

Pain Management Chronic Pain - Evaluation & Assessment

This pathway does not replace sound clinical judgment or apply to all patients

Definition of Chronic pain

Persistent pain lasting longer than 30 days (or the anticipated healing time) and of sufficient duration and intensity to adversely affect a patient's well-being, level of function, and quality of life. ¹

Initial Assessment

1. History/Physical

- History & Physical for assessment of general health status if new patient
- Documentation of co-morbid medical conditions on the **Problem List**

2. Assessment of pain should always be done in a *systematic and consistent manner*

Initial Chronic Pain Evaluation consists of:

- Pain onset and location, any injuries? (Pain diagram)
- Pain description, quality, character
- Pain History:
 - Prior pain diagnoses, testing- what are results?
 - Prior procedures/surgery for pain problem? What was it? Where and when performed?
 - Prior pain medications- which ones? Effectiveness? Side effects?
 - Other prior pain treatments- nonpharmacologic such as physical therapy, TENS, or Mental Health counseling?
- What factors aggravate or alleviate the pain?
- Pain scale- severity of pain in last week, on average and currently
 No pain 0 1 2 3 4 5 6 7 8 9 10 **Worst Pain**

3. Psychosocial assessment:

- History of Mental Health disorder/treatment? Screen for depression (2 questions on Chronic Pain Intake Form {CDCR 7473 12/09})
- Obtain history of drug/alcohol abuse- Current? Past? Substance of choice? Any prior treatment?

4. Functional assessment:

- Are you able to participate in prison program? Work or education?
- Are you able to get in and out of your bunk?
- Does your pain affect your relationship with others? Are you irritable? Withdrawn?
- Do you have any hobbies that are affected by your pain? .
- Is your sleep disturbed by pain? If so how?
- Are you able to walk to meals? Participate in yard? Get down for alarms? Stand for counts?
- Self-care behaviors- do you have any limitations with showering? Dressing? Grooming? Toileting?
- Is pain affecting your Sexual function?

5. Goals and Expectations: Elicit the patient's goals. (Document in chart).

- What is their expectation about achievable degree of pain relief?
- Is their expectation that they will be pain free?
- What is their expectation about treatments that will be used?
- Do they have specific treatments or medications in mind? If so, which one(s)?
- What is their expectation about how fast the pain management process will occur?
- What is their expectation about their role/responsibility in the program?

6. Establish diagnosis or continue work-up by obtaining studies or consultation as needed.

Guiding Principals of Treatment

- ▶ **Establish a primary care relationship.** No long term changes to the treatment plan should be made outside of the primary care team.
- ▶ **Multidisciplinary care.** In addition to PCP; Primary Care Nurse, Pharmacist, Physical Therapy, Psych Tech, Peer Educator and Specialists all may contribute to care.
- ▶ **Assessment and Plan to incorporate functional and rehabilitation potential.**
- ▶ **Psychosocial management**
 - **Address possibility of co-existing anxiety or depression.** Consult Mental Health if indicated.
 - **Address history of substance abuse and complete risk assessment if considering opioids.** Refer to Mental Health if indicated.
- ▶ **Close and frequent follow-up to monitor patient's condition.**

Pain Management Chronic Pain – Treatment Algorithm

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Nonpharmacologic Treatment
(refer to full guidelines)

Patient education
Rehabilitative therapies as indicated in the presence of functional limitations including:

- Physical therapy, Physical agent modality (heat / cold, TENS)
- Therapeutic exercise (ROM, stretching, energy conservation);
- Proper independent exercise program; Protective body technique

Specific procedure when indicated
Psychological modalities including cognitive/behavioral therapy, relaxation, imagery.

