



THE OMNICARE

HealthLine

Focus on Management of Postsurgical Pain

- by Carrie Allen

Pain after certain types of surgery is expected, but the approach to managing it is often ill-defined, particularly with current concerns related to the opioid crisis. This article summarizes the 2016 guidelines on the management of postoperative pain from the American Pain Society and highlights applicable concepts of opioid stewardship from the 2016 guidelines on prescribing opioids for chronic pain from the Centers for Disease Control and Prevention.

Postsurgical pain (PSP) is common and approximately 75% of patients report the severity as moderate, severe, or extreme. Inadequately controlled PSP increases the risk of poor functional recovery, postsurgical complications, and the development of chronic pain. Proper management encompasses facilitating recovery while simultaneously considering appropriate use of medications.

Pain Management Planning and Education

Ideally, the management of PSP will begin before the surgery with planning, education, and inclusion of patient preferences. Preoperative evaluation should be guided by an assessment of medical comorbidities, psychiatric conditions, concomitant medications, history of chronic pain, and substance abuse. Previous postoperative treatment regimens and responses to those treatments should also be considered.

Information should be provided to the patient and/or caregivers on the type of pain that can be expected after surgery. For example, severe pain after surgery tends to diminish rapidly in the first few days, but some level of pain may persist for months in certain patients. Individualized treatment options for the management of PSP should be assessed with consideration of realistic

goals for pain relief. The following questions can help guide planning and education:

- What constitutes an acceptable level of pain at various points in the recovery? At rest? During activity?
- Are all parties educated on the risks for respiratory depression with opioid use, and what actions to take? What is an acceptable sedation level?
- What side effects can be expected and how can they be managed?

A complete absence of PSP may be unrealistic for many patients, and it is reasonable to expect adjustments to the pain management plan during recovery. Towards that end, patients should be educated on changes in their pain regimen, how to take pain medications safely, and how to manage side effects to optimize pain control and recovery with return to usual activities.

Multimodal Therapy Approaches

While current evidence is inadequate to provide very specific recommendations on the management of PSP, one of the guiding principles is multimodal analgesia, which is the use of a variety of analgesic medications and techniques combined with nonpharmacological interventions. Clinicians should include around-the-clock nonopioid analgesics and nonpharmacologic therapies to maximize the effect of multimodal analgesia regimens.

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Examples of multimodal interventions are provided in the table below:

| Selected Short-Term Multimodal Interventions for Common Surgeries in Long-Term Care* | | |
|--|---|--|
| Surgery | Analgesic Medications and Techniques | Nonpharmacologic Therapies |
| Total Hip Replacement | <ul style="list-style-type: none"> • Opioids • NSAID[§] and/or acetaminophen • Gabapentin or pregabalin • Intra-articular local anesthetic | <ul style="list-style-type: none"> • Cognitive modalities (e.g., CBT, relaxation techniques, breathing exercises, visualization, meditation) • Physical and/or occupational therapy • TENS • Hot or cold therapy • Compression • Repositioning |
| Total Knee Replacement | | |
| Spinal Fusion | <ul style="list-style-type: none"> • Opioids • Acetaminophen • Gabapentin or pregabalin • Local anesthetic at incision site | |
| Coronary Artery Bypass Graft | | |

*Table not all-inclusive

§ In those without contraindications (e.g., gastrointestinal bleeding/ulceration, cardiovascular risks)

CBT = cognitive behavioral therapy, NSAID = nonsteroidal anti-inflammatory drugs, TENS = transcutaneous electrical nerve stimulation

General Pharmacologic Approaches

- Acetaminophen and/or nonsteroidal anti-inflammatory drugs (NSAID) are recommended in patients without contraindications.
- Use of acetaminophen or NSAID in conjunction with opioids has been associated with decreased opioid consumption and less PSP than treatment with opioids alone. For minor surgeries, acetaminophen or NSAID alone may be appropriate.
- Gabapentin or pregabalin: Although off-label, both medications are associated with reduced opioid requirements after surgical procedures, and some studies have reported lower postoperative pain scores.

