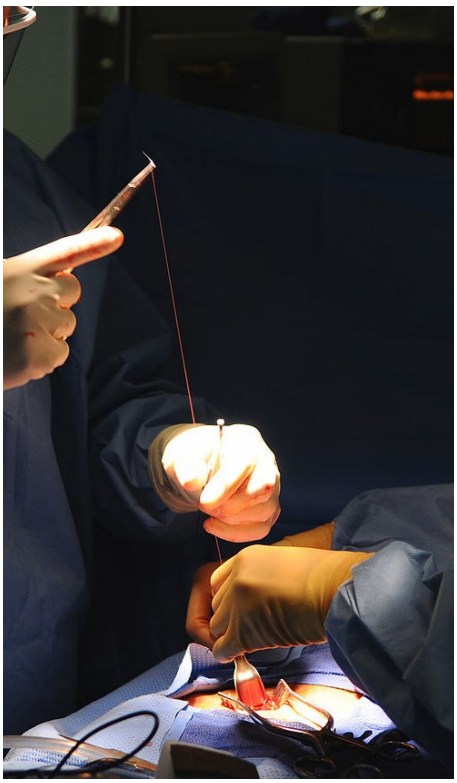
February 15, 2021
Volume 2, Issue 1

Quality Quarterly

Pediatric Surgery Quality Collaborative Newsletter



Terry and I have launched this newsletter to keep you informed about our quality improvement projects and provide updates on what is going on in the collaborative. We will also be providing updates from member hospitals on where they are in their quality improvement journey. Please feel free to share this newsletter with any colleagues or contacts who may be interested in the information provided. If you would be interested in providing information/sharing in a success (or failure!) story from your hospital, let us know.

As you know, the PSQC is a quality improvement initiative currently comprised of children's hospitals in the U.S. We have 42 members as of this writing. We initiated our first project, reduction of CT use in patients who present with suspected appendicitis, in October. Our Implementation Committee Chair, Dr. Mehul Raval, shares more on page 2. We continue to explore other areas of interest to our members for a quality improvement assessment as well as those areas highlighted as needing improvement from the ACS NSQIP Pediatric SAR. We have recently launched a small workgroup exploring the potential for a comparative review of gastrostomy use and complications at our member hospitals with a focus on enteral feeding practice variation. If we launch a broader project on that, we will certainly engage everyone. Also, if there are other projects that could be done using the NSQIP platform, do feel free to reach out.

Thank you for your continued involvement in the PSQC. We would like to hear from you about projects that may be of interest to your hospital and which make use of the NSQIP data we all contribute.

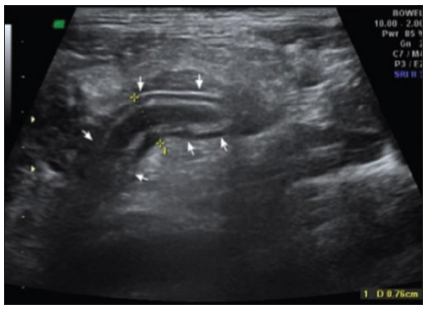
Kevin Lally, MD, MS, FACS
PSQC Executive Director
Surgeon-in-Chief, Children's Memorial Hermann Hospital
Houston, TX

Inside this issue

PSQC Implementation Committee

In October 2020, members of the PSQC Implementation Committee (IC) pursued an accelerated qualitative approach to understanding how the PSQC member hospitals approach treating patients who present to the emergency department with suspected acute appendicitis. From the ACS NSQIP Pediatric Targeted Appendectomy Report, we observed that our PSQC member hospitals have similar distributions of preoperative CT utilization and negative appendectomy rates as the 131 NSQIP-Pediatric hospitals. While some of PSQC hospitals are leaders on this report (e.g., low CT use and low negative appendectomy rates), other PSQC hospitals have opportunities for improvement. Thus, we decided to take advantage of our collaborative relationship through PSQC and explore practices at sites performing better than expected and at sites that have room for improvement.

