



Intravenous to Oral Opioid Interchange Protocol to Decrease Morphine Equivalent Usage Among Common General Surgery Procedures

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BACKGROUND

- 70,000 opioid overdose deaths in the US in 2019¹
- In 2019, 17.4% of the U.S. population received an opioid prescription, average person received 3.4 prescriptions⁴
- Opioids are the mainstay to treat post-op pain
- Oral vs. IV
 - Decrease consumption
 - Decrease addiction potential
 - Decrease cost

OBJECTIVES

1. Determine whether a transition from IV to Oral opioid medications will reduce the total amount of morphine equivalents administered in the hospital after surgery.
2. Determine whether pain control is equivalent between IV only vs IV to oral opioid interchange protocol
3. Determine whether charges/costs are reduced when switching from IV to oral opioid medications.

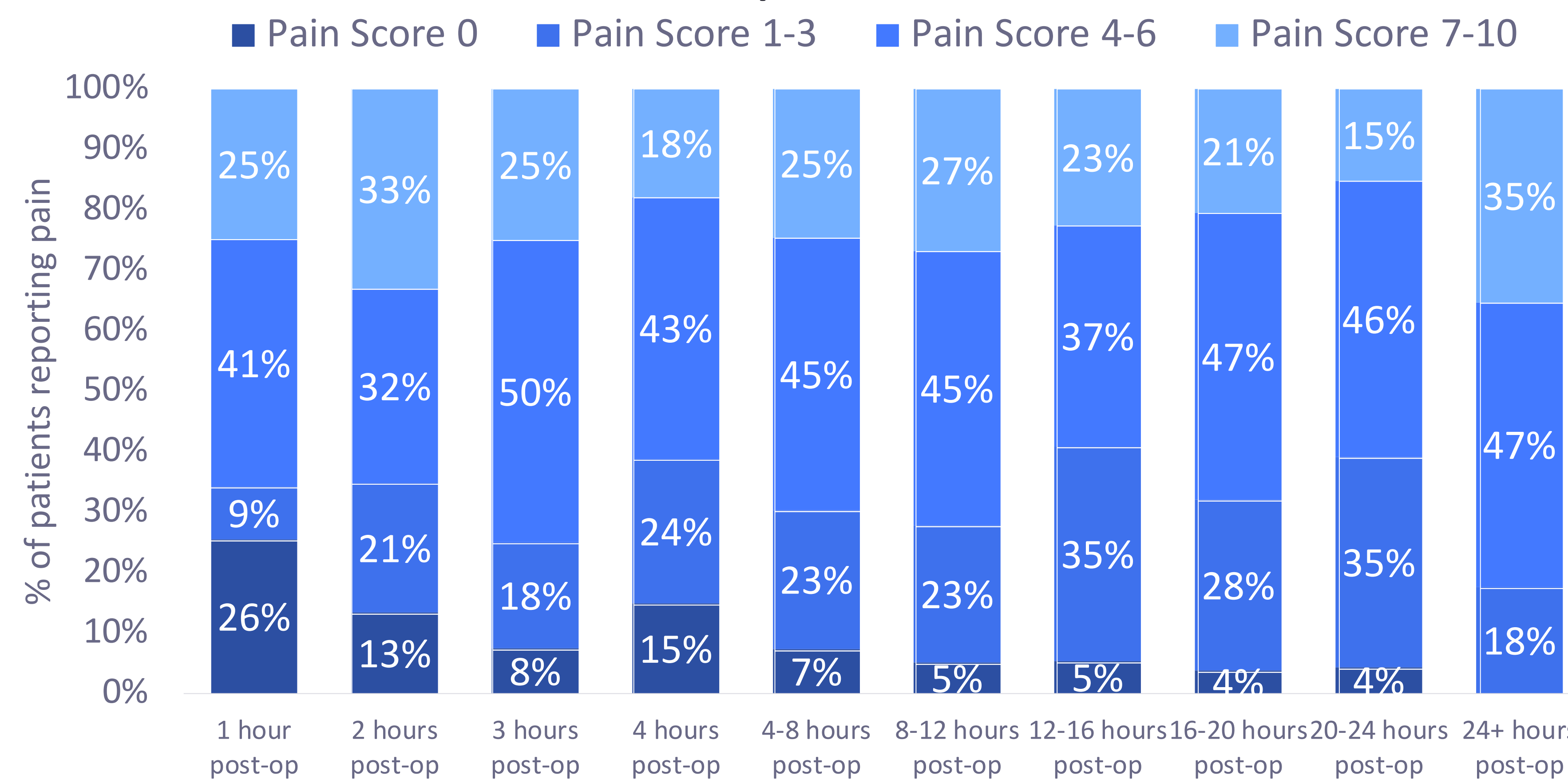
METHODS

- Quality improvement study, with only pre-intervention data from 2019 available at this time
- Laparoscopic appendectomy & cholecystectomy
- Exclusion criteria:
 - Patients ≤18
 - Women who are pregnant at the time of surgery
 - Conversion to open
 - Death within 24 hours
 - Patient's whose care goal is comfort care or is receiving palliative care
 - Physician specifically indicates "do not convert to oral route"
 - Patients who underwent multiple surgical procedures during their hospital stay
 - Patients who need a drain during their hospital stay
 - ICU admission – vasopressor use, procedural or continuous sedation post-op
 - Known, current substance abuse or alcohol abuse diagnosis and/or patients with a standing prescription for opioids within 90 days prior to surgery

