“If You Don’t Need Opiates, You Don’t Need EMS!”

Practice Patterns and Paramedics’ Perceptions of Prehospital Pain Management

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The EMS Non-Opiate Project Team

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- Faculty Mentor: Dr. John Broach (UMASS)
- Faculty Mentor Dr. Ricky Kue (BMC)
Background - Pain Management

- Massachusetts Opiate Crisis is ongoing
- Unclear degree to which opiates in acute care settings contributes to long-term misuse
- Up to 53% of EMS calls are for pain complaints
- Prior studies have shown prehospital pain management is often inadequate
- For some pain complaints, trials have shown that opiates and non-opiates have comparable efficacy

Background - EMS Policy

- Prior to 2018: Massachusetts Paramedics only had opiate options for pain management
- January 1, 2018: EMS ALS services implemented new protocols enabling the use of ketorolac, acetaminophen and ibuprofen
- There is very little literature available on prehospital pain management patterns
- Choice of medication largely at prehospital providers' discretion
Objectives

• To describe the practice patterns of Massachusetts paramedics 1 year after the introduction of prehospital non-opiate pain management options

• To describe paramedics’ perceptions of prehospital management and barriers to the use of non-opiate medications

Questions

• What should our goals be pertaining to prehospital pain management?

• Are our paramedics utilizing the non-opiate pain management options?

• If not, why not?
Methods

• **Data Arm:** We are gathering data from the Massachusetts Ambulance Trip Recording System (MATRIS) for pain medication administration from January 1, 2017 - December 31, 2019
  o *Pre-Post Model*

• **Survey Arm:** Performed survey of Massachusetts paramedics regarding attitudes towards prehospital pain management, opiates, and non- opiates

Results- Survey Data

• N=49, Enrollment Rate = 100%
• Mean Age 39.8, 87.8% Male
• Mean 12.35 years of experience (Std. Dev 8.36)
• 93% had given opiates to a patient
• 30.6% had given non-opiates to a patient
• 83.7% amenable to using non-opiates
• Average pain scale for opiates - 6.88
• Average pain scale non-opiates 4.20
Results - Survey Data

I have a duty to provide pain relief in the prehospital setting

- I hesitate to give pain medication to patients who I suspect have a history of opiate abuse because I am worried that they are "drug seeking"
Results - Survey Data

• My transport time impacts my decision to give pain medicine:

Results - Survey Data

• Non-opiate pain medications take too long to work:
Results - Survey Data

- Non-opiate pain medications aren't effective:

Results - Survey Data

- I think that ketamine should be used for pain management in the prehospital setting
Results - Survey Data

- I think that my service needs more specific protocols to determine which pain medication a patient receives

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Work Ahead

- More Surveys for to complete to fully power the survey arm
- Analyze and Correlate MATRIS data with survey responses
Preliminary Conclusions

• We anticipate detecting a small change in practice patterns even with the availability of opiates.

• May consider more structured protocols for analgesic choice in the prehospital setting—although paramedics don’t want this!

• Few apparent concerns about non-opiate efficacy, adverse effects or time to effect.

• Paramedics would like ketamine option for pain management.

Questions??