



# Development of a Surgical Opioid Educational Program for Residents and Surgical Providers

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## Introduction/Problem

Surgeons are among the most common prescribers of opioids: ~80 million opioid prescriptions yearly. In academic medical centers, residents are often the primary prescribers of pain medications. Yet recent research has shown that only 6-20% of surgical residents have completed opioid education. We undertook the present study to introduce and evaluate a resident-oriented opioid educational curriculum at two academic medical centers in Boston.

## Aim/Goal

- Identify knowledge deficits among surgical residents.
- Implement a standardized educational curriculum focusing on pain management and opioids.
- Analyze post educational surveys to identify areas of weakness In the educational curriculum.

## The Team

- Kortney Robinson MD- Research Fellow
- Alind Amedi BA- Research Assistant
- Karan Chhabra MD- Surgery Resident
- Adam Fields MD- Surgery Resident
- Douglas Smink MD- Residency Director
- Musa Aner MD- Anesthesia/ Co-Investigator
- Tara Kent MD- Residency Director
- Gabriel Brat MD MPH- Principle Investigator

## The Interventions

- An opioid educational curriculum geared specifically for surgical residents was created and implemented for two surgical residency programs.
- Pre and post-educational knowledge was assessed with a previously validated tool.

## Results/Progress to Date

- 69 PGY 1-5 participated.
- Prior to education
  - 20% correctly identified an opioid-tolerant patient;
  - 69% converted a traditional morphine dose to an equipotent dose of hydromorphone;
  - 55% could not identify the role of benzodiazepines in potentiating opioid effects.
- There was a distinct lack of knowledge even at the PGY 4 & 5 level.
- Average opioid prescribing comfort level prior to education was 4.76 (on a scale of 1-10)
- 93.2% reported that the training will impact their clinical practice.

	Metric	Identify an Opioid Tolerant Patient	Choose equipotent doses of hydromorphone
Pre- Education	All Residents	20%	70%
	PGY 1	20%	58%
	PGY 4&5	33%	75%
Post- Education	All Residents	60%	80%
	PGY 1	58%	79%
	PGY 4&5	50%	82%

## Lessons Learned

- We identified significant knowledge deficiencies in pain and opioid management
- Residents report a low comfort level with a common prescription class
- Educational intervention was generally well received with plans by nearly all participants to change their practices

## Next Steps

- Expand to the other surgical residency programs in Boston
- Expand training to include surgical nurse practitioners and physician assistants
- Broaden the training to include surgical nurses at BIDMC