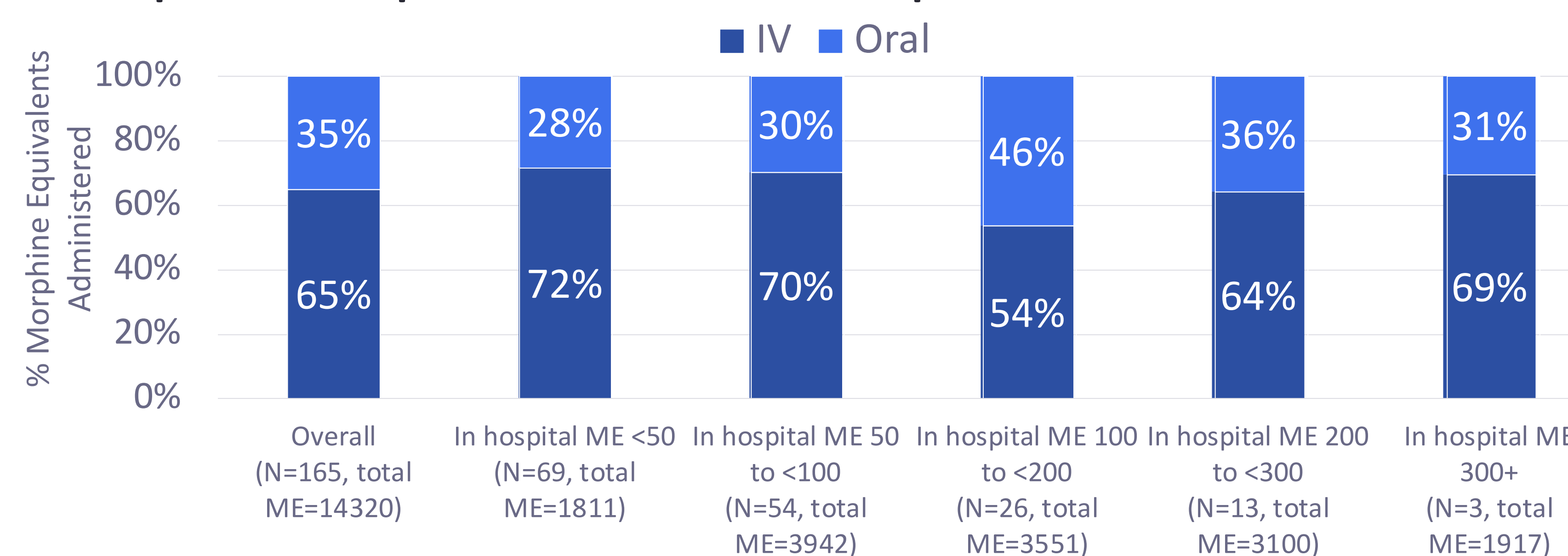
PRE-INTERVENTION RESULTS

	(N=165)
Administration Route of Opioids	
IV only	25% (42)
Oral only	5% (9)
Received both IV and Oral	69% (114)
Total morphine equivalents (ME) administered during encounter	
<50 ME	42% (69)
50 to <100 ME	33% (54)
100 to <200 ME	16% (26)
200 to <300 ME	8% (13)
≥300 ME	2% (3)
Average total ME administered during encounter (SD)	86.8 (103)
Min, Max	3.8, 915
Average oral total ME administered during encounter (SD)	30.5 (40.1)
Min, Max	0, 225
Average IV total ME administered during encounter (SD)	56.3 (73.3)
Min, Max	0, 690

Pain Scores in the Post-Operative Period



Morphine Equivalent Consumption



INTERVENTION

POST-OP ORDER SET FOR LAPAROSCOPIC APPENDECTOMY & CHOLECYSTECTOMY

- Regular diet order, ADAT
- Scheduled Tylenol
 - Scheduled Toradol can be added if appropriate
- 5-10mg Oxycodone q4h prn for moderate – severe pain
 - If patient has allergy to oxycodone, OK to substitute Norco, Tramadol, or oral dilaudid
- **NO pre-ordered IV narcotic medications**
 - **If the patient is in a great deal of pain requiring IV opioids for immediate relief, the nurse is to call the resident phone and request this order. The resident is to prescribe a ONE-TIME DOSE**
- Vital signs/Pain check q1h for 4 hours post-op followed by q4h for the remainder of the hospitalization

HYPOTHESIS

- IV medications contain more morphine equivalents than PO
- Decreasing IV opioid use should decrease ME consumption

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Thank you to Dr. Jennifer Serfin, MD, Olivia Piptone, MPH and Kaprice Aebi for their contributions and assistance