Part 2
MEDICAL TREATMENT UTILIZATION SCHEDULE (MTUS)
OPIOIDS TREATMENT GUIDELINES

Part 2: Supplementary Materials

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SUPPLEMENT 1: FINDINGS FROM OPIOID GUIDELINES AND SELECTED LITERATURE

Part 2 of the Opioid Treatment Medical Treatment Guidelines is divided into two parts. Supplement 1 provides the findings from a review of opioid use guidelines available as of April 2015. Supplement 2 compiles the recommendations of the guidelines reviewed, providing actual excerpts as well as a summary. Where guidelines did not address a particular issue or where consistent recommendations were lacking, a review of recent literature was conducted. Supplement 1 discusses the literature basis for the treatment recommendations.

1. OPIOIDS FOR ACUTE PAIN (UP TO FOUR WEEKS AFTER INJURY OR PAIN ONSET)

At the time the literature review was conducted for the development of the Opioids Medical Treatment Guidelines, the ACOEM 2014 guideline, as well as the Utah and both Washington guidelines were the only ones that directly addressed the use of opioids for acute pain. [1-4]

The ACOEM 2014 guideline strongly recommends against using opioids to treat non-severe acute pain:

> *Routine opioid use is strongly not recommended for treatment of non-severe acute pain (e.g., low pain, sprains, or minor injury without signs of tissue damage).* [4]

Regarding severe pain, ACOEM 2014 recommends opioid treatment, especially (but not necessarily) after other treatments have proven ineffective in controlling the pain:

> *Opioids are recommended for treatment of acute, severe pain (e.g., crush injuries, large burns, severe fractures, injury with significant tissue damage) uncontrolled by other agents and/or with functional deficits caused by pain. They also may be indicated at the initial visit for a brief course for anticipated pain accompanying severe injuries (i.e., failure of other treatment is not mandatory). A Schedule IV opioid may be indicated if there is true allergy to NSAIDs and acetaminophen, other contraindication to an alternative medication, or insufficient pain relief with an alternative.* [4]

Like ACOEM 2014, the Utah guideline states that other non-opioid treatments should be tried first:

> *Opioid medications should only be used for treatment of acute pain when the severity of the pain warrants that choice and after determining that other non-opioid pain medications or therapies will not provide adequate pain relief.*
>
> *When opioid medications are prescribed for treatment of acute pain, the number dispensed should be no more than the number of doses needed based on the usual duration of pain severe enough to require opioids for that condition.* [1]

The Washington 2010 guideline contains similar language on the use of alternatives as initial therapy:

> *Use opioid medications for acute or chronic pain only after determining that alternative therapies do not deliver adequate pain relief.* [2]

Regarding opioid treatment post-surgery, the ACOEM 2014 guideline makes the following general recommendations:

1. *Recommendation: Limited Use of Opioids for Post-operative Pain. Limited use of opioids is recommended for post-operative pain management as an adjunctive therapy to more effective treatment. . . .*

2. *Recommendation: Screening Patients Prior to Continuation of Opioids. Screening is recommended for patients requiring continuation of opioids beyond the second postoperative week. . . .*

3. *Recommendation: Maximum Daily Oral Opioid Dose for Post-operative Pain Patients. The maximum daily oral dose recommended for opioid-naïve, acute pain patients based on risk of overdose/death is 50mg morphine equivalent dose (MED). . . .* [4]

Similarly, the Washington 2013 guideline also recommends that providers exercise great caution when administering opioids for post-operative pain:

> *In general, opioid use for acute pain should be reserved for post surgery, for the most severe pain (e.g. pain scores ≥7), or when alternative treatments such as NSAIDs and non-pharmacological therapies are ineffective. Evidence does not support the use of opioids as initial treatment for back sprain or other strains, but if they are prescribed, use should be limited to short-term (e.g. ≤14 days).* [3]

All three guidelines that have recommendations about acute pain recommend against the use of long-acting opioids for acute pain (including for post-operative pain). ACOEM 2014 states, “Short-acting opioids are recommended for treatment of acute pain and long-acting opioids are not recommended” with a high level of confidence. [4] And according to the Utah guideline, “Long duration of action opioids should not be used for treatment of acute pain, including post-operative pain, except in situations where monitoring and assessment for adverse effects can be conducted.” [1] The Washington 2013 guideline states “DO NOT USE long acting or extended release opioids for acute pain or post-operative pain in an opioid naïve worker.” [3]

Recent high-quality evidence from a population-based prospective study reported that receipt of opioids for more than seven days, or two or more prescriptions, within the first six weeks following acute low back injury was associated with a doubling of risk for long term disability, even after adjustment for baseline reported pain and function and for medical record documented injury severity. [5] Additional lower quality observational studies have also documented the association between early opioid use and subsequent disability. [6, 7]

Accordingly, the ACOEM 2014 guideline recommends that patients with acute pain receiving opioid treatment be weaned off within two weeks: “Recommend to taper off opioid use in 1 to 2 weeks.” [4]

In like manner, the Washington 2013 guideline states, “evidence does not support the use of opioids as initial treatment for back sprain or other sprains, but if they are prescribed, use should be limited to short term (e.g., <14 days).” [3] Furthermore, this guideline states that continued use of opioids beyond the acute phase (defined as six [6] weeks) should be contingent upon a specified degree of improvement in pain and function:

> *Pain intensity and pain interference should decrease during the acute phase (0-6 weeks) as part of the natural course of recovery following surgery or most injuries. Resumption of pre-injury activities, such as return to work, should be expected during this period. If use (of opioids) in the acute phase (0-6 weeks) does not lead to improvements in pain and function of at least 30%, or to pain interference levels of 4 or less, continued opioid use is not warranted.* [8]

It should be noted that opioid use in the presence of various comorbidities is associated with a considerably elevated risk of death and adverse effects. [4, 9-27]

As a result, many guidelines recommend screening for comorbidities prior to initiating chronic opioid treatment with various validated screening tools. (See Section 3.3.1, Screening for Risk of Addiction to Opioids or Adverse Events, Prior to Chronic Opioid Treatment) ACOEM 2014, for instance, recommends with a high degree of confidence (but insufficient evidence) screening opioid-naïve acute pain patients who will be on opioids beyond two weeks:

> *Recommendation: Initial screening of patients is recommended with more detailed screening for requiring continuation of opioids beyond 2 weeks for those with an acute severe injury . . .* [4]

This screening should consist of getting a psychological history of the patient, a history of substance use and abuse, as well as other medications that could be contraindications, such as benzodiazepines. ACOEM 2014 recommends the following for anyone who tests positive:

> *i) undergo greater scrutiny for appropriateness of opioids (may include psychological evaluation); ii) consideration of consultation and examination(s) for complicating conditions and/or appropriateness of opioids; and iii) if opioids are prescribed, more frequent assessments for compliance, achievement of functional gains, adverse effects, and symptoms and signs of aberrancy.* [4]

In addition, ACOEM 2014 also recommends more caution in using opioids to treat patients with acute pain who are found to have one of a long list of comorbidities:

