NSQIP Program Advances Quality of Care

Ann and Robert H. Lurie Children’s Hospital of Chicago participates in the American College of Surgeons’ (ACS) National Surgical Quality Improvement Program (NSQIP). We joined the program in March 2012 and are one of 57 participating children’s hospitals. ACS NSQIP-Pediatrics is a data-driven, risk-adjusted, outcomes-based program used to measure and improve the quality of surgical care in pediatric patients. This program is unique from other national databases because it is clinical data, not administrative or billing. Our NSQIP data is extracted and meticulously reviewed by our Surgical Clinical Reviewer, Sarah Kennedy, BSN. The program includes patients from General Surgery, Neurosurgery, Orthopaedics, Otolaryngology, Urology, Plastic Surgery, Thoracic Surgery, and Gynecology. This past June, we received our first risk-adjusted comparative report card and have reviewed the results with each surgical division head.

Over a year ago, with the use of our NSQIP data we identified a wound misclassification rate of over 20%. Surgical wound classification is an important predictor of the risk for post-operative wound infection and is the foundation for infectious risk stratification in national quality databases, whose outcomes drive quality improvement. With this information, we have established a quality improvement project that includes education for the surgeons and staff, a decision tree that is present in all the operating rooms, and inclusion of its discussion into the sign-out process. With these steps and the hard work of our staff, we have been able to decrease our misclassification rate to <5%. This year, we have decided to center our attention on blood transfusions. We are currently working with Anesthesia and the Craniofacial team to formulate and pilot an intraoperative blood-transfusion protocol with the goal of decreasing over-transfusions.

The NSQIP team is also participating in several voluntary pilot programs. For Otolaryngology, the ENT Pilot was the first pilot program for NSQIP-Pediatrics and was started to begin the process of measuring specialty-specific variables and outcomes. The Appendectomy Pilot for General Surgery has been established to examine disease-specific outcomes and variability in resource utilization surrounding the management of acute appendicitis. For Orthopaedics, the Spinal Fusion Procedure Pilot (coming soon), is being designed with the intention of examining outcomes and practice variations related to spinal fusions performed within pediatric surgery for spinal deformity.

ACS-NSQIP has given us the ability to compare our outcomes with other large tertiary pediatric centers throughout the country. This data will allow us to identify areas for improvement, collaborate with others to establish best practices, and ultimately advance the quality of care we give our patients. If you have any questions concerning reading the pilots, the NSQIP data, or you would like to become more involved in the NSQIP program, please email me at mbrowne@luriechildrens.org.
Earl Cheng, MD, named Division Head of Urology

Earl Cheng, MD, has been appointed Division Head of Urology at Ann & Robert H. Lurie Children’s Hospital of Chicago. Dr. Cheng received both his undergraduate and medical degrees from Northwestern University. He completed residency training at Northwestern University Medical School, where he received the Leander Riba award for outstanding resident. Following residency, he completed a fellowship in pediatric urology at Children's Memorial Hospital, during which he was named a scholar of the American Foundation for Urologic Disease and participated in a physician/scientist training grant from the NIH. After fellowship, he stayed at Northwestern University Medical School and Children’s Memorial Hospital from 1996 to 1998 as an assistant professor and established a basic science Pediatric Urology Research Laboratory at Children's Memorial. From 1998 to 2002 Dr. Cheng was at the Children's Hospital of Oklahoma and Oklahoma University Medical Center, where he also served as an assistant professor of urology. Dr. Cheng returned to Northwestern and Children’s Memorial Hospital (now Lurie Children’s Hospital) in 2002.

Dr. Cheng is Co-Head of Reconstructive Pediatric Urology at Lurie Children’s Hospital and is Professor of Urology at Northwestern University Feinberg School of Medicine. His areas of special interest include complex urinary tract reconstruction, surgical management of the neurogenic bladder, bladder extrophy, genital reconstruction, and disorders of sex development. His basic science research is in the areas of tissue engineering and bladder physiology. Dr. Cheng is currently collaborating with Dr. Samuel Stupp, a leader in the field of nanotechnology, and Dr. Arun Sharma, who heads the Basic Science Laboratory for Pediatric Urology and Regenerative Medicine. Together, they are investigating different methods of promoting tissue-specific regeneration in the urinary tract with an emphasis on bladder regeneration.

