

Case Studies in Pain Management



Meet Jim Frazier. He is 38 years old and owns his own landscaping business. He fell from a ladder while pruning a tree five years ago and has continuously suffered from low back pain since that time. He was initially prescribed oxycodone/acetaminophen and oxycodone SR for pain, but he became addicted. His wife divorced him as a result of his addiction and now she and their two sons live with her parents. Since he overcame his addiction, he has since been treated with gabapentin and has been clean for 2 years.

You see Jim in the hospital. He fell while skiing. The fall resulted in a comminuted fracture of his radius and ulna. He went to the OR for an ORIF of his humerus and ulna.

Past Medical History

- Hypertension
- Diverticulitis
- Peptic ulcer disease with GIB
- Gout
- No prior surgical history

Social History

- Smokes 1ppd x 30 years
- Recovering drug addict – oxycodone - has not used in 2 years.
- Drinks alcohol regularly on Sat nights.
- Owns landscaping business, divorced with 2 children
- Attends NA weekly.

Family History

- Father living: history of CAD, MI, DM, Glaucoma
- Mother deceased: lung cancer at age 67, was an alcoholic.

Current History

Allergies- NKDA

Labs:

- WBC 11.4
- Hct 35.2
- Bun 21
- Lytes and liver exzymes are all within normal limits
- Hbg 12.5
- Plt 210,000
- Cr. 0.9

Post Operative Course

Pain scores in the PACU were 9/10 after receiving doses of morphine 2mg IV x 5 doses, hydromorphone 0.5 IV x 4 doses, and 100mcg of fentanyl IV.

1. After your initial examination of Jim, what would your next steps be?

- a. Increase the IV hydromorphone to 2mg IV q 4h
- b. Increase the frequency of the current hydromorphone to 1mg IV q3h prn
- c. Add PCA hydromorphone or morphine
- d. Add PO long acting preferably morphine sulfate controlled-release with IV hydromorphone for breakthrough pain

At your table, discuss what you think the right answer is and why.

Your answer: _____

Notes: _____

Post Op Day 1

When you come to see the patient on post operative day 1, the nurse tells you Mr. Frazier has used 12 mg of IV hydromorphone in the past 20 hours since he returned from the PACU.

He still rates the pain in his arm as throbbing and constant and severe with a pain score of no less than 7/10 in the past 24 hours. He also states when he receives the IV hydromorphone it brings the pain level down from a 10/10 to a 7/10 but that lasts only for 1.5 hours and then the pain returns to a 10/10.

Mr. Frazier will be ready to leave the hospital in the next day or so.

2.. What orders will you write today?

- a. Start morphine sulfate controlled-release at 100 mg PO q12 hours with PO morphine short acting 20 mg every 4 hours as needed for break through pain
- b. Add gabapentin 300 mg po tid
- c. Start oxycodone at 20 mg PO q12 hours
- d. Give a one time dose of IV methadone to keep the pain down

At your table, discuss what you think the right answer is and why.

Your answer: _____

Notes: _____

Post Op Day 2

When you return on post operative day 2 you hear from the surgeon that he is planning to send Mr. Frazier home tomorrow. You speak to the nurse and find that he has used 120 mg of breakthrough medication (morphine) in the past 24 hours. He is requesting medication every 3-4 hours.

When you question Mr. Frazier he reports his pain score is down to 3-4/10 and with the morphine sulfate controlled-release before he went to sleep, he was able to sleep much better last night. He is happy to continue oral pain medications but does not want oxycodone/acetaminophen because that is how he became addicted to opiates in the first place.

You explain to him that he will stay on the gabapentin which will help decrease the amount of opiate he will need. You discuss with the surgeon the possibility of an NSAID. You tell him he will need close follow up with the out patient pain center to ensure he does not become addicted to the pain medicines. You give him a referral for an out patient pain specialist.

3. You will send him home on which of the following opiates?

- a. Morphine sulfate controlled-release, increased to 90mg PO q8 hours with appropriate breakthrough medication
- b. Hydromorphone hydrochloride 2-4mg PO q4h prn for pain
- c. Hydromorphone hydrochloride 6-8 mg PO q4h prn for pain
- d. Morphine 15 – 30 mg PO q4h prn for pain

At your table, discuss what you think the right answer is and why.

Your answer: _____

Notes: _____

Upon Discharge

The two concepts that need to be considered on discharge is that the pain will decrease over the next 1-2 weeks but given the patients opiate history his requirements are higher than most people would need post operatively. If no pain specialist is available and you as the primary physician will provide follow-up, the patient should have a drug contract. The patient should be seen frequently (perhaps twice weekly) and given only enough opioid in his prescription to last till the next visit. As he heals, the opioid should be gradually reduced, perhaps by 10-20% each visit.

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