Paul Batalden and Frank Davidoff define quality improvement in healthcare as "the combined and unceasing efforts of everyone—healthcare professionals, patients and their families, researchers, payers, planners and educators—to make the changes that will lead to better patient outcomes (health), better system performance (care) and better professional development (learning)."



Confirmed appendicitis via US

All the PSQC member hospitals we approached and asked to unblind for the purposes of this project graciously agreed to do so. We developed a qualitative interview guide, built on the Theoretical Domains Framework (TDF) and started to interview key stakeholders at various PSQC sites including surgeons, radiologists, emergency medicine physicians, and surgical clinical reviewers. Between October and December, IC team members interviews ~13 hospitals. After qualitative analyses there were four themes that distinguished high performing hospitals emerged: (1) consistent availability of resources such as magnetic resonance imaging, ultrasound technicians, and pediatric radiologists; (2) presence and adherence to protocols to guide imaging modality decisions and delivery; (3) culture of inter-departmental collaboration; and (4) presence of radiation reducing champion or leader. We are currently putting the final touches on our Intervention Bundle using QI methodology. The Intervention Bundle will be shared with all our member hospitals after it has been reviewed and approved by the PSQC Executive Committee.

We think you will find the Intervention Bundle a useful document if you decide to pursue a pediatric appendicitis CT reduction strategy at your hospital. In addition, we have identified PSQC members that are willing to share protocols, provide guidance, and serve as peer-coaching to support your QI endeavors. The Intervention Bundle and our amazing PSQC network can be tailored for any hospital to use spanning from those that are lower performers to those who are average or high performers that want to move their performance on this metric in a positive way.

I would like to recognize the members of the IC listed below and thank each of them for their time and commitment to the PSQC. Thank you all for your continued interest in our unique community.

If you have any questions or comments, please reach out to PSQC Program Manager, Terry Fisher at terry. fisher@uth.tmc.edu.

Mehul Raval, MD, MS, FACS, FAAP
Chair PSQC Implementation Committee
Associate Professor of Surgery and Pediatrics
Lurie Children's Hospital

PSQC Implementation Committee Members

Loren Berman, MD, MHS
Associate Professor of Surgery and Pediatrics
Nemours – Alfred I. DuPont Hospital for Children

Ms. Azraa Chaudhury, BA
First Year Medical Student
Feinberg School of Medicine

Susan Duncan, MS, BSN, RN-BC
NSQIP Clinical Registry Reviewer
Cincinnati Children's Hospital Medical Center

Andrew Hu, MBChB
Surgical Research Scholar
Lurie Children's Hospital

Terry Fisher, MPH, PMP
PSQC Program Manager
UT Health Sciences Center

Kevin Lally, MD, MS, FACS-*ex officio*
PSQC Executive Director
Children's Memorial Hermann Hospital

Anne Kim Mackow, MD, MPH, FACS
Assistant Professor, Pediatric Surgery
Rainbow Babies Hospital

Monica Lopez, MD, MS, FACS, FAAP
Associate Professor of Surgery and Pediatrics
Texas Children's Hospital

Shawn Rangel, MD, MSCE
Associate Professor of Surgery
Boston Children's Hospital

Stephen Shew, MD, FACS, FAAP
Clinical Professor of Surgery
Lucille Packard Stanford Children's Hospital

KuoJen Tsao, MD, FACS, FAAP
Professor and Chief, Pediatric Surgery
Children's Memorial Hermann Hospital

Cheryl Utendale, MBA, BSN
Surgical Clinical Reviewer
Phoenix Children's Hospital

Member Stories

Please share with us any stories you'd like highlighted in this newsletter. Stories which describe the work being done on Quality Improvement at your institution can offer insights for others.

These insights might include advice on team composition; frequency of feedback; best methods for PDSAs; or common challenges and vetted solutions to implementing change.

We are especially interested in hearing about projects which are interdisciplinary and touch several areas within your hospital.

