Whatever the challenge, we're ready.

When it's time to heal, we're ready with a new hospital.

It's being built by the best minds in medicine, like cancer expert Dr. Richard Schilsky, with leading-edge technology to promote wellness and recovery.

With innovative therapies, state-of-the-art procedures, and a warm and caring environment, our new hospital delivers on our vision of the future of health care.

Because tackling medicine's greatest challenges — today and tomorrow — is what we do.

We're ready for the greatest challenges.



THE UNIVERSITY OF
CHICAGO
MEDICINE

AT THE FOREFRONT OF CARE AND DISCOVERY™

1-877-482-8318 or UCHOSPITALS.EDU  

Richard Schilsky, MD
Chief, Hematology/Oncology
and Deputy Director,
Comprehensive Cancer Center



Our New Hospital Opens in Early 2013

The best healthcare in the world

It is well known that the United States of America has some of the best hospitals in the world, and at the same time it is the world's most profitable healthcare market. Key to its success is its superbly-trained doctors and their use of some of the most sophisticated medical technology in the world.

Central to America's highly skilled and globally respected doctors and nurses is its academic, or teaching, hospitals. These academic hospitals provide care to all Americans, medically insured or not.

This is a saving grace for the poor and uninsured in a land dominated by private healthcare which is accessible only to the wealthy and medically insured. Around 84.7% of Americans have some form of health insurance; either through their employer or the employer of their spouse or parent (59.3%), purchased individually (8.9%), or provided by government programmes (27.8%; there is some overlap in these figures), according to figures in the *"Income, Poverty, and Health Insurance Coverage in the United States: 2007,"* issued by the U.S. Census Bureau in 2008. All government health care programmes have restricted eligibility, and there is no government health insurance company which covers all Americans. Americans without health insurance coverage in 2007 totalled 15.3% of the population, or 45.7 million people.

These hospitals also form the backdrop for the development of many new treatments, cures and medical discoveries that extend and save not only American lives, but also the lives of foreign patients who come to America to be treated – and as these discoveries make their around the



world – the lives of patients globally.

Furthermore, the academic hospitals are where healthcare, training and research all come together. As such they also play a critical role in the innovation economy, a role usually filled by the research and development budgets of major companies. In the United States more than US\$1.2 billion in federal research funding comes into the innovation economy through teaching hospitals.

According to a report by the Conference of Boston Teaching Hospitals, their impact on the economy is enormous, employing 75,000 people and with an economic impact of more than US\$12 billion on the economy of the state of Massachusetts alone.

Doctor training

Doctor training in the United States does

not come cheap. A single year of residency can cost the US Federal Government as much as US\$145,000.

According to a recent report by the Bloomberg news agency, America is facing a shortage of doctors, largely because the number of residency programmes available to new doctors has been capped at the same level for the past 15 years. And according to the National Resident Matching Programme, a non-for-profit organisation based in Washington that oversees the residency programme, the number of applicants for these valued positions already exceeds availability.

Projections are that by 2015, there will be a shortage of 62,900 physicians from all specialisations, with this gap worsening to 91,500 doctors by 2020. One key reason is that one-third of doctors will reach age 60

in the next 10 years, after which many are expected to retire.

The majority of Association of American Medical Colleges (AAMC) member teaching hospitals are located in urban areas, where one finds the high rates of poverty endemic in inner-city neighbourhoods, and the treatment they provide to injured or ill Americans is disproportionate to their numbers. Teaching hospitals provide 41% of all hospital charity care, and they provide about 25% of all Medicaid hospitalisations.

