

PATIENT REPORTED OUTCOMES AS BASIS FOR OPTIMIZATION OF PAIN MEDICATION AFTER EMERGENCY SURGERY

Lead Author: Priyanka Moolchandani, B.S., Chemistry

Contributing Authors: Disha Kumar, Sarah McGriff; Millard A. Davis, M.D.; Marcus Hoffman, M.D.; James W. Suliburk, M.D., FACS; Elizabeth Alore M.D.; Jeremy Ward M.D.

Category: Patient Safety

Background

Use and abuse of narcotic pain medicine has come to the forefront of the national healthcare crisis. Post-surgical patients experience acute pain as a result of their operation and require appropriate pain management. The amount and degree of ambulatory medications prescribed is variable and there is little data to guide physicians.

Objectives

The purpose of this study was to evaluate post-operative pain after routine laparoscopic appendectomy or cholecystectomy via patient reported outcome scores. We hypothesized prescribing patterns would not reflect patient reported pain needs.

Methods

We prospectively enrolled 47 patients: 15 patients undergoing laparoscopic appendectomy and 32 undergoing cholecystectomy as a result of urgent admission. A cloud-based SMS platform was used to obtain patient reported outcomes on pain each day for 10 days post discharge. Patients were asked via text message to report their pain 0 – 10 each day, with 10 being the worst. Discharge physicians were blinded to patient enrollment in the study. Type and amount of discharge pain medication, demographics, need for readmission, return to emergency department, 30-day complications, and need for additional pain medication at clinic follow up were recorded.

Results

For non-complicated laparoscopic appendectomy and cholecystectomy, there was a general downward trend in average pain score per day for the first 10 days, with a large decrease between day 2 and day 3. Patient response rate declined by 30% from day 1 to day 10. Practitioners uniformly prescribed tramadol at discharge with 78.2% of patients receiving a 3.75 day supply, 19.1% receiving a 7.5 day supply, 2.1% receiving 10 day supply, and 4.3% receiving none. Patients receiving 3.75 day supply on average reported the lowest pain at 0.769, $p=0.01$. In our cohort, there were 2 patients with complications (nausea, wound infection), each returning to the ED and one requiring readmission. There were no patients who required additional pain medication at clinic.

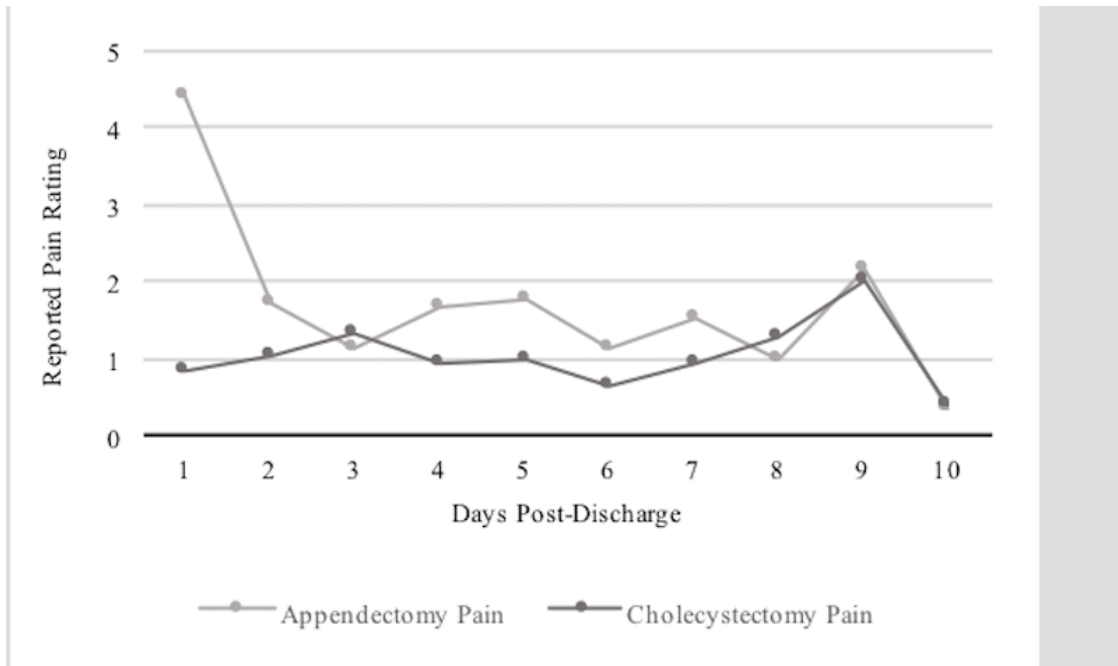


Figure I. For each surgery type, patient-reported pain ratings were collected for 10 days post-discharge.

Discussion

Patients post-appendectomy had consistently higher levels of pain postoperatively. However, both groups reported a substantial decrease in pain score on post discharge day 2. In this study, the majority of prescribing patterns observed adequately reflected patient reported pain needs. This data supports a short duration of postoperative pain medications to cover 3 days post discharge in order to sufficiently manage postoperative pain while limiting the amount of pain medication prescribed.