Dr. Cheng’s vision for Urology includes expanding the division’s clinical and basic science research while building upon its current recognition as one of the top Pediatric Urology programs in the U.S. Congratulations to Dr. Cheng on his appointment.

John Sarwark, MD, appointed Editor-in-Chief of Orthopaedic Knowledge Online Journal (OKOJ)

The American Academy of Orthopaedic Surgeons’ (AAOS) Board of Directors and Council on Education appointed John Sarwark, MD, Head, Division of Orthopaedic Surgery and Sports Medicine, as the new Editor-in-Chief of Orthopaedic Knowledge Online Journal (OKOJ), the Academy’s electronic-only journal for authoritative orthopaedic knowledge and practice.

The mission of Orthopaedic Knowledge Online Journal is to disseminate comprehensive, authoritative orthopaedic knowledge to improve the care of patients with musculoskeletal disorders. The OKOJ Editorial Board seeks to publish articles that critically evaluate and synthesize current information regarding the diagnosis and management of musculoskeletal conditions. Congratulations to Dr. Sarwark on this prestigious appointment.
Under the leadership of Division Head Arun Gosain, MD, the Division of Plastic Surgery continues to advance and expand its research programs. In September 2013, Jolanta Topczewska, PhD, joined the division as Research Associate Professor in Plastic Surgery. With Dr. Gosain, Dr. Topczewska leads the Gosain laboratory, which studies early postnatal development of the skull and face using a zebrafish model. Its current focus is the basic mechanism of gene regulation during suture morphogenesis in order to define a novel mechanism of the pathogenesis of craniosynostosis, a condition in which the bones of the cranial vault fuse prematurely.

Recently, the laboratory had four research papers accepted for presentation at the upcoming Plastic Surgery Research Council (PSRC) Meeting in 2014. “This is a great accomplishment for a lab that is only one year in the making, as the PSRC is our most competitive forum for research presentations in plastic surgery,” said Dr. Gosain. “They typically accept less than 25% of submissions for podium presentations.” Congratulations to lab team members Dr. Topczewska, Michael Gart, Joanna Tomaszewski, Tatiana Favelevic, and Yen-Yen Gee.

Katherine Barsness, MD, Develops Simulation Models for Surgical Training

A number of congenital anomalies in newborns are amenable to minimally-invasive surgical approaches. Minimally-invasive approaches to these conditions can be less painful, lead to faster recovery and be associated with less scarring. Unfortunately, many of these anomalies are very rare, leading to few opportunities to train residents and fellows how to safely perform these operations. Through the Northwestern Center for Advanced Surgical Education (NCASE) and the Simulation Technology and Immersive Learning center, Katherine Barsness, MD, of Pediatric Surgery has developed a series of simulation models to teach surgeons-in-training how to safely perform minimally invasive repairs of these rare congenital anomalies.

Since 2011, Dr. Barsness has collaborated with biomedical engineers and architectural designers at the Innovations Lab of the Feinberg School of Medicine’s Center for Education in Medicine to develop neonatal training models using molds created on 3D printers. Models have been developed to simulate repair of diaphragmatic hernia, tracheoesophageal fistula and duodenal atresia, a lobectomy procedure, and gastrostomy tube placement.

Dr. Barsness has trained more than 150 surgeons around the world to perform procedures using the simulation models. In October 2013, she taught a course at the 4th World Congress of the World Federation of Associations of Pediatric Surgeons in Berlin, Germany. In addition, Dr. Barsness has published several articles on simulation training, most recently “Collaboration in Simulation: The Development of a Novel Thorascopic Neonatal Simulator,” with co-authors Lauren Davis, Lab Designer, and Deb Rooney, PhD, MAMS, Director of Research in Simulation, of the Innovations Lab. Published in the Journal of Pediatric Surgery, the paper describes a simulation model developed for thoracoscopic esophageal atresia/tracheoesophageal fistula repair.
Pediatric Surgery Develops CHAAMPS Bowel-Management Program

In response to an identifiable need to manage surgical patients with fecal incontinence, Mary Beth Madonna, MD, and Beth Nanney, APN, CPNP, of Pediatric Surgery have created the CHAAMPS Bowel Management Program. The CHAAMPS (Colorectal conditions, Hirschsprung’s disease, Anorectal malformations and Associated spinal cord anomalies, Managed by Pediatric Surgery) Program uses various approaches to help children with colorectal conditions who have required surgical interventions to achieve social continence. Social continence is when a child with a colorectal condition does not have any stooling accidents, is able to stool with regularity and is not soiling during the day. The goal is for our patients to participate in all social activities with the confidence of being accident-free.