> *Due to elevated risk of death and adverse effects, caution is also warranted when considering prescribing an opioid for patients with any of the following characteristics: depression, anxiety, personality disorder, untreated sleep disorders, substance abuse history, current alcohol use or current tobacco use, attention deficit hyperactivity disorder (ADHD), post-traumatic stress disorder (PTSD), suicidal risk, impulse control problems, thought disorders, psychotropic*

> *medication use, chronic obstructive pulmonary disease (COPD), asthma, or recurrent pneumonia. Considerable caution is also warranted among those with other comorbidities such as chronic hepatitis and/or cirrhosis,(187) as well as coronary artery disease, dysrhythmias, cerebrovascular disease, orthostatic hypotension, asthma, recurrent pneumonia, thermoregulatory problems, advanced age (especially with mentation issues, fall risk, debility), osteopenia, osteoporosis, water retention, renal failure, severe obesity, testosterone deficiency, erectile dysfunction, abdominal pain, gastroparesis, constipation, prostatic hypertrophy, oligomenorrhea, pregnancy, human immunodeficiency virus (HIV), ineffective birth control, herpes, allodynia, dementia, cognitive dysfunction and impairment, gait problems, tremor, concentration problems, insomnia, coordination problems, and slow reaction time. There are considerable drug-drug interactions that have been reported.* [4]

2. OPIOIDS FOR SUBACUTE PAIN (1–3 MONTHS)

The literature addressing the subacute period (4–12 weeks or between one and three months) of pain is scarce and few guidelines deal with this period separately.

The Utah guideline states:

> *The use of opioids should be re-evaluated carefully, including assessing the potential for abuse, if persistence of pain suggests the need to continue opioids beyond the anticipated time period of acute pain treatment for that condition.* [1]

The Washington 2013 guideline states:

> *With some exceptions, resumption of pre-injury activities such as return to work should be expected during this period.* [3]

This guideline also states:

> *During the subacute phase, providers should review the effects of opioid therapy on pain and function to determine whether opioid therapy should continue. Opioids should be discontinued during this phase if:*
>
> - *There is no clinically meaningful improvement in function when compared to function measured during the acute phase.*
> - *Treatment resulted in a severe adverse outcome.*
> - *Worker has a current substance use disorder (excluding nicotine).*
> - *Worker has a history of opioid use disorder (with rare exceptions).* [3]

The ACOEM 2014 guideline treats subacute and chronic pain alike, such that all recommendations for chronic pain also apply to subacute pain, including the recommendation to screen patients and conduct a trial period before initiating longer-term “chronic” opioid treatment. [4]

3. OPIOIDS FOR CHRONIC PAIN AND CHRONIC OPIOID TREATMENT

Aside from the ACOEM 2014 guideline, the guidelines reviewed are fairly consistent in their recommendations regarding the consideration of chronic opioid treatment. The following excerpt is illustrative.

The Canadian guidelines state:

> *Before initiating opioid therapy, ensure comprehensive documentation of the patient's pain condition, general medical condition and psychosocial history. [28]*

In ACOEM 2014, the criteria for opioid use include an extensive list of non-opioid treatments tried and found ineffective, as well as several new criteria. Patients need to meet all of the following requirements:

1. *Reduced function is attributable to the pain. Pain or pain scales alone are insufficient reasons.*

2. *A severe disorder warranting potential opioid treatment is present [e.g., CRPS, severe radiculopathy, advanced degenerative joint disease (DJD)[1].*

3. *Other more efficacious treatments have been documented to have failed. Other approaches that should have been first utilized include physical restorative approaches, behavioral interventions, self-applied modalities, non-opioid medications (including NSAIDs, acetaminophen, topical agents, norepinephrine adrenergic reuptake blocking antidepressants or dual reuptake inhibitors; also antiepileptic medications) and functional restoration. For LBP patients, this also includes fear avoidant belief training and ongoing progressive aerobic exercise, and strengthening exercises. For CRPS patients, this includes progressive strengthening exercise. For DJD, this includes NSAIDs, weight loss, aerobic and strengthening exercises.*

4. *An ongoing active exercise program is prescribed and complied with.*

The increased vigilance recommended by ACOEM 2014 (compared to the ACOEM 2011 guideline) regarding high-risk patients will be discussed in Section 3.3.1, Screening for Risk of Addiction to Opioids or Adverse Events, Prior to and During Initiation of Chronic Opioid Treatment.

[1] Note that guidelines reviewed differ as to the appropriateness of using opioid medications for the treatment of CRPS.

3.1. Comprehensive Evaluation and Assessment of Patient

All external guidelines reviewed (see Supplement 2 in Part 2 of the Opioids Medical Treatment Guidelines) recommend that prior to initiating opioids for chronic pain or initiating chronic opioid treatment, patients should have a comprehensive evaluation to:

1. Determine the diagnosis for the patient's pain complaint.
2. Evaluate how the pain is affecting the patient's quality of life and function.
3. Characterize other factors that could affect the choice of therapies.
4. Assess prior approaches to pain management and their effectiveness.
5. Establish a basis for developing a treatment plan to help reduce the patient's pain and return them to work.
6. Initiate a trial of opioids for chronic pain. (See Section 3.3.3, Initiation of Chronic Opioid Treatment)

This comprehensive evaluation and assessment will help the clinician decide whether or not to initiate opioids for treatment of chronic pain or continue chronic opioid treatment. There is potential for serious harm with chronic use of opioids and a comprehensive evaluation will permit the clinician to best weigh the risks, benefits, and alternatives of this treatment decision.

3.2. Consideration of Alternative Treatments for Chronic Pain and Chronic Opioid Treatment

Opioids are not considered the first line of therapy for most patients with chronic pain due to the adverse effects outlined previously in the Opioids Medical Treatment Guidelines and to limited data on their effectiveness in improving both pain and function. [1, 2, 4, 29, 30] The majority of guidelines reviewed instruct that chronic opioid treatment may be considered only when other more effective and potentially safer therapies have proven inadequate.

3.3. Initiating and Monitoring Chronic Opioid Treatment

3.3.1 Screening for Risk of Addiction or Adverse Events Prior to Chronic Opioid Treatment

Every major guideline reviewed (see Supplement 2 in Part 2 of the Opioids Medical Treatment Guidelines) recommends using validated tools to assess the risk of addiction or adverse events in patients who are candidates for chronic opioid therapy. Most of these recommendations are based on expert consensus, since research on use of these tools is relatively sparse.

Systematic reviews and other studies indicate that these tools may accurately predict later misuse of opioids. [31-33] A personal history of illicit drug and alcohol abuse is the

strongest predictor of later opioid misuse or abuse. [33] Most current guidelines recommend the following brief tools (many of which are publicly available):

- **Tools to screen for past and current substance abuse prior to initiating chronic opioid treatment** [1, 2, 4, 28, 34]
    - Opioid Risk Tool (ORT). (See Appendix A1a in Part 1 of the Medical Treatment Opioid Guideline)
    - Pain Medication Questionnaire (PMQ). [35-43]
    - Screener and Opioid Assessment for Patients with Pain-Revised SOAPP-R. [44]
- **Tools to screen for alcohol misuse/abuse in order to identify high-risk patients prior to chronic opioid treatment** [2, 28]
    - Cut down, Annoyed, Guilty, Eye-opener—Adapted to Include Drugs (CAGE-AID). (See Appendix A1b in Part 1 of the Opioids Medical Treatment Guidelines**)**
    - Two-Item Conjoint Screen (TICS). (See Appendix A1c in Part 1 of the Opioids Medical Treatment Guidelines) [45, 46]
- **Tools to screen for psychosocial factors in order to identify high-risk patients prior to chronic opioid treatment:**
    - Patient Health Questionnaire-9. (See Appendix A1d in Part 1 of the Opioids Medical Treatment Guidelines) [2]
- **Tools to screen for current misuse/abuse of opioids during opioid treatment [4]**:
    - Current Opioid Misuse Measure (COMM). [47]
    - Prescription Opioid Misuse Index (POMI). [48]

The ACOEM 2014 guideline recommends robust screening of patients prior to initiation of opioids:

> *Screening of patients is recommended prior to consideration of initiating a trial of opioids for treatment of subacute or chronic pain. Screening should include history(ies) of depression, anxiety, personality disorder and personality profile, other psychiatric disorder, substance abuse history, sedating medication use (e.g., anti-histamine/anti-H1 blocker), benzodiazepine use, opioid dependence, alcohol abuse, current tobacco use, and other substance use history, COPD, PTSD, other psychotropic medications, (severe) obesity, cognitive impairment, balance problems/fall risk, osteoporosis, and renal failure* [4]

In addition, ACOEM 2014 also addresses what providers should do if a patient screens positive with one of the screening tools. The following measures apply to such patients:

> *i) undergo greater scrutiny for appropriateness of opioids (may include psychological and/or psychiatric evaluation(s) to help assure opioids are not being used instead of appropriate mental health care);*
>
> *ii) consideration of consultation and examination(s) for complicating conditions and/or appropriateness of opioids; and*
>
> *iii) if opioids are prescribed, more frequent assessments for compliance, achievement of functional gains and symptoms and signs of aberrant use."* [4]

ACOEM makes this recommendation with a high level of confidence, despite the "insufficient evidence" available.

Other guidelines also recommend screening for high-risk patients prior to initiating opioids. According to the APS/AAPM guideline:

> *Before initiating [chronic opioid therapy], clinicians should conduct a history, physical examination and appropriate testing, including an assessment of risk of substance abuse, misuse, or addiction (strong recommendation, low-quality evidence).* [49]

Metabolism of opiates is largely genetically determined and genotyping has been used to identify patients at high risk of adverse effects, for example, children at risk of respiratory arrest after using codeine post-tonsillectomy. [50-52] However, there is currently inadequate evidence to recommend the routine use of such genomic information in the current clinical environment to predict the likelihood of addiction or abuse. [53] As ACOEM 2014 points out, "screening for genetic risks prior to opioid treatment is not in widespread use." [4, 54-56]

Taking a complete history is of utmost importance, as this is the primary source for assessing patients for the presence of relevant psychosocial factors affecting prognosis (or risk/benefit ratio) during opioid treatment.

The following cognitive behavioral factors ('yellow flags') show a correlation to increased risk of chronic pain and delayed recovery [57-59]:

- Catastrophic thinking/somatization.
- Fear avoidance ('guarding') behavior.
- Sense of perceived injustice and anger over the inciting event.
- History of childhood abuse/trauma.
- History of depression and anxiety.

The following cognitive behavioral factors are not 'generative' of chronic pain, but are barriers to successful management of the chronic pain condition are:

- Misplaced health locus of control.
- Counterproductive work attitudes.
- Limited family support and stress.
- Lifestyle issues of obesity, tobacco use, alcohol and drug use.

The presence of important comorbid mental health conditions, such as depression, is a strong risk factor for misuse/abuse and overdose events among patients on chronic opioid treatment. [21, 60-63] See also the ACOEM 2014 recommendation cited above.

Use of the PHQ-9 is recommended for assessing the presence of depression prior to initiating chronic opioid treatment. [2] A diagnosis of depression can only be made by a qualified licensed medical professional; the use of screening tools is not a substitute to such an evaluation.

3.3.2. Patient Treatment Agreement and Informed Consent

The evidence on effectiveness of a patient treatment agreement is weak. [64, 65] Despite the paucity of evidence of their effectiveness in reducing adverse effects, most guidelines reviewed recommend using such a treatment agreement if a decision to initiate chronic opioid treatment is made following the screening assessment. [1-4, 29]

The use of a treatment agreement is recommended to document patient understanding of an agreement with what will be expected of them during opioid treatment. Although patients may not adhere to prescribed treatment (and may not do so even with an agreement), these agreements are tools to improve patient knowledge and compliance; they should be coupled with a urine drug screening program. [64] The agreement should clearly describe responsible use of opioids and how patients should interact with their physician and pharmacy in obtaining medication, as well as well as how the provider will monitor their opioid use and conditions for opioid cessation. The ACOEM 2014 agreement recommends (with a moderate level of confidence) that if a patient consents to the agreement, the physician should have some of the patient's family members review the agreement as well. [4] Regarding treatment agreements, the APS/AAPM guideline states the following:

> *Informed consent should be obtained prior to starting chronic opioid treatment. A continuing discussion with the patient should include goals, expectations, potential risks, and alternatives to chronic opioid treatment.* [49]

The same guideline also states:

> *Clinicians should consider using a written management plan for chronic opioid treatment to document patient and clinician responsibilities and expectations and to assist in patient education (weak recommendation, low quality evidence).* [49]

The ACOEM 2014 outlines general areas of content that written agreements should include, very similar to those just outlined in the APS/AAPM guideline:

> *The use of an opioid treatment agreement (opioid contract, doctor/patient agreement, or informed consent) is recommended to document patient understanding, acknowledgement of potential adverse effects, and agreement with the expectations of opioid use.* [4]

ACOEM 2014 also includes a detailed sample patient agreement.

ODG gives detailed recommendations on this topic that are similar to the ACOEM 2014 patient agreement:

> *This plan should be signed and dated and placed in the patient's chart, and include the following: (1) Goals of therapy; (2) Only one provider gives prescriptions; (3) Only one pharmacy dispenses prescriptions; (4) There will be a limited of number of medications; and dose of specific medications; (5) Medications are not to be altered without the prescribing doctor's permission; (6) Heavy machinery and automobile driving is not to occur until drug-induced sedation/drowsiness has cleared; (7) Refills are limited, and will only occur at appointments; (8) Treatment compliance must occur for all other modalities enlisted; (9) Urine drug screens may be required; (10) The patient must acknowledge that they are aware of potential adverse effects of the use of opioids including addiction; (11) Information about opioid management can be shared with family members and other providers as necessary; (12) If opioid use is not effective, the option of discontinuing this therapy may occur; (13) The consequence of non-adherence to the treatment agreement is outlined.* [29]

3.3.3. Initiation of Chronic Opioid Treatment

A number of guidelines recommend a trial or initiation period prior to committing to long-term treatment with opioids. [4, 29, 30, 49] The initial use of opioids for the treatment of chronic noncancer pain should be considered as a trial, and not a commitment to long-term therapy. Further, it should be communicated to the patient that treatment with opioids will stop if the trial is considered unsuccessful. The patient should be informed that success will be determined based on a balance between the benefits (e.g., improvements in function, pain, quality of life, return to work) and adverse effects. This communication should be documented as part of the written treatment plan. (See Section 3.3.2, Patient Treatment Agreement and Informed Consent)