Opioid Specific Pharmacologic Approaches

- Oral opioids are recommended over intravenous or intramuscular administration of opioids in patients who can take oral medications.
- Start with immediate-release opioids. Long-acting oral opioids are generally not recommended, nor labeled for use in the immediate postoperative period.
- When patient-controlled analgesia is used, routine basal infusion of opioids is not recommended in opioid-naïve adults.
- Use the lowest effective opioid dose possible for the shortest duration of time.
- In some cases, a very limited supply of opioids may be prescribed and then transitioned to acetaminophen or an NSAID. Consider the expected pain duration, as 3 to 7 days of opioid therapy may be enough.
- Evaluate risks and harms within 1 to 4 weeks of

starting opioids and taper the dose downward as soon as possible.

- Considerations for opioid reduction/tapering:
 - In general, patients who were not receiving long-term opioid therapy before surgery, who are treated with opioids for more than 1 to 2 weeks for PSP, should be instructed to gradually reduce the opioid dose to prevent signs and symptoms of withdrawal.
 - Dose reductions of approximately 20 to 25% of the original or discharge dose every 24 to 48 hours can be tolerated by most patients when pain is improving.
 - Patients who were chronically prescribed opioids before surgery should be instructed on how to taper their opioid to their target maintenance dose.

Discharge planning for those receiving opioids who will return to the community should include:

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| A discussion of the plan to taper and discontinue opioids. |
| Information on the risks of opioids, and management of side effects, including the use of naloxone, when appropriate. |
| Appropriate storage and disposal of unused opioids and other medications. |
| Coordination of follow-up care, including referral to a pain management specialist, as applicable. |



| Generic Name | Brand Name | Date Generic Available |
|---|--|------------------------|
| Mesalamine 1000 mg Rectal Suppository | Canasa [®] Suppository | 12/17/18 |
| Sildenafil 4 mg and 8 mg Capsule | Rapaflo [®] Capsule | 12/3/18 |
| Vardenafil 10 mg Orally Disintegrating Tablet | Staxyn [®] ODT | 12/3/18 |
| Buprenorphine 5 mcg/hr, 10 mcg/hr, 15 mcg/hr, 20 mcg/hr Transdermal Patch | Butrans [®] Transdermal Patch | 11/26/18 |
| Abiraterone 250 mg Tablet | Zytiga [®] Tablet | 11/23/18 |
| Azelaic Acid 15% Gel | Finacea [®] Gel | 11/19/18 |
| Miconazole Nitrate/Zinc Oxide/White Petrolatum 0.25% Ointment | Vusion [®] Ointment | 11/9/18 |



Inbrija™ for Oral Inhalation

| | |
|---------------------------|---|
| Brand Name (Generic Name) | Inbrija [in-BRIH-jah] (levodopa inhalation powder) [lee-voe-DOE-pa] |
| How Supplied | 42 mg capsules for use with the Inbrija inhaler (**Do Not Swallow**) |
| Therapeutic Class | An aromatic amino acid |
| Approved Indication | The intermittent treatment of OFF episodes in patients with Parkinson's disease treated with carbidopa/levodopa |
| Usual Dosing | Inhale the contents of two capsules (84 mg) as needed for OFF symptoms, up to 5 times daily. Maximum dose per OFF period is 84 mg; maximum daily dose is 420 mg. |
| Select Drug Interactions | Contraindicated with current or recent use (in the past 2 weeks) of nonselective monoamine oxidase (MAO) inhibitors. Monitor for orthostatic hypotension with selective MAO-B inhibitors. Dopamine (D2) antagonists, isoniazid, and iron salts may reduce the effectiveness of Inbrija. |
| Most Common Side Effects | Cough, nausea, upper respiratory tract infection, and discolored sputum. |
| Miscellaneous | May cause sudden falling asleep during activities of daily living. Not recommended with chronic underlying lung disease. Do not use in those with a major psychotic disorder due to potential worsening. |
| Website | Inbrija.com |

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