The children in the program have undergone many procedures and tests to treat their surgical conditions. Following their surgeries, they may be faced with fecal incontinence (involuntary passage of stool), which makes it difficult to participate in normal daily activities. Our multifaceted program is structured to help these children become socially continent and participate in all social activities without the fear of having an accident. CHAAMPS treats children with various surgical conditions including Hirschsprung’s Disease, anorectal malformations, imperforate anus, cloaca, VACTERL/VATER syndrome, and associated spinal cord anomalies. The surgical team’s mission is to improve the quality of life of each child by helping them achieve social continence. The program helps children maintain their health and growth while acknowledging each child as an individual, and places importance on their moral, intellectual, social, emotional, and physical development.

The CHAAMPS Program’s comprehensive approach to bowel-management includes:

**Continuity Clinic**
Most children are able to achieve social continence in the Continuity Clinic. The Continuity Clinic consists of routine appointments with a pediatric surgeon and an advanced practice nurse (APN) who work with families and participants at our main hospital and New Lenox locations. A social worker, a dietician, and a Spanish interpreter are also available during these appointments. These appointments focus on educating patients and families about their surgical conditions and treatment plans, which helps ensure patients’ long-term social continence success.

**Combined Clinic**
The monthly Combined Clinic provides CHAAMPS patients with a broader spectrum of care and expertise. Combined Clinic specialists include gastroenterologist Miguel Saps, MD, pediatric surgeon Mary Beth Madonna, MD, and advance practice nurses. This referral-based program also has a social worker, a dietician and a Spanish interpreter available.

**CHAAMPS Camp**
CHAAMPS Camp is a week-long bowel management program for children who require additional assistance. The program takes a closer look at the participants’ daily activities to see how they may be impacting the child’s incontinence. This referral-based program includes treatment by the CHAAMPS team as well as a team from the Division of Urology.
Achievement and Recognition

Carl Backer, MD, Division Head of Cardiovascular-Thoracic Surgery, has been appointed to the Board of Directors of the Thoracic Surgery Foundation for Research and Education (TSFRE) as representative of the Society for Thoracic Surgery. Dr. Backer’s 3-year term began in January 2014.

Katherine Barsness, MD, of Pediatric Surgery was named a Member of the Feinberg Academy of Medical Educators (FAME) of Northwestern University Feinberg School of Medicine. FAME membership recognizes both historical contributions to medical education as well as promise for future achievement as a medical educator.

Arun Gosain, MD, Division Head of Plastic Surgery, was named First Vice-President of the American Society of Maxillofacial Surgery (ASMS) for 2013-2014. This begins ascendency to ASMS President over the next 3 years...Dr. Gosain was also elected to serve on the Council of Advisors for the National Endowment for Plastic Surgery (NEPS) by the American Society of Plastic Surgeons, and was selected by the Plastic Surgery Foundation (PSF) to serve as the 2014 PSF Study Section Clinical Research Co-Chair...Dr. Gosain will also serve as the Millard Visiting professor to the Indian Society of Cleft Lip, Palate and Craniofacial Anomalies in 2014. This is the highest honor that the cleft society can bestow upon a foreign surgeon.

Lauren Holinger, MD, of Otolaryngology was the 2013 recipient of the prestigious Newcomb Award from the American Laryngological Association (ALA). The award was established in 1939 to recognize a Fellow of the American Laryngological Association for outstanding contributions to the literature of laryngology as well as for service to the association. Dr. Holinger is only the fourth Pediatric Otolaryngologist to receive the award. His father, Dr. Paul Holinger, received the same award in 1962.

Catherine Hunter, MD, of Pediatric Surgery received a Research Scholar Award from the American Gastroenterological Association (AGA) for her research project “Defining the role of tight junctions, protein kinase A, and apoptosis in NEC.” The term of the award is July 1, 2014 to June 30, 2017...Dr. Hunter was also invited to serve as Visiting Professor in the Department of Pathology at the University of Chicago in Fall, 2013.

