S/L Buprenorphine and Pain Management: New Tricks for an Old Molecule

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Can One Use S/L Buprenorphine with or without Naloxone for Pain Management?

- The off-label use of the sublingual formulations of buprenorphine (Suboxone®/Subutex®) for the treatment of pain is *not* prohibited under DEA regulations.
  - One does *not* need a wavier from CSAT but a valid registration to prescribe a Schedule III controlled substance
    - Under these circumstances one does *not* place an **X** before one's DEA number
      - Personally, I recommend writing on prescription:" Pain patient, off label use""

Heit HA, Covington E, Good PA (Former Chief Liaison and Policy Section Office of Diversion Control): Dear DEA. Pain Medicine, 2004, Vol .5, No. 3: 303-08.

Pain

- Pain is clearly a stressor
- May predispose those in recovery to relapse
- It stands to reason that if the patient who is in recovery with or without opioid agonist therapy (OAT) and the pain is undertreated or not treated
  - The patient may turn to the street for diverted prescription medication or illicit drugs
  - Or may use legal drugs such as alcohol to anesthetize him or herself to the pain

D Gourlay, HA Heit, A Almahrezi
Universal Precautions in Pain Medicine:
A Rational Approach to the Treatment of Chronic Pain.
Pain Medicine. 2005;6(2):107-12.

S/L Buprenorphine and the Treatment of Pain

- Effective analgesia is achieved at relatively low μ receptor occupancy[1]
  - 5-10 %
- Degree of analgesia is *not* related to plasma concentration of the drug[2]
  - The dissociation from the μ receptor site will lag behind plasma concentration
- 0.4 mg of buprenorphine = 10-12 mg of morphine
  - At least 30 times more potent than morphine[3]
- Analgesic effects – 0.1- 8 mg

[1]Tyers MB. *Br J Pharmacol.* 1980;69:503-512.
[2]Boas RA, Villiger JW. *Br J Anaesth.* 1985;57:192-196.
[3]Budd K. *Anaesthesia*. 1981;36:900-903.

S/L Buprenorphine

- Chronic pain management
  - 6-8 hour analgesic duration
    - As with methadone
  - tid or qid dosing
    - **Always follow "Universal Precautions in Pain Medicine" in all cases of pain management**
- OAT
  - Stabilizing drug
  - Long duration of action (>24 h)
  - qd dosing

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S/L Buprenorphine and the Treatment of Pain

- There may be a possible risk of μ receptor up regulation 2 to 3 days after discontinuing S/L buprenorphine
  - May result in increased sensitivity to a full μ agonist treatment
    - Therefore, carefully titrate the full μ agonist to effect to prevent withdrawal and treat the pain

