

ASSESSMENT. A proper approach to acute postoperative pain management must include an appropriate assessment tool. A point pain assessment scale, where 1 is no pain and 10 is the worst possible pain imaginable, has been nationally accepted.

Effective management of postoperative pain is a primary concern for health care practitioners and patients undergoing surgical procedures. Undertreatment of postoperative pain can result in negative physiologic and psychologic outcomes for the patient. There are a limited number of guidelines available to assist practitioners in the treatment of acute pain, with even fewer available for treatment of postoperative pain. Most guidelines focus on pain management by anesthesiologists in the perioperative setting. This article addresses the management of acute postoperative pain with a focus on patient assessment, commonly used medications, routes of administration, and patient follow-up.

Types of Pain The etiology of pain is quite complex. The International Association for the Study of Pain defines pain as an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. The experience of pain is mediated through a number of pathways in the body involving a variety of chemoreceptors and neuronal stimuli. Pain can be classified as either acute or chronic, depending on its onset and how it responds to treatment. Acute pain usually occurs from a known injury or trauma and responds well to treatment with medications, whereas chronic pain is long-standing and does not resolve quickly, even when treated. The management of chronic pain is difficult, with patients often having to try several medications before they achieve adequate pain relief.

Nociceptive pain normal pain in response to injury of the body occurs usually as a result of tissue injury and is most often the type of acute pain experienced after surgery. Untreated postoperative pain may also be associated with delayed wound healing, which may complicate the postoperative course.

Patient Assessment In order to begin to effectively treat postoperative pain, that pain must first be quantified in some manner. There is also limited support for preoperative pain assessment since presurgical pain levels are thought to be a predictor of the amount of postsurgical pain that a patient may feel. Two of the more commonly used assessment tools are the numerical rating scale and visual analog scale. The numerical rating scale is primarily used in adult patients where they are asked to rate the intensity of pain on a scale from 0 to 10, with 0 being no pain and 10 being the most severe pain imaginable. The visual analog scale is a measurement instrument that asks the patient to place a mark on a continuous line that correlates with the severity of their pain. In general, a score of 1 or 2 represents mild pain, 3 or 4 represents moderate pain, and 7 or greater is severe pain. It should be kept in mind, though, that how these scores correlate with the intensity of pain may vary slightly among pain-measurement assessment tools. The type of assessment tool used may affect the accuracy of the response, depending on the type of patient. Children, the elderly, and non-English-speaking patients may not understand certain standard pain scales and may benefit from the use of alternative pain scales such as the Faces pain scale a series of faces depicting a patient experiencing varying degrees of pain. Practitioners must make sure that patients understand the pain scale and that they are able to correctly correlate the scores with their pain. Patients may also overreport or underreport their pain depending on the type of health practitioner administering the test. Patients may tend to be more honest about their true pain levels when nurses are asking about their pain and may underreport their pain levels when questioned by physicians.

The World Health Organization WHO developed a stepwise approach to chronic pain management, which is often applied to the management of acute pain. This is known as the WHO pain ladder. The term opiates refers to naturally occurring and semisynthetic opium agents. Nonsteroidal anti-inflammatory drugs NSAIDs or acetaminophen is usually used for mild-to-moderate pain or as adjuvant therapy. Although the type of agent prescribed needs to be individualized to the patient, there are certain general recommendations that should be applied when choosing the proper medication. Opioids are widely used in the treatment of moderate-to-severe pain pain scores 4 or greater. Opioids bind to the mu receptors in the central nervous system, resulting in analgesia. Common side effects include nausea and vomiting, constipation exacerbated by increased periods of immobility that often follow surgical procedures, sedation, and pruritis. These adverse effects may be more