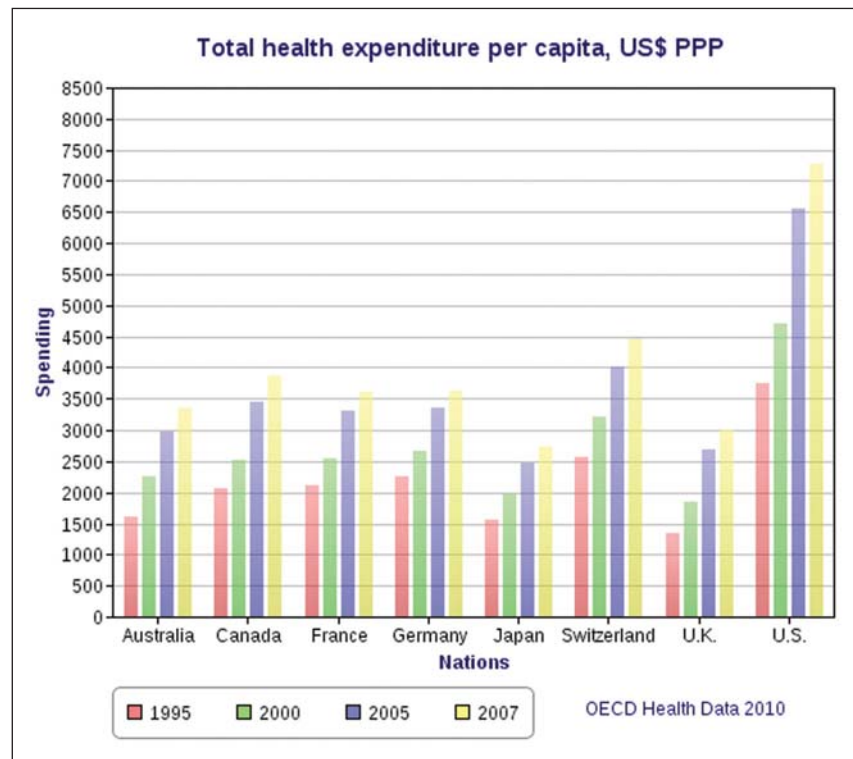
John Fernandez, the chief executive of the Massachusetts Eye and Ear hospital, is quoted in a recent press report as saying the role that teaching hospitals play in America's healthcare system has never been more important. The US is the global leader in medical care and life science research and the foundation of this advancement is its teaching hospitals.

And it places value on partnerships; through joining up with local community organisations and local government agencies. Greater Boston teaching hospitals, for example, dedicated more than US\$186 million to community benefit programmes, said Fernandez, writing in the *Boston Business Journal* earlier this year.

It is clear that AAMC-member teaching hospitals are more likely than non-teaching hospitals to reach out to the communities within which they are based. For example, 89% of AAMC-member teaching hospitals offer services to HIV and AIDS sufferers, compared to 16% of non-teaching hospitals. They also support poison control centres, nutrition programmes, substance abuse outpatient services and crisis prevention programmes.

And this ... when teaching hospitals represent only 6% of all hospitals in the United States.

They also receive more than 40% of all transferred patients. They provide 75% of all burn care units, 62% of paediatric intensive care units, 50% of surgical transplant services, 41% of Alzheimer centres, 40% of the nation's neonatal ICUs, 22% of cardiac surgery services, often for the most seriously ill heart patients, and 80% of specialised trauma centres.



Research

Another important aspect of America's leadership in healthcare is its development and use of advanced medical technology and pharmaceuticals. The research and development of medical devices and pharmaceuticals is supported by both public and private sources of funding. In 2003, research and development expenditures were approximately \$95 billion with \$40 billion coming from public sources and \$55 billion coming from the private sector. These investments into medical research have made the United States the leader in medical innovation, measured either in terms of revenue or the number of new drugs and devices introduced. In 2006, the United States accounted for three quarters of the world's biotechnology revenues and 82% of world R&D spending in biotechnology, according to figures from the European Federation of Pharmaceutical Industries.

Healthcare spend

The US spends the most on healthcare compared to all other countries. In 2009, the United States federal, state and local governments, corporations and individuals, together spent a whopping \$2.5 trillion, or \$8,047 per person, on health care, according to figures from the Office of the Actuary (OACT) of the Centers for Medicare and Medicaid Services. This

The role that teaching hospitals play in America's healthcare system has never been more important. The US is the global leader in medical care and life science research and the foundation of this advancement is its teaching hospitals.

equates to 17.3% of GDP, up from 16.2% in 2008. According to the Congressional Budget Office: "About half of all growth in healthcare spending in the past several decades was associated with changes in medical care made possible by advances in technology." Other factors included higher income levels, changes in insurance coverage, and rising prices.

However, an analysis of the 2008 and 2009 data by Agency for Healthcare Research and Quality (AHRQ) shows that healthcare spending in the United States is concentrated. The AHRQ found that the 1% of the population with the highest spending accounted for 27% of aggregate healthcare spending. The

highest-spending 5% of the population accounted for more than half of all spending. The top 30% of the population ranked by expenditures accounted for nearly 89% of healthcare expenditures. Further, 50% of the population ranked by their expenditures accounted for only 3.1% and 2.9% of the total for 2008 and 2009, according to the analysis and cited on Wikipedia.