+ Requires Mental Health Evaluation if coexisting depression
✓ Limited indications restricted to use by pain specialist only
NF Nonformulary

Pharmacologic Treatment
Consider pain type/mechanism if known
(Many pain conditions have mixed functions)

Somatic / Visceral

- Acetaminophen
- NSAIDS – try at least 2 from different classes. (Cox II Inhibitor – see Attachment C, Page 7).
- Muscle relaxant – limited / short term effectiveness. (Generally not indicated for chronic pain.)
- Opioids*

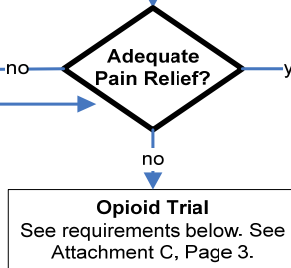
Neuropathic

- Choose one:
 - Anticonvulsant (gabapentin, oxcarbazepine)
 - SNRI (venlafaxine, duloxetine-NF)
 - Tricyclic Antidepressant (nortriptyline+)

(Titrate dose and allow adequate time. If no response, try another class. If limited response add another class)
If mixed pain consider adding NSAID – try at least 2 from different classes.

- Opioids*

- Consider alternate medications if no relief or complimentary combinations of above if some relief from primary agent.
- Always assess compliance and assure adequate dose/duration given prior to changing therapy.
- Re-evaluate pain mechanism / diagnosis.



Continue treatment plan with careful follow-up.

*Requirements for Opioid Prescribing in Chronic Pain

Evidence supporting effectiveness of opioids for long term treatment of noncancer chronic pain is limited. Opioids are associated with potentially serious harm including opioid-related adverse events and abuse potential. When considering a patient for potentially long term opioid treatment:

1. You must have tried all other medication classes at adequate doses for adequate length of time without acceptable relief. Adequate trials should be documented in the UHR.
2. You must weigh the risks and benefits, especially considering the patient's co-morbid medical, psychiatric and if present, substance abuse history. This evaluation may take time and should not be rushed. Consider if giving an opioid is helping this patients overall rehabilitation or hindering it.
3. You must have a **clear medical indication** with **objective data** supporting the diagnosis. (i.e. either radiologic evidence of severe degenerative disease; evidence of nonhealing fractures or tears; EMG evidence of neuropathy consistent with anatomic defects; non-healing wounds; or evidence of abnormal inflammation on lab studies)
 - a. If there is NO clear, objective medical indication and the patient continues to report persistent severe pain they should be referred to:
 - i. Local medical leadership via existing institution committee structure ie P & T, MAR, or if available Narcotic/Pain Committee.
 - ii. Pain Champion at the institution (if available).

Or

 - ii. Onsite Pain management Specialist as authorized through your facility MAR process or offsite Pain management Specialist approval through HQ Utilization Management. (See Guidelines for appropriate Referral process).
4. You must obtain informed consent and establish treatment boundaries using a Patient Agreement. (Attachment F)
5. Baseline urine tox screen can be considered in high risk patients.