pronounced in the elderly. A stimulant laxative should be prescribed when initiating opioids due to decreased peristalsis. Respiratory depression and hypotension are serious side effects of opioid therapy. Respiratory depression is defined as fewer than 10 breaths per minute, although specific hospital protocols may vary. The risk of severe respiratory depression is increased in the first 24 hours following surgery and with higher doses of opioids. The recommended dose of naloxone for reversal of respiratory depression associated with overdose is 0. Hypersensitivity reactions may also occur with opioids. It is important to note that if a hypersensitivity reaction occurs to an opioid, care should be taken not to rechallenge the patient with another medication in the same or similar class of medications, such as tramadol or tapentadol. Tolerance may occur with opioids. However, it is not usually a concern when they are used for short-term acute pain treatment. There is no evidence that the use of opioids in the postoperative setting increases the risk of addiction. Undertreatment of postoperative pain can lead to greater suffering for the patient, an increase in postoperative admissions, and decreased quality of life. Interconversion between different agents within the opioid class is something that practitioners should be able to do, should a patient need to be switched between agents for any reason. TABLE 1 gives equianalgesic doses of commonly prescribed medications. Various prostaglandin subtypes are present throughout the body, including the vascular smooth muscle and the gastrointestinal GI tract. They are involved in a number of processes, including inflammation and a reduction in gastric acid secretion. Inhibition of the COX enzyme and, therefore, reduction in prostaglandin formation, results in anti-inflammatory responses. However, inhibition of the gastroprotective prostaglandin subtypes in the gut also increases the risk of gastric bleeding with these agents. NSAIDs are useful agents in mild-to-moderate cases of pain and have central and peripheral anti-inflammatory activity. Nonselective NSAIDs are associated with numerous side effects including an antiplatelet effect and an increased risk of bleeding. The risk of bleeding appears to be decreased when using a COX-2 agent. The general consensus in the recent literature is that COX-1 inhibitors are preferred over COX-2 inhibitors, especially in light of recent evidence of cardiovascular risk associated with COX-2 selective agents. Due to the risk of gastrointestinal bleeding, NSAIDs might not always be the best choice depending on patient risk factors. Elderly patients, especially those who are dehydrated or are already on daily aspirin therapy, are at increased risk for GI bleeding. Pharmacists should be aware that there is also the potential for two key drug interactions between aspirin and NSAIDs. Not only are patients taking concomitant aspirin and an NSAID at a greater risk for GI bleeding, but some NSAIDs such as ibuprofen may negate the antiplatelet effects of low-dose aspirin, putting the patient at greater cardiovascular risk. Naproxen and celecoxib have not been shown to negate these antiplatelet effects and may be prescribed when patients are on low-dose aspirin. Chronic corticosteroid use is also associated with a higher risk of GI bleeds. If GI bleeding is a concern, agents such as misoprostol or proton pump inhibitors PPIs may be administered as a preventive measure. There is a point when increasing the dose of NSAIDs does not result in additional analgesic benefits but significantly increases the risk of side effects. Each medication has a maximum dose that should not be exceeded. Acetaminophen is a centrally acting analgesic. Acetaminophen is a common ingredient in many nonprescription products and combination pain medications, so it is important to counsel the patient not to exceed 4, mg of acetaminophen daily from any and all sources. Also, alcohol consumption increases the risk of hepatotoxicity associated with this medication. Tramadol is another option for moderate pain. It works at the mu receptor, in a similar manner to opioid analgesics, as well as at norepinephrine and serotonin receptors. It is generally associated with fewer opioid-like side effects. Another newer available agent is tapentadol, which has a similar combined effect on the mu receptor and norepinephrine receptors. The recent approval of tapentadol increases the available options for medications with mechanisms of action that vary slightly from traditional opioid receptor agonism. Combination therapy of an opioid and nonopioid is commonly utilized. Combining medications that work at different areas of the pain cascade or by differing mechanisms may reduce the amount of each medication required to achieve pain control, thereby reducing the potential for side effects. However, the combination of an opioid and nonopioid may hinder the dose titration of the opioid product due to the ceiling effect of the nonopioid. If using a combination product, care should be taken not to exceed the maximum daily dose of either medication in the combination. More recently, agonist-antagonist combinations have been studied as a means of achieving analgesia while minimizing