ACOEM 2014 makes the following more specific recommendations about the trial:

> *Opioids use is generally initiated as a "trial" to ascertain whether the selected opioid produces functional improvement (see Appendix 1). Opioid use is generally prescribed on a regular basis,(218) at night or when not at work.(82) Only one opioid is recommended to be prescribed in a trial. More than one opioid should rarely be used.* [4]

There is inadequate evidence that intravenous, intramuscular, submucosal, and transdermal (except in the case of buprenorphine) administration of opioids for chronic pain is safe and effective. [66, 67] Likewise, there is insufficient evidence to recommend intrathecal opioid delivery for the treatment of noncancer pain. [68] Nonetheless, ACOEM 2014 does make a recommendation about intrathecal pumps: "Intrathecal drug delivery systems are not recommended for treatment of most chronic nonmalignant pain conditions. Strength of Evidence − Not Recommended, Insufficient Evidence (I)" [4]

3.3.4. Use of CURES to Ensure Safe and Effective Opioid Use

Prescription Drug Monitoring Programs (PDMPs) such as the Controlled Substance Utilization Review and Evaluation System (CURES) in California are present in most states and collect data in near real time on all dispensed opioids and most other controlled substances. It should be noted that as of this writing, there may be a delay of two to four (2–4) weeks in updating the information in CURES. These programs allow a prescriber to check on all sources of dispensed controlled substances (if obtained legally), even if the prescription is self-paid. Most guidelines recommend consulting such programs as part of opioid treatment. [69, 70]

The following guidelines offer specific language recommending use of state PDMPs.

The Canadian guideline states: "If available, physicians and pharmacists should access electronic prescription databases that provide information about patient prescription history." [28]

The Washington 2013 guideline states:

> *Use of chronic opioid therapy requires regular monitoring and documentation, such as screening for risk of co-morbid conditions with validated tools, checking the Prescription Monitoring Program database, assessing clinically meaningful improvement in function and administering random urine drug tests.* [3]

The Utah guideline recommends that the PDMP be checked: 1) before initiating treatment; 2) at least quarterly during titration; 3) at least annually during maintenance; and 4) more often for high-risk patients). [1]

The ACOEM 2014 guideline recommends checking the PDMP for nearly all patients being considered for opioid treatment, namely, patients with acute, severe pain, patients with post-operative pain, and patients with subacute and chronic pain. [4] The only group for which they do not recommend consulting the PDMP for conflicting opioid prescriptions from other providers is for those with mild to moderate acute pain. [4]

3.3.5. Use of Tools to Monitor Patients on Chronic Opioid Treatment

The vast majority of guidelines recommend monitoring patients receiving chronic opioid treatment. The use of screening tools or instruments may be considered to monitor risk periodically during chronic opioid treatment to assess whether patients may be exhibiting aberrant behaviors associated with the misuse of opioid medications. [29]

The COMM and the POMI are the tools best suited for screening patients during chronic opioid treatment (as opposed to prior to initiating it). As ACOEM 2014 states, “The COMM appears to be a reliable screening tool to identify chronic pain patients with aberrant drug related behaviors.” [4, 33, 47]

3.3.6. Use of Urine Drug Testing (UDT)

Urine drug testing (UDT) is used to determine whether 1) the patient is taking the medication(s) being prescribed, 2) the patient is taking medications not being prescribed by the primary prescriber, and 3) if the patient is taking illicit substances. A recent systematic review found relatively weak evidence that supports the effectiveness of urine drug testing and opioid treatment agreements in reducing opioid misuse. [64] However, nearly every guideline recommends some use of UDT. Several guidelines recommend UDT as part of the evaluation to determine whether chronic opioid treatment should be embarked upon prior to beginning chronic opioid treatment. [2, 3, 29, 30]

Guidelines recommend a UDT at the onset of treatment for a new patient who is already receiving a controlled substance or when chronic opioid management is considered. [29] Many consider UDT a crucial compliance monitoring tool for managing opioid therapy. [71] UDT is recommended periodically and randomly throughout chronic opioid treatment, with its frequency guided by level of risk of misuse. [1, 4, 29, 49]

UDTs can be divided into two categories: (1) immunoassays, which may be performed either in a laboratory or in an office or point of care (POC) setting and (2) laboratory-based gas chromatography/mass spectroscopy (GC/MS) or liquid chromatography tandem mass spectroscopy (LC/MS/MS). If conducted and interpreted properly, POC screening may be an effective use of resources. [72, 73] However, POC screening has some limitations, including (1) unreliability in detecting alcohol and some prescribed opioids (e.g., fentanyl, oxycodone) (2) lack of accuracy in detecting benzodiazepines (only about 70% of the time) and (3) being subject to false positive and negative results. [74] [75] Thus, POC urine drug testing should be considered an initial screen. Detailed algorithms for UDT and clinical vignettes are available to help guide use. [2, 76, 77]

Current guidelines contain specific language regarding UDT when the decision is being made as to whether to embark on chronic opioid treatment.

ODG makes the following statement:

> *UDT is recommended at the onset of treatment of a new patient who is already receiving a controlled substance or when chronic opioid management is considered. [29]*

Regarding the consequences of a positive drug screen during or prior to the opioid trial, the Utah guideline states:

> *A positive drug screen indicates the need for caution, but does not preclude opioid use for treatment of pain. Consideration should be given to referral to substance abuse counseling and/or to a pain management specialist. If opioid*

> *medication is subsequently prescribed, the patient should be more carefully monitored and conditions under which opioids are being prescribed should be well documented in the treatment plan.* [1]

The Washington 2010 guideline includes this statement:

> *It is extremely important to keep in mind that immunoassays have both false positive and false negative results. Over-the-counter medication, for example, can cause a positive result.* [2]

ACOEM 2014 makes the same recommendation as the ACOEM 2011 guideline, with one important modification, to conduct a baseline UDT and do more intensive screening if patients are on higher doses:

> *Screening is recommended* ***at baseline,*** *randomly at least twice and up to 4 times a year and at termination.* ***More intensive screening is recommended for those consuming more than 50mg MED****. Screening should also be performed "for cause" (e.g., provider suspicion of substance misuse including oversedating, drug intoxication, motor vehicle crash, other accidents and injuries, driving while intoxicated, premature prescription renewals, self-directed dose changes, lost or stolen prescriptions, using more than one provider for prescriptions, non-pain use of medication, using alcohol for pain treatment or excessive alcohol use, missed appointments, hoarding of medications, and selling medications).* [4]

The above citation may be synthesized to as a recommendation to perform UDT from two to four times a year, randomly, and also "for cause."

Other guidelines reviewed also recommend that the frequency of UDT should match the risk level. ODG's guideline states:

> *Frequency of urine drug testing should be based on documented evidence of risk stratification including use of a testing instrument.* [29]

The Utah guideline recommends:

> *Base the frequency of random drug screening on the assessed degree of risk of aberrant behavior for the individual patient. Pill counts may also be useful in some circumstances.* [1]

The Washington 2010 guideline recommends the following frequency of monitoring during chronic opioid treatment [2]:

Table 1. Recommended Frequency of Monitoring

Risk of Misuse	**Frequency of UDT**
Low	Once a year

Moderate	Up to twice a year
High or opioid dose > 120 mg/day morphine equivalent dose	Up to four times a year

Most of the guidelines reviewed, recommend doing *random* testing. [1, 3, 4, 29, 30, 49] The APS /AAPM guideline explains its recommendation as follows:

> *Random urine drug screens may be more informative than scheduled or routine testing, as patients may change behaviors when they expect to be tested, though there are no studies comparing these approaches.* [49]

3.3.7. Monitoring Effectiveness of Chronic Opioid Treatment

3.3.7.1 Tracking Pain and Function to Monitor Effectiveness of Chronic Opioid Treatment

Every guideline reviewed recommends documentation of pain and function specifically as the principal method to determine effectiveness. (See Supplement 2 in Part 2 of the Opioids Medical Treatment Guidelines)

Excerpts from selected guidelines are provided below.

The Canadian guideline states:

> *When conducting a trial of opioid therapy, start with a low dosage, increase dosage gradually and monitor opioid effectiveness until optimal dose is attained*
>
> *When monitoring a patient on long-term therapy, ask about and observe for opioid effectiveness, adverse effects or medical complications, and aberrant drug-related behaviours:*
>
> *-Evaluate change in pain intensity*
>
> *-Ask about progress in reaching agreed-on goals, an important indicator of function change. Self-report can be prompted by asking about work, household activity, mood, walking ability, sleep, and social activities."* [28]

The APS/AAPM guideline states:

> *Thus, the two most crucial periods during which effectiveness should be determined and documented would be with an initial trial of opioids, usually during the acute phase (1st 6 weeks) and subacute phase (6 weeks–3 months) following injury, and during chronic opioid analgesic therapy (> 3 months) if the documentation during the acute/subacute phase shows meaningful improvement in pain and function.* [49]

The recommendations for the frequency of monitoring pain and function vary among guidelines. The VA/DoD guideline recommends the following:

> *Evaluate pain intensity at each visit. Intensity of pain should be measured in the following manner using a Numeric Rating Scale (NRS) (0 to 10)*
>
> *Evaluate pain-related function using objective documentation whenever possible, such as physical therapy progress notes, employment records, exercise diaries, family reports, clinician observations (e.g., walking distance), or validated instruments or NRS rating scales on a monthly basis during the titration phase and every six months after the patient is on stable opioids."* [30]

However, other guidelines recommend early and frequent assessment of injured workers, including the assessing the need for an opioid trial, and its effectiveness. This best practice is crucial to prevent long-term disability in this population. [78, 79]

The Washington 2013 guideline emphasizes the need for improvement in both pain and function as a marker of effectiveness during the earlier pilot phase of an opioid trial. During chronic opioid therapy, this same guideline emphasizes the importance of seeing improved function over improved pain; this shift is not surprising, since this guideline's focus is on the injured worker, and the goal of the workers' compensation system is to return workers to productivity. [3]

The ACOEM 2014 guideline also gives great importance to functional improvement. When conducting an opioid trial, "Opioids should be discontinued based on lack of functional benefit . **. ."** Similarly, for subacute and chronic pain patients on chronic opioid treatment, ACOEM 2014 recommends discontinuation if patients cannot demonstrate functional gain. [4]

The existing guidelines and evidence suggest that during chronic opioid analgesic therapy many patients may report modest improvements in pain, but no improvement in function. However, more recent guidelines are beginning to make continued chronic opioid treatment contingent upon such improvement.

3.3.7.2 Clinically Meaningful Improvement in Pain and Function

At the time the literature review was conducted for the development of the Opioids Medical Treatment Guidelines, the Washington 2013 was the only guideline to specifically address the degree to which any improvement in pain and function related to opioid treatment would be considered "clinically meaningful." [3] Based on the published literature, improvement of pain and function on the order of 30% is considered clinically meaningful. [80, 81] Before considering chronic opioid therapy, providers should be able to document improvements of this magnitude during both the acute (up to 4 weeks) and subacute (4–12 weeks) phases of opioid treatment.

The ACOEM 2014 guideline recommends documentation of functional benefit at least semiannually, and it sets a low threshold dose, which patients may exceed only if they can document functional improvement. [4] (See Section 3.3.8, Opioid Titration and Dosing) In its first appendix, the ACOEM 2014 guideline provides a table with a list of questions that the provider should ask the patient to identify possible functional improvement: "Return to work, modified; Return to work, full; Household chores

(Specify); Sport/Activity (Specify); Activity (ies) of Daily Living (Specify); Other (3 times).” [4] The table gives a column for goals, a baseline level, and six rechecks.

3.3.8 Opioid Titration and Dosing Threshold

Most major guidelines recognize the potential importance of dosing and the occurrence of unintentional overdose. [1, 30, 34] It is important to note that three high-quality population-based epidemiological studies of risk of mortality and/or overdose morbidity

were published (and are summarized below) *after* the literature reviews were conducted for most of the guidelines reviewed. (See Supplement 2 in Part 2 of the Opioids Medical Treatment Guidelines)

The first of these high-quality studies is a cohort study in a large patient population. [24] This study was the first to report a relationship between prescribed opioid dose and overdose events, with a 8.9-fold increased risk of overdose at doses exceeding 100 mg/day MED, a 3.7-fold increased risk at 50–100 mg/day MED, and a 1.4-fold risk for doses 20–50 mg/day MED, compared to doses below 20 mg/day MED in patients with chronic, noncancer pain. For each fatal overdose in the study, more than seven non-fatal overdoses were observed. The study also found that patients receiving sedative-hypnotics concurrently with opioids were at an increased risk. Furthermore, patients in the highest opioid dosing group were often current smokers, had a history of depression treatment, and had a history of substance abuse treatment. The authors state that they controlled for these morbidity risks in their analysis. These data emphasize the importance of appropriate risk screening, as mentioned in Section 3.3.1, Screening for Risk of Addiction to Opioids or Adverse Events, Prior to Initiation of Chronic Opioid Treatment.

The second high-quality study that was published recently was a large case-control study of participants from the Veterans Health Administration. This study found that the relative risk of mortality was 1.9 for opioid doses 20-50mg/day MED, 4.6 between 50 and 100 mg/day MED, and over 7 at doses above 100 mg/day MED, compared to those receiving doses less than 20 mg/day MED. The study drew the following conclusions:

> *The present study found large hazard ratios in the association of maximum daily dose with risk of death by opioid overdose. However, the estimated overall risk of opioid overdose among individuals treated with opioids (0.04%) and the approximated absolute risk increases for significant associations, which ranged between 0.072% and 0.45%, were small. Opioid overdose death represents a particularly important outcome, but a rare one, and the findings should be interpreted accordingly.* [82]

The third high-quality study of the effects of increasing opioid doses on risk of adverse impacts also demonstrated increased risk with increasing dose, although the risk it revealed was not as high as that shown by the first two studies summarized above. The odds ratio (OR) for overdose related mortality for 20─49 mg/day MED was 1.3; OR for 50─99mg/day MED was 1.9; and OR for 100─199mg/day MED was 2.04, demonstrating an “attenuated but significant risk” for doses 50─199mg/day. [83]

The evidence in high quality epidemiological studies across three very different health care systems is fairly consistent and is summarized in Appendix E (Opioid Dose and Risk of Morbidity and Mortality) in Part 1 of the Opioids Medical Treatment Guidelines. These three studies show that increases in dose clearly correlate with increases in risk of overdose. Of note, the available data shows that no completely safe opioid dose level exists. Additionally, while there is no established "threshold" dose above which opioids are found to be unsafe, and below which they are safe, a pattern of increasing risk of adverse events with increasing doses undeniably emerges from the three most recent studies. The following passage from the Utah guideline, published a few years prior to these three studies, provides a good summary of the recent research findings:

> *Evidence and other guidelines are not in agreement regarding the risks and benefits of high daily doses of opioid measured in morphine equivalents. It is likely that the risk-benefit ratio is less favorable at higher doses. Clinical vigilance is needed at all dosage levels of opioids but is even more important at higher doses. Clinicians who are not experienced in prescribing high doses of opioids should consider either referring the patient or obtaining a consultation from a qualified provider for patients receiving high dosages. No clear threshold for high dose has been established based on evidence. The Washington State guideline (WSAMDG, 2007) suggested a threshold of 120 mg of morphine equivalent per day. The Utah guideline spoke to increased clinical vigilance at daily doses exceeding 120-200 mg of morphine equivalent per day.* [1]

Based on its analysis of the three studies described above, the ACOEM 2014 guideline sets the threshold much lower than the Washington 2010 and 2013 guidelines. For patients with acute pain, ACOEM 2014 makes the following recommendation:

> *The maximum daily oral dose recommended for opioid-naïve, acute pain patients based on risk of overdose/death is 50mg morphine equivalent dose (MED)*[vi(193)] *(see Figure 2). Only the dosage required should be dispensed. In rare cases with documented functional improvement (see Appendix 1), higher doses may be considered; however, risks are substantially higher and greater monitoring is also recommended (see Subacute/Chronic Opioid recommendations below). Lower doses should be used for patients at higher risk of dependency, addiction, or other adverse effects. Monitoring is also recommended and consultation may be considered for those patients on higher doses.* [4]

For patients with subacute and chronic pain, ACOEM 2014 recommends the same low threshold, but establishes a ceiling dose of up to 100mg/MED if the patient can show functional improvement. (See 3.3.7.2, Clinically Meaningful Improvement in Pain and Function)

> *The maximum daily oral dose recommended for subacute or chronic pain patients based on risk of overdose/death is 50mg morphine equivalent dose (MED). In rare cases with documented functional improvements occurring with*

> *use above 50 mg MED, subsequent doses up to 100 mg may be considered, however, risks of death are much greater and more intensive monitoring is then also recommended. Lower doses should be considered in high risk patients.* [4]

The Utah guideline and both of the Washington guidelines recommend that caution be exercised with all dosing of opioids and that the practitioner and patient work together to weigh the relative benefits and risk of not only starting opioids, but of any dose escalation. [1-3]

Although some guidelines recommend prescribing the opioid antagonist naloxone (trade names include Narcan) to patients on chronic opioids who are at risk for overdose, none of the ones reviewed for the Opioids Medical Treatment Guidelines provided this recommendation.

3.3.9. Maintenance of Chronic Opioid Treatment

The VA/DoD guideline recommends that providers assess patients at least every one to six months based on the following criteria:

> *Individualize and adjust visit frequencies based on patient characteristics, comorbidities, level of risk for potential drug misuse (i.e., diversion, addiction, abuse, and aberrant drug-related behavior), type of pain, and type and dose of opioids.*
>
> *No specific visit frequency applies to all patients. Select a frequency that allows close follow-up of the patient's adverse effects, pain status, and appropriate use of medication.* [30]

ACOEM 2014 does not make recommendations about maintaining patients on opioid treatment, because its overarching goal is to avoid having patients end up on chronic opioid treatment that lasts for years. Nonetheless, regarding the maintenance of chronic opioid treatment, ACOEM 2014 does make recommendations as to the frequency of UDT testing and of documenting functional improvement. (See Section 3.3.6, Use of Urine Drug Testing, and Section 3.3.7.2, Clinically Meaningful Improvement in Pain and Function) In addition, this guideline recommends “at least semi-annual attempts” to wean patients on high doses down to below 50mg/MED, if not off opioids altogether. [4] (See Section 4, Tapering Opioids)

3.3.10. Treating Breakthrough Pain (BTP)

Breakthrough pain, a term derived from the cancer pain literature, is defined as a transient increase in pain to greater-than-moderate intensity among patients who have relatively stable, controlled baseline pain. [84, 85] A recent systematic review concluded that overall, more than one in two patients with cancer experienced BTP, although there was variability between the reviewed studies. [86] Some authors also describe the occurrence of BTP in chronic noncancer pain (CNCP) and recommend extended-release opioids and morphine for its resolution. [87-91]

Most of the guidelines reviewed did not provide specific guidance for treating BTP in injured workers while others contained inconsistent recommendations [1-4, 28]:

The APS/AAPM guideline states:

> *There is insufficient evidence to guide recommendations regarding optimal treatment strategies for breakthrough pain in patients with CNCP. Limited evidence from short-term trials suggest that short-acting or rapid onset, as-needed opioids may be effective in this setting, but more studies are needed to evaluate the long-term benefits and harms of this strategy, and to compare effects of different short-acting or rapid onset opioids.* [34]

ODG states that short-acting opioids are often used to treat intermittent or breakthrough pain and also that NSAIDS may also be used for this purpose. [29] In addition, ACOEM 2014 recommends against using methadone to treat breakthrough pain. [4]

The VA/DoD guideline states:

> *There is insufficient evidence to guide recommendations regarding optimal treatment strategies for breakthrough pain in patients with CNCP. Most of the trials evaluating supplemental opioid doses for exacerbation of pain were conducted in patients who were treated for end-of life care.* [30]

A systematic review was unable to identify significant evidence of breakthrough pain in CNCP patients. [85] The authors of this review recommended that appropriate management of increased pain in CNCP patients should be managed by a comprehensive assessment, and that treatment be based on appropriate pain management principles, with modalities other than opioid medication.

4. TAPERING OPIOIDS

4.1 Indications for Tapering Opioids

The majority of guidelines address aspects of tapering opioids among patients who have been on opioids on a generally continuous basis for at least 90 days. [1-3, 28, 34] The vast majority of recommendations in these guidelines are consensus-based, since there is a lack of published data on the indications for tapering or on effectiveness of various tapering methods in the patient population receiving chronic opioid treatment.

The guidelines reviewed universally agree that tapering should be considered when opioids have been ineffective, when serious adverse events have occurred, or when aberrant or illegal behaviors have occurred.

Indications for tapering:

Most guidelines describe tapering a patient to either a lower dose of opioids or completely off of them under any of the following circumstances:

- Patient expresses a desire to discontinue therapy.
- Resolution of pain.
- No documented improvement in pain and function, unless there are extenuating circumstances, or patient claims a lack of effectiveness.
- Patient is non-adherent to treatment plan and monitoring.
- Patient has engaged in illegal or dangerous activity, including: diversion, prescription forgery, suicide attempt, involvement in a motor vehicle accident and/or arrest related to opioids, aggressive or threatening behavior in the clinic.
- Severe adverse effects or overdose events.