Medical tourism

As a leader in training doctors – it follows that the US should be a leader in healthcare excellence – and this in turn draws patients from around the world who seek – and can pay for – the world’s best healthcare. Wealthy Arabs from the Middle East comprise a significant part of this patient population.

Inbound medical tourism, where patients from other countries travel to the US for healthcare is growing significantly, according to a recent report in *Medical Tourism*.

Hospitals in the US are looking for new revenue sources especially in the face of reduced revenues under healthcare reform. Foreign patients represent the potential for high profit revenue for hospitals in the form of cash paying foreign patients or patients covered by a global health insurance policy of an international insurance company.

Renee-Marie Stephano, president of the Medical Tourism Association and editor of *Medical Tourism* magazine, says: “As more people around the world understand the importance of the transparency in the quality of medical care, many are demanding that their global health insurance policies permit reimbursement for overseas medical care. American hospitals are looking to regain some of their inbound patient flow by creating greater visibility through marketing in medical tourism. It is more challenging now for hospitals to stand alone on their reputations as more hospitals enter the global marketplace. More affiliations and academic relations are emerging to unite their facilities with overseas referral centres.”

Health care in Canada

Health care in Canada is delivered through



a publicly funded health care system – Medicare – which is mostly free at the point of use and has most services provided by private entities. It is guided by the provisions of the Canada Health Act of 1984. The Government assures the quality of care through federal standards, but does not participate in day-to-day care.

About 27.6% of Canadians’ health care is paid for through the private sector. This mostly goes towards services not covered or only partially covered by Medicare, such as prescription drugs, dentistry and optometry. Some 75% of Canadians have some form of supplementary private health insurance; many of them receive it through their employers.

Although the Canadian system is for the most part publicly funded, most of the services are provided by private enterprises. Most doctors do not receive an annual salary, but receive a fee per visit or service.

Dr Albert Schumacher, former president of the Canadian Medical Association, says an estimated 75% of Canadian health care services are delivered privately, but funded publicly.

The healthcare systems in the United States and Canada provide interesting

comparisons to one another, especially since the US system is considered private and Canada has a national health system that provides universal coverage. National health systems are theoretically designed to provide accessible, affordable care for all segments of the population, but critics of such systems often question the quality of that care. Conversely, critics of the US system often point to the fact that affordable, high-quality healthcare is not equally available to all who need it.

A Gallup poll (Healthcare system ratings, 2003) found that 25% of American respondents are either “very” or “somewhat” satisfied with “the availability of affordable healthcare in the nation,” (6% very satisfied and 19% somewhat satisfied). This level of satisfaction is significantly lower than in Canada, where 57% are satisfied with the availability of affordable healthcare, including 16% who are very satisfied.

The poll also looked at respondents views on the quality of care in each country and found that the views of Americans on the quality of medical care in their country are not overly different – 48% of Americans and 52% of Canadians say they are satisfied. **MEH**

Best in the U.S. *Here for the Middle East.*

The Children's Hospital of Philadelphia continues to lead in national rankings for children's hospitals in the U.S.

- The Children's Hospital of Philadelphia ranked No. 1 in six of 10 specialties in *U.S. News & World Report's* 2012–13 rankings of the nation's Best Children's Hospitals, giving us more No. 1 rankings than any other children's hospital in the nation. CHOP also shares the top spot on the *U.S. News* Best Children's Hospitals Honor Roll.
- CHOP physicians serve on the faculty of the Perelman School of Medicine at the University of Pennsylvania, which is ranked as one of the best in the nation for Pediatrics in *U.S. News & World Report's* most recent comprehensive survey of research-oriented medical schools.

Our consistent leadership in pioneering pediatric care is why physicians from around the world seek CHOP's expertise for the most challenging diagnoses and most complex cases — in cancer care, orthopaedics, fetal therapy, urology, endocrinology and many other specialties. We have welcomed hundreds of children and families from the Middle East, and we are honored to collaborate with our colleagues in the region.

To inquire about referring a patient to The Children's Hospital of Philadelphia, contact our International Patient Services team at 001-267-426-6298 or visit our website at www.chop.edu/international.



Sultan's family traveled from the United Arab Emirates so he could have complex brain surgery at CHOP.