tolerance and the occurrence of side effects. Studies are currently inconclusive as to the actual benefit of the addition of naloxone to epidural injections or oral therapy in reducing postoperative pain levels. Morphine and hydromorphone are two of the most common opioid products chosen for a PCA, although other opioids, such as fentanyl, may be used. PCA is associated with better pain scores upon patient assessment. Most pumps can be programmed to administer continuous basal infusions of medication, small boluses of medication, or both. There is a high rate of calculation errors associated with PCA drug dosing and pump set-up. Newer, Nontraditional Methods and Agents When considering postsurgical pain, there is some debate as to whether preemptive pain control should be done, or whether medication administration should be done solely based on patient demand after surgery. Preemptive medication administration is the administration of medication prior to surgery in an attempt to reduce the amount of postoperative pain medication required by the patient. Preoperative use of gabapentin and pregabalin has been studied, and the results of studies on opioid consumption postoperatively are varied. However, it is apparent that preoperative medication administration may have a positive effect on postoperative outcomes. The use of NMDA antagonists, such as ketamine, is currently being studied. N-methyl D-aspartate is a glutamate receptor in the CNS that is responsible for memory function and pain sensitization. It is believed that by blocking NMDA receptors, pain may be modulated and the severity of pain reduced. NMDA receptor antagonists are currently used in animals and humans as anesthetics. Though it is questionable as to whether the use of NMDA antagonists has an opioid-sparing effect, there may be some support that the use of NMDA antagonists may prove to be a viable alternative or adjunct therapy to traditional pain medications. Preoperative patient counseling and preparation as to expectations regarding surgery and the associated postsurgical pain may have some benefit. Patients adequately prepared with what to expect have been shown to have lower postoperative pain scores. Therefore, this should be tied into patient assessment measures done prior to surgery. The benefit of oral medications is that they can easily be continued when the patient goes home. Patients should be counseled prior to discharge about medication use and side effects. They should be made aware of all follow-up appointments. They should be counseled that if they are not achieving adequate pain control with the medication, the prescriber should be notified so that therapy can be adjusted accordingly. Accurate patient assessment is one of the most important factors in choosing the most effective drug therapy in each given case.

Chapter 2 : The Management of Acute Postoperative Pain

The institution and elaboration of acute pain services as a mechanism to address the logistic, administrative, and service demands for the delivery of effective postoperative care has been a boon to pain management.

Subscribe or renew to PPM New Guidelines for Post-Op Pain Management February 18, New guidelines published by the American Pain Society provide a comprehensive consensus on essential pain management topics for both adult and children patients and acknowledge significant gaps in clinical knowledge. To address these issues, the American Pain Society APS has published a new set of guidelines for managing postoperative pain. The guidelines were developed by a diverse panel of 23 experts, who reviewed thousands of abstracts to assemble a focused consensus on essential pain management topics for the perioperative setting, including the use of pharmacological and nonpharmacological modalities, pain management planning, and transitioning to outpatient care. For children undergoing surgery, the parents should be taught developmentally-appropriate methods for assessing pain, as well as proper administration of analgesics and other pain therapies. Multimodal Therapies Recommended The guidelines strongly recommend the use of multimodal analgesia, using a variety of medication and techniques to have a more synergistic, effective approach to pain relief than single-modality interventions. For instance, the guidelines recommend clinicians consider using site-specific peripheral regional anesthetic techniques, particularly for conditions with clinical evidence of efficacy, including thoracotomy, cesarean section,⁶ and shoulder,⁷ lower extremity joint, and hemorrhoid surgeries. Given their differing mechanisms of action, studies suggest the combination approach is more effective than either drug alone,¹⁰ which can further reduce postoperative pain and opioid consumption. Chou told Practical Pain Management. Unfortunately, very few combinations of multimodal analgesic approaches have been evaluated in rigorous clinical trials, and while some multimodal approaches may be opioid-sparing and reduce adverse events AE compared to single-modality approaches, this can vary depending on what combination therapy is used. The oral route should be taken over intravenous IV administration, given that IV administration has not been shown to be superior. When the parental route is needed, IV patient-controlled analgesia PCA is recommended for postoperative systemic analgesia. However, long-acting opioids should be avoided in the immediate post-operative period. The intramuscular route also should be avoided, given its known to associate with significant pain and reduced absorption. Important Gaps in the Research Unfortunately, as much as the APS guidelines formed solid consensus on many aspects of perioperative pain management, it also unearthed significant gaps in clinical knowledge. According to Debra B. Results from a national survey suggest postoperative pain continues to be undermanaged. Incidence, patient satisfaction, and perceptions of postsurgical pain: Results from a US national survey. *Curr Med Res Opin.* Management of postoperative pain: A systematic review of randomized trials evaluating regional techniques for post-thoracotomy analgesia. Cryoanalgesia for post-thoracotomy pain relief. Local anesthetic wound infiltration and abdominal nerves block during caesarean section for postoperative pain relief. *Cochrane Database Syst Rev.* Does continuous peripheral nerve block provide superior pain control to opioids? Modified continuous femoral three-in-one block for postoperative pain after total knee arthroplasty. The posterior lumbar plexus psoas compartment block and the three in- one femoral nerve block provide similar postoperative analgesia after total knee replacement. Combining paracetamol acetaminophen with nonsteroidal anti-inflammatory drugs: A qualitative systematic review of analgesic efficacy for acute postoperative pain. The efficacy of the non-opioid analgesics parecoxib, paracetamol and metamizol for postoperative pain relief after lumbar microdiscectomy. Intravenous administration of propacetamol reduces morphine consumption after spinal fusion surgery. Single-dose intravenous paracetamol or propacetamol for prevention or treatment of postoperative pain: A systematic review and meta-analysis. NSAID exposure and risk of nonunion: A meta-analysis of case-control and cohort studies. High-dose ketorolac affects adult spinal fusion: A meta-analysis of the effect of perioperative nonsteroidal anti-inflammatory drugs on spinal fusion. Risk of anastomotic leakage with non-steroidal anti-inflammatory drugs in colorectal surgery. *Int J Colorectal Dis.* Rutegard J, Rutegard M. Non-steroidal anti-inflammatory drugs in colorectal surgery: A risk factor for

