

# Dexmedetomidine and Rescue Opiate Administration in the PACU



Kasey Giles, SRNA, Will Hines, SRNA, R. Kyle Hodgen, DNP, APRN, CRNA, ACNP Florida State University Panama City

#### Abstract

PICOT: Does The Administration of Intraoperative Intravenous dexmedetomidine to Adult Surgical Patients Undergoing Abdominal/GYN Surgery Under General Anesthesia With an Endotracheal Tube Provide Longer Time to Rescue Opiate Pain Meds in the PACU Setting Postoperatively Compared to Patients who do not Receive Dexmedetomidine?

## Introduction

Multimodal pain management is becoming more popular throughout anesthesia practice.

Previously, pain management relied heavily on opioids and narcotics.

Dexmedetomidine is a selective a2-adrenergic receptor agonist that has been shown to reduce intra and postoperative opioid consumption, and should be considered as an adjunct for a multimodal approach to intraoperative analgesia.

It also carries the advantage of decreased shivering and post-operative nausea and vomiting (PONV).

The aim of the practice improvement project is to provide anesthesia practitioners with educational data on the efficacy of dexmedetomidine use in abdominal/GYN surgeries under general anesthesia, in attempt to encourage the providers to adopt this drug into their practice

#### Hypotheses

- If education is provided to anesthesia providers about the use of dexmedetomidine in abdominal/GYN surgeries, then providers will adopt the use in their practice.
- If providers adopt the practice of administering dexmedetomidine to patients during surgery, then the amount of post-operative opioids administered in the PACU will decrease in the hospital system.

#### Methods

A concise and visually engaging flyer was created, outlining the key clinical effects, advantages, and evidence supporting the use of dexmedetomidine.

The flyer, along with an anonymous survey, was emailed to anesthesia providers to gauge whether the educational flyer influenced their perception of the drug and if it might encourage them to adopt its use.

Survey responses were collected through an online survey platform to ensure ease of access and confidentiality.

All responses remained completely anonymous to promote honest and unbiased feedback.

#### Results

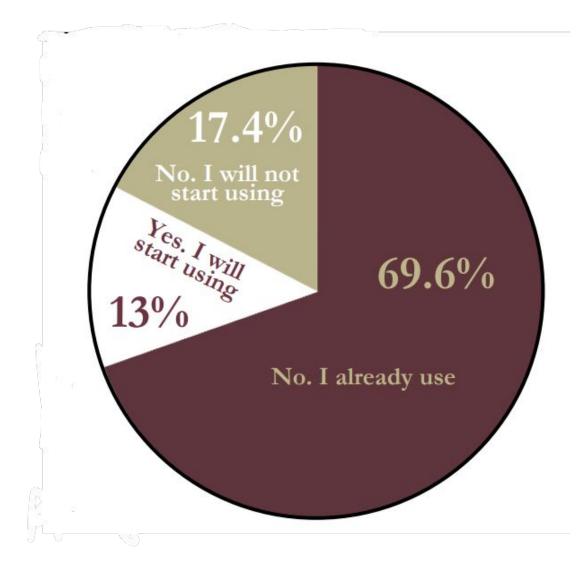
23 responses were recorded from the survey data

Last question of the survey:

Overall, do you feel that reviewing the educational brochure will change the way you practice anesthesia?

Overall, the data suggests that while most practitioners are familiar with and already use dexmedetomidine.

The brochure influenced a small group to adopt its use, while some remain unlikely to do so.



### Discussion

It appears that the use of dexmedetomidine is already well established in this anesthesia group, and its use is becoming increasingly prevalent as an adjunct.

Of the respondants, 56.5% answered that they had been in practice for < 5 years.

This would correlate with the results of the study, as dexmedetomidine is a farly newer drug relative to the other 13% of providers that have been in practice for > 20 years.

It is believed that younger providers, who were introduced to the drug during their recent training, have incorporated it into their practice more readily as they graduate.

#### Conclusions

• Provider education plays a crucial role in adopting this change, particularly among newer providers. By prioritizing proactive education efforts, the hospital system has the opportunity to build a foundation for widespread adoption of dexmedetomidine, paving the way for its integration into standard practice across all providers over time.

#### References

Meyer LA, Lasala J, Iniesta MD, Nick AM, Munsell MF, Shi Q, Wang XS, Cain KE, Lu KH, Ramirez PT. Effect of an Enhanced Recovery After Surgery Program on Opioid Use and Patient-Reported Outcomes. Obstet Gynecol. 2018 Aug;132(2):281-290. doi: 10.1097/AOG.0000000000002735. PMID: 29995737; PMCID: PMC6245646