The Children's Hospital of Philadelphia®
INTERNATIONAL MEDICINE

World-class care for kids

When our two founding sisters, Katharine Berry Richardson and Alice Berry Graham, opened the doors 115 years ago to what is now Children's Mercy Hospitals and Clinics, their immediate goal was to provide care for a single young child. Without them, there was no one to care for the little girl.

Today, Children's Mercy Hospital in Kansas City, Missouri is one of the busier children's hospitals in the United States, admitting approximately 15,000 children per year, and treating almost 500,000 outpatient and emergency visits each year. Children's Mercy offers care in more than 40 specialty areas and was recently ranked among the nation's best children's hospitals in all 10 specialties rated by *U.S. News and World Report*.

"Everything about Children's Mercy is about kids and their families. Providing state-of-the-art, specialized pediatric health care has given us a reputation that brings more children through our doors from an ever-expanding region," says Michael Artman, MD, Pediatrician-in-Chief and Executive Director of Research Strategy and Implementation.

High quality care is a hallmark of Children's Mercy and is evidenced by the hospital's outstanding outcomes in areas such as liver and kidney transplant, cancer care, epilepsy treatment and surgical procedures. With a faculty of more than 400 employed pediatric subspecialists, the hospital is at the forefront of innovation in pediatric care and is becoming known internationally for its leadership in pediatric genomic medicine, pharmacology and personalized medicine. In addition, Children's Mercy was just the third pediatric hospital to receive the prestigious Magnet designation for excellence in nursing services from the American Nurses Credentialing Center, and the first hospital to surpass 500 pediatric certified nurses.

With more than 40 specialty areas represented on the medical staff, Children's Mercy offers a comprehensive array of pedi-

Children's
Mercy
Hospital



atric health services. Areas that may be of particular interest to Middle East professionals and families include:

Neurology

With 12 neurologists, we offer special expertise in neurophysiology, neurodevelopmental disabilities, and in headaches. Our level IV Epilepsy Center, one of only 13 in the United States, has demonstrated dramatic outcomes using both the ketogenic diet and resection epilepsy surgery to reduce seizures.

Heart Care

Children's Mercy operates one of the higher volume heart centers in the U.S. with hybrid suites that allows us to do more procedures less invasively. The recent addition of new Cardiology Section Chief brings notable expertise in echocardiography to the hospital with a focus on measurements of cardiac structures and validation of advanced echocardiographic measurements, including fetal and 3D echocardiography.

Surgery

The hospital offers a broad range of surgical services including complex tertiary care of congenital and acquired head, neck, thoracic, abdominal and extremity disease. The hospital also offers liver and kidney transplant programs and recently established a small bowel rehabilitation and transplant program. The hospital's research-driven Center for Minimally Invasive Surgery ranks among the top in the world in number of MIS procedures performed.

Genomic Medicine

The Center for Pediatric Genomic Medicine at Children's Mercy is the first

genome center in the world located inside a children's hospital and exclusively focused on improving health care for children. The mission of the center is to be the global referral center for diagnosis, molecular understanding and treatment of inherited childhood diseases. The center has created a test that can identify genomic information associated with more than 600 severe childhood illnesses.

Telemedicine

Children's Mercy is making telemedicine a key strategic tool to help improve patient access to services, overcome the barriers of time and distance and reduce health care costs. High-definition, point-to-point technology enables providers to provide quality care to patients who live too far away to travel to the hospital.

Teleradiology

Using a cloud based image sharing platform, Institutions are able to transmit images to Board Certified Children's Mercy Pediatric Radiologist for diagnosing and second opinions. This technology enables our caregivers to enhance diagnostic decision making, facilitate treatment planning and improve patient care. Cloud computing technology uploads and distributes images through a single comprehensive web portal. This web-based connection can eliminate the need for burning and importing CDs. The efficiency advantages allows Children's Mercy to provide the service within a very short turnaround time.

● To learn more about our world class services, contact the Director of International Services at international@cmh.edu or +1-816-701-4524. **MEH**

Building the future of medicine

By the University of Chicago
Medicine staff

In February 2013, the University of Chicago Medicine will open its 10-story “hospital for the future” to patients.

An architectural and technological *tour de force*, this extraordinary facility will provide a home for complex specialty care with a focus on the medical center’s internationally recognized strengths: cancer, gastrointestinal disease, neuroscience, organ transplantation, advanced surgery and high-technology medical imaging.

At 1.2 million square feet, the hospital is the largest building on the University of Chicago campus. It changes the skyline of the South Side of Chicago. The new hospital occupies the north end of two city blocks. Each floor will provide more than 100,000 square feet of space, almost twice as big as an American football field.

