

**Pediatric Pain Management
It's Not Always Easy.**

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Objectives

1. Identify key components commonly found in opioid induced respiratory depression and be able to recognize sample situations that likely are NOT opioid induced respiratory depression.
2. Identify concepts in complex pain assessment situations.
3. Be able to evaluate PCA effectiveness based on examples of PCA use.
4. Discuss importance of managing pain associated with pediatric procedures.

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Instructions

1. Take 6-8 minutes to discuss your assigned case study.
2. Answer as many questions as you can using the expertise of your group.
3. Assign one person to be your spokesperson.
4. We will reconvene in 8 minutes to discuss each case study with the whole group.
5. Don't worry, there are no wrong answers, only good answers and better answers!

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Case 1
Unarousable Ursula

- Ursula is a 6-month old who had a G tube & nissen done yesterday.
- She has Parent/Nurse Controlled Analgesia (PNCA).
- You are her nurse.

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Case 1
Assessment 1

- Asleep, appears comfortable, POX 97% on room air, RR 28, pain score 0.
- When might you decide to activate the PNCA (at what pain score)?
- Do you let parents activate the PNCA?
- What do you think you should monitor & document?

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Case 1
Assessment 2

- 4 hours later, still sleeping, POX 91%, RR 16. Pain 0.
- Are you concerned?
- What are you going to do?

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Case 1 Assessment 3

- 2 hours later, still sleeping, POX 85%, RR 8, completely unarousable. PNCA use 3-4 times per hour x 4 hours.

- What's going on?
- How do you know?
- Could anything have prevented this?

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Opioid Induced Respiratory Depression Looks Like This:

Parents entrust their child to you!

1. Patient awake, alert, opioids infusing.
2. Decreased level of consciousness (she's still sleeping!).
3. Decreased POX (97% - 91% - 85%).
4. Decreased Respiratory rate (21 - 16 - 8).
5. Apnea/Respiratory arrest .
6. Naloxone appears to make everything better.

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Not this: Mucousy Mikey

- Developmentally delayed 13 year old, s/p spine fusion.
 - PNCA in place, 0 - 2 injections per hour.
 - Awake, alert, comfortable.
 - Sudden POX drop to 70%.
 - Awake, alert, oxygen applied, POX low 90's.
 - Naloxone appears to make everything all better.
 - MD explains to mom that the patient was "overdosed".
-
- Was he? Why, why not?

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Last Word on Opioid Induced Respiratory Depression

- It is predictable...99.9% of the time it will look like Urusla.
- Arousability is the key!!
- It is not sudden; trends will emerge.
- Appropriate assessment & monitoring can prevent it (assuming doses are correct/pump programmed correctly)

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Case 2 Nick's Nasty Nuss

- 14 year old has an epidural for a Nuss procedure
- What do you need to assess/monitor with an epidural?
- Nick says his pain is a 2/10. Grimacing, holding back the tears, won't let you look at his back.
- What are the possible reasons & what do you do about them?
- Is not looking at his back an option?

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Case 2 Nick's Nasty Nuss

- Once you convince him to let you look at his back, you see a bump at the epidural site and he complains of pain when you touch it.
- What's going on?
- What do you do?

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Case 3 Randy's Rhabdo

- 18 year old oncology patient. Pain score consistently 8/10, no behavioral pain cues. Patient goes to gift shop, school room, play room, plays keyboard in his room.
- What do you document as his pain assessment?
- How do you respond when people start saying, "he can't be a 8/10...look at everything he's able to do, he's not crying, moaning, etc."?

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Case 3 Randy's Rhabdo

- Pain team increases PCA, adds another medication. Next day, no change in pain scores, behavior, or activity.
- What do you think?
- Which is more important, what a patient self reports, or what they look like?
- Guess what happened the next day....

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Bottom line for assessment

- Use an appropriate pain scale
- Assess frequently (if you don't ask, they may not tell)
- Believe your patient!
- Look beyond the obvious



Case 4 Zoe's Zany PCA

- Consider the following pain, sedation and PCA injection and attempt assessments. Think about what could cause such scenarios and what your role would be.
- Pain 1/10; Sedation-Awake/alert; 1 PCA attempt and 1 injection.
 - Any concerns?

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Case 4 Zoe's Zany PCA

- Pain 10/10; Sedation-currently awake/alert; 1 PCA attempt and 1 injection.

- Any concerns?
- What are all the reasons you can think of why a 10/10 patient might not push their PCA?

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Case 4 Zoe's Zany PCA

Pain 2/10
PCA use 9 attempts with 6 injections
Thoughts?

Pain 7/10
PCA use 9 attempts with 6 injections
Thoughts?

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Case 4 Zoe's Zany PCA

- Pain 1/10
 - 1 injection
 - 242 attempts
- Thoughts?

Pain 4/10
6 injections
248 attempts
Thoughts?

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PCA assessment: As easy as 1,2,3, or A,B,C

- Numbers don't lie (often).
- Put the pieces together..
- If things don't make sense, ask questions, look harder.



Case 5 Irritable Ivan's IV Start

- Ivan is a 6 year old with an IV currently running. When you assess his site, you find it to be firm, swollen and red.
- What are your next steps?

Case 5
Irritable Ivan's IV Start

- When you call the MD, she tells you to restart the IV.
- What are your next steps?

Case 5
Irritable Ivan's IV Start

- You learn that Ivan will need IV ABX for 6 more days and has been a hard poke.
- What are your next steps?

Case 5
Irritable Ivan's IV Start

- The MD says she was wrong and he will only need 3 more day of IV abx and wants you to start a peripheral IV.
- What are your next steps?
- What type of comfort measures do you offer Ivan?


Case 5 Comfort Measures

- Things to think about:
 - Get it right the first time!
 - Plan
 - Positioning
 - Parents present?
 - Age appropriate nonpharmacologic techniques
 - Age appropriate pharmacologic techniques
 - Evaluation and revision for future procedures

LMX vs EMLA

| | |
|---|--|
| <p>LMX</p> <ul style="list-style-type: none">• Easy to apply cream• ≥ 30 minutes onset• No prescription needed• Less vasoconstriction <ul style="list-style-type: none">• Good local pain control often can reduce or eliminate the need for systemic analgesia with opioids• Insufficient for more painful/invasive procedures | <p>EMLA</p> <ul style="list-style-type: none">• Easy to apply cream• ≥ 60 minutes onset• Prescription required• Vaso-constriction common |
|---|--|

Buffered Lidocaine



Buffered Lidocaine J tip National Medical Products, Inc.

- Needleless
- Virtually pain free
- Cost effective (?)
- Disposable



Jimenez N et al. Anesth Analg
2006;102:411-414

Pain Ease®



Per Web Page:
TOPICAL ANESTHETIC SKIN REFRIGERANT
Intended for topical application to skin, intact mucous membranes (oral cavity, nasal passage ways, and lips) and minor open wounds.
NEW GEBAUER'S PAIN EASE WORKS IN SECONDS

Temporary numbing lasts up to one minute

Case 6

Abigail's abscess (time permitting)

- Abby is 11. She has a dental abscess that resulted in an inpatient hospital admission. You are her nurse. You clarify with the attending that she wants oxycodone & valium PO given now. Dental resident shows up on your floor ready to do the procedure.
- What do you do?

Case 6
Abigail's abscess (time permitting)

- Resident says he's done this a hundred times and she'll do fine.

- What do you do?

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A picture for Procedures:

- Get it right the first time, get it right every time.
- Pain and anxiety must be addressed prior to starting a procedure.
- Many (most) interventions are within nurses' control.

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