

Opioid Prescribing After Nonfatal Overdose and Association With Repeated Overdose: A Cohort Study

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Background: Nonfatal opioid overdose is an opportunity to identify and treat substance use disorders, but treatment patterns after the overdose are unknown.

Objective: To determine prescribed opioid dosage after an opioid overdose and its association with repeated overdose.

Design: Retrospective cohort study.

Setting: A large U.S. health insurer.

Participants: 2848 commercially insured patients aged 18 to 64 years who had a nonfatal opioid overdose during long-term opioid therapy for non cancer pain between May 2000 and December 2012.

Measurements: Nonfatal opioid overdose was identified using International Classification of Diseases, Ninth Revision, Clinical Modification, codes from emergency department or inpatient claims. The primary outcome was daily morphine-equivalent dosage (MED) of opioids dispensed from 60 days before to up to 730 days after the index overdose. We categorized dosages as large (≥ 100 mg MED), moderate (50 to < 100 mg MED), low (< 50 mg MED), or none (0 mg MED). Secondary outcomes included time to repeated overdose stratified by daily dosage as a time-varying covariate.

Results: Over a median follow-up of 299 days, opioids were dispensed to 91% of patients after an overdose. Seven percent of patients ($n = 212$) had a repeated opioid overdose. At 2 years, the cumulative incidence of repeated overdose was 17% (95% CI, 14% to 20%) for patients receiving high dosages of opioids after the index overdose, 15% (CI, 10% to 21%) for those receiving moderate dosages, 9% (CI, 6% to 14%) for those receiving low dosages, and 8% (CI, 6% to 11%) for those receiving no opioids.

Limitation: The cohort was limited to commercially insured adults.

Conclusion: Almost all patients continue to receive prescription opioids after an overdose. Opioid discontinuation after overdose is associated with lower risk for repeated overdose.