“The New Hospital Pavilion is a substantial investment that represents our commitment to biomedicine and to the delivery of complex clinical health care informed by the research of our faculty,” said Robert J. Zimmer, President of the

University of Chicago.

The hospital embodies the medical center’s commitment to provide the finest possible care to those with the most challenging illnesses. It is also a model of flexibility, which will enable physicians to leverage advances in medical science for the benefit of patients for decades to come.

When it opens, the hospital will contain 240 single-occupancy inpatient rooms, including 52 intensive care beds. These patient rooms are spacious enough to accommodate family members for overnight stays. The hospital has 28 operating rooms with leading-edge technology and an integrated diagnostic and interventional platform including cardiac, gastrointestinal, neurological and vascular services. The building also has two floors of expansion space that could be used for additional patient care units as well as future technology-based interventional or surgical suites.

All new medical and operational systems are going through a rigorous “commissioning” process.

“Everything in a new hospital facility – every system, every pump, every motor, every widget – has to be tested, retested, sequenced and balanced to be sure they are working according to design intent and safety standards,” according to project manager William Huffman.

In addition to operational efficiency and architectural quality, the new hospital will have the capacity to adjust to changes in technology and medicine, and to clinical needs for decades to come. “It is a building that will be with us for generations,” Huffman said.

Rafael Viñoly Architects, working with healthcare facility specialists Cannon Design, developed the forward-thinking plan for the building.

The architects created flexibility and adaptability by basing the entire hospital structure on a grid system organized into 85

modular cubes repeating on each floor. At 31.5 feet across by 18 feet high, these large cubes, or “bays,” can be repurposed over time to accommodate innovations and changing needs. For example, one bay can enclose two patient rooms, one operating room or one interventional procedure room – without changing the basic framework of the building.

Playing off the traditional courtyard layout of much of the University of Chicago, the design includes a “Sky Lobby” on the 7th floor, “effectively lifting the social, contemplative, outdoor space of the campus quadrangles into the air,” according to Viñoly.

This Sky Lobby will feature floor-to-ceiling glass walls, filling the space with natural light and providing panoramic views of the campus, Lake Michigan, nearby Washington Park and downtown Chicago. It will house central reception, family waiting areas, a chapel, the gift shop, dining areas and other public spaces. The ground level of the new hospital, open to the public, will enhance the streetscape and include cafés and other retail businesses.

The University of Chicago Medicine and its Comer Children’s Hospital rank among the best in the country, most notably for cancer treatment, according to a U.S. News World & Report survey of the nation’s hospitals. The University of Chicago’s Pritzker School of Medicine is also ranked as one of the Top 10 medical schools in the nation.

Many international patients have commended the University of Chicago Medicine for the personal, customized services provided. The medical center’s international patient program can help schedule second opinions, coordinate travel, arrange for interpreters, set up doctor appointments, find accommodations and provide information to local referring physicians, ensuring continuity of care.


- Visit our research blog at sciencelife.uchospitals.edu and our newsroom at uchospitals.edu/news.
- Twitter @UChicagoMed
- Facebook.com/UChicagoMed 



Photo by Bruce Powell for the University of Chicago Medicine

Innovative treatments, specialized care for endocrine disorders

An update from the children's hospital ranked No. 1 in the United States in diabetes and endocrinology

As one of the largest centers of its kind in the United States, the Division of Diabetes and Endocrinology at The Children's Hospital of Philadelphia treats children from all over the world, providing comprehensive, multidisciplinary care. The division, which is led by Michael A. Levine, M.D., provides consultation in a wide variety of endocrine and metabolic disorders in Centers of Excellence, including the Diagnostic and Research Growth Center, which cares for children with growth and pubertal disorders; the Diabetes Center for Children, which cares for more than 2,000 children with both Type 1 and Type 2 diabetes; and the Center for Bone Health, which cares for children who have or are at risk for weak bones and rickets.

The division also has centers for congenital hyperinsulinism and thyroid disorders, conditions that require a level of expertise that only CHOP can provide.

Congenital Hyperinsulinism Center

Developed by Charles Stanley, M.D., and now led by Diva D. De León, M.D., CHOP's Congenital Hyperinsulinism Center is the only program of its kind in the United States, uniting the skills of pediatric endocrinologists, surgeons, pathologists, neonatologists, anesthesiologists, radiologists, nurses and researchers to treat and cure children with congenital hyperinsulinism (HI), a rare disease that causes severe, persistent hypoglycemia and requires expert, highly specialized care. If

patients do not respond to drug therapy – the first line of treatment for the disease – surgical removal of part or nearly all of the pancreas (pancreatectomy) is needed.

