PM&R
and
Pain Management

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PM&R within IRF/SNF

- Oversight of functional patient care
- Patient visits 2-3x/week as needed
- Attendance during family meetings/care plans as needed
- Consultations for assisted living and long term residents who may benefit from ordering Medicare Part B therapy services
- Support to the primary care team
- Provide in-service education for nursing/therapy team
- Communication with local surgeons, hospitals, clinics and social workers

PM&R in IRF/SNF

- Act as a liaison between orthopedic surgeons, therapists, nurses and patients
- Perform joint injections as needed including knees, shoulders, wrist and ankles
- Perform trigger point injections as needed to help reduce pain and pain medication
- Diagnose orthopedic and neuro-muscular conditions
- Manage pain/opioid medications, including weaning as patients approach discharge
- Clinical documentation to help support therapy, audits and surveys
- Peer to peer reviews for insurance denials

Pain Management Pearls

Evidence should be at the heart of policymaking, however…

-Poverty of evidence exists for acute and chronic pain interventions.

-Clinically significant differences at a meaningful level: typically, a 1-point change on a 10-point scale.

-Unidimensional scores, such as a 0 to 10 pain rating, may not be telling us what we think they do. This is why some societies are finding such difficulties with medication use, expecting responses that are unlikely to be achieved because the ***psychosocial components*** are ignored

-What is unknown often is how to predict who will respond well to a particular intervention

Post-Operative pain

-Of patient-controlled opioid analgesia for postoperative pain compared with “conventional” opioid analgesia, a 2015 review suggested that the evidence was of ***low to moderate quality*** that the ***patient-controlled opioid analgesia*** reduced pain about 10% but may lead to an increased opioid dose and, unsurprisingly, increased nausea

-Good (low) NNTs were obtained with ***ibuprofen 200 mg plus paracetamol (acetaminophen) 500 mg***, ibuprofen fast acting 200 mg, ibuprofen 200 mg plus caffeine 100 mg, diclofenac potassium 50 mg, etoricoxib 120 mg

-***Long duration of action (eight hours or greater)*** was found for etoricoxib 120 mg, diflunisal 500 mg, paracetamol 650 mg plus oxycodone 10 mg, naproxen 500/550 mg, celecoxib 400 mg, and ibuprofen 400 mg plus paracetamol 1000 mg.

-No evidence of analgesic effect for oxycodone 5mg (low quality evidence).

-No trial data for Meloxicam.

Post op pain

-Evidence from 2641 participants in 20 randomised, double blind, placebo-controlled clinical trials of oxycodone, with or without paracetamol, in adults with moderate to severe acute postoperative pain. ***Oral oxycodone 10 mg plus paracetamol 650 mg provided effective analgesia. About half of those treated experienced at least half pain relief over 4 to 6 hours, and the effects lasting up to 10 hours.*** Higher doses gave more effect. Associated adverse events (predominantly nausea, vomiting, dizziness and somnolence) were more frequent with oxycodone or oxycodone plus paracetamol than with placebo, but studies of this type are of limited use for studying adverse effects. Limited information about oxycodone on its own suggests that it provided analgesia at doses greater than 5 mg, and that addition of paracetamol made it more effective.

-***Ibuprofen 400 mg plus oxycodone 5 mg*** provided effective pain relief for about 6 in 10 (60%) of participants, compared with just under 2 in 10 (17%) of participants with placebo. The analgesic effects lasted longer and there were no more adverse events with the combination than with placebo. The combination **provided effective pain relief to about the same proportion of people as did ibuprofen alone**, but there was a lower chance of needing additional analgesia with the combination.

-***Gabapentin 250 mg is statistically superior to placebo*** in the treatment of established acute postoperative pain, but the NNT of 11 for at least 50% pain relief over 6 hours with gabapentin 250 mg is of limited clinical value and inferior to commonly used analgesics. Gabapentin 250 mg is ***not clinically useful as a stand-alone analgesic in established acute postoperative pain, though this is probably the first demonstration of analgesic effect of an antiepileptic in established acute pain.***

Chronic non-cancer pain

-CDSR 91 reviews of chronic noncancer pain. Although most of the reviews look at pharmacological interventions for neuropathic pain, also included are persistent pain in torture survivors, acupuncture patients, and those who have experienced interventions for reducing opioid use for chronic noncancer pain.

