

Hospitalizations for children, teens attributed to opioid poisoning jump

October 31 2016

The overall incidence of hospitalizations for prescription opioid poisonings in children and adolescents has more than doubled from 1997 to 2012, with increasing incidence of poisonings attributed to suicide or self-inflicted injury and accidental intent, according to a new study published online by *JAMA Pediatrics*.

The use of prescription opioid pain medication has increased dramatically over the years. However, it was unknown how many [children](#) and adolescents were hospitalized each year for opioid poisonings and how those rates have changed over time. A clearer understanding of pediatric opioid-related illness and death is needed because opioids are already among the most widely prescribed medications in the United States. The U.S. Food and Drug Administration also recently approved the use of oxycodone hydrochloride for children who meet certain criteria.

Julie R. Gaither, Ph.D., M.P.H., R.N., of the Yale School of Medicine, New Haven, Conn., and coauthors analyzed pediatric hospital discharge records for every three years from 1997 through 2012. They used diagnosis codes to identify 13,052 discharge records for children and adolescents hospitalized for opioid poisonings; they also identified opioid poisonings attributed to heroin for adolescents ages 15 to 19. Across the study period, 176 children (1.3 percent) died during hospitalization.

The authors estimate that from 1997 to 2012, the incidence of

hospitalizations from opioid poisonings:

- Increased among children ages 1 to 19 by 165 percent from 1.40 to 3.71 per 100,000 children.
- Increased among children ages 1 to 4 by 205 percent from 0.86 to 2.62 per 100,000 children.
- Increased in teens ages 15 to 19 by 176 percent from 3.69 to 10.17 per 100,000 children; poisonings from heroin in this age group also increased by 161 percent from 0.96 to 2.51 per 100,000 children; and poisonings involving methadone increased by 950 percent from 0.10 to 1.05 per 100,000 children.

Demographics characteristics include males accounting for 34.7 percent of the hospitalizations in 1997 but that proportion grew to 47.4 percent by 2012. Also, most of the children hospitalized were predominantly white (73.5 percent) and covered by private insurance (48.8 percent). However, the proportion of children insured by Medicaid grew from 24.1 percent in 1997 to 44 percent in 2012, according to the report.

When the authors examined intent behind the opioid poisonings, there were 16 poisonings attributed to suicide or self-inflicted injury among children younger than 10 from 1997 to 2012. In children ages 10 to 14, the incidence of poisonings attributed to suicide or self-inflicted injury increased by 37 percent from 0.62 in 1997 to 0.85 in 2012 per 100,000 children. The incidence of poisonings attributed to accidental intent increased by 82 percent from 0.17 in 1997 to 0.31 in 2012.

In teens ages 15 to 19, opioid poisonings attributed to suicide or self-inflicted injury increased by 140 percent, while those attributed to accidental intent increased 303 percent in this age group.

The study has several limitations, including estimates based on diagnosis codes that are subject to miscoding. Also, the study cannot provide a full

clinical picture or psychosocial profile of the children who were hospitalized or validate diagnosis codes with toxicology results.

"Our research, however, suggests that poisonings by prescription and illicit opioids are likely to remain a persistent and growing problem in the young unless greater attention is directed toward the pediatric community, who make up nearly one-quarter of the U.S. population. ... In addition, further resources should be directed toward addressing [opioid misuse](#) and abuse during adolescence," the study concludes.

More information: *JAMA Pediatr.* Published online October 31, 2016. [DOI: 10.1001/jamapediatrics.2016.2154](https://doi.org/10.1001/jamapediatrics.2016.2154)

Provided by The JAMA Network Journals

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