CHOP has treated more than 400 HI patients and performed more than 300 pancreatectomies – a level of expertise unmatched anywhere in the world. There are two forms of HI: diffuse (all beta cells in the pancreas are affected) and focal (only a small area of the pancreas is affected). CHOP's team uses advanced positron emission tomography (PET) scanning to diagnose diffuse or focal disease and, in the latter case, to determine precise locations of focal lesions. Under a Food and Drug Administration-approved protocol, the ¹⁸F-DOPA PET scan, which CHOP surgeons have called “the GPS of imaging,” has helped CHOP achieve a cure rate of 95 percent for focal HI. The team is also at the forefront of developing innovative treatments for HI that could offer new hope to patients, especially those with diffuse HI, many of whom continue to have hypoglycemia after surgery.

Pediatric Thyroid Center

The Pediatric Thyroid Center, led by Andrew J. Bauer, M.D., is a multidisciplinary center that cares for children and adolescents with thyroid conditions, including difficult-to-treat patients with unusual forms of hypothyroidism and hyperthyroidism. The center also offers specialized expertise on the evaluation and care of patients with thyroid nodules and thyroid cancer. The members of the center's experienced, multidisciplinary team work together to ensure seamless, coordinated care for each patient, from

evaluation to surgical intervention to radioactive iodine therapy. Each year, the team evaluates more than 120 new patients with thyroid nodules, performs more than 60 thyroid surgeries, and expertly manages more than 100 thyroid cancer patients.

The CHOP team is actively involved in developing specific practice procedures for pediatric thyroid cancer patients, who have different responses to therapy compared to adults. One example is the use of single photon emission computed tomography (SPECT) with intraoperative radioguided surgery, an innovative technique designed to optimize surgery while reducing the risk of complications. CHOP's center is the busiest pediatric thyroid center in the United States, and the team's sensitivity to the unique needs of young thyroid disease patients sets it apart from other hospitals, where pediatric patients are often treated on the same protocols as adults.

Collaborative Care from Top Specialists

The Children's Hospital of Philadelphia is recognized around the world for providing excellent care for both rare and common conditions. In *U.S. News & World Report's* 2012-13 survey of Best Children's Hospitals, CHOP earned No. 1 rankings in more specialties than any other children's hospital in the nation and tied for the No. 1 overall ranking on the *U.S. News Honor Roll*. Our top specialists work together on multidisciplinary teams to provide the best care for every child.

International Patient Services

Our International Patient Services team works with families before, during and after their visit to The Children's Hospital of Philadelphia, assisting with travel and lodging, arranging for medical interpreters, scheduling appointments and more.

● To learn more about International Patient Services at The Children's Hospital of Philadelphia, please call 001-267-426-6298 or visit www.chop.edu/international.

Mushal traveled over 11,700 kilometers to be treated at **Cincinnati Children's Hospital Medical Center.**

*Mushal, age 9
Liver Care Center patient
Abu Dhabi, United Arab Emirates*

Children from more than 82 countries have chosen Cincinnati Children's for their care.

- Ranked third in the *U.S. News & World Report* Honor Roll of 2012-13 Best Children's Hospitals.
- Ranked in the top 10 in the following specialties: gastroenterology, pulmonology, nephrology, neonatology, urology, cancer, orthopedics, diabetes and endocrinology, neurology and neurosurgery, as well as cardiology and heart surgery.

To refer a patient or learn more, please call us in the United States at 001-513-636-3100, email us at international@cchmc.org or visit cincinnatichildrens.org/international.

من افضل مستشفيات الأطفال في الولايات المتحدة الأمريكية
مستشفى سنسناطي للأطفال



**Cincinnati
Children's**

Hospital Medical Center

Compassionate, faithful, loving care

For more than 50 years, St. Luke's Episcopal Hospital continues to offer high-quality and compassionate, *Faithful, Loving Care* to patients from across the globe. Located in the heart of Houston's world-renowned Texas Medical Center, St. Luke's continues its legacy of transforming medicine and health through innovative research and exceptional care.