anastomotic complications? World J Gastrointest Surg. Paracetamol and selective and non-selective non-steroidal anti-inflammatory drugs NSAIDs for the reduction of morphine-related side effects after major surgery: A randomized trial of oral versus intravenous opioids for treatment of pain after cardiac surgery. Food and Drug Administration: Accessed February 6, Research gaps in practice guidelines for acute postoperative pain management in adults: Findings from a review of the evidence for an American Pain Society clinical practice guideline. Interagency guideline on prescribing opioids for pain. Clinicians who Care for People With Pain. American Society for Pain Management nursing guidelines on monitoring for opioid-induced sedation and respiratory depression. Pulse oximetry for perioperative monitoring. March 1, 1.

Chapter 3 : CLINICAL ASPECTS OF ACUTE POST-OPERATIVE PAIN MANAGEMENT & ITS ASSESSMENT

This article addresses the management of acute postoperative pain with a focus on patient assessment, commonly used medications, routes of administration, and patient follow-up. Types of Pain The etiology of pain is quite complex.

The management of acute postoperative pain is a vital component of the surgical management of any condition. Pain is also one of the primary concerns of the surgeon because of its close ties with clinical outcome and acute postoperative patient well-being. The advantages of effective postoperative pain management include patient comfort and therefore satisfaction, earlier mobilization, fewer pulmonary and cardiac complications, a reduced risk of deep vein thrombosis, faster recovery with less likelihood of the development of neuropathic pain, and reduced cost of care. Assessment of the degree of pain, monitoring and reassessment are components of post-operative pain management. There are various modalities and drugs available for pain relief; the knowledge of the effects, dosage and precautions can ensure that the post operative pain relief is efficient and safe. Acute postoperative pain is defined as pain that is present in a surgical patient after a procedure. Such pain may be the result of trauma from the procedure or procedure-related complications. It is characterized by being high threshold and well localized and transient, and there is a definite relationship between the response and the stimulus. Adequate pain relief is a major concern and area of focus in the present day. Pre-operatively, one of the most common questions asked by patients pertains to the amount of pain they will experience after the surgery. Pain pathway The failure to provide good postoperative analgesia is multifactorial. Insufficient education, fear of complications associated with analgesic drugs especially opioids, poor pain assessment, and inadequate staffing are among its causes. Mechanism of acute postoperative pain Peri-operative pain results from inflammation caused by tissue trauma ie, surgical incision, dissection, burns or direct nerve injury ie, nerve transection, stretching, or compression. The patient senses pain through the afferent pain pathway Fig. Pain impulses are transmitted to the dorsal horn of the spinal cord, where they make contact with second-order neurons that cross to the opposite side of the cord and ascend via the spinothalamic tract to the reticular activating system RAS and thalamus. The localization and meaning of pain occurs at the level of somatosensory cortex. Pain assessment scale Visual analogue and numerical Pain assessment tools Assessment and continual reassessment of pain is an essential component of postoperative pain management. Monitoring of postoperative pain should be considered as the 5th vital sign. The rating scales that can be used are: They provide simple, efficient and minimally intrusive measures of pain intensity. Figure 2 Pain assessment in children: An assessment of pain intensity and character in children is very difficult as compared to adults. Children between 3 to 8 years of age are capable of quantifying their pain by using visual analog pain scale or Wong Baker Faces scale. Some observational tools are also used to assess pain in this group. These tools are based upon scoring facial expressions, ability to be consoled, the level of interaction, limb and trunk motor responses, and verbal responses. Therapeutic modalities The traditional way of acute pain management is to palliate pain, give minimal doses only when needed, and administer one medication at a time. The most modern, or recent thinking is to provide multimodal techniques of pain relief. Multimodal techniques for pain management include the administration of two or more drugs that act by different mechanisms for providing analgesia. These drugs may be administered via the same route or by different routes. The rationale for multimodal pain management is to provide effective pain relief for the patient with less reliance on opioids. Another important concept in pain management is the use of scheduled medications and techniques that allow the patient to get the dose on demand; either through a patient-controlled analgesia device or scheduled oral or parenteral administration. And lastly, the utilization of regional analgesia whenever possible has provided a breakthrough in pain management. The goal of this service is to prevent pain, rather than to act after the pain is established to try to relieve it. Preoperative patient evaluation and planning is integral to peri-operative pain management. Proactive individualized planning integrating pain management into the peri-operative care of patients is essential. Patient factors to consider in formulating a plan include type of surgery, expected severity of postoperative pain, underlying medical conditions e. A preventive analgesic is effective when postoperative

