

PCSS-B Training

An Educational Resource for Those Treating
Patients with Opioid Dependence

PCSS Guidance

Topic: Treatment of acute pain in patients receiving buprenorphine/naloxone

Author: David Fiellin, M.D.

Last Updated: 11/10/05

Guideline Coverage:

This topic is also addressed in Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction (TIP 40), page 75-76.

[http://www.pcssmentor.org/pcss/documents2/Training/Clinical%20Guidelines%20\(TIP%2040\).pdf](http://www.pcssmentor.org/pcss/documents2/Training/Clinical%20Guidelines%20(TIP%2040).pdf)

Clinical Question:

How do I manage acute pain in a patient receiving buprenorphine/naloxone (bup/nx) for the treatment of opioid dependence?

Background:

Buprenorphine is a partial agonist at the mu opioid receptor. As such, buprenorphine can provide analgesia, although the doses used generally for analgesia in other countries ranges from 0.2 to 0.6 mg., sublingually and the duration of effect is limited to 6-8 hours. No peer-reviewed published data is available to advise the appropriate dose of bup/nx for the management of acute or chronic pain. As a mu agonist, buprenorphine effectively blocks the analgesic properties of other opioids that could be used to treat acute pain. In addition, providing buprenorphine after a full mu agonist can result in precipitated withdrawal in a patient who has already taken an agonist opioid medication to treat acute pain.

General Principles:

Inform patient of your awareness of their addiction and provide reassurance that their addiction will not be an obstacle to pain management. Include the patient in the decision-making process to allay anxiety about relapse. Offer addiction counseling as needed. Patients who are opioid dependent should not be denied pain treatment with opioids when indicated. Maintenance opioids should not be expected to adequately treat new onset acute pain. Patient controlled anesthesia (PCA) can be used in opioid dependent patients with acute pain.

Recommendations:

Level of evidence: **Very low – expert opinion/clinical experience**

For patients receiving bup/nx who develop or are anticipated to have acute and limited (e.g. 2 hours to 2 weeks) pain that will not be adequately treated with non-opioid analgesia, the following steps are recommended:

1. Anticipated pain (e.g. elective surgery, tooth extraction)
 - Temporarily discontinue bup/nx 24-36 hours prior to anticipated need for analgesia
 - Provide adequate opioid analgesia, titrate to effect. It is good practice to know the

usual doses needed for patients undergoing the planned procedure. Discuss with your colleagues and remember that patients who are opioid dependent and who have recently received bup/nx will likely need higher than usual doses of opioid analgesics due to their physical tolerance and/or narcotic blockade from recent doses of bup/nx.

- Do not provide bup/nx while patient is receiving opioid analgesia
- Discontinue opioid analgesia once pain has remitted or can be managed with non-opioid analgesia.
- Allow patient to experience mild to moderate opioid withdrawal.
- Re-induce patient onto bup/nx as per usual.
- Note: single doses of opioid analgesics (e.g. post dental extraction) may be effective even if bup/nx has not been discontinued. However, patients should be cautioned to avoid bup/nx dosing during period that opioid analgesic is likely to be occupying receptors.

2. Unanticipated pain (e.g. major trauma, renal colic, acute fracture)

- Determine when the last dose of bup/nx was ingested and temporarily stop bup/nx.
- Options to consider: regional anesthesia, increased dose of buprenorphine, high potency opioid such as fentanyl, providing alternate opioid agonist treatment such as methadone during period of pain management
- Provide adequate opioid analgesia, titrate to effect. It is good practice to know the usual doses needed for patients who experience this event. Discuss with your colleagues and remember that patients who are opioid dependent and who have recently received bup/nx will likely need higher than usual doses of opioid analgesics due to their physical tolerance and/or narcotic blockade from recent doses of bup/nx.
- Monitor/caution patients regarding the potential for over-sedation during the first 72 hours after the last bup/nx dose. While the initial effect of a full agonist may be blocked by buprenorphine, as this blockade fades, the full agonist effect may become clinically evident.
- Do not provide bup/nx while patient is receiving opioid analgesia
- Discontinue opioid analgesia once pain has remitted or can be managed with non-opioid analgesia.
- Allow patient to experience mild to moderate opioid withdrawal.
- Re-induce patient onto bup/nx as per usual.

References:

Kogel B. Christoph T. Strassburger W. Friderichs E. Interaction of mu-opioid receptor agonists and antagonists with the analgesic effect of buprenorphine in mice. [Journal Article] *European Journal of Pain: Ejp.* 9(5):599-611, 2005 Oct.

Sporer KA. Buprenorphine: a primer for emergency physicians. [Review] [46 refs] [Journal Article. Review. Review, Tutorial] *Annals of Emergency Medicine.* 43(5):580-4, 2004 May

Savage, S. R. (1998). Principles of Pain Treatment in the Addicted Patient. Principles of Addiction Medicine, Second Edition. A. W. Graham and T. K. Schultz. Chevy Chase, MD, American Society of Addiction Medicine: 919-944.

Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs.
CSAT-SAMHSA, DHHS, Rockville, MD. Treatment Improvement Protocol (TIP) Series 43.

PCSS Guidances use the following levels of evidence*:

High = Further research is very unlikely to change our confidence in the estimate of effect.

Moderate = Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low = Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low = Any estimate of effect is very uncertain.

Type of evidence:

Randomized trial = **high**

Observational study = **low**

Any other evidence = **very low**

* Grading quality of evidence and strength of recommendations
British Medical Journal, 2004;328;1490-