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“Fentanyl administration on emergence from surgery and post anesthesia care unit discharge times and pain scores”

Abstract

Problem: Pain has been historically mismanaged potentially leading to a host of negative physiological consequences. Today’s dynamic health care reform offers an opportunity to increase satisfaction with care. Utilizing the PICO question, in adults undergoing laparoscopic cholecystectomy over a 12 month period, does medication with fentanyl during emergence versus not medicating during emergence reduce the need for pain medications and discharge times?

Evidence/Background: Two national studies surveyed patient perception of pain management following surgery. The first, conducted by Apfelbaum et.al (2003) showed that 80% of patients experienced acute pain after surgery with 86% rating that pain as moderate to severe or extreme. The second national survey, by Tong et.al (2014) showed similar results with 86% experiencing pain following surgery and 76% rating that pain as moderate to severe. Despite standards released in 2001 by Joint Commission on Accreditation of Healthcare Organizations (JCAHO), and recommendations by the American Society of Anesthesiologist Task Force on Pain Management more needs to be done.

Strategy: A quantitative retrospective chart review was used to evaluate patients between the age of 19-60 who underwent a laparoscopic cholecystectomy surgery who either received fentanyl on emergence or did not receive fentanyl on emergence from surgery. A convenience sample of 503 charts were obtained with 256 charts being excluded from the study. The remaining 247 charts were included in the study with 170 not given fentanyl and 77 given fentanyl. A systematic random sample (k = N/n) was obtained from the remaining charts. An independent samples t-test analyzed the group differences of administering fentanyl on emergence on the following: (a) PACU length of stay, (b) time to first analgesic administration in PACU, and (c) how much morphine was given in PACU.

Results: An independent samples T-test showed no statistically significant outcomes related to giving fentanyl on emergence on the following: (a) PACU total length of stay (p = 0.066), (b) the time to first analgesic administration in PACU (p = 0.172) or (c) the amount of morphine given in PACU (p = 0.080) versus those who did not receive fentanyl.