ACOEM 2014 goes into detail about what should trigger discontinuation, outlining what should happen when a patient has positive UDT test results:

> *If there is an aberrant drug screen result (either positive for unexpected drugs or unexpected metabolites or unexpectedly negative results), there should be a careful evaluation of whether there is a plausible explanation (e.g., drug not tested, drug metabolite not tested, laboratory cut point and dosing interval would not capture the drug/metabolite, laboratory error). In the absence of a plausible explanation, those patients with aberrant test results should have the opioid discontinued or weaned.* [4]

As mentioned in Section 3.3.9, Maintenance of Chronic Opioid Treatment, ACOEM 2014 is also unique in recommending “at least semi-annual attempts” to wean patients on high doses down below a 50mg/MED daily dose if not actually off of opioids. [4]

4.2. Methods for Tapering Opioids

In the absence of strong evidence, the guidelines reviewed differ as to the most effective tapering methods.

The APS/AAPM guideline states:

> *Although there is insufficient evidence to guide specific recommendations on optimal strategies, a taper or wean can often be achieved in the outpatient setting in patients without severe medical or psychiatric comorbidities. When available, opioid detoxification in a rehabilitation setting (outpatient or inpatient) can be helpful, especially for patients unable to reduce their opioid dose in a less structured setting.*
>
> *Approaches to weaning range from a slow 10% dose reduction per week to a more rapid 25% to 50% reduction every few days. Evidence to guide specific recommendations on the rate of reduction is lacking, though a slower rate may help reduce the unpleasant symptoms of opioid withdrawal.* [34]

According to the Canadian guideline:

> *The rate of the taper can vary from 10% of the total daily dose every day, to 10% of the total daily dose every 1–2 weeks.*
>
> *Slower tapers are recommended for patients who are anxious about tapering, may be psychologically dependent on opioids, have co-morbid cardio-respiratory conditions, or express a preference for a slow taper. AND 1) Tapers can usually be completed between 2–3 weeks and 3–4 months.* [28]

The tapering process specified in the Washington 2013 opioid guideline is as follows:

- *Step 1: Discontinuing Opioids in a Community Care Setting: A gradual taper of approximately 10% per week (see AMDG Guideline[2]) can be carried out by the attending provider. Adjuvant agents like clonidine and psychological support such as cognitive behavioral therapy can be provided to assist with the taper process. The department or insurer may also authorize temporary coverage of buprenorphine or buprenorphine/naloxone to assist with the tapering process (see L&I coverage policy). [33][3] The AP may also seek consultative assistance from a pain management specialist.*
- *Step 2: Discontinuing Opioids in an Intensive Setting: For those workers who have failed step 1 or who are at high risk for failure due to high dose, concurrent benzodiazepine use, or co-morbid substance use or mental health disorder, the prescriber should consider seeking consultative assistance from a pain management specialist, a structured intensive multidisciplinary program (SIMP) provider or addiction medicine specialist. Adjuvant agents and psychological support can be provided to assist with the taper process. The department or insurer may also authorize temporary coverage of buprenorphine or buprenorphine/naloxone to assist with the tapering process. In these situations, formal inpatient detoxification and/or a 4-week SIMP treatment program may be required.*

Due to the lack of high quality evidence of safety and comparative efficacy, ultra rapid detoxification using IV or IM antagonist drugs, is not recommended.

- *If steps 1 and 2 fail, (and the patient meets DSM-V criteria for opioid use disorder) can authorize up to 6 months of addiction treatment through a licensed chemical dependency treatment center.* [3]

[2] This is a reference to the Washington State 2010 guideline.

[3] Reference in the cited passage to Nielsen, S., Hillhouse, M., Thomas, C., Hasson, A., and Ling, W., *A Comparison of Buprenorphine Taper Outcomes Between Prescription Opioid and Heroin Users.* J Addict Med, 2012.

ACOEM 2014 provides a wide range of options for tapering:

> *Frequency/Duration – Duration of a taper is empirical and somewhat dependent on dose and prior opioid use duration. Rates of the taper vary. The following are options:*
>
> *• 10% per day*
>
> *• 20-50% per day until lower doses reached (e.g., oxycodone CR 30mg, then decrease dose by 10mg/day every 2-5 days*
>
> *• 20% every 3-5 days*
>
> *• 10% per week*
>
> *• 25% per week* [4]

If tapering involves switching from one opioid to another, then ACOEM 2014 recommends the following: To avoid drug overdoses, when transferring from one opioid to another, the MED prescribed should be approximately 50% of the prior dose." [4]

ACOEM also lists other agents commonly used to help patients taper: "Other agents are used when dependence and addiction issues are more complex and commonly include naltrexone, methadone, buprenorphine and clonidine." [4] In addition, this guideline describes when an in-patient detoxification program is appropriate, "Those patients with unstable cardiovascular disease and polypharmacy dependence should be considered for in-patient detoxification under the supervision of an addictionologist." [4]

5. Documentation of Morphine Equivalents

The Washington 2010 guideline recommends documentation of dosage as MED/day at each visit so that the primary prescriber knows the exact dosing on a continuous basis. [2] This same guideline also recommends that the provider check the state PDMP to ascertain the patient's compliance with the prescribed dose.

6. Consultation with Specialists

There is consistency among the guidelines reviewed that prescribing providers may find it beneficial to obtain consultation with a pain medicine or other specialist either prior to escalating the dose or at any time the provider deems it necessary during chronic opioid treatment (even when all criteria have been met), including during tapering and for patients already on chronic opioid treatment who need to undergo surgery. [1, 4, 30, 49] The purpose of such consultation would be to assist with a range of complex issues (as determined by the requesting physician) related to the care of patients at all stages of pain.

7. Concurrent Use of Benzodiazepines and Other Sedative Hypnotics

Benzodiazepines and other sedatives can increase the risk of problematic side effects or adverse events when combined with opioids, particularly respiratory depression and/or aspiration. Both opioids and benzodiazepines have been implicated in the worsening of obstructive sleep apnea and thus are contraindicated with this condition due to suppression of the gag reflex and reduction of airway protection. Similarly, other illnesses that compromise respiratory function and oxygenation, such as COPD or pneumonia, may pose additional risks for patients taking opioids, especially if they are also taking sedative/hypnotic medications such as benzodiazepines.

