

Study: 15% of children received opioid prescription for minor conditions

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About 15% of children with minor conditions received an opioid prescription each year from 1999-'14, according to a study of Tennessee children enrolled in Medicaid. Furthermore, one in 2,611 of those treated with opioids experienced an adverse event.

In light of growing national attention on opioid overdoses, researchers from Vanderbilt University School of Medicine set out to look at opioid prescriptions for relatively minor conditions.

They analyzed Medicaid data on Tennessee children ages 2-17 who did not have major chronic diseases or substance use disorders and found nearly 1.4 million outpatient opioid prescriptions. They detailed their findings in the report "Outpatient Opioid Prescriptions for Children and Opioid-Related Adverse Events" (Chung CP, et al. *Pediatrics*. July 16, 2018, <https://doi.org/10.1542/peds.2017-2156>).

About 52.5% of the opioid prescriptions were for youths ages 12-17, 28% were for children ages 6-11 and 20% were for 2- to 5-year-olds. Overall, the annual percentage of prescriptions for any age started to decline after 2009, falling to 10% in 2014.

Dental procedures were the most common driver of opioid prescriptions, making up about 31%, followed by outpatient procedure/surgery (25%), trauma (18%) and infections (16.5%). About 42% of the prescriptions were for hydrocodone, 40% codeine, 5% meperidine, 5% oxycodone and 3% tramadol.

The team looked at adverse events related to the opioid prescriptions from 1999-2011, defined as emergency department visits, hospitalization or death. They found that adverse events followed about one in every 2,611 opioid prescriptions. The most common symptoms were gastrointestinal, neuropsychiatric, dermatologic and central nervous system depression. Three children died.

About 71% of the cases involved children taking the medication as prescribed, and older children who experienced adverse events were more likely to have substance use disorder or attempt self-harm.

"These findings indicate that extra precautions may be needed when prescribing opioids to adolescents for acute, self-limited conditions, given increased likelihood of risk-taking during this developmental period," authors wrote.

They noted the study may underestimate adverse events since less serious side effects were not counted and said the ability to generalize the results to a larger population may be limited. However, they also pointed to the need for more education on prescribing.

"These findings underscore the need to develop more comprehensive pediatric guidelines for treatment of acute, self-limited conditions, which should balance both the unnecessary exposure of children to increased risk of adverse opioid effects and the potential for under-treatment of painful short-term conditions," researchers wrote.

The authors of a [related commentary](#) took issue with federal health officials, media and others calling opioid use an epidemic. They said discussions often inappropriately combine deaths from illicit opioids, prescription opioids and nonmedical use of prescription opioids, and the issue "pales in comparison to other public health hazards."

As for the study by Chung, et al., they said information about the rates of opioid prescribing after dental procedures and the commonality of codeine were useful pieces of data. However, they questioned the relevance of the prevalence statistics. Some of the symptoms recorded aren't typically associated with opioid toxicity; cases that didn't include appropriate use of the prescription potentially should have been excluded; and no details were given as to which opioids and symptoms were linked, according to the commentary.

"Pediatric practitioners must use their best judgment when using opioids with solid indications, and should always make good use of non-opioid alternatives," authors wrote. "But providing appropriate opioid prescriptions for moderately to severely painful conditions should not be curtailed on the basis of the data reported by Chung et al. Too often, consideration of the need to prevent and treat pain can be lost in the national discussion."

Resources

- [AAP policy Substance Use Screening, Brief Intervention, and Referral to Treatment](#)
- [CDC resources on prescription opioids](#)
- [Information for parents from HealthyChildren.org on opioids](#)
- [HealthyChildren.org video on medication safety](#)
- [Pediatrics journal collection on opioid addiction](#)

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