

Overprescription of Opioids at Discharge in Patients After Fracture Surgery

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Purpose: As part of a quality improvement project, we evaluated our prescriptions of opioid medication at discharge after fracture surgery. Our specific goals were to examine if there was a correlation of the amount of opioids prescribed at discharge (d/c) with actual opioid use in the hospital or with the type of surgical procedure performed.

Methods: A consecutive series of patients who had fracture surgery, were admitted for at least 24 hours, and were discharged to home were included in the analysis. Patients who went to another facility were excluded. All medications were recorded in morphine milligram equivalents (MME). We compared the total opioids given to each patient during the last 24 hours of their stay with the amount prescribed at d/c. Overprescription was defined as cases in which no opioid medication was administered within 24 hour of d/c, but opioids were prescribed at d/c.

Results: We analyzed the records of 355 patients (216 M, 139 F) average age 42 years (range, 18-90) with an average body mass index of 29 kg/m² (range, 16-54) who fit our criteria. The average length of stay was 4.1 days (range, 1.1-50). The average procedure lasted 88 minutes (range, 6-359). The 2 most common were ORIF (open reduction and internal fixation) of the ankle and of the tibial plateau. There was a wide range of both opioid use in oral morphine mg equivalents over the 24 hours prior to d/c (average 80, range 0-272) and the amount of medication prescribed at d/c (mean 441, range 0- 4050). There was a only a weak correlation between the amount of opioids used by patients in the 24 hours prior to d/c with the prescription amounts given at d/c (Pearson's correlation = 0.16, P <0.05). Opioids were prescribed for 69% of patients who used no opioids for ≥24 hours prior to d/c. The relationship between inpatient opioid requirement and prescription at d/c was examined based on type of surgery. Average opioid consumption by procedure varied from 67 to 96 MME. Prescriptions at discharge had a wider range of 331 to 705 and averaged 439 MME. Neither the presumed severity of the procedure nor the opioid use prior to discharge correlated with the prescription given at discharge (Pearson's correlation = -0.13, P = 0.66).

Conclusion: We found that the amount of opioids prescribed at discharge were neither patient-specific nor procedure-specific in a series of patients admitted to the hospital for >24 hours after fracture surgery. Patients requiring more opioids during admission were not prescribed more opioids at discharge, while 69% of those who did not require any opioids for 24 hours or more pre-discharge were prescribed opioids.