pain or analgesic consumption is reduced beyond the duration of action of the treatment drug or technique. While numerous classes of drugs are used to treat pain, 3 categories in particular—acetaminophen, nonsteroidal anti-inflammatory drugs NSAIDs, and opioids—are most often used for the treatment of pain, along with adjuvants eg, muscle relaxants, anticonvulsants. Each of these drugs is associated with different adverse events and with varying degrees of efficacy. Nonopioid Analgesics Nonopioid analgesics, including nonsteroidal anti-inflammatory drugs NSAIDs and acetaminophen, play an important role as first-line agents in the management of mild-to-moderate pain. NSAIDs, in particular, have proven to be a popular method for analgesia in the postoperative setting. Their ease of dosing, widespread availability, parental acceptance, lack of opioid-type adverse effects, and the relative comfort of the practitioner in prescribing non opioid analgesics support their role in postoperative pain management. Consequently, the patient is likely to experience fewer adverse effects associated with both analgesics. Acetaminophen Paracetamol This is an inhibitor of prostaglandin synthesis and is commonly used in the treatment of mild postoperative pain; however, compared to other agents, its analgesic potency remains low and ceiling effects may be observed. In general, acetaminophen is the least potent, while NSAIDs and opioids offer stronger analgesic effects. Intravenous acetaminophen has a more rapid and predictable onset of effect 5 to 10 minutes and time to peak concentration 15 minutes in most patients compared with rectal or oral administration onset 10 to 60 minutes or more. Administration of ketorolac reduces opioid consumption by 25 to 45 percent and thereby lowers opioid-related side effects such as ileus, nausea, and vomiting. NSAID administration in the operating room should be delayed until hemostasis has been achieved. NSAIDs are contraindicated in patients who are susceptible to renal or hepatic disorders, have increased bleeding risks, or are on other nephrotoxic agents or anticoagulants; use should also be avoided in neonates. There is a point when increasing the dose of NSAIDs does not result in additional analgesic benefits but significantly increases the risk of side effects. Each medication has a maximum dose that should not be exceeded. Acetaminophen is contraindicated in patients with severe hepatic insufficiency or severe progressive liver disease.

Chapter 4 : Post-Operative Pain Management - PCA - Opioids - TeachMeSurgery

Traditionally, acute perioperative pain management has relied solely on opioid medications to target central mechanisms involved in the perception of pain. A better approach uses several agents, each acting at different sites of the pain pathway, and is known as multimodal analgesia.

