

Racial disparities found in children's urologic surgery

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Black children who undergo urologic surgery are more likely than white children to have postsurgical complications and hospital-acquired infections 30 days after the surgery. Researchers studying a national database from over 50 U.S. pediatric hospitals suggest that hospitals and policy makers should expand efforts to reduce postoperative adverse events and health disparities in children.

"While racial disparities in surgical outcomes have been reported in adult [health](#) care, less is known about possible disparities in pediatric [surgery](#)," said first author David I. Chu, M.D., a fellow in Pediatric Urology at The Children's Hospital of Philadelphia (CHOP). "The [health disparities](#) we found in children's surgery likely have complex causes, which warrant further investigation."

Chu and colleagues Gregory E. Tasian, M.D., M.Sc., MSCE; and Douglas A. Canning, M.D.; both pediatric urologists at CHOP, co-authored the study, published online today in *Pediatrics*.

The research team analyzed data from nearly 12,000 patients who underwent [pediatric urology](#) procedures in a national database—the National Surgical Quality Improvement Program—Pediatrics (NSQIP-P). NSQIP-P is a registry of surgical cases from more than 50 pediatric hospitals, prospectively collected in 2012 and 2013. The current study covered 40 unique operations, classified into six clinically related procedure groups: ureteral, testicular, renal, urinary diversion, penile and urethral, or bladder procedures. The surgeries spanned common and

complex conditions.

The overall 30-day complication rate for all surgeries was 5.9 percent. In comparing non-Hispanic [black children](#) to non-Hispanic white children within 30 days after surgery, the study team found that black children had significantly higher odds of overall complications (odds ratio 1.34) and of hospital-acquired infection (odds ratio 1.54). These significant associations were independent of baseline health conditions, type of surgery and other factors.

Within the six procedure groups, bladder procedures and urinary diversions had the highest rates of postoperative morbidity, occurring in over 20 percent of all pediatric patients. The researchers say these high complication rates are not surprising in these procedure groups, which include more complex reconstructive surgeries. Infections in particular are a common risk following these surgeries.

One possible explanation for the [racial disparities](#), say the authors, is that black patients may be more likely than white patients to be treated at hospitals with fewer resources. These differences in resources may be reflected in differences in hospital-level processes of care to prevent postsurgical complications such as infections or readmissions.

Nonetheless, added Chu, further research is needed, both to systematically investigate potential causes of these disparities, and to design care processes and other medical interventions to reduce those disparities.

The National Institutes of Health (NIH) recently recognized health [disparities](#) in surgery as a research priority. "We hope that further research will culminate in the development of effective policies that will ensure health equity for all [children](#)," said Tasian.

More information: David I. Chu et al, "Race and 30-Day Morbidity in Pediatric Urologic Surgery," *Pediatrics*, published online June 17, 2016.
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