EM CASES SUMMARY

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Episode 74 – Rationale Use of Opioids

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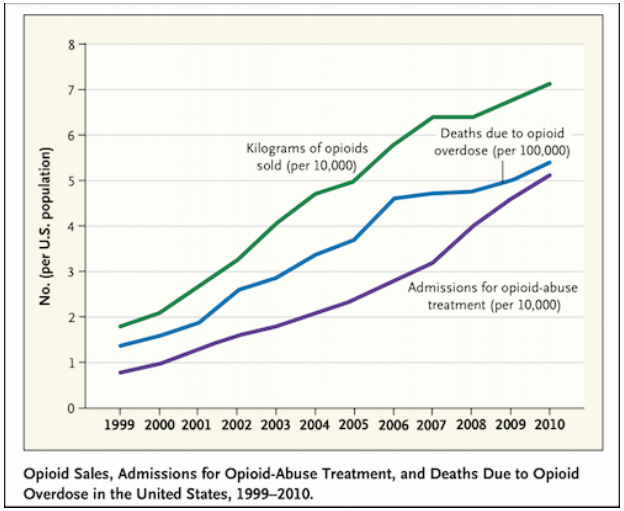
Opioid Use and Misuse

Opioid misuse has become a major public health crisis in North America. Opioids are one the most commonly prescribed classes of medications in the Unites States. It has been reported that 17% of patients in the United States are prescribed opioids on discharge from the emergency department. 4 out of 5 new heroin users report their initial drug was a prescription opioid.

In 2010, 1 of every 8 deaths among persons aged 25-34 years was opioid related. And in Ontario, 10 people die accidently from prescription opioids every week.



Opioid Sales, Admissions for Opioid-Abuse Treatment, and Deaths Due to Opioid Overdose in the United States, 1999–2010.

Fig 1: Opioid sales, admissions, and deaths in the U.S.

Who is at risk for Opiod Misuse?

All ED patients are at risk for opiod misuse, regardless of their risk factors. Even *opiod-naive* patients with no risk factors for opioid misuse are at risk for developing opioid misuse problems.

Nonetheless, their are particular risk factors, red and yellow flags that should raise your suspicion for *pre-existing* opioid misuse and help guide management (*see Figure 2 and 3*) Patients at particularly high risk for opioid misuse include:

- Young age (< 40 years old)
- Psychiatric history
- Substance abuse
- Benzodiazepine use

Fig 2: Red & Yellow Flags for Opioid Misuse (courtesy of Dr. R. Strayer)

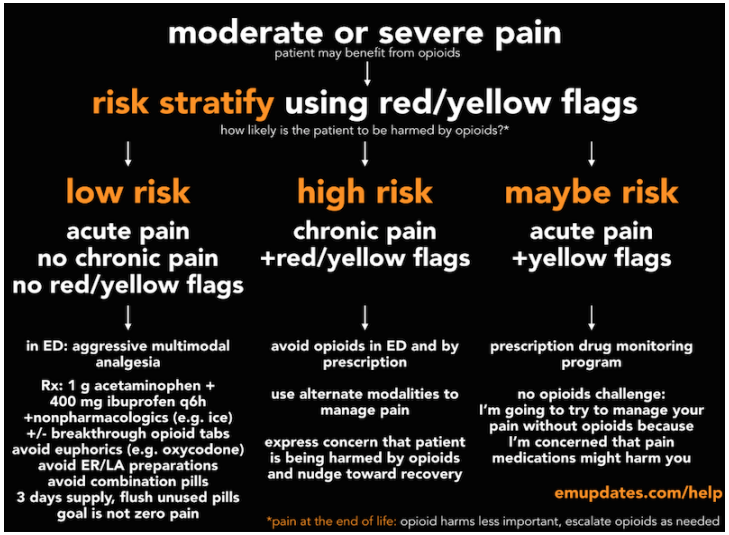


Fig 3: Risk Stratification for Opioid Misuse (courtesy of Dr. R. Strayer)

Trajectories of Opioid Use

There are various trajectories that patients who are prescribed opioids may follow (*see Figure 4*). We must consider the risks of prescribing opioids to opioid naive patients, and their risk of opioid misuse. As previously described, even among patients thought to be 'low risk' for opioid misuse, some of these patients will develop risky drug behaviours with opioids.

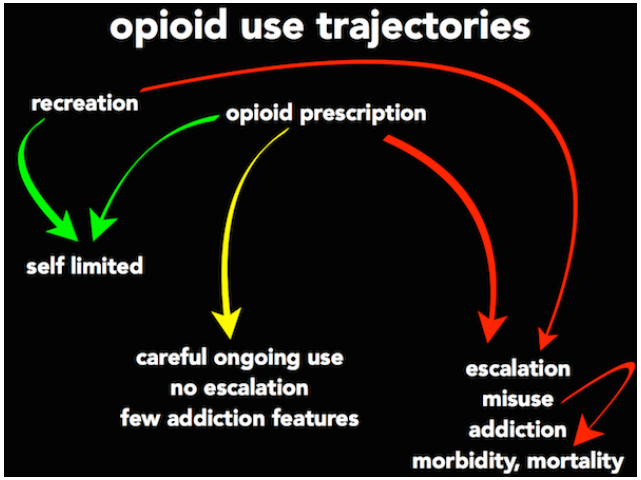


Fig 4: Opioid Use Trajectories
(image courtesy of Dr. R. Strayer)

Opioid-Induced Hyperalgesia

Opioid-induced hyperalgesia is a phenomenon that develops in patients who are started on opioids for a condition such as back pain, arthritis, or fibromyalgia, and as the dose is increased, rather than their perceived pain decreasing as might be expected, patients develop marked *hyperalgesia*. The pathophysiology of this phenomenon is not well understood.