Recent Publications of Interest

Implementation of a gastrostomy care bundle reduces dislodgements and length of stay

Pediatric gastrostomy tubes (G-tubes) are associated with considerable utilization of healthcare resources. G-tube dislodgement can result in tract disruption and abdominal sepsis. The team found that an interdisciplinary team using quality improvement science methodology can significantly reduce G-tube dislodgement and improve value after pediatric gastrostomy tube insertion.

Reducing resource utilization for patients with uncomplicated appendicitis through use of same-day discharge and elimination of postoperative antibiotics

A prospective study of efficacy of a management pathway for patients undergoing appendectomy for uncomplicated acute appendicitis. The pathway included a same day discharge route with no postoperative antibiotics for patients with gangrenous appendicitis. The study found a significant decrease in LOS with no increase in postoperative complications, such as superficial SSI and OS/SSI.

Button Gastrostomy Tubes for Pediatric Patients: A Tertiary Care Center Experience

A retrospective cross-sectional descriptive study in a nascent pediatric surgery service. In Bahrain. Neurological disorders are the main diagnosis for the cases operated upon. Laparotomy with gastrostomy is the procedure of choice at our center. Majority of patients had no reported complications of button tube replacement. These children are likely to benefit from the button tube with fewer complications.

Impact of an institution-designed algorithm for the management of dislodged gastrostomy tubes

A treatment study of pediatric patients presenting to the ED for GT dislodgment at a single institution. An algorithm for replacement of dislodged GT is usable, effective, and increased surgical team involvement without significant changes in patient outcomes.

Minimizing Variance in Gastroschisis Management Leads to Earlier Full Feeds in Delayed Closure

For infants undergoing delayed closure, the time to full feeds in this group now appears to match that of patients undergoing primary closure, indicating that delayed closure should not be a reason for slower advancement. Additional studies are needed to assess the impact of earlier full enteral nutrition on rare complications and rates of necrotizing enterocolitis.

News from Our Members

As part of the NSQIP antibiotic stewardship pilot program, Cincinnati Children's discovered high noncompliance with SAC modified guidelines. They started their QI project with a focus on g-tube cases. The Aim statement developed by Cincinnati in July 2019 was "to increase the proportion of G-tube patients receiving correct Surgical Antibiotic Prophylaxis (SAP) for indication, timing, spectrum, and duration according to national and pediatric specific guidelines from 17.2% to 80% by 12.31.20".

Some interventions adopted were an updated order set for g-tubes, moving all SAP except Vancomycin into the intraoperative phase of care and an automated weight based dosing within the order set. The order set for g-tubes was launched December 1, 2020. The PDSA cycle is indicating the desired increase in adoption to date. The project is continuing.

For more information, please contact Susan Duncan, NSQIP Clinical Registry Reviewer, at Susan.Duncan@cchmc.org.

In September of 2019, Phoenix Children's Hospital's (PCH) NSQIP-P staff, embarked on an inter-rater reliability (IRR) process as a quality assurance project around data entered into NSQIP-P. The project was designed to validate data entered by the two SCRs at PCH into the ACS NSQIP-P database. Prior to the project implementation, there was no formal approach to assuring the two abstractors were using a consistent interpretation of the case worksheets variables. The project included 11 NSQIP cycles and found a high rate of IRR. One area of dissonance was in classification of SSIs.

The IRR team presented their findings at the ACS Quality and Safety Conference in July 2020. You can review a copy of their accepted poster in the attachments tab of this newsletter. For additional information, please contact Cheryl Utendale, Surgical Clinical Reviewer, at cutendale@phoenixchildrens.com.

SCR Discussion Forum

A few of our SCRs in the PSQC have expressed a desire to have an opportunity to discuss common issues and share solutions in an informal format-less didactic and more interactive.

The PSQC leadership is open to this concept but would like to hear from more of our members whether they feel such an approach would be useful.

The proposal would be to use the quarterly SCR webinars as the vehicle for these discussions. We can solicit ideas for input, or perhaps query the SCRs and NSQIP manager and ask for their top 3 areas of concern and then focus on these topics.

I'll be sending out a brief survey by the end of February to gauge the interest in this approach and feasibility of delivering content of value to our members.

Stay tuned!

Terry