-No evidence to support the use of high dose (200 mg or more morphine equivalent daily) opioids in chronic noncancer pain

-A review of ***Gabapentin in neuropathic pain*** suggested that after shingles, 3 in 10 people had their pain reduced by 50% with gabapentin (1200 mg daily or more), whereas 2 in 10 had the same response with placebo

-If success was defined as a reduction by ***30% or more***, 5 in 10 participants achieved this with gabapentin and 3 in 10 with placebo. Although side effects were more common with gabapentin, 6 in 10, 5 in 10 had them with placebo, and there was no difference in serious side effects.

Peripheral polyneuropathy (PPN)

-Both ***TCAs and venlafaxine*** have NNTs of approximately 3. There is evidence to suggest that other antidepressants may be effective but numbers of participants are insufficient to calculate robust NNTs. ***SSRIs*** are generally better tolerated by patients and more high quality studies are required.

-Topical clonidine may provide some benefit to adults with painful diabetic neuropathy; however, the evidence is very uncertain

-***Very low quality*** evidence that ***oxycodone*** (as oxycodone MR) is of value in the treatment of painful diabetic neuropathy or postherpetic neuralgia. No evidence for other neuropathic pain conditions. Adverse events typical of opioids appeared to be common.

-***Gabapentin at doses of 1800 mg to 3600 mg daily*** (1200 mg to 3600 mg gabapentin encarbil) can provide good levels of pain relief to some people with postherpetic neuralgia and peripheral diabetic neuropathy.

-Little evidence to support the use of ***nortriptyline*** to treat the neuropathic pain conditions

-Little compelling evidence to support the use of ***venlafaxine*** in neuropathic pain.

PPN

- No evidence of sufficient quality to support the use of ***clonazepam*** in chronic neuropathic pain or fibromyalgia

-No evidence of sufficient quality to support the use of ***phenytoin*** in chronic neuropathic pain or fibromyalgia

-Evidence shows efficacy of ***pregabalin*** in postherpetic neuralgia, painful diabetic neuralgia, and mixed or unclassified post-traumatic neuropathic pain, and absence of efficacy in HIV neuropathy; evidence of efficacy in central neuropathic pain is inadequate. Some people will derive substantial benefit with pregabalin

-No evidence to support or refute the use of oral ***NSAIDs*** to treat neuropathic pain conditions

-Adequate amounts of moderate quality evidence from 8 studies performed by the manufacturers of ***Duloxetine that doses of 60 mg and 120 mg daily*** are efficacious for treating pain in diabetic peripheral neuropathy but lower daily doses are not.

PPN

-Insufficient evidence to support or refute the suggestion that ***hydromorphone*** has any efficacy in any neuropathic pain condition

-No supportive unbiased evidence for a beneficial effect of ***Amitriptyline*** for neuropathic pain.

-Little evidence to support the effectiveness of ***oxcarbazepine*** in painful diabetic neuropathy, neuropathic pain from radiculopathy and a mixture of neuropathies. Some very-low-quality evidence suggests efficacy but small trials, low event rates, heterogeneity in some measures and a high risk of publication bias means that we have very low confidence in the measures of effect.

Gout

-Low-quality evidence that ***low-dose colchicine*** may be an effective treatment for acute gout when compared to placebo and low-quality evidence that its benefits may be similar to NSAID

-Moderate-certainty evidence shows that ***COXIBs and non-selective NSAIDs are probably equally beneficial*** with regards to improvement in pain, function, inflammation, and treatment success, although non-selective NSAIDs probably increase withdrawals due to adverse events and total adverse events.

-Moderate-certainty evidence shows that ***systemic glucocorticoids and NSAIDs probably are equally beneficial in terms of pain relief***, improvement in function, and treatment success. Withdrawals due to adverse events were also similar between groups, but NSAIDs probably result in more total adverse events.

