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Title

Association between opioid overdose and health plan disenrollment with mitigating impact of buprenorphine initiation

Priority 1 (Research Category)

Observational study (cohort, case-control)

Presenters

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Abstract

Context: Health plan disenrollment has been associated with higher mortality in patients with opioid use disorder. Insurance loss and health plan disenrollment might be downstream social consequences of opioid misuse and overdose that may heighten patient mortality risks during a period of heightened need for professional assistance. Objective: To test hypotheses that: 1) overdose events in patients prescribed long-term opioids are associated with subsequent health plan disenrollment; and 2) buprenorphine initiation after overdose would attenuate this association. Study Design: Retrospective cohort study. Setting and Dataset: Data from the Optum Labs Data Warehouse which includes de-identified medical and pharmacy claims and enrollment records for commercial and Medicare Advantage enrollees. The database contains longitudinal health information on patients, representing a mixture of ages, ethnicities, and geographical regions across the United States. Population studied: Adults (aged ≥ 18 years) prescribed stable, opioid therapy for a 6-month baseline period ($\geq 90\%$ of days covered, $< 10\%$ monthly fluctuation from 6-month average, average daily dose ≥ 10 morphine milligram equivalents). Outcome Measures: Health plan disenrollment during up to one year of follow-up. Negative binomial regression estimated adjusted incidence rate ratios of disenrollment by incident overdose and buprenorphine initiation after overdose. Results: We identified 556,676 patients who were followed up after 1,119,100 stable periods of opioid therapy. During follow-up, 17.5% of person-periods ended in health plan disenrollment. Overdose events during follow-up were associated with health plan disenrollment with a dose-response relationship [adjusted incidence rate ratio (aIRR) for 1 overdose event = 1.29 (95% CI: 1.24-1.35); aIRR for ≥ 2 overdose events = 1.51 (1.43-1.59)]. Among patients with overdose events, subsequent buprenorphine initiation was associated with substantially reduced risk of health plan disenrollment [aIRR 0.36 (0.17-0.74)]. Conclusions: Overdose events in patients prescribed long-term opioids may portend other social consequences, such as health insurance loss, which may exacerbate patient risk at a time of heightened need and vulnerability. Buprenorphine may mitigate the risk of health plan disenrollment in opioid-prescribed patients who overdose.