Background:
Akron Children's Hospital is one of the largest integrated children's health care delivery systems in the country. We see patients from all 50 states and over 15 countries and perform approximately 20,000 surgical cases annually across multiple campuses in northeast Ohio. The Perioperative Surgical Home (known as the PSH) prepares over 11,000 patients annually for elective surgical care. PSH staff consists of clerical, medical assistants, registered nurses, child life specialists, and nurse practitioners. The goals of the PSH is a one stop perioperative care delivery system also helps in adapting best practice clinical tools in a timely and efficient manner.

Objective:

• Need for objective tool to help determine patient's safety and readiness for surgery and prevent cancellation procedures

• Respiratory illnesses common to children

• Major reason for cancellation day of surgery

• The COVID-19 pandemic stopped all elective surgeries at our organization. When returning to full OR capacity, the PSH team was tasked with identifying patients that had been prepared for surgery prior to closure and determine how to proceed with remobilization of the organization's OR.

• Return to full OR capacity

• Ensure patient safety

• Ensure staff safety

• There was a need for reliable evaluation, triage, and safe rescheduling of surgery for patients who currently or previously had COVID-19. The existing COLDS tool was modified to a COVID/COLDS tool

• Five categories to score

• Each category is scored 1,2, or 3

• There is no possible score of 0 as no patient receiving anesthesia ever has zero risk for PRAE

• Scores are totaled and used to guide triage and perioperative decision making

• RED-YELLOW-GREEN Light approach: RED for patients at highest risk and consider cancel/schedule delay, YELLOW to carefully weigh the risks/benefits, and GREEN likely reasonable to proceed

• The tool allows quick modification of individual category components and the scheduling recommendations, to best align with national guidelines, organizational experience and needs experienced throughout the pandemic

Process of Implementation:
Because the COLDS scoring tool had been successful in identifying patient with respiratory illness at risk for anesthesia and surgery, it was felt that the COLDS tool could be modified to help identify safe return to OR for COVID positive patients. The PSH team worked with anesthesiologists and surgeons to modify the existing COLDS tool.

Using QI processes (process mapping, KDD, and PDSA cycles), the best existing practice COLDS scoring tool, was modified to assist with evaluation, triage, and return to OR after COVID-19 illness. The tool was optimized to meet the changing COVID-19 guidelines, clinical and patient/family needs. Staff education focused on progressive knowledge of COVID-19 guidelines and symptoms, testing workflow, and adaptations of the COVID/COLDS scoring tool and how it would be used. Another important part of education was which device (ETT, mask, etc.) would likely most likely be used by anesthesia for the procedure. Surgery patients were tested for COVID-19 72-hours prior to surgery. Patients testing positive, were cancelled and received a phone call 20 days from positive test. Using the modified tool, the COVID/COLDS tool score was obtained, and rescheduling of surgery was determined.

Cancellations were a key metric

• Minimizing day of surgery cancellations allows the organization to better contain costs

• COVID -COLDS tool was successful in establishing a high level of efficiency for successful return to OR of COVID positive patients enhancing organizational value by maximizing perioperative resources

Findings

• Perioperative Respiratory Adverse Events (PRAEs) interest quality and safety

• PRAEs did not increase when using our COVID-COLDS tool and process

Implications for Advancing the Practice of Peri anesthesia Nursing:
Healthcare professionals can use existing best practice tools and modify them to meet novel population health needs of patients and healthcare organizations. The benefits of having a fully integrated perioperative care system also helps in adapting best practice clinical tools in a timely and efficient manner.

References
Lee SJ, August DA. COLDS: A heuristic preanesthetic risk score for children with upper respiratory tract infection. Pediatric Anesthesia 2014;24:349-353

Pediatric COVID/COLDS Scoring Tool: Safe Surgical Outcome
Andrew J. Meyer MD FASA, Jill Smith MSN APRN CNP, Tara Wright MSRN RN CPN

Akron Children’s Hospital, Akron, Ohio

COLD Scoring Tool

AHC Modified COLDS Scoring for URI Patients

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AHC Modified COLDS Scoring for COVID-17 Patients

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Statement of Successful Practice:
The implementation of the COVID/COLDS tool allowed us to safely determine surgical date, without increased OR cancellation rate and without increased rate of perioperative respiratory adverse events.

References
Lee SJ, August DA. COLDS: A heuristic preanesthetic risk score for children with upper respiratory tract infection. Pediatric Anesthesia 2014;24:349-353