Pain Management Chronic Pain - Opioid Therapy

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Contraindications to Opioid Therapy											
<p>Absolute</p> <ul style="list-style-type: none"> Allergy (rare) Severe drug-drug interaction Active diversion of controlled substance Unwillingness to comply with the treatment plan 	<p>Relative</p> <ul style="list-style-type: none"> Psychiatric instability History of adverse event or lack of efficacy Current substance abuse disorder Noncompliance with other treatment recommendations 										
Initial Drug of Choice & Dosing											
<p>Initial Drug Choice</p> <ul style="list-style-type: none"> □ No one opioid is more effective than another. However, due to variable inter-patient differences in response (efficacy & adverse effects), drug choice should be based on patient specific factors such as comorbidities, comedications, previous history and risk benefit assessment. <ul style="list-style-type: none"> - Long acting opioids are preferred for chronic pain in the correctional setting - Preferred formulary agents include methadone and morphine SR. Both have differing properties and associated risks. Table 1 includes a list of drug specific facts as well as the pros and cons of each agent which should be carefully considered prior to drug selection. <p>Dosing Principals</p> <ul style="list-style-type: none"> □ Start low to achieve the best pain relief with fewest adverse effects. Carefully titrate until an adequate level of analgesia is obtained or until unmanageable, persistent adverse effects occur. In general, do not increase more frequently than every 5 half lives. □ Increase opioid dose by percentages, not milligrams. □ Use opioids in conjunction with acetaminophen, NSAIDS and/or adjuvants according to pain type and contributing comorbidity (opioid sparing). □ A lack of response despite dose escalation may indicate opioid non-responsive pain and opioid therapy should be discontinued. □ After pain control is established, the analgesic dose usually remains stable. Increased medication need requires complete reassessment. 											
Dose Titration											
<ul style="list-style-type: none"> □ Generally, start with initial dose of LA opioid and a small dose of SA opioid PRN for 1 week at a time. If patient requires SA opioid, add up the amount needed after 1 week and readjust LA opioid dose. SA opioid use would be expected to last only a few weeks. If adequate pain control or improved functioning are not achieved after several dose titrations, consider opioid nonresponse, diversion and/or referral to pain committee. 											
Breakthrough Pain											
<ul style="list-style-type: none"> □ Short-acting opioids may be used for treatment of BTP during <i>initial titration</i> if pain is severe and escalating. □ Attempts should be made to manage BTP with non-opioid treatment modalities. □ Use of short-acting opioids should be minimized especially in high risk patients as they are highly reinforcing due to rapid onset and peak effect. □ Opioids for BTP are a temporary measure and should <i>not</i> be a part of long term management. □ Ongoing requirements for BTP treatment indicate the need for re-evaluation of the treatment plan. 											
Side Effects (see Table 5)											
<ul style="list-style-type: none"> □ Side effects are largely predictable and controllable. Tolerance to most side effects develops in about 7-10 days (excluding constipation). □ The most common side effects include nausea, vomiting, constipation, sedation and itching. 											
Monitoring, Assessment & Follow-up											
<ul style="list-style-type: none"> □ Give each medication an adequate therapeutic trial. Any change in dose should be done during a clinic visit. Frequent office visits may be necessary during the titration phase. Follow-up should follow patient acuity. □ <u>Assess the four A's at each clinic visit:</u> <ul style="list-style-type: none"> <li style="width: 50%;">- Adverse Events <li style="width: 50%;">- Activity (functional status, both physical and psychosocial) <li style="width: 50%;">- Adherence to complete treatment plan & signs of aberrant drug related behavior (urine drug testing) <li style="width: 50%;">- Analgesic efficacy (pain, functioning, satisfaction) 											
Dose Adjustment or Change in Therapy											
<p><u>Reassess treatment plan before making any changes:</u></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Was an adequate trial given?</td> <td style="width: 50%;">Was the dosing interval appropriate?</td> </tr> <tr> <td>Was the dose given prior to activity?</td> <td>Was the patient compliant?</td> </tr> <tr> <td>Was the dose given as ordered?</td> <td>Is there a need for upward titration?</td> </tr> <tr> <td>Were adjunctive medications given?</td> <td>Has the patient's condition worsened?</td> </tr> <tr> <td>Are there new conditions or cormorbidities?</td> <td></td> </tr> </table> <p>For most agents, when converting to a different opioid the starting dose (total daily dose) of the new opioid should be 50-67% of the equianalgesic dose because of incomplete cross tolerance. Equianalgesic dosing provided in Table 3.</p>		Was an adequate trial given?	Was the dosing interval appropriate?	Was the dose given prior to activity?	Was the patient compliant?	Was the dose given as ordered?	Is there a need for upward titration?	Were adjunctive medications given?	Has the patient's condition worsened?	Are there new conditions or cormorbidities?	
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Are there new conditions or cormorbidities?											
Indicators to Stop Therapy											
<ul style="list-style-type: none"> <li style="width: 50%;">◦ Severe, uncontrollable adverse effects <li style="width: 50%;">◦ Resolution of pain etiology <li style="width: 50%;">◦ Dangerous behavior or behavior suggestive of abuse/misuse <li style="width: 50%;">◦ Ineffective therapy <li style="width: 50%;">◦ Patient dissatisfied <p style="text-align: center; font-style: italic;">Opioids should not be abruptly discontinued. See Attachment C, Page 4 for tapering information.</p>											

