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Title

Urine drug testing in patients prescribed long-term opioid therapy: Associations with patient and prescriber factors

Priority 1 (Research Category)

Pain management

Presenters

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Abstract

Context: National guidelines recommend that patients with chronic non-cancer pain prescribed long-term opioid therapy (LTOT) undergo periodic urine drug testing (UDT), yet little evidence supports the utility of this approach. Given the wide variation in test utilization and interpretation, it is important to understand factors associated with UDT. Objective: To identify patient and prescriber factors associated with UDT in primary care patients prescribed LTOT. Study Design and Analysis: One-year retrospective cohort study of primary care patients prescribed LTOT by clinicians. Data extracted from the health system electronic medical record. Negative binomial regression examined patient and prescriber factors associated with the number of tests received, and logistic regression estimated prescriber propensity to order testing. Analyses were adjusted for patient and provider characteristics and accounted for patient clustering within prescribers. Setting: Primary care network in Northern California. Population: Adult primary care patients (N= 5,690) prescribed LTOT (>3 opioid prescriptions) and their providers. Outcome Measures: Any UDT and total number of UDT during the study year. Results: A total of 2,256 patients (39.6%) had UDT completed at least once. More UDT was associated with patients identifying as Black (vs white) race [adjusted incidence rate ratio (aIRR) = 1.2, 95% CI 1.0-1.4] and receipt of more opioid prescriptions [aIRR = 1.1, 95% CI 1.1-1.1]. Asian (vs white) patients were tested less [aIRR = 0.7, 95% CI 0.5-1.0]. Prescriber factors significantly associated with more testing included female (vs male) sex [aIRR = 1.3, 95% CI 1.0-1.5] and Internal Medicine (vs Family Medicine) specialty, [aIRR = 1.6, 95% CI 1.3-1.9]. Provider propensity for testing was also significant [$\rho=0.21$, 95% CI 0.16-0.26]. Conclusions: UDT was relatively infrequent in patients prescribed LTOT and associated with patient race, which is not an opioid-related risk factor. Additionally, there was significant provider-driven variation in UDT. The findings are concerning, given the uncertain clinical utility of such testing and potentially high consequences for clinical decision-making, and signal the need for strategies to address potential biases in the use of UDT.