Assessment of Postoperative Pain Management in a Fracture Clinic Using the Detroit Interventional Pain Assessment Tool

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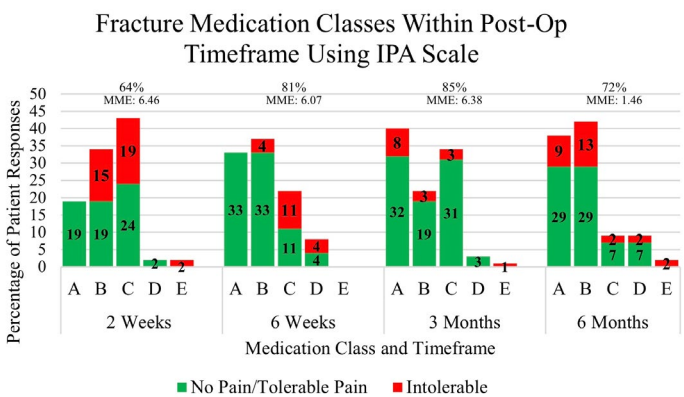
Purpose: Our objective was to assess and measure postoperative pain management of an orthopaedic trauma practice at a Level I US Trauma center and to give the providers feedback.

Methods: An IRB-approved prospective study for 201 postoperative fracture patients was conducted over 6 months. Patients were assessed at 2 weeks, 6 weeks, 3 months, and 6 months postoperatively. All participants were interviewed regarding their pain satisfaction (0 = no pain; 1 = tolerable pain; 2 = intolerable pain) using the validated Interventional Pain Assessment (IPA) scale and their daily narcotic usage. Their answers were validated with the Michigan Automated Prescription System (MAPS), which records all narcotic prescriptions as daily usage in morphine milligram equivalents (MME). This was called the Detroit IPA (DIPA). Patients were grouped according to major and minor fractures. DIPA graphs were generated for each post-operative period. Pain management efficiency was defined as the percentage of patients who had no pain or tolerable pain with their pain regimens.

Results: Once adjusted, narcotic medication classes corresponded to A no medication, B over-the-counter medications, C = occasional use of short-acting narcotics daily (1-25 MME), D = regular daily use of short-acting narcotics (26-79 MME), and E = long-acting narcotics with breakthrough short-acting narcotics (80+ MME). Narcotic usage significantly decreased from 2 weeks to 6 months in the percentage of patients from 47% to 22% ($P < 0.005$) and in average daily MME from 6.46 to 1.46 MME ($P < 0.005$). Provider efficiency scores were worse at 2 weeks corresponding to 64%. However, more patients reported no pain or tolerable pain at 6 weeks (81%) and 3 months (85%). Despite the practice of routinely trying to stop narcotic prescriptions prior to 3 months, 20% of patients were still on narcotics at 6 months, usually prescribed by outside providers.

Conclusion: The DIPA scale gives a graphical representation of postoperative narcotic prescription practice, patient-reported pain levels, and measures patients' satisfaction with their pain regimen. 20% reported intolerable pain with their regime and were still on narcotics 6 months after surgical intervention. This information can be used to improve practice, especially at 1-2 weeks postoperatively. A coordinated effort for narcotic prescriptions should be considered with pain management and primary care providers.



The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device they wish to use in clinical practice.