

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active. **METHODS:** We queried the National Surgical Quality Improvement Program-Pediatric (NSQIP-P) from 2012-2017 for patients  $\leq$ 18 years old with CD who underwent an intestinal resection with or without OC. We compared demographic and case-level characteristics to identify factors associated with ostomy creation. Logistic regression was performed to examine clinical outcomes associated with ostomy creation.

**RESULTS:** We identified 969 total patients with CD who underwent intestinal resection, and 85 underwent OC (8.8%). Unknown race, wasted nutritional status, emergency surgery, open procedures, and ASA  $\geq$ 3 were individually associated with increased odds of OC. Patients with an ostomy had an increased frequency of readmission (15.3% vs 8.7%), returns to the operating room (8.2% vs 5.1%), and infection (12.9% vs 8.9%) within 30-days of their surgery. Multivariable logistic regression demonstrated an increased odds of readmission within 30-days for patients who underwent OC compared to those that did not (OR: 2.14 95% CI: 1.105, 4.154).

**CONCLUSION:** Ostomy creation is performed in clinically worse scenarios and associated with a higher frequency of postoperative complications. After controlling for covariates, OC is also associated with a higher odds of readmission with 30-days of surgery. These data are important for surgical decision-making, patient counseling, and targeting quality improvement efforts.

## Outcomes by Hospital Designation for American College of Surgeons (ACS) Trauma Defined Pediatric and Adult Minors Sustaining Solid Organ Injuries

a

Vivian Hagerty, MS, Shenae Samuels, PhD, MPH, Carrie A Laituri, MD, FACS, Tamar L Levene, MD, FACS, Heather Spader, MD Florida Atlantic University Charles E. Schmidt College of Medicine, Boca Raton, FL Memorial Healthcare System, Hollywood, FL University of New Mexico, Albuquerque, NM

**INTRODUCTION:** Non-operative management of solid abdominal organ injury has been widely accepted and implemented in the care of pediatric patients. Out study aimed to use a large national database to examine whether management and outcomes of these injuries differs by hospital type or age (<15 years and 15-17 years).

**METHODS:** Records of 13,618 pediatric patients (0-17 years) with solid organ injury of the spleen, liver, or kidney were extracted from the Healthcare Cost and Utilization Project Kids' Inpatient Database 2006-2012. A multivariate logistic regression model was used in the analysis of surgical intervention whereas a generalized linear model with gamma log-link function was used in the analysis of length of stay (LOS). Children's hospital designation (non-children's, free-standing children's, or children's unit in a general hospital) served as predictor variables.

**RESULTS:** Compared to American College of Surgeons (ACS)defined pediatric trauma patients (<15 years) seen at a non-children's hospital, those receiving care at a free-standing children's hospital or children's unit in a general hospital were significantly less likely to undergo surgical intervention (AOR 0.20, P<0.001; AOR 0.60, P=0.036, respectively). However, those patients seen in a children's unit in a general hospital spent 0.28 days longer in the hospital (P=0.039). ACS-defined adult trauma patients (15-17 years) were less likely to undergo surgical intervention if cared for at a free-standing children's hospital (AOR 0.12, P=0.003); however, without any difference in LOS.

**CONCLUSION:** We conclude that all minors (age <18) sustaining solid organ injuries undergo fewer surgical interventions if cared for at free-standing children's hospitals.

## Pediatric Perforated Appendicitis Rate Increased During the Covid-19 Pandemic

Marla A Sacks, MD, Laura F Goodman, MD, Yomara S Mendez, BS, Faraz A Khan, MBBS, FACS, Donald C Moores, MD, FACS, Andrei Radulescu, MD, PhD Loma Linda University Children's Hospital, Loma Linda, CA

**INTRODUCTION:** California issued a stay-at-home order on March 19, 2020 to limit the spread of SARS-Cov-19. Due to the order and concerns of SARS-Cov-19 exposure in the healthcare setting, we hypothesize delayed presentation of pediatric appendicitis lead to a higher proportion of patients with advanced appendicitis.

**METHODS:** An IRB-approved retrospective chart review was performed for all pediatric patients at a single institution with acute appendicitis ICD-10 code (K35.3) during 2 time periods: March 19<sup>th</sup> - December 31<sup>st</sup>, 2019 vs. March 19<sup>th</sup> - December 31<sup>st</sup>, 2020. Data included patient demographics, body mass index (BMI), procedure performed, perforation, and length of stay. Appendix perforation was defined when coded as K35.32. Analysis was performed with Chi-squared or Fischer's Exact.

**RESULTS:** Median age and BMI of patients presenting with appendicitis during the 2019 cohort were 13 years(19.7kg/m<sup>2</sup>) vs. 13 years(20.8kg/m<sup>2</sup>) for the 2020 cohort. No differences in gender, race, and length of stay were noted in the two cohorts. Laparoscopic appendectomy was performed in 413 patients in the 2019 cohort vs. 411 in the 2020 cohort. Acute perforated appendicitis was seen in 275 (17.4%) vs. 341 (19.1%) in the 2019 vs. 2020 cohort (p <0.05).

**CONCLUSION:** The higher proportion of patients with perforated appendicitis in the latter cohort corresponding to the COVID-19 pandemic. We speculate this is related to the delay in seeking medical care related to the ongoing SARS-Cov-19 pandemic. This study further highlights the need for investigating the effect of the pandemic on access to healthcare.

