



Beyond the Drips: Strategies to Prevent Post-Intubation Over-Sedation in the Emergency Department

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Learning Objectives

- Describe the role of prn intravenous push analgo-sedation in intubated patients.

Disclosures and Disclaimers

- I do not have any specific conflicts of interest related to the material presented today.

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Let's start with a patient case!

LM is a 24 yo female who was intubated for airway protection after arriving via ambulance unresponsive after receiving unknown pre-op medications for an outpatient elective surgery. LM has no past medical history and doesn't take any home medications. No RSI meds were used for intubation, and the ED attending did not order any post-intubation sedation in order to see if patient wakes up.

A few hours later you see the nurse hustling out of the room to get fentanyl and propofol drips because LM is waking up.

“Over-sedation?????”

“Uh, isn’t this supposed to
be an EM presentation?”

Why EM people should care about post-intubation over-sedation

Selected Clinical Trials	Intervention	Control	Patient Outcomes
Shehabi et al (2013)	Dexmedetomidine for light sedation	Propofol or midazolam for standard sedation	↓ delirium ↓ physical restraints No difference in self-extubations
Treggiari et al (2009)	Light sedation	Deep sedation	↓ PTSD ↓ disturbing memories of the ICU
Tanaka et al (2014)	Light sedation	Deep sedation	↓ ventilator days ◀◀◀ ↓ tracheostomies ↓ hospital mortality
Pandharipande et al (2007)	Dexmedetomidine	Lorazepam	↓ days with delirium or coma ↓ mortality

Shehabi et al. *Crit Care Med.* 2013;41(8):1983-1991.

Treggiari et al. *Crit Care Med.* 2009; 37(9):2527-34.

Tanaka et al. *Crit Care.* 2014; 18(4): R156.

Pandharipande et al. *JAMA*; 298(22): 2644-53.

