

# Study identifies risk factors for pediatric opioid dependence after surgery

May 13 2021

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Researchers at Hospital for Special Surgery (HSS) have identified risk factors for persistent opioid use after surgery in pediatric patients. Study findings were presented at the 2021 Spring American Society of Regional Anesthesia and Pain Medicine (ASRA) Annual Meeting.

Previous research indicates that prescription patterns for opioids after surgery in children and adolescents may be associated with [long-term use](#) and abuse.

"Pediatric patients have developing brains that are uniquely vulnerable to addiction, and we need to learn to treat their pain safely without putting them at additional risk for [opioid misuse](#)," said principal investigator Kathryn (Kate) DelPizzo, MD, an anesthesiologist at HSS.

It is therefore critical for clinicians to understand [risk factors](#) for opioid dependence in this vulnerable population, and to develop strategies to prevent long-term opioid use.

Dr. DelPizzo and colleagues examined [insurance claims](#) from Truven Health Marketscan data from patients under the age of 21 who underwent inpatient or outpatient surgery from 2013 to 2017. The primary outcome examined was persistent opioid use after surgery, defined as one or more additional filled opioid prescriptions between 90 and 180 days post-surgery.

Out of more than 3.7 million patients, about 9% (N=345,523) filled at

least one opioid prescription within six months after surgery, and 0.3% (N=11,334) developed ongoing opioid use.

Several risk factors were identified for persistent opioid use: older age, female sex, earlier year of undergoing surgery (e.g., 2013 versus 2014 through 2017), higher burden of comorbidities, previous use of antidepressants, residence outside of the Northeastern United States, having undergone an inpatient or a musculoskeletal procedure (versus general surgery or other specialties), and previous opioid use.

"This data gives an indication that providers may be able to use a patient's baseline characteristics to predict which children and adolescents are most at risk for trouble with opioids during the postsurgical period," Dr. DelPizzo noted.

HSS is committed to patient safety and being a leader in effective pain management. Its [Controlled Substances Task Force](#) continues to make strides in [patient education](#) and [safe prescribing](#).

**More information:** "Factors Associated With Long-term Opioid Use in Pediatric Surgical Patients"  
[epostersonline.com/ASRASPRING21/node/1050](http://epostersonline.com/ASRASPRING21/node/1050)

Provided by Hospital for Special Surgery

Citation: Study identifies risk factors for pediatric opioid dependence after surgery (2021, May 13) retrieved 23 May 2024 from  
<https://medicalxpress.com/news/2021-05-factors-pediatric-opioid-surgery.html>

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