Home to the Texas Heart Institute (THI) since its founding by Denton A. Cooley, MD, in 1962, St. Luke's has partnered with THI for some of the most important medical achievements in cardiovascular history, including the nation's first successful human heart transplantation and the world's first total artificial heart transplantation.

THI physicians continue to be leaders in innovative, ground-breaking research, and are currently studying the use of adult stem-cell therapy in creating new heart muscle and vascular cells. They also are

testing prototypes for a total artificial heart and working to improve left ventricular assist devices (LVADs) and other heart pumps. In addition to outstanding scientific research, THI provides patients with world-renowned clinical care by offering treatments, such as the first FDA-approved heart valve replacement and drug-eluting balloons. For the past 22 years, the Texas Heart® Institute at St. Luke's has been named among the nation's top ten heart and heart surgery centers by *U.S. News & World Report* for its dedication to advancing heart care.

In addition to stellar cardiovascular care, St. Luke's Episcopal Hospital has been recognized for its excellence in other specialties. In 2012, St. Luke's ranked among the nation's best in Diabetes & Endocrinology; Ear, Nose & Throat; Gastroenterology; Geriatrics; Nephrology; Neurology & Neurosurgery; Orthopedics; Pulmonology; and Urology by *U.S. News & World Report*.

St. Luke's Episcopal Hospital offers the St. Luke's Neuroscience Center, where patients have access to some of the latest and most advanced options in the evaluation, treatment and long-range management of neurological diseases. The Interventional Neuroradiology program has received international attention for its advanced imaging, interventional and surgical capabilities.

St. Luke's Radiation Therapy and CyberKnife facility offers patients CyberKnife Robotic Radiosurgery, a non-invasive approach that treats intracranial tumors cancerous and non-

cancerous tumors anywhere in the body with great accuracy. For example, prostate cancer patients treated with CyberKnife only require five treatments over a two-week period compared to other types of radiation that may require up to 48 treatments within an eight- to nine-week period.

Home away from home

Serving the needs of international patients and their families, St. Luke's International Patient Center (IPC) understands that visiting a hospital, especially in a foreign country, can be stressful. That's why the IPC team is here to assist 24 hours a day, 7 days a week, 365 days a year, with services such as: second opinion, physician appointments and hospital scheduling, travel and airport assistance, hotel reservations and/or long-term housing, interpretation and translation services, among other services.

St. Luke's commitment to body, mind and spirit includes caring for a patient's physical, as well as their emotional and spiritual needs. Support services are available to assist with understanding hospital procedures, staying in touch with family members, and receiving spiritual guidance from one's faith of preference.

As part of its mission, St. Luke's Episcopal Hospital, home of the Texas Heart Institute, wants to ensure a positive hospital experience for international patients and their families by bridging cultural and language differences, providing personal support and accommodating service requests. We remain committed to providing exceptional service and *Faithful, Loving Care* in the surrounding communities and around the world.

● For more information about International Patient Services:

Tel: 832-355-3350

Fax: 832-355-3002

Web: www.stlukesinternational.com

Email: international@sluh.com



St. Luke's Episcopal Hospital



Healthier Children. A Better World.™

A world leader in providing the highest quality, family-centered patient care.

A scientific leader in ground-breaking research that continues to change the face of global paediatric health care.

A thought leader in translating ideas and learning into treatments, and in the sharing of that knowledge to benefit all children.

A knowledge leader in implementing innovative practices and processes to ensure patient safety and timely care.

This is SickKids.

Collaborating with our global partners to improve the health of children through the advancement of child health education, research and clinical initiatives.

This is SickKids International.

SickKids®
THE HOSPITAL FOR
SICK CHILDREN

Toronto, Ontario
Canada



The main campus of Cincinnati Children's Hospital Medical Center

Excellence in patient care

Cincinnati Children's Hospital Medical Center is one of the most distinguished medical centers in the United States, recognized nationally and internationally for excellence in patient care, training and education, and research. Clinical procedures and treatments pioneered here are used all over the world, and our research breakthroughs are changing the outcome for children of all ages.

Leader in clinical care

Cincinnati Children's is in the 2012 Honor Roll of Best Children's Hospitals as ranked by *U.S. News & World Report*.

Leader in research

Cincinnati Children's is second in National Institutes of Health (NIH) grant funding among all American pediatric research programs.

Leader in pediatric training

Our Department of Pediatrics, affiliated with the University of Cincinnati College of Medicine, was named top three in the United States by *U.S. News & World Report* in 2012.