Pain Management Chronic Pain - Opioid Therapy

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Opioid Tapering

There is no single protocol that has been proven more efficacious than another. The schedule should be made on an individual basis given the patients complexity. Generally, the longer a patient is on an opioid and the higher the dose, the slower the taper should be. Methadone can be particularly difficult to taper. A typical taper involves a dose reduction of 20%-50% per week until lower doses are reached, then slower taper until patient completely off medication. Examples are given below:

Symptoms of opioid withdrawal may be relieved with clonidine 0.1-0.2 mg BID. However, clonidine can also cause side effects, including low blood pressure, drowsiness, restlessness, insomnia, irritability, faster heartbeat, and headaches.

<p>Katrina Disaster Working Group Tapering Regimens [AAPM 2005]</p> <ul style="list-style-type: none"> • Reduction of daily dose by 10% each day, or... • Reduction of daily dose by 20% every 3-5 days, or... • Reduction of daily dose by 25% each week. <p>VA Suggested Tapering Regimens for Short-Acting Opioids [USVA 2003]</p> <ul style="list-style-type: none"> • Decrease dose by 10% every 3-7 days, or... • Decrease dose by 20%-50% per day until lowest available dosage form is reached (e.g., 5 mg of oxycodone) • Then increase the dosing interval, eliminating one dose every 2-5 days. 	<p>VA Suggested Tapering Regimens for Long-Acting Agents [USVA 2003]</p> <p><i>Methadone</i></p> <ul style="list-style-type: none"> • Decrease dose by 20%-50% per day to 30 mg/day, then... • Decrease by 5 mg/day every 3-5 days to 10 mg/day, then... • Decrease by 2.5 mg/day every 3-5 days. <p><i>Morphine SR (controlled-release)</i></p> <ul style="list-style-type: none"> • Decrease dose by 20%-50% per day to 45 mg/day, then... • Decrease by 15 mg/day every 2-5 days.
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Table 1: Methadone & Morphine Facts

Drug	Methadone	Morphine
Pros & Cons	Tablets are crushable. Provider must be knowledgeable regarding the pharmacokinetics / dynamics. Requires careful monitoring during titration. * See Table 2: Special Methadone Concerns, Attachment C, Page 5.	SR tablets must be swallowed whole. Do not break, crush or chew. Whole tablets may be easier to cheek and divert. Improper use of various morphine dosage forms are associated with increased risks.
Dosage Forms	Tablet: 5mg, 10 mg, Soln: 10mg/ml	IR: 15mg, 30mg tab SR: 30mg tab Soln: 10mg/5ml
Initial Dose *	2.5 mg to 5 mg QHS [1 mg QD to BID for elderly]	15 mg SR QHS
Titration	2.5 mg – 5 mg BID x 7d 5–10 mg BID x 7d 7.5 mg BID x 7d 10 mg BID x 7d 10 mg TID x 7d 20 mg BID * See Attachment C, Page 3 for dose titration guidance	15 mg SR BID Titrate by 15 mg Q 3-7 days * See Attachment C, Page 4 for dose titration guidance
Recommended Max Daily Dose	60 mg	240 mg
Full Effect	2-4 Weeks	Varies
Contraindications / Precautions	Hypersensitivity BPH, urethral stricture Significant pulmonary disorder Severe hepatic or renal insufficiency Elderly QT prolongation	Hypersensitivity Significant pulmonary disorder Paralytic ileus Bleeding diathesis Head Injury Severe Renal or hepatic insufficiency Elderly
Adverse Events	Nausea Vomiting Constipation	Dizziness Resp. Depression Sedation
Significant Drug Interactions	Azole Antifungals Benzodiazepines Cimetadine Delavirdine Macrolides SSRIs TCAs	Many HIV Meds Carbamazepine Phenobarbitol Phenytoin Rifampin Risperidone
Monitoring Parameters	ECG baseline, month 1, annually If QTc is > 450 ms but < 500 ms; consider risk vs. benefit Monitor more frequently If QTc is > 500 ms, consider alternate therapy, dose reduction or elimination of contributing factors (i.e. other medications)	No lab monitoring required.

* Initial Dose for patients previously on codeine/hydrocodone products or opioid naive. This list is not intended to be all inclusive. Refer to full prescribing information, Drugs with clinically significant drug interactions should be used cautiously with careful monitoring. Alternatives should be considered.

**Pain Management
Chronic Pain – Opioid Therapy**

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Table 2: Methadone Specific Concerns

Patient Counseling Regarding Methadone:

- ❑ Pain relief builds gradually over time.
- ❑ Taking methadone as frequently as other opioids (such as Vicodin or Percocet) every 4 to 6 hours may produce a fatal overdose.
- ❑ Non-prescribed use of methadone in combination with other opioids, other drugs, or alcohol may be fatal.
- ❑ You should refrain from driving or other prison program activities requiring balance or focused concentration until the effects of methadone are known, typically a week or longer.
- ❑ Inform all other medical providers you are taking methadone. Adding medications or changing dosing of other medications can affect methadone and should be coordinated with your methadone prescriber.

General Dosing Considerations with Methadone:

- ❑ Duration of analgesia is approximately 3-6 hrs extending to 6-24 hrs with repeated dosing. Due to its long half-life (8-59 hrs), methadone plasma levels may take 5-7 days to stabilize.
- ❑ Dosing increases should not be made more frequently than every 5-7 days.
- ❑ Any indication of overmedication during the 3-8 hour post-dose period is a basis for dose reduction, regardless of condition at 24 hours
- ❑ Death by accumulated toxicity may result from overaggressive titration.
- ❑ No further increase is required the following day if the patient was comfortable, without overmedication, during 3-8 hours after dosing.
- ❑ Remember: Patient may need more time, not more methadone.
- ❑ If pain relief does not last for 12 hours, increase the dosing frequency (BID / TID / QID) as necessary.
- ❑ High doses increase the risk of conduction abnormalities. Doses > 120 mg are unlikely to produce an effect if low to moderate doses provided little to no relief.
- ❑ Overdose can occur from a single large dose, accumulated toxicity or as a result of drug interactions.

Table 3: Equianalgesic Opioid Conversion Ratios

Opioid	Equianalgesic Dose (mg)	Duration	Recommended Frequency
Morphine	30	8-12 hr (SR) / 3-4 hr (IR)	q12 hr (SR) / q4-6 hr (IR)
Oxycodone	20	8-12 hr (SR) / 3-4 hr (IR)	q12 hr (SR) / q4-6 hr (IR)
Hydromorphone	7.5	3-4 hr	q4-6 hr
Codeine	200	3-4 hr	q4-6 hr
Hydrocodone	30	3-4 hr	q4-6 hr
Levorphanol	4 Acute 1 Chronic	4-30 hr	q6-8 hr
Methadone	2 to 4 Chronic (See Table 4) 20 Acute	3-24 hr	q6-24 hr

Table 4: Sample Morphine to Methadone Conversion Ratio (this rotation should not be used in reverse)

Morphine (mg/d)	30 - 90	90 - 300	300 +
Morphine : Methadone	4 : 1	8 : 1	** Consider consultation with a pain specialist or other practitioner with experience using methadone for chronic pain
Example Equivalent Dose Conversion	MOR 60 mg = MET 15 mg	MOR 240 mg = MET 30 mg	

General Conversion Considerations

- ❑ Equianalgesic doses are approximate. Initial doses should be individualized. The patient's medical condition, the potency, dose, and type of previous opioid, the patient's degree of opioid exposure and tolerance, the patient's past analgesic response and adverse experiences, and the accuracy and reliability of opioid conversion factors may all influence the choice of starting dose.
- ❑ For methadone
 - Most published narcotic equivalence charts report only single-dose equivalence. No single ratio is suitable for converting a morphine equivalent dose to methadone. Systemic toxicity-including respiratory depression and death (in extreme cases)-can result from relying on these tables. Substantial overdose may not be apparent for several days.
 - A 30-mg dose of oral morphine has the approximate analgesic equivalent of 20 mg of oral methadone; however, with repeated dosing, relatively small doses of methadone may have the analgesic efficacy of much larger doses of morphine.
- ❑ In general, start low and go slow with careful monitoring.

Instructions for Using the Opioid Equianalgesic Conversion Chart

- 1) Calculate the total 24 hour dose of patients current opioid regimen. (scheduled plus PRN).
- 2) Locate the new opioid on the equivalence chart.
- 3) Calculate the new 24 hour dose

$$\frac{\text{Total mg new opioid} / 24\text{hrs OR (X)}}{\text{Equianalgesic Dose of new opioid from chart}} = \frac{\text{Total mg of present opioid} / 24 \text{ hrs}}{\text{Equianalgesic Dose of present opioid from chart}}$$
- 4) Solve for X
- 5) Reduce the calculated dose of the new opioid by 25%-50% for incomplete cross tolerance.
- 6) Divide the total daily dose of the new opioid by the number of doses given per day.

**Pain Management
Chronic Pain – Opioid Therapy–
Side Effects**

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Table 5: Management of Opioid Side Effects

Adverse Event	Action
Constipation	<ul style="list-style-type: none"> <input type="checkbox"/> Anticipate and treat prophylactically. Goal is 1 BM every 1-2 days. <input type="checkbox"/> Encourage increased fluids, fiber and physical activity. [calcium polycarbophil / fiber tabs – 2 to 4 tabs BID] <input type="checkbox"/> As a preventive measure a bowel regimen should be prescribed with the initial opioid prescription consisting of at least a stool softener and a laxative. (docusate 100 mg BID & bisacodyl 10-15 mg HS) <input type="checkbox"/> For treatment of constipation, additional agents may be provided as needed. <ul style="list-style-type: none"> - milk of magnesia 15-30 ml HS - lactulose 15-30 ml BID - senna 1 tab BID titrated to 4 tabs BID (nonformulary) - If no bowel movement in 3 days, consider magnesium citrate or enema
Dizziness	<ul style="list-style-type: none"> <input type="checkbox"/> Usually resolves as body adjusts to medication. <input type="checkbox"/> Encourage patient to contact PCP if condition persists more than 1 week or is bothersome.
Nausea	<ul style="list-style-type: none"> <input type="checkbox"/> Take medication with food. <input type="checkbox"/> Encourage patient to contact PCP if condition persists more than 1 week or is bothersome.
Respiratory Depression	<ul style="list-style-type: none"> <input type="checkbox"/> Infrequent, but requires immediate medical attention. <input type="checkbox"/> May occur from drug accumulation as a result of overaggressive titration.
Sedation	<ul style="list-style-type: none"> <input type="checkbox"/> Can be reduced or avoided with slow titration. <input type="checkbox"/> Check for concomitant CNS depressants. <input type="checkbox"/> Consider dose reduction with slower titration.
Sweating	<ul style="list-style-type: none"> <input type="checkbox"/> Relatively uncommon. Consider dose reduction with slower titration.
Vomiting	<ul style="list-style-type: none"> <input type="checkbox"/> May resolve as body adjusts to medication. Hold the next dose. Increase fluids as appropriate. Progressive alimentation. <input type="checkbox"/> Consider short term use of meclizine, metoclopramide or prochlorperazine.
Itching	<ul style="list-style-type: none"> <input type="checkbox"/> Itching is often self limiting but may be dose related. Consider antihistamine.
Urinary Hesitation	<ul style="list-style-type: none"> <input type="checkbox"/> Go back to previously tolerated dose with gradual titration. <input type="checkbox"/> Consider fecal impaction as a potential cause for urinary retention. <input type="checkbox"/> If the patient has the urge to urinate but is unable to void after 6 hours, immediate medical attention is required.
Overdose (in chronic opiate use)	<ol style="list-style-type: none"> 1. Patients should meet all of the following criteria before naloxone is administered: <ol style="list-style-type: none"> a. Depressed mental status: difficult to arouse or unarousable b. Shallow respirations or rate < 8 associated with evidence of inadequate ventilation (e.g. low oxygen saturation, hypotension). 2. Dilute 0.4 mg naloxone (one ampule) with normal saline to a total volume of 10 ml (1 ml = 0.04 mg). 3. Remind the patient to breathe; though narcotized, patients report hearing concerned staff and being unable to open their eyes or respond. Reminders to “take a deep breath” are often followed. 4. Administer 1 ml IV (0.04 mg) q1 min until the patient is responsive. A typical response is noted after 2-4 mls with deeper breathing and greater level of arousal. Gradual naloxone administration should prevent acute opioid withdrawal. 5. If the patient does not respond to a total of 0.8 mg naloxone (2 amps), consider other causes of sedation and respiratory depression (e.g. benzodiazepines, CVA). 6. The duration of action of naloxone is considerably shorter than the duration of action of most short-acting opioids. Repeated doses of naloxone may be needed. <p style="font-size: small;">Adapted from Fast Fact and Concept #039: Using Naloxone. American Academy of Hospice & Palliative Medicine.</p>

