

Pain management at the end of life in the elderly

By: Winnie Suen, MD, Geriatrics Section

Your 78yo patient with metastatic pancreatic cancer was admitted with 10/10, stabbing, intermittent, epigastric pain. What pain medication do you treat him with?

Pain is one of the most dreaded symptoms at the end of life. This article addresses the pharmacologic treatment of physical pain. Elderly patients with pain are managed differently than younger patients. The elder is more likely to under-report pain and has a higher incidence of side effects from pain medications. Untreated and undertreated pain can lead to negative outcomes such as depression, insomnia, ambulation difficulties, and social isolation.

The most widely used pharmacologic approach for pain management is the World Health Organization stepwise approach.

Pain intensity	Treatment	
Mild Pain (1-3/10)	Nonopioids +/- Adjuvants	Nonopioids <ul style="list-style-type: none">• NSAIDs• Salicylates• Propoxyphene
Moderate Pain (4-6/10)	Weak Opioids +/- Adjuvants	Weak Opioids <ul style="list-style-type: none">• Codeine• Hydrocodone bitartrate• Oxycodone and acetaminophen combinations
Severe (7-10/10)	Strong Opioids +/- Adjuvants	Strong Opioids <ul style="list-style-type: none">• Morphine (immediate/sustained release)• Oxycodone (immediate/sustained release)• Hydromorphone• Fentanyl transdermal patch

Adjuvant Therapy: Anticonvulsants, Antidepressants, Corticosteroids, Dermal analgesics, Muscle relaxants, Stimulants

Tylenol (acetaminophen):

- **Drug of choice for elderly patients with mild or moderate pain.**
- Dose 650-1000mg qid.
- Reduce dose by 50% in those with liver dysfunction

NSAIDS:

- Mild to moderate pain
- May not be well tolerated in the elderly
- Long term use associated with causing renal impairment, platelet dysfunction, gastrointestinal bleeding. Concurrent treatment with a proton pump inhibitor reduces GI bleeding risk.

Opioids:

- Moderate to severe pain
- Tolerance to side effects of sedation, nausea, some respiratory depression possible.
- Constipation- no tolerance develops. Laxatives must be prescribed concurrently. Colace shouldn't be used alone for opioid-induced constipation. Natural laxatives such as prune juice can be recommended. Osmotic laxatives such as milk of magnesia or lactulose are usually required. Combinations with stimulant laxatives such as senna or biscodyl are often needed.
- Meperidine (Demerol)- **Do not use**. The active metabolite, normeperidine, can accumulate leading to neuroexcitatory toxicity and seizures. Caution in those with hepatic and renal impairment.
- Methadone- recently prescribed more frequently because it is inexpensive, long acting, and effective for nociceptive and neuropathic pain. However, caution towards use as the analgesic half-life may be shorter than the serum half-life, increasing the risk for under and overdosing.
- Morphine- drug of choice at the end of life because it is inexpensive, easy to titrate, and has multiple routes of administration. Standard starting dose for an opioid naïve person is 5-10mg q4h prn. Hospices usually ask for morphine to be prescribed at 20mg/1ml. The BMC pharmacy has a morphine elixir at 10mg/5ml if needed. If the patient is still able to take medications orally, a longer acting medication such as oxycodone or MS Contin would be appropriate.
- Fentanyl patches- should only be given to patients with previous exposure to opioid who require chronic pain control. They usually require 12 hours to have any effect. 25mcg of fentanyl is roughly equivalent to 90mg of morphine in a 24-hour period. Fentanyl patches require there be enough fat stores to absorb and retain the medication, so a cachectic patient would not be an ideal candidate.

In general, in the elderly, Tylenol should be first line therapy for mild to moderate pain. For opioids, start off with a low dose and titrate up, monitoring for side effects. The goal of care at the end of life is to provide the patient relief from pain and other distressing symptoms.

Reference

Morrison, Sean and Meier, Diane. "Geriatric Palliative Care." Oxford, Oxford University Press. 2003. pg. 205-219.

BMC pharmacy guidelines-Pharmacy department, Medication guidelines, "Pain management (Adult). http://www.internal.bmc.org/pharmacy/guidelines/mdg_painmanagement_adult.pdf