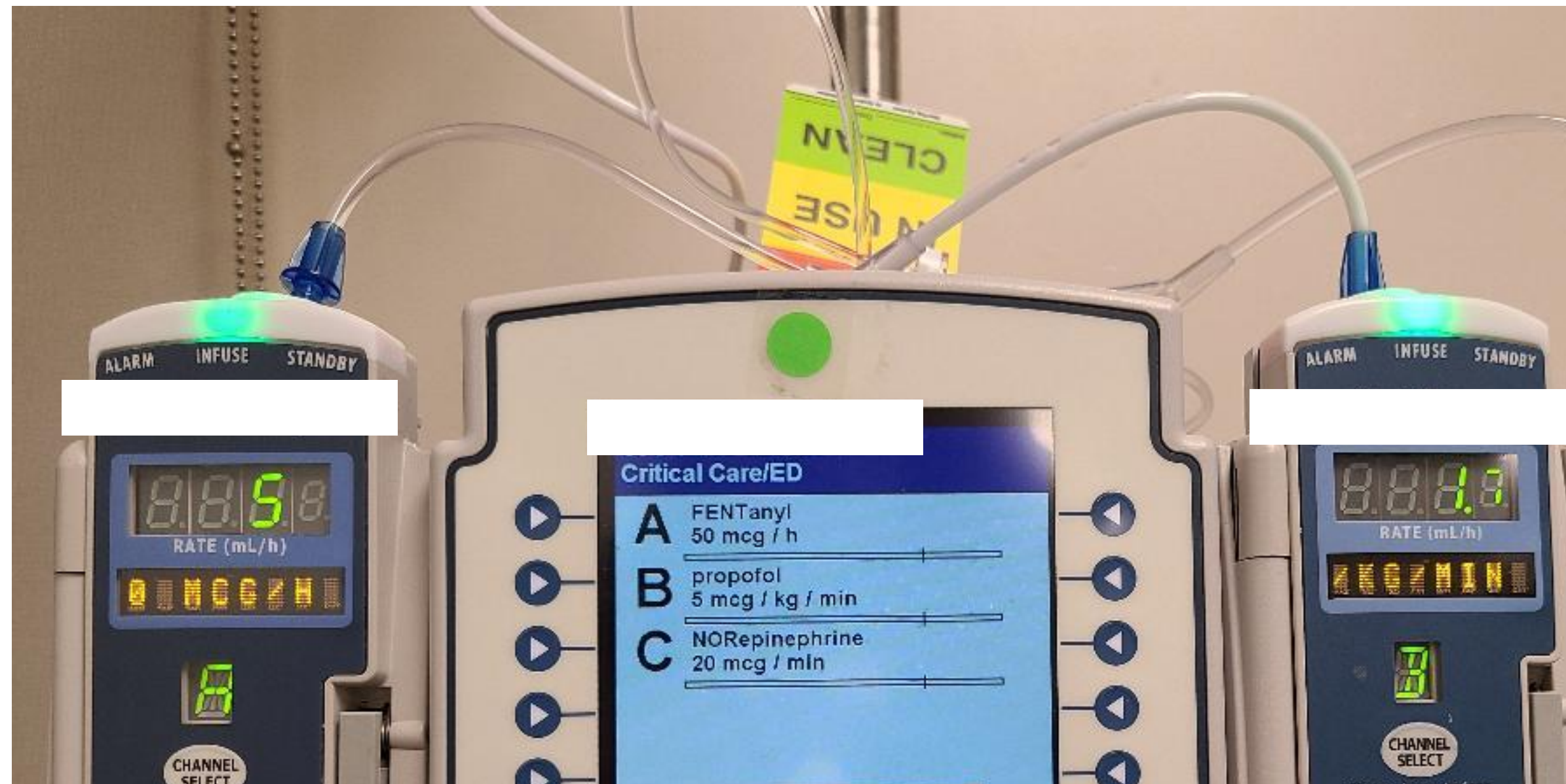
Beyond the Drips

Non-Pharmacologic Interventions

- Pain (ex: check for painful stimuli)
- Temperature (ex: blankets)
- Light (ex: turn off lights)
- Sounds (ex: turn off unnecessary alarms)

Drips Take Time To Work

PRN iv pushes
for the win!



Easier said than done

Undersedation is also bad

- Inadvertent device removal
- Increased pain and anxiety

The ED can be a challenging place to avoid over-sedation

- Lots of noxious stimuli
- Unpredictable volume and unpredictable acuity
- Potential lack of training in ICU management of intubated patients (ie, prn intravenous pushes of analgo-sedation)
- Potential lack of familiarity with SCCM PADIS and PANDEM guidelines

What can you do

- Evaluate the patient's CPOT/BPS and RASS scores yourself
- Consider patient safety (ie, physical restraints, department status)
- Discuss non-pharmacologic and pharmacologic recommendations/plan with ED staff and educate

Back to our patient case

You approach the bedside, introduce yourself, and ask LM if she's in any pain. She looks at you and nods. You tell her that you can request for some iv push pain medication and that we would call the intensivist to see if we could remove her breathing tube. She relaxes and nods in agreement.

The nurse pages the intensivist, who orders fentanyl 50mcg iv q30min prn RASS 0 to -1. The intensivist comes down soon after, evaluates LM, and calls RT. LM is then extubated without incident. No supplemental oxygen was needed.

Take-Home Points

- PRN intravenous push analgo-sedation should be utilized in all intubated patients.

Assessment Question:

JM is a 64 yo male intubated for airway protection s/p traumatic ICH. Both the fentanyl and propofol drips have been infusing at starting doses, but they're not working because the patient is now sitting upright gagging on the ET tube. He is not responding to verbal reassurances and is unable to follow commands. What do you recommend to quickly sedate the patient?

- A. Start midazolam continuous drip
- B. Start prn iv pushes of fentanyl and midazolam
- C. Max out the fentanyl and propofol drips
- D. Start rocuronium one-time iv push

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Assessment Question:

Explanation:

In this scenario, JM is a 64-year-old male who has been intubated for airway protection following a traumatic intracranial hemorrhage (ICH). Despite being on fentanyl and propofol drips, the patient is not adequately sedated, as he is sitting upright and gagging on the endotracheal (ET) tube. The goal is to quickly sedate the patient to ensure his comfort and safety.

A. Start midazolam continuous drip: Although midazolam is a sedative, starting a continuous drip may not provide the rapid sedation required in this situation.

B. Start prn (as needed) IV pushes of fentanyl and midazolam: This is the correct answer. Administering IV pushes of fentanyl and midazolam allows for quick titration and rapid sedation. Fentanyl provides additional analgesia, while midazolam offers sedative and anxiolytic effects. Together, they can quickly sedate the patient and help prevent him from gagging on the ET tube.



C. Max out the fentanyl and propofol drips: While increasing the doses of fentanyl and propofol might eventually sedate the patient, this approach may not provide the immediate sedation needed in this situation.

D. Start rocuronium one-time IV push: Rocuronium is a neuromuscular blocking agent that causes paralysis but does not provide sedation or analgesia. Using rocuronium without adequate sedation and analgesia can lead to a potentially distressing and painful experience for the patient.



A conference that is for us and by us

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