Pain Management Chronic Pain – NonSteroidal AntiInflammatories

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Table 6: Nonsteroidal Anti-Inflammatory Agents for Chronic Pain

NSAID	Class	Available Dosage Forms	Dosing	Relative Cost
Sulindac (Clinoril [®])	Acetic Acid	150 mg, 200 mg	150 mg – 200 mg BID MAX: 400 mg/day	\$
Ibuprofen (Motrin [®])	Propionic Acid	200 mg, 400 mg, 600 mg, 800 mg	400 – 800 mg Q 6-8 hrs MAX: 3200 mg/day	\$
Naproxen (Aleve [®])	Propionic Acid	250 mg, 500 mg	250 mg – 500 mg BID MAX 1375 mg/day	\$
Salsalate (Disalcid [®])	Salicylic Acid	500 mg, 750 mg	500 mg – 1500 mg BID up to 1000 mg TID MAX: 3000 mg/day	\$
Celecoxib (Celebrex [®])	Selective COX-2	100 mg, 200 mg	100 – 200 mg/day MAX: 400 mg/day	\$\$\$\$\$

Shaded items are nonformulary. Monthly Cost : \$ < 10; \$\$ 11-20; \$\$\$ 21-60; \$\$\$\$ 61-100; \$\$\$\$\$ > 100

COX-2 Inhibitor Considerations

COX-2 inhibitors are not recommended for routine use in patients with acute pain or general musculo-skeletal complaints. COX-2 inhibitors are indicated for patients with confirmed chronic conditions such as rheumatoid arthritis or osteoarthritis that are:

- considered at high-risk for a serious GI event or
- have experienced therapeutic failure with at least 2 nonselective NSAIDs from different classes

Patients considered at the high risk are those with a previous history of a gastroduodenal ulcer, perforation or GI bleed. Other risk factors include: advanced age (> 65 years), concomitant anticoagulant or oral glucocorticoid therapy. For patients at intermediate GI risk (such as those on daily low dose aspirin) or with high cardiovascular risk, utilization of a proton-pump inhibitor (PPI) in combination with a nonselective NSAID should be considered versus a COX-2 selective.

Pain Management Chronic Pain – Adjuvant Medication

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Table 7: Pain Management Adjuvant