John Sarwark, MD, Head of Orthopaedic Surgery, received an Achievement Award from the American Academy of Orthopaedic Surgeons (AAOS) for 2013. The AAOS Achievement Awards Program recognizes active volunteer involvement by its members as well as active participation in AAOS endeavors.

James Schroeder, Jr., MD, of Otolaryngology was appointed Co-Director of Problem-Based Learning (PBL) at the Feinberg School of Medicine in February, 2014. The PBL curriculum utilizes clinical cases to stimulate inquiry, critical thinking, and knowledge application/integration related to the sciences (biological, behavioral and social) basic to medicine. Through this active, collaborative, case-based learning process, Feinberg students acquire a deeper understanding of the principles of medicine, but more importantly acquire the skills necessary for life-long learning.

The following members of the Department of Surgery were named to Chicago magazine’s 2014 list of “Top Doctors in Chicago.”
Osama M. Eltayeb, MD, joined the Division of Cardiovascular-Thoracic Surgery as Attending Surgeon. Dr. Eltayeb attended medical school at the University of Khartoum, Sudan, where he also completed residency in general surgery. He also completed residencies in general surgery at Morehouse School of Medicine, University of Florida College of Medicine, University of Minnesota Medical Center, and Mayo Medical School. He completed his Thoracic Surgery residency at Loma Linda University in 2009 and his Congenital Cardiac Surgery fellowship at Ann & Robert H. Lurie Children’s Hospital of Chicago in 2012. Before returning to Lurie Children’s, Dr. Eltayeb was in private practice at the Children’s Hospital of St. Francis in Tulsa, Oklahoma.

Sudhi P. Kurup, MD, joined the Division of Ophthalmology as Attending Surgeon. Dr. Kurup attended the University of Michigan Medical School and completed postgraduate training at the Northwestern University Feinberg School of Medicine, completing his fellowship in Pediatric Ophthalmology in 2013. His special interests include Strabismus and eye muscle disorders, pediatric cataracts, tear duct abnormalities, retinoblastoma, and retinal imaging. Dr. Kurup is Instructor in Ophthalmology at Feinberg School of Medicine.

Rebecca-Mets Halgrimson, MD, MPH, joined the Division of Ophthalmology as Attending Surgeon. Dr. Mets-Halgrimson attended Northwestern University Feinberg School of Medicine, where she also completed her residency. She completed her fellowship in Pediatric Ophthalmology at Children’s National Medical Center, Washington, D.C., in 2011. Her special interests include Strabismus and eye muscle disorders, pediatric cataract, blocked tear duct, optic nerve glioma, tear duct abnormalities, tumors/neurofibromatosis, retinoblastoma tumors, glaucoma, and hemangioma. Dr. Mets-Halgrimson is Assistant Professor of Ophthalmology at Feinberg School of Medicine.

Dana M. Thompson, MD, MS, FACS, joined Otolaryngology as Division Head in 2013. Dr. Thompson previously served as Chair of the Division of Pediatric Otorhinolaryngology and as Associate Professor of Otolaryngology at the Mayo College of Medicine. Dr. Thompson attended medical school at the University of Missouri - Kansas City School of Medicine. Her postgraduate work includes the Clinician Investigator Program for Laryngology, Dysphagia, and Esophageal Disorders at Mayo, where she also earned an MS in Biomedical Sciences, and Fellowship in Pediatric Otolaryngology at the Cincinnati Children’s Hospital Medical Center and the University Of Cincinnati College Of Medicine. Her clinical interests include subglottic and tracheal stenosis; laryngomalacia; laryngeal cleft repair; laryngotracheal reconstruction; endoscopic airway surgery; pediatric voice and swallowing disorders; pediatric head and neck masses and tumors; and measures of quality and safety in surgical practice. Dr. Thompson is Professor of Otolaryngology—Head and Neck Surgery at Feinberg School of Medicine.

