Racial and Ethnic Disparities in Same-Day Discharge Following Appendectomy in Children

Gwyneth A. Sullivan; John Sincavage; Audra J. Reiter; Andrew J. Hu; Melissa Rangel; Charesa J Smith; Ethan M. Ritz; Ami N Shah; Brian C Gulack; Mehul V. Raval
Division of Pediatric Surgery, Department of Surgery, Northwestern University Feinberg School of Medicine, Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, USA
Division of Pediatric Surgery, Department of Surgery, Rush University Medical Center, Chicago, IL, United States

BACKGROUND

- Racial and ethnic disparities exist in outcomes following surgery in children
- Same day discharge (SDD) following appendectomy is safe with no increased risk of 30-day readmission or complications

RESEARCH OBJECTIVES

To determine whether race and ethnicity are associated with rate of SDD and post-discharge healthcare utilization including emergency department (ED) visits and readmissions in children with acute, uncomplicated appendicitis.

METHODS

NSQIP-Pediatric clinical registry from 2015-2019

Inclusion criteria
- < 18 years old who underwent appendectomy

Exclusion criteria
- Perforated or complicated appendicitis
- Hospital length of stay > 1 day

Study variables
- Exposure: race and ethnicity
- Primary outcome: same day discharge
- Secondary outcome: hospital utilization (ED visits and 30-day readmission)

RESULTS

Same day discharge protocols need to be tailored to meet the unique needs of our diverse patient populations to facilitate equitable delivery of care

Figure 1. Outcomes by ethnic group

Figure 2. Outcomes by racial group

Same day discharge
- Black/African American patients have decreased likelihood of SDD compared to White patients (aOR 0.84; 95% CI: 0.77-0.93)
- Hispanic patients had increased likelihood of SDD compared to Non-Hispanic patients (aOR 1.19 95% CI: 1.12-1.25)

ED Visits
- Black/African American patients have increased likelihood compared to White patients (aOR 1.36; 95% CI: 1.14-1.62)
- Hispanic patients have increased likelihood compared to Non-Hispanic (aOR: 1.37; 95% CI 1.12-1.58)
- No association between SDD and ED visits

Readmission
- No racial group association
- Hispanic patients had decreased likelihood compared to Non-Hispanic (aOR: 0.77; 95% CI: 0.62-0.95; p<.01)

No association between SDD and ED visits or readmission

LIMITATIONS

- Follow-up outside of NSQIP hospitals may not be captured
- Relationship between time of day of presentation and preoperative length of hospitalization
- Further information on sociodemographic information and social determinants of health

@WynSullivan
wyneth.sullivan@northwestern.edu