

has increased from 4.1% having an opioid prescription for >7 days in 2000, to 21.7% in 2018.

Conclusions:

Opioid prescription rates for spinal surgery patients have increased since 2000, declined temporarily in 2016, but are rising again. Physicians are prescribing fewer MMEs per day but have increased longitudinal dosing, which still leaves patients at risk for misuse and opioid use disorder.

Key messages:

- Between 2000 and 2016 there was an increase of 140 times the number of opioid prescriptions for spine patients.
- More interventions and non-pharmacological solutions are needed to reduce this public health epidemic.

The opioid crisis: 18 years of opioid prescriptions in spine patients

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Background:

The US opioid epidemic continues to afflict patients and the healthcare system. Surgery remains a risk factor for opioid misuse, and treatment of low back pain in orthopedics and neurosurgery is one of the largest introductions of opioids into the community. The objective of the study is to understand how opioid prescribing practices for spinal surgery have evolved in two academic hospitals in the last 18 years.

Methods:

Data were obtained from the Research Patient Data Registry for Brigham and Women's and Massachusetts General Hospital from January 2000 to December 2018. Patients included had a primary diagnosis of degenerative diseases, trauma, spinal infection, spinal deformities, or spinal pain symptoms/syndromes; were aged > 18 years; and had an opioid prescription. Covariates included demographics, diagnoses, comorbidities, procedures, opioid type, number of prescriptions, route of administration, doses and length of prescription.

Results:

A total of 38,250 patients with spine-related diagnoses received an opioid prescription. The median age was 63 years (18-107), 50% male and 86% white. A total of 32,304 patients (84.4%) received at least one opioid prescription during their hospitalization. The sum of opioid prescriptions filled (inpatient and outpatient) were 889,868 between 2000 and 2018 (55.2% oral, 41.7% intravenous). Oxycodone was the most prescribed. The dose of ≥ 50 morphine milligram equivalents MME/day was reduced from 65.0% in 2000 to 17.3% in 2018, and doses ≥ 90 MME/day dropped from 26.9% in 2000 to 6.4% in 2018. However, the duration of prescription