Jolanta Topczewska, PhD, joined the Division of Plastic Surgery as Research Associate Professor in Plastic Surgery. Dr. Topczewska was previously Research Assistant Professor of Pediatrics in the Feinberg School of Medicine’s Developmental Biology Program. She received her MS from Warsaw University in Warsaw, Poland, and her PhD from the Institute of Biochemistry and Biophysics, Polish Academy of Science, Warsaw, Poland. In the division’s Gosain laboratory, Dr. Topczewska investigates the mechanisms that control the morphogenetic processes of vertebrate embryos using zebrafish as a model.
The Department of Surgery welcomed Carlos Pellegrini, MD, Henry N. Harkins Endowed Chair in Surgery and Chair of the Department of Surgery at the University of Washington, as guest presenter at Surgical Grand Rounds in March 2013. Dr. Pellegrini discussed Surgical Safety Checklists. The lecture was funded by the GOAL (Grants for Ongoing Active Learning) Award Program of Lurie Children’s, which provides support for staff to enhance professional knowledge by attending learning events. The GOAL Award program is funded through philanthropy to help fulfill part of Lurie Children’s promise to its staff “to cultivate a challenging yet compassionate work environment, and to help achieve professional and personal goals....”

The Division of Cardiovascular-Thoracic Surgery hosted the 23rd Annual Farouk S. Idriss, MD, Visiting Professorship in Pediatric Cardiovascular-Thoracic Surgery in November 2013. The guest speaker was Richard A. Jonas, MD, Professor of Surgery, Co-Director of the Heart Institute and Chief of Cardiac Surgery, Children’s National Heart Institute, Washington D.C. Dr. Jonas presented “Single Ventricle Track or Biventricular Repair: Decision Making for the Marginal Patient” and “Accomplishments and Challenges Ahead for Congenital Heart Surgery.” The Idriss lectureship is held in honor of the late Farouk S. Idriss, MD. During his long career at Children’s Memorial Hospital, Dr. Idriss was responsible for many contributions to the treatment of congenital heart defects.

The Division of Cardiovascular-Thoracic Surgery also hosted the 37th Annual Midwest Pediatric Cardiology Society meeting at Ann & Robert H. Lurie Children’s Hospital from September 19-21, 2013. The meeting was very well attended, with 120 pediatric cardiologists and surgeons from the Midwest region participating. The meeting featured 26 oral presentations and 28 poster presentations, which were shown on 45” video monitors in an effort to “go green.”
**Locations:**

Ann & Robert H. Lurie Children's Hospital of Chicago
225 E. Chicago Ave.
Chicago, IL 60611

Outpatient Center in Lincoln Park
2515 N. Clark Street/467 W. Deming Place
Chicago, IL 60614-3393

Outpatient Center in Arlington Heights
Northwest Community Hospital
Busse Center for Specialty Medicine
880 W. Central Rd., Ste. 6400
Arlington Heights, IL 60005

Outpatient Center in Glenview
Glenbrook Hospital
2150 Pfingsten Road
Glenview, IL 60026

Outpatient Center in Lake Forest
Northwestern Lake Forest Hospital campus
900 N. Westmoreland, Suite 209 (Bays Medical Office Building)
Lake Forest, IL 60045

Outpatient Center in New Lenox
1870 N. Silver Cross Blvd.
Suite 100
New Lenox, IL 60451

Outpatient Center in Westchester
2301 Enterprise Drive
Westchester, IL 60154

Lurie Children’s at Cadence Health
25 N. Winfield Road
Winfield, IL 60190

Call 1.800.543.7362 (1.800.KIDS DOC) to make an appointment at any of our locations.

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**Surgical Grand Rounds Information**

Surgical Grand Rounds are held each Monday from 7:30—8:30 a.m. in room 11-152 of Lurie Children’s Hospital. Surgical Grand Rounds comprises the following conferences:

- **Grand Rounds:** 1st, 3rd, and any 5th Monday of each month.
- **Trauma Conference:** 2nd Monday of each month.
- **Clinical Case Review (M&M):** 4th Monday of each month.

Also, the Lurie Fetal Assessment Conference is held the 3rd Wednesday of each month in Lurie 11-150.

Schedule is subject to change. Conferences are not held on hospital holidays. E-mail Brian Hayes, SGR coordinator, for more information.

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**The Department of Surgery Newsletter is published in the Winter and Summer. For information, contact:**

Brian Hayes, MA
Senior Publications Specialist
Dept. of Surgery