We train more than 200 residents each year and offer more than 25 fellowship/post-doctoral training programs, making our pediatric training program one of the largest and most specialized in the United States.

Areas of expertise: Our programs attract patients from all over the world

Cincinnati Children's has gathered some of the best pediatric subspecialists in the world, a group of highly collaborative physicians who enable us to provide multidisciplinary programs caring for the most complex conditions and rare diseases:

- Aerodigestive disorders
- Airway reconstruction

- Bone marrow transplantation
- Brachial plexus surgery
- Rare, high-risk and recurrent cancers
- Cardiomyopathy
- Cardiothoracic surgery
- Congenital heart disease (including children, teens, and adults)
- Craniofacial conditions
- Cystic fibrosis
- Colorectal surgery
- Disorders of sex development
- Eosinophilic gastrointestinal disorders
- Epidermolysis bullosa
- Epilepsy and epilepsy surgery
- Esophageal disorders
- Fanconi anemia and bone marrow failures
- Fetal care and fetal surgery
- Genetic evaluations and testing
- Genitourinary health
- Hand and upper extremity surgery
- Heart failure and transplant
- Hemangioma and vascular malformations
- Histiocytosis disorders
- Immune deficiencies
- Inflammatory bowel disease
- Intestinal rehabilitation
- Acute kidney injury
- Liver care, chronic liver disease and transplants
- Rare lung disease
- Motility disorders
- Neurofibromatosis
- Neuromuscular disorders
- Transplantations – bone marrow, heart, intestine, kidney, liver
- Tuberous sclerosis
- Urological reconstruction

International patients: Special assistance for patients and families from other nations

Cincinnati Children's international

patient program offers special services for patients and families who come to our hospital from outside the United States. This team makes the entire experience easier for patients, families and referring physicians by helping with obtaining treatment plans, estimating expenses for treatment and working with families to set up payment arrangements. The team also provides interpreter services, assists with documentation required for travel visas, and connects visitors with our Guest Services Department to assist with lodging, transportation and other services. The international patient program may be contacted directly at international@cchmc.org.

Quality and safety focus

Cincinnati Children's is focused intensively on transforming healthcare delivery, with an aim to make lasting changes that result in improvements from the point of view of our patients and their families. We are especially focused on improving patient safety. Our goal is to be the safest children's hospital in the world, and this goal shapes all the work we do.

Global Health Center

Our Global Health Center works to serve medical communities abroad through:

- Collaborations with international institutions for education/training and research
- Our Visiting Physicians Program helps with logistics, from acquiring visas to finding accommodations
- Online CME programs and training opportunities through observation
- Opportunities for non-clinical training in management, quality improvement, and safety. **MEH**



Mubarak found hope and healing in Pittsburgh.

Mubarak Al-Kaabi and his pediatric cardiologist, Brian Feingold, MD. Read about Mubarak's remarkable journey to heart transplantation at www.chp.edu/mubarak.

When 4-year-old Mubarak was diagnosed with a failing heart, he and his family traveled from Qatar to Children's Hospital of Pittsburgh of UPMC to get the help of one of the world's leading teams of pediatric heart doctors.

For more than 120 years, Children's Hospital has been at the forefront of pediatric medicine. Our experience, expertise, and ongoing commitment to innovation and compassionate care are reasons why patients from around the world travel to Children's for transplantation, cardiac care, brain care, ophthalmology services, and more.

At Children's, patients and families from the Middle East find a welcoming medical community that provides outstanding care, frequent communication with referring physicians in their home country, appointment and checkup scheduling, discharge planning, and follow-up — all in a culturally sensitive environment. We call it PassportCare.

To refer a patient, contact our International Services team at **+1-412-692-3000**, or by email at **international@chp.edu**.

www.chp.edu/passportcare

4401 Penn Ave., Pittsburgh, PA 15224 USA



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Treating 170,000 children a year from all over the world. Each as though they're the only one.

Caleb P. Nelson, MD, MPH



مستشفى بوسطن للأطفال Partnering with us is a collaborative experience that puts the dedicated resources of a world-class hospital to work for you and your patients. Ranked #1 in the USA by *U.S. News & World Report* and treating children from more than 100 countries around the world, Boston Children's Hospital is a referral you can make with confidence. For more information, go to www.bostonchildrens.org/internationalreferral, call **+1-617-355-5209**, or visit us at Arab Health Exhibition and Congress, booth #5A40.



Boston Children's Hospital
Until every child is well™



HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL