

TREATMENT OPTIONS FOR ACUTE PAIN



Presented as an educational service by
NEW JERSEY STATE DRUG UTILIZATION REVIEW BOARD

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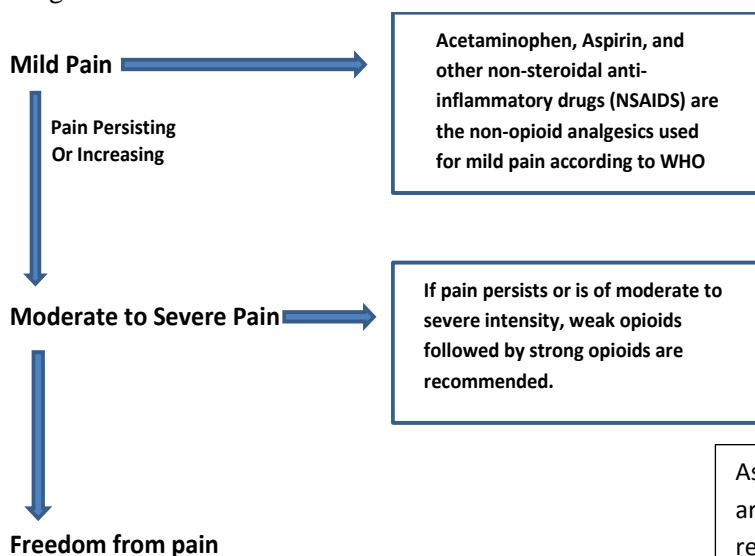
BACKGROUND

Although approach to treatment can sometimes overlap, the pathways of acute pain versus chronic pain are different. In contrast to chronic pain which is considered a disease state (lasts over 3 months or even years), acute pain is usually self-limiting, has identifiable cause(s) such as surgery, trauma, medical procedure, and rarely persists longer than 2 weeks.¹ If acute pain is not adequately or aggressively treated, it may lead to the development of harder-to-treat chronic pain.^{1,2}

ASSESSMENT

Timely and accurate assessment of acute pain is necessary for the development of an effective management plan. Tools for measuring pain intensity include: numeric rating scale (NRS), also known as the numerical pain intensity scale (NPI), verbal descriptor scale (VDS), and Wong-Baker Faces scale, to mention a few. Use of these scales can help in monitoring treatment effectiveness and guide adjustment when needed.

Figure 1.



TREATMENT OPTIONS

Medication choices should reflect the reported intensity of the pain and any confounding factors, such as comorbidities and other medications being used concurrently, such as sedatives and antiemetics.² The World Health Organization (WHO) approach (modified in Figure #1) is one of the recommended methods of selecting an appropriate medication on the basis of severity of the pain and intensity. Table 1 lists examples of the medications in each category. The WHO also advocates that analgesics should be given “by-the-clock” rather than “on demand” since optimal acute pain management is obtained by administering analgesics before pain occurs. This approach also decreases episodes of breakthrough pain.

Remember . . .

- Aggressive intervention is required to prevent progression into chronic pain
- Adequate pain control reduces anxiety and therefore may remove need for breakthrough pain treatment
- Good quality pain assessment is essential for an effective treatment plan
- Use of a pain scale is recommended to monitor treatment and determine when changes are needed
- Lower combination of different medication categories is more effective than higher doses of one type of drug

As opposed to “step therapy” when formulary drug considerations are made, the WHO approach suggests the class of drugs to use relative to the patients’ severity of pain as demonstrated by the pain assessment scales discussed above. It does not recommend specific drugs to “try.”

Table 1. Drugs for Pain (**not an exhaustive list**)

Drug	Usual Adult Analgesic Dosage	Comments
<i>Some Nonopioid Analgesics</i>		
Acetaminophen (Tylenol®) (Ofirmev)	650mg q6h (PO) (IV)	Has no clinically significant anti-inflammatory activity. Used for mild pain
Aspirin	325-650mg q4-6h	Aspirin is effective for most types of mild to moderate pain .
Diflunisal	500mg q8-12h	Used for mild to moderate pain
<i>Some non-selective NSAIDs</i>		
Diclofenac potassium	50mg q8-12h	Dyspepsia and GI bleeding can occur with all NSAIDs including parenteral formulations. Used for mild pain
Etodolac	200-400mg q6-8h	
Ibuprofen	200-400mg q4-6h	
Naproxen	250m-500mg BID	
<i>Selective COX-2 Inhibitor</i>		
Celecoxib	200mg q12h	Appears to cause less GI toxicity than non-selectives but has similar risk in terms of GI bleeding. Used for mild pain
<i>Some Opioid Analgesics</i>		
Full agonists: Codeine Hydrocodone Morphine Agonists/Reuptake inhibitors: Tapentadol (Nucynta®) Tramadol (Ultram®)	15-60mg q4h 5-10mg q4-6h 10-30mg q4h (soln); 15-30mg q8-12h ER 50-100mg q4-6h (IR); 50mg BID (ER) 50-100mg q4-6h (IR); 100mg QD (ER)	Generally used for treatment of moderate to severe pain . Usually have no ceiling for analgesic effectiveness, except that imposed by adverse effects.
<i>Other treatment options</i>		
Antidepressants: Amitriptyline Duloxetine (Cymbalta®) Anti-epileptics: Gabapentin (Neurontin®) (Gralise®) Pregabalin (Lyrica®)	25-100mg once 30-60mg/day 1800-3600mg divided TID (IR) 1800mg once (ER) 150-300mg/day divided q8-q12h	Some antidepressants and anti-epileptics have been shown to have pain-relieving properties.

References:

1. Hansen GR. Management of Chronic Pain in the Acute Care Setting. Emerg Med Clin N Am. 2005;23:307-338.
2. Koo PJ. The Pain Continuum: From Acute Treatment to Chronic Management. Proceedings. 2009;6:94-99.
3. Treatment Guidelines from The Medical Letter. Vol 11 (128). April 2013