MSK / SOFT TISSUE INJURY / MYOFASCIAL PAIN

-Compared with paracetamol, NSAIDs make no difference to pain at one to two hours and at two to three days, and may make no difference at day seven or beyond. NSAIDs may result in a small increase in gastrointestinal adverse events and may make no difference in neurological adverse events compared with paracetamol.

-Compared with opioids, NSAIDs probably make no difference to pain at one hour, and may make no difference at days four or seven. NSAIDs probably result in fewer gastrointestinal and neurological adverse effects compared with opioids.

-The very low-certainly evidence for all outcomes for the NSAIDs versus paracetamol with opioid combination analgesics means we are uncertain of the findings of no differences in pain or adverse effects.

-Thus, NSAIDS in these time frames gave the same pain relief as Tylenol AND opiates.

-***Insufficient evidence*** to support the use of ***Cyclobenzaprine*** in the treatment of MP.

Fibromyalgia

-No evidence to support or refute the suggestion that ***oxycodone***, either alone or in fixed dose combination with naloxone, has any efficacy in pain in fibromyalgia

-Evidence that ***gabapentin*** improves pain or other symptoms of fibromyalgia is ***weak and of very low quality.*** At best it may benefit a few people with the condition.

-No evidence of sufficient quality to support the use of ***clonazepam*** in chronic neuropathic pain or fibromyalgia

-No evidence of sufficient quality to support the use of ***phenytoin*** in chronic neuropathic pain or fibromyalgia

-***Pregabalin 300 to 600 mg produces a major reduction in pain intensity*** over 12 to 26 weeks with tolerable adverse events for a small proportion of people (about 10% more than placebo) with moderate or severe pain due to fibromyalgia.

Fibromyalgia

-Current best practices in fibromyalgia guidelines recommend using the combination of pharmacological therapy with ***aerobic exercise and psychological therapies***

-***Duloxetine and milnacipran (Savella***) were better than placebo in reducing pain by 50% or more and in improving global well-being (low-quality evidence). Duloxetine and milnacipran were better than placebo in improving health-related quality of life and in reducing fatigue (low-quality evidence). Duloxetine and milnacipran were not better than placebo in reducing sleep problems (low-quality evidence).

-Lower quality evidence that duloxetine is effective at similar doses to those used in diabetic peripheral neuropathy and with a similar magnitude of effect. The effect in fibromyalgia may be achieved through a ***greater improvement in mental symptoms than in somatic physical pain.***

Low back pain

-Some evidence (very low to moderate quality) for short-term efficacy (for both pain and function) of ***opioids*** to treat CLBP compared to placebo. The very few trials that ***compared opioids to non-steroidal anti-inflammatory drugs (NSAIDs) or antidepressants*** did not show any differences regarding pain and function.

-No placebo-RCTs supporting the effectiveness and safety of long-term opioid therapy for treatment of CLBP.

-6 of the 13 included RCTs showed that ***NSAIDs*** are more effective than placebo regarding pain intensity. NSAIDs are slightly more effective than placebo regarding disability. No difference in efficacy between different NSAID types, including selective versus non-selective NSAIDs.

-***Muscle relaxants*** are effective in the management of non-specific low back pain, but the adverse effects require that they be used with caution.

Rheumatoid arthritis

-A review of ***opioids*** for pain associated with rheumatoid arthritis suggested there was “limited evidence” for the efficacy of weak opioids up to six weeks but no evidence beyond six weeks and no evidence for the use of strong opioids.

NSAIDS

-Some evidence that pre-emptive and preventive NSAIDs r***educe both pain and morphine consumption***, although this was not universal for all pain and morphine consumption outcomes.

Tapentadol

-Tapentadol extended release was associated with a reduction in pain intensity in comparison to placebo and oxycodone. Tapentadol is associated with a ***more favourable safety profile and tolerability than oxycodone.***

-Tapentadol to improve pain control slightly in comparison to placebo and oxycodone and to have a better safety and tolerability profile than oxycodone.

Methadone

-No conclusions can be made regarding differences in efficacy or safety between methadone and placebo, other opioids, or other treatments.

What really grinds my gears…

-More than one opiate ordered at a time

-More than one muscle relaxer ordered at at time

-Extended release opiates used PRN

-Gabapentin used as PRN

Questions?

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