

High-dose Opioid Administration for Adults Hospitalized with Acute Pancreatitis

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Background

- Acute pancreatitis (AP) is a painful medical condition
- Opioid medications are powerful analgesics but can be dangerous if administered at high doses (>90 morphine milligram equivalents [MME])
- More than half of hospitalized patients with AP receive an opioid

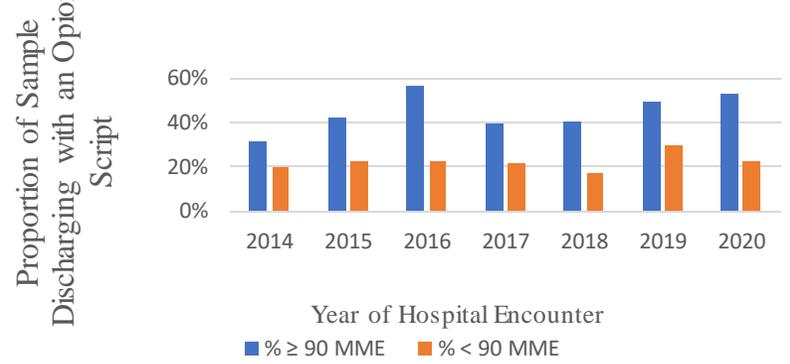
Purpose

- To describe high-dose opioid administration patterns among adults hospitalized with AP
- To calculate risk for receiving an opioid prescription at discharge and within 30 days of discharge based on inpatient opioid dosing

Methods

- Evidence-based, observational project using data extraction
- Data included adults ages 18+ hospitalized from 2014-2020 with AP at a large medical center or small community-based hospital in the Pacific Northwest.
- Descriptive statistics conducted to determine differences in demographics among adults administered high versus low-dose opioids and changes in proportion administered high-dose over time
- Risk ratios determined risk for receiving an opioid script at discharge and within 30 days of discharge based on high versus low-dose inpatient average 24 hour MME

Table 1. Proportion of Sample Receiving Opioid Script at Discharge over Time Stratified by MME Administered during Hospitalization



Patient Sample Characteristics at Discharge (N=3300)

Characteristic	Value	Went home with opioid: Yes (n=1717)		Went home with opioid: No (n=1583)		p (<0.001)
		Mean	SD	Mean	SD	
Age	Years	53	17.41	52.9	17.76	0.8077
Length of Hospital Stay	Days 1-10	4.03	2.09	3.70	2.05	< 0.001
Average 24hr MME	Oral MME	103.7	101.06	56.8	73.35	< 0.001
Average Pain score	Pain Scale 0-10	5.4	1.59	4.7	2.02	< 0.001
		n	%	n	%	p (<0.05)
Gender	Male	881	51	837	53	0.37
	Female	836	49	746	47	
Treatment Facility	Treated at large hospital (>500 beds)	1076	63	975	62	0.52
	Treated at small hospital (<500 beds)	641	37	608	38	

Results

- Total 3,300 encounters included in analysis (see demographics below)
- Decrease in opioid scripts among those receiving an average of >90 MME per hospital day (Table 1)
- Patients who went home with an opioid received significantly more MME per hospital day, reported higher pain, and were hospitalized for longer (p<0.001)
- Risk ratios revealed:
 - Increased risk for opioid script at discharge if administered high-dose opioids (RR=1.6; 95%CI 1.51-1.71; p<0.001)
 - Increased risk for opioid script within 30 days of discharge (RR=1.8, 95% CI 1.58 - 2.01; p<0.001).
- In this sample, 69% had no indication of an opioid script within 30 days of hospital admission, yet 48% received discharge opioid script

Discussion

- Patients who received a higher amount of opioid during their hospital stay are more likely to go home with an opioid prescription
- Those given high-dose opioids more likely to receive an additional opioid prescription within 30 days of discharge

Implications

- Nurses should understand how to manage pain safely
- Nurses can advocate to prescribers for adjunctive pain management therapies to reduce opioid use and dependence

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