Harm Reduction Strategies in the ED

Categories of harm reduction:

1. Prevent opioid misuse and dependency in opioid naïve patients
2. Reduce the number of opioid pills in the community that are available for misuse and abuse
3. Reduce harm and move towards recovery in patients who have evidence of opioid misuse

Key harm reduction techniques:

- Avoid prescribing extended release, long acting preparations of opioids. These types of opioids have been shown to have double the potential for overdose (1).
- Avoid prescribing opioids to patients who are already taking sedatives, particularly benzodiazepines (2).
- Avoid prescribing opioids to patients with alcohol dependency, or patients who are regular benzodiazepine or sedative users, especially if they have a known substance abuse history or history of mental illness.
- Avoid oxycodone (i.e. percocet or percodan). Oxycodone tends to have a side effect of euphoria, therefore, it is more habit forming than oral morphine (3).

- If prescribing opioids, prescribe a small number of pills to last the patient 2-3 days. Opioid dependence can develop within 5 days, and will usually develop within 14 days (4).

- If you know the patient is an IV drug user, do not give them oral opioids. There is a risk that these patients will crush the tablets and use them intravenously, which can result in infectious and thrombotic complications (5).

- Tell patients to discard unused pills immediately, especially if they have adolescents living with them. Many people start their drug addiction in adolescence by experimenting with parent's opioid prescription pills. Non-medical use of opioids in Ontario is ranked as the 3rd drug of choice for students, and 67% of adolescents report getting these pills from home.

Communication Strategies to Use in Patients with Opioid Misuse

Gather Data: Before seeing the patient, gather as much information as possible regarding the patient, including: previous ED visits, pharmacy refills, 'double-doctoring', etc.

Set Expectations: Talk to patients about statistics, risks/benefits of opioids.

- "My job is to manage your pain, at the same time, I manage the potential for some pain medications to harm you"

Transfer the Blame: Do not blame the patient for opioid misuse.

- "Prescription pain medications, even when used as directed, can cause patients to become dependent, and I'm concerned that the pills we prescribed for you in the past, even though you were using them appropriately, you many now be dependent on them."
- "We can help you break free of that dependence"

Ensure patients know that their medical concerns are taken seriously

- "I want to make sure that there is nothing dangerous causing your pain, because that is our main responsibility in the emergency room. I want to relieve your symptoms and make you as comfortable as I can."
- "I will not use opioids to control your pain, because I think opioids will make your condition worse, even if it makes you feel better in the short term."
- "I think using opioids will be harmful to you, so if you want treatment for your pain I am going to try to treat your pain with other types of medicines"

Alternatives to Opioids in Patients with Chronic Pain

1. Nerve blocks
2. NSAIDs
3. Ketamine: 0.3mg/kg, 20-30mg for most adults, as an IV drip over 10-20 minutes.
4. Droperidol: available in the U.S. In Canada, other antipsychotics, such as haloperidol, may be helpful.
5. Intravenous lidocaine: 1-3 mg/kg bolus followed by 1-3 mg/kg/h.
6. Gabapentin: for neuropathic pain.

*For a discussion on the literature on the opioid-sparing effects of Ketamine go to **Journal Jam 4***

Pain Management Strategies for Specific Conditions

Consider alternatives to opioids for common presenting complaints. Some treatment strategies our experts suggest for common complaints are listed below.

Mechanical Back Pain: Local anesthetics (i.e. bupivacaine 0.5%, 10cc IM injected directly into the point of maximal pain).

Migraines: Opioids are known **not** to be useful for improving the pain associated with migraine headaches, and are not routinely recommended. Medications options include: metoclopramide, prochlorperazine, NSAIDs, ergot, tryptans and high flow oxygen (8). Low dose propofol for refractory headaches has been reported to be effective in reducing the pain associated migraine headaches in case series (9).

Dental Pain: dental blocks.

Fracture Pain: Combination of standing acetaminophen and ibuprofen.

Sickle Cell Patients: Pain management in Sickle Cell patients is often challenging. Consider low dose IV ketamine for those patients in whom you suspect opiod misuse.

*For an in-depth discussion on managment of Sicle Cell Anemia in the ED go to **Episode 68: Management of Sickle Cell Disease in Emergency Medicine***

Chronic Abdominal Pain: Haldol, ketamine.

NOTE: These strategies do not apply to palliative and end of life care.

See **Episode 70** for a discussion of opioid use in palliative care and end of life care.

Precautions for Prescribing Opioids in Chronic Non-Cancer Pain in the Acute Setting

Adapted from ***Canadian guideline for safe and effective use of opioids for chronic noncancer pain, 2011 (10)***

In general prescribing opioids for chronic pain in the ED should be avoided when possible. If you do prescribe opioids to these patients, consider the following actions:

- Contact the patient's pharmacy: if you are unable to obtain pharmacy records, or if the patient's history is inconsistent with information from the pharmacy, do not prescribe opioids.
- Inform the patient that this is a one-time only prescription, and document this in the chart.
- Prescribe a reasonable daily dose that you are comfortable with, even if this is lower than the family physician's usual prescription.
- Prescribe only enough medication to last until the next working day.
- Send a record of the visit to the patient's regular doctor.

References

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Additional FOAMed Resources

1. Emergency Medicine Updates: Opioid Misuse http://emupdates.com/helpcard-and-opioid-misuse/

2. Academic Life in Emergency Medicine: Initial pain medication options in the emergency department http://www.aliem.com/pv-card-initial-pain-medication-options/

3. Dr. Mike Evans: Video on best advice for people considering or taking opioid pain medications http://knowledgex.camh.net/videos/Pages/best_advice_opioids_evans.aspx