R Murthy Find articles by R. Department of Pharmacology, I. This article has been cited by other articles in PMC. Abstract Management of postoperative pain relieve suffering and leads to earlier mobilization, shortened hospital stay, reduced hospital costs, and increased patient satisfaction. An effective postoperative management is not a standardized regime rather is tailored to the needs of the individual patient, taking into account medical, psychological, and physical condition; age; level of fear or anxiety; surgical procedure; personal preference; and response to therapeutic agents given. Postoperative pain is still under managed due to obstacles in implementation of Acute Pain Services due to insufficient education, fear of complications associated with available analgesic drugs, poor pain assessment and inadequate staff. Postoperative pain is considered a form of acute pain due to surgical trauma with an inflammatory reaction and initiation of an afferent neuronal barrage. It is a combined constellation of several unpleasant sensory, emotional and mental experience precipitated by the surgical trauma and associated with autonomic, endocrine-metabolic, physiological and behavioral responses[4]. There are number of factors which contribute for effective postoperative pain management such as a structured acute management team, patient education, regular staff training, use of balanced analgesia, regular pain assessment tools and adjustment of strategies to meet the needs of special patient groups[5]. Women require less analgesia than men. Probably due to difference in neuro-endocrine mechanism of pain relief. Neurotic patients suffer greater postoperative pain than less neurotic patients[5]. Smokers metabolize analgesics considerably faster than non-smokers[6]. The onset of the 21st century is an incredibly exciting time in pain biology. Information from recent studies in basic pain research is virtually exploding and has revealed numerous novel targets for the advent of new pain therapies. Nociceptors in the affected area are activated and then transmit signals via the peripheral nerves and the spinal cord to the brain, activated the complex spinal reflexes withdrawal , followed by perception, cognitive and affective responses, and possibly voluntary action. Nociceptive pain is usually time limited--arthritis is a notable exception--and tends to respond well to treatment with opioids[7]. Neuropathic Pain is the result of the nervous system injury or malfunction, either in the peripheral or in the central nervous system. The pain may persist for months or years beyond the apparent healing of any damaged tissues. Neuropathic pain is frequently chronic, and tends to have a less robust response to treatment with opioids[7]. Psychogenic Pain due to the psychological factors leading to an exaggerated or histrionic presentation of the pain problem[7]. Mixed Category Pain is caused by a complex mixture of nociceptive and neuropathic factors. An initial nervous system dysfunction or injury may trigger the neural release of inflammatory mediators and subsequent neurogenic inflammation. For example, migraine headaches, myofascial pain[7]. Postoperative pain can be divided into acute pain and chronic pain. Acute pain is experienced immediately after surgery up to 7 days and pain which lasts more than 3 months after the injury is considered to be chronic pain. Acute and chronic pain can arise from cutaneous, deep somatic or visceral structures. Acute pain plays some useful positive role such as to provide a warning of tissue damage and inducing immobilization to allow appropriate healing. But, pain has some short term negative effects such as sleep disturbance, cardiovascular side effects, increase oxygen consumption, impaired bowel movement, delays mobilization and promotes thromboembolism. Management of post postoperative pain has generally been shown to be inadequate. It is important to distinguish between first pain and second pain. Second pain is dull, arching poorly localised due to stimulation of receptors that exist in many tissues except brain. Nerves coming from and leading to all parts of the body enter and exit the spinal cord along its entire length. There are 31 pairs of spinal nerves that exit the spinal cord through openings between the vertebrae. The point at which the nerve exits the spinal is called the nerve root, and where it branches and into many smaller nerves that control different part of the body is called peripheral nerves. The peripheral nerves include both motor and sensory nerves. Sensory nerves are nerves that receive

sensory stimuli. Motor nerves lead to the muscles and stimulate movement. Various mechanisms are; Nociception refers to the processing of a noxious stimulus resulting in the perception of pain by the brain. The components of nociception include transduction, transmission, modulation and perception. Hyper responsiveness increased sensitivity is a hallmark feature of both acute and chronic pathologic pain. This is a result of changes in the nervous system response neuroplasticity at peripheral and central locations Figure 1.

Chapter 5 : New Guidelines for Post-Op Pain Management

The Pain Consultation Services (PCS) at Emory University Hospital and Emory University Hospital Midtown work with the Department of Anesthesiology to alleviate acute post-operative pain. On occasion, the PCS acts as the primary physician for hospitalized patients, with the admission and care directed by the patient's attending physician from.

Chapter 6 : Acute Postoperative Pain: Definition of Acute Pain | Pain Community Centre

Medicare Global Surgery Rules prevent separate payment for postoperative pain management when provided by the physician performing an operative procedure. CPT codes , , - , - , and - describe some services that may be utilized for postoperative pain management.

Chapter 7 : Acute Postoperative Pain Management - Brigham and Women's Hospital

Acute pain management in the older adult is both challenging and rewarding. This review addresses the difficulty with assessment of pain in the older adult, variations in the pain experience of.

Chapter 8 : Acute Post-Operative Pain Management - Find-A-Code Articles

Pain is the 5 th vital sign and robust protocols, team working and regular evaluation need to underpin postoperative pain management. References Gray, P.,

Chapter 9 : Acute Pre & Post-Operative Pain Management

Managing acute postoperative pain is a major challenge for practitioners, given that more than 80% of patients report pain after surgery, and 75% report the pain as moderate, severe, or even extreme. In more than half of cases, patients report not receiving adequate pain management following.