Drug	Dosage Forms	Initial Dose	Titration	Full Effect	Comments	Side Effects	Relative Cost
<i>Anticonvulsants</i>							
Gabapentin (Neurontin [®]) Preferred	100 mg, 300 mg, 400 mg, 600 mg, 800 mg	300 mg QD	300 mg QD x 3 days 300 mg BID x 3 days 300 mg AM & 600 mg PM x 3 days 600 mg BID x 3 days Increase by 300 mg weekly - up to 1800 mg/day	3 months including titration	Must be NA/DOT & crushed/floated. Dose adjust in renal impairment.	dry mouth, edema, dizziness, cognitive impairment	Tab/Cap - \$\$ Liquid - \$\$\$\$
Oxcarbazepine (Trileptal [®]) Preferred	150 mg, 300 mg, 600 mg	300 mg BID	Increase every 1-2 weeks by 600 mg Max dose 1800 mg.	3 months	Dose adjustment required if CrCl < 30.	drowsiness, dizziness, ataxia, nystagmus, rash, hyponatremia, N/V	\$\$ - \$\$\$
Carbamazepine (Tegretol [®]) Alternate or Trigeminal neuralgia	100 mg, 200 mg	100 mg BID	Increase by 100 mg – 200 mg Weekly up to 1200 mg/day (200 mg – 400 mg BID-TID, BID PREFERRED)	3 months	Contraindicated in agranulocytosis, AV block, bone marrow suppression, MAOIs, TCAs. Monitor CBC (baseline, 12wks for 2 months, annually, LFT, electrolytes. HLA-B 1502 allele test prior to initiation for Asian ancestry. Enzyme inducer. BBW: agranulocytosis, anemia, serious dermatologic reactions & HLA-B * 1502 allele	drowsiness, ataxia, blurry vision, anemia, N/V, SJS, hyponatremia, agranulocytosis, anemia, teratogenic, thrombocytopenia, Increased LFTs	\$
<i>Antidepressants</i>							
Nortriptyline (Pamelor [®])	10 mg, 25 mg, 50 mg, 75 mg	10 – 25 mg QHS	Increase by 10 – 25 mg weekly up to 75 mg daily.	Duration of adequate trial: 3 months at maximum tolerated doses	Contraindicated with MAOIs, conduction disorders, QT prolongation, and ileus. Requires baseline ECG and Mental Health evaluation BBW: Increased suicidality	dry mouth, sedation, hypotension, urinary retention, constipation	Cap - \$ Liquid - \$\$\$
Venlafaxine (Effexor [®]) Preferred	IR (BID): 25 mg, 37.5 mg, 50 mg, 75 mg, 100 mg ER (QD): 37.5 mg, 75 mg, 150 mg, 225 mg	37.5 mg QD	Increase by 37.5 mg weekly. Usual dose is 75 mg (IR) BID or 150 mg (ER) QD.	2 months	Dose adjust in renal & hepatic impairment Contraindicated with MAOIs. BBW: Increased suicidality	nausea, constipation, dizziness, drowsiness, hypertension at high doses	IR - \$\$ ER - \$\$\$\$
Duloxetine (Cymbalta [®]) Alternate	20 mg, 30 mg, 60 mg	30 – 60 mg QD	Higher doses have not shown benefit and are less well tolerated.	2 months	Not recommended with hepatic impairment or severe renal impairment. Contraindicated with MAOIs, hepatitis and closed angle glaucoma BBW: Increased suicidality	drowsiness, dry mouth, constipation, insomnia, nausea	\$\$\$\$
<i>Muscle Relaxants</i>							
Baclofen (Lioresal [®])	10 mg, 20 mg	5 – 10 mg QD	5 – 10 mg, QHS x 7 days 10 mg BIX x 7 days 10 mg TID x 7 days Increase weekly up to 80 mg/day	Onset 3-4 days	Avoid abrupt discontinuation. Caution in renal impairment, seizure, and elderly. Formulary use restricted to spinal cord injury.	drowsiness, vertigo, dizziness, hypotension, rash, N/V	\$
Methocarbamol (Robaxin [®])	500 mg, 750 mg	1500 mg QID	NA	Onset within 30 minutes	Limited short term efficacy only. Prescription restricted to 10 days.	Drowsiness, dizziness, blurry vision	\$\$\$ < 10 days = \$
<i>Topicals</i>							
Lidocaine (Lidoderm [®])	5% Patch	Apply up to 3 patches	NA	1 month	Indicated for localized postherpetic neuralgia. Do not apply > 3 patches.	Burning, itching, depigmentation, edema	\$\$\$\$
Shaded items are nonformulary. Monthly Cost : \$ < 10; \$\$ 11-20; \$\$\$ 21-60; \$\$\$\$ 61-100; \$\$\$\$\$ > 100							