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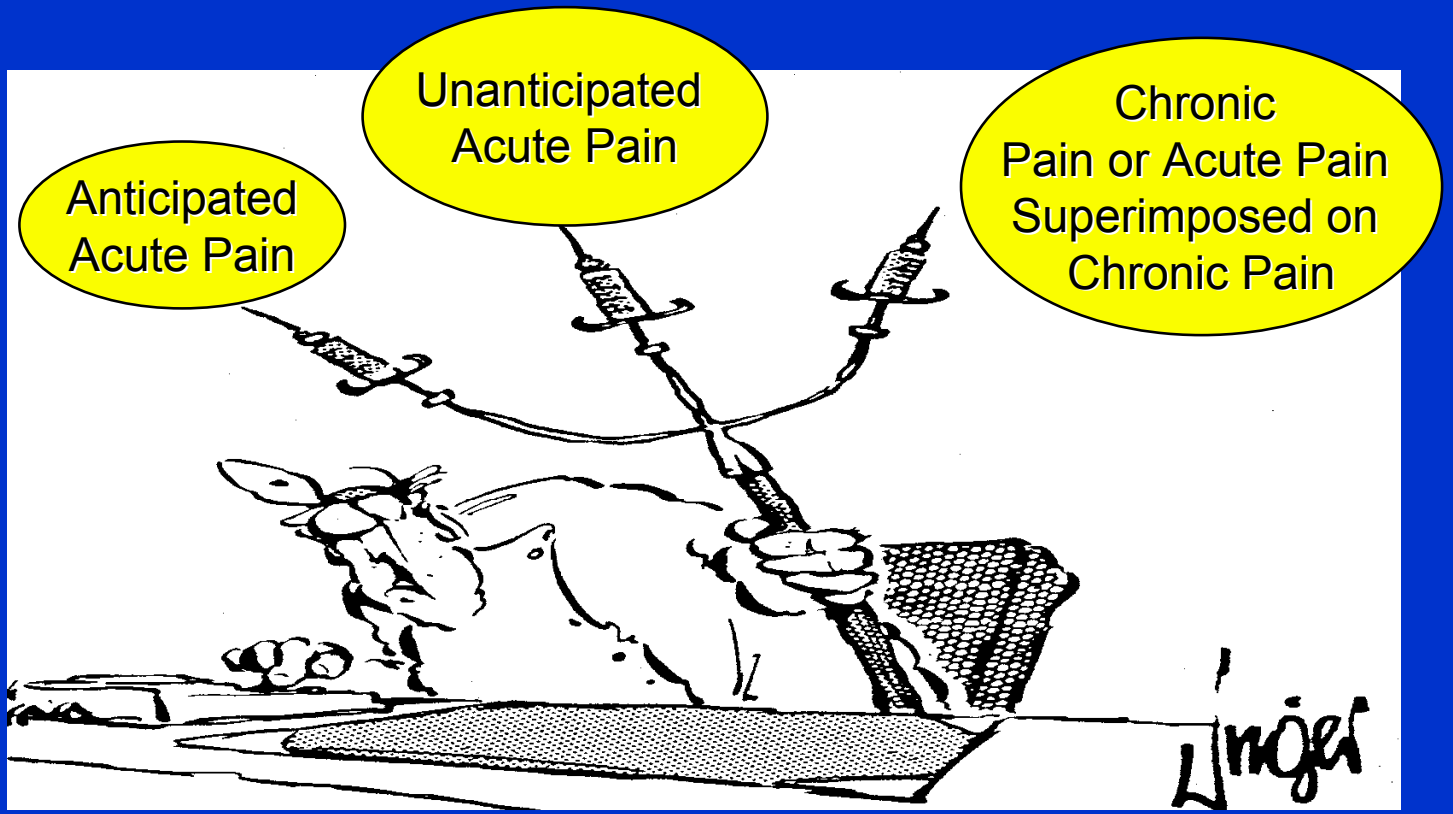
Treatment of Pain for a Patient on OAT with S/L Buprenorphine



"Send in the next three patients"

Anticipated Pain

S/L Buprenorphine and the Treatment of Pain

- Elective procedure/surgery (mild-to-moderate pain and not NPO)
  - S/L Buprenorphine with or without naloxone
  - Take the total qd dose of buprenorphine
    - Give the total dose divided in tid or qid doses
  - Titrate to effect with a maximum dose around 8 mg/dose
    - If breakthrough medication is needed, use one with high receptor site affinity and potency
      - Oral transmucosal fentanyl lozenges/tablets
      - Hydromorphone
      - PCA

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S/L Buprenorphine and the Treatment of Pain

- Elective procedure/surgery (moderate-to-severe pain and not NPO)
  - Discontinue S/L buprenorphine around three days before surgery
  - Use full μ agonist such as methadone/MR/SR/ CR opioid
    - Titrate the μ agonist to effect to prevent withdrawal and to the treat the pain
  - If breakthrough medication is needed, use a IR full μ agonist

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S/L Buprenorphine and the Treatment of Pain

- Elective procedure/surgery (NPO)
  - Discontinue S/L buprenorphine
  - PCA with full μ agonist
    - Titrate to effect to prevent withdrawal
    - Then treat the pain with an opioid with high receptor site affinity and potency
      - Fentanyl
      - Hydromorphone
        - » Second choice
      - Avoid meperidine

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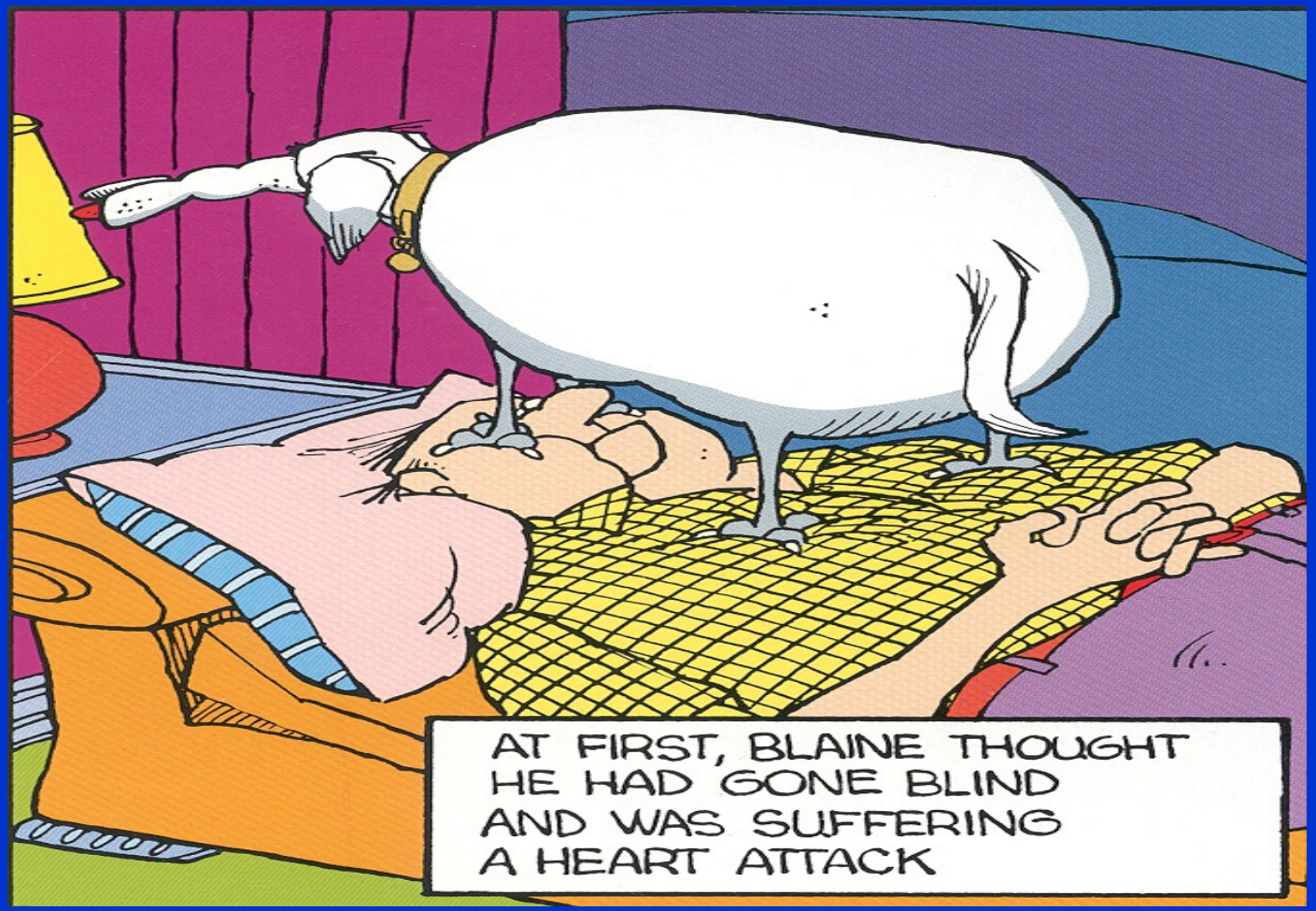
Unanticipated Acute Pain



S/L Buprenorphine and the Treatment of Pain

- Acute pain patient on buprenorphine agonist therapy (mild-to-moderate pain and not NPO)
  - Divide S/L buprenorphine dose to tid or qid schedule
  - Titrate to effect
    - Up to 8 mg tid to qid of buprenorphine
      - Limit of dose for pain?
- Alternative is to discontinue S/L buprenorphine
  - Switch to full μ agonist if time permits
    - Titrate the μ agonist to limit withdrawal
    - Titrate to effect to treat the pain

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S/L Buprenorphine and the Treatment of Pain

- Acute moderate-to-severe pain treated with IV opioids (NPO)
  - Discontinue S/L buprenorphine
  - PCA analgesic
    - Titrate to effect to prevent withdrawal
    - Then titrate to treat the pain
      - Fentanyl
        - » High receptor site affinity and potency
        - » May be easier to titrate
      - Hydromorphone
    - Avoid meperidine

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Chronic Pain or Acute Pain Superimposed on Chronic Pain

S/L Buprenorphine and the Treatment of Pain (Mild-to-Moderate Pain)

- Acute pain superimposed on chronic pain
  - Assumes S/L buprenorphine in divided doses was controlling pain
    - Add IR/RO opioid with high receptor site affinity and potency
      - Hydromorphone
      - Oral transmucosal fentanyl lozenges/tablets
  - Titrate to effect

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Conclusion

Albert Schweitzer stated “Pain is a more terrible lord of mankind than even death itself.”