It has been estimated that there are at least 100 million prescriptions for benzodiazepines filled in the U.S. annually, and prescriptions for these agents are also rising. Similarly, prescriptions for anxiolytics/sedatives/hypnotics rose from 2.8% to 4.7% of the population during the same sample periods. [92] With these increases, prescription drug overdose death rates have more than tripled since 1990. Increasingly, benzodiazepines have been implicated in fatal drug poisonings in the U.S., and are the most common concomitant medication found in fatal opioid overdoses; these findings emphasize the potential contribution of benzodiazepines to deaths from inadvertent overdose. [93] Of the 14,800 deaths related to prescription analgesics in 2008, approximately half involved more than one drug; the most common concomitant drugs included benzodiazepines, cocaine and heroin. [94] Benzodiazepines were mentioned in 17% of the deaths as the only additional medication detected and in an additional 3% of deaths involving a prescription analgesic with more than one other drug. [93]

Though studies specific to injured workers are lacking, prescription oversight programs have implicated benzodiazepines as a source of increased morbidity and negative outcomes in opioid-maintained patients. Such negative outcomes have included increased risk of overdose and death. [95]

Polypharmacy is a particular challenge for the prescriber, who may not be aware of all other prescription or non-prescription agents a patient is utilizing. Even some over-the-counter products (e.g., kava) can exert effects on the benzodiazepine receptor complex and have additive or synergistic effects with other depressants. [96] Thus, such “natural” complementary medications may pose risks similar to benzodiazepines in patients also maintained on chronic opioids.

8. Methadone

The main usage of methadone is to treat patients who are addicted to opioids and to manage chronic pain. [97] Because of its special pharmacokinetics, and prolonged half-life, use of methadone for treatment of chronic pain must be undertaken with particular care.

The Utah guidelines state the following:

> *Methadone-related death rates have been increasing in Utah and the U.S. In 2006, methadone was implicated in 30% of non-illicit drug-related deaths in Utah. Methadone was the most common drug identified by the Utah Medical Examiner as causing or contributing to accidental deaths, accounting for a disproportionate number of deaths compared to its frequency of use. Methadone was the single drug most often associated with overdose death and had the highest prescription adjusted mortality rate (PAMR) with an average of 150 deaths for every 100,000 prescriptions during 1998–2004. From 1997–2004, population-adjusted methadone prescriptions increased 727%. The increase in the methadone prescription rate was for treatment of pain and not addiction therapy*. [1]

The FDA has issued a public health advisory to alert patients and their caregivers and health care professionals to the following important safety information on methadone:

- ***Prescribing methadone is complex.*** *Methadone should only be prescribed for patients with moderate to severe pain when their pain is not improved with other non-narcotic pain relievers. Pain relief from a dose of methadone lasts about 4 to 8 hours. However methadone stays in the body much longer—from 8 to 59 hours after it is taken. As a result, patients may feel the need for more pain relief before methadone is gone from the body. Methadone may build up in the body to a toxic level if it is taken too often, if the amount taken is too high, or if it is taken with certain other medicines or supplements.*

- ***Patients should take methadone exactly as prescribed.*** *Taking more methadone than prescribed can cause breathing to slow or stop and can cause death. A patient who does not experience good pain relief with the prescribed dose of methadone, should talk to his or her doctor.*

- ***Patients taking methadone should not start or stop taking other medicines or dietary supplements without talking to their health care provider.*** *Taking other medicines or dietary supplements may cause less pain relief. They may also cause a toxic buildup of methadone in the body leading to dangerous changes in breathing or heart beat that may cause death.*

- ***Health care professionals and patients should be aware of the signs of methadone overdose.*** *Signs of methadone overdose include trouble breathing or shallow breathing; extreme tiredness or sleepiness; blurred vision; inability to think, talk or walk normally; and feeling faint, dizzy or confused. If these signs occur, patients should get medical attention right away.* [98]

According to the Washington 2013 guideline:

- *Respiratory depression is the chief hazard associated with methadone administration. Methadone's peak respiratory depressant effects typically occur*

later, and persist longer than its peak analgesic effects, particularly in the early dosing period. These characteristics can contribute to cases of iatrogenic overdose, particularly during treatment initiation and dose titration.

- *In addition, cases of QT interval prolongation and serious arrhythmia (torsades de pointes) have been observed during treatment with methadone. Most cases involve patients being treated for pain with large, multiple daily doses of methadone, although cases have been reported in patients receiving doses commonly used for maintenance treatment of opioid addiction.*
- *Methadone treatment for analgesic therapy in patients with acute or chronic pain should only be initiated if the potential analgesic or palliative care benefit of treatment with methadone is considered and outweighs the risks.* [3]

ACOEM 2014 makes the following recommendation: "Prescribers of methadone should be experienced; physicians and patients may both be unfamiliar with methadone and its potential for inappropriate dosing and long and unpredictable half life" [4]

9. Managing Peri-operative Pain in Workers on Chronic Opioid Treatment Undergoing Elective Surgery

Although it is generally recognized that patients on chronic opioid treatment present a special problem, there is a paucity of data on best management practices for use of peri-operative opioids in these patients when elective surgery is planned.

Chronic opioid treatment prior to surgery is a risk factor for prolongation of opioid use post-operatively. [99] In general, patients on chronic opioid treatment will report higher pain scores and manifest more anxiety than other patients. [50, 99, 100] They will also likely require higher opioid doses in the intra and post-operative period. Patients receiving chronic opioid treatment undergoing surgery also have more frequent and more deadly respiratory depressive episodes than do opioid-naïve patients. [99]

Managing pain in workers on chronic opioid treatment who are undergoing elective surgeries presents unique challenges and requires a coordinated treatment plan for pain management prior to surgery. This requires a collaborative effort involving the surgeon, anesthesiologist, pain management specialist, attending provider and the worker.

Evidence is lacking regarding the advisability of tapering opioids in patients receiving chronic opioid treatment before elective surgery.

The Washington 2013 guideline recommends the following:

> *A pre-operative evaluation, preferably by an anesthesiologist, one to two weeks prior to surgery. This should consider the worker's current opioid dose (both prescribed and actually taken) and a thorough medical history that includes information about mental health and substance use disorder. Accurate dosage information is especially important for planning peri-operative pain management.*

> *The evaluator should also check the opioid prescribing history in CURES. The recommendations below will help manage the workers' pain and minimize their risk associated with surgery.* [3]

ACOEM 2014 makes a similar recommendation,

> *For patients taking opioids chronically prior to surgery, consultations with anesthesiology and/or pain management are generally needed as post-operative dosing may be very high and management is often quite challenging.* [4]

10. Opioid Use in Catastrophic Injuries

Catastrophic injuries such as severe burns and crush or spinal cord injury in which significant recovery of physical function is not expected are exempt from many of the recommendations in this guideline. For example, clinically meaningful functional improvement may not occur following catastrophic injury.

11. Responsible Storage and Disposal of Opioid Medications

Although there are no uniform guidelines regarding the exact method by which opioids should be disposed, there is agreement that unused medications should be rendered unusable. [101]

ACRONYMS

BTP	Break-Through Pain
CAGE-AID	Cut down, Annoyed, Guilty, Eye-opener—Adapted to Include Drugs
CLIA	Clinical Laboratory Improvement Amendments
CNS	Central Nervous System
COMM	Current Opioid Misuse Measure
COPD	Chronic Obstructive Pulmonary Disease
CURES	Controlled Substance Utilization Review and Evaluation System
DSM-V	Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
DWC	Division of Workers' Compensation
ECG	Electro-Cardiogram
GC/MS	Gas Chromatography Mass Spectrometry
GCPS	Graded Chronic Pain Scale
LC/MS	Liquid Chromatography Mass Spectrometry
MED	Morphine Equivalent Dose
MTUS	Medical Treatment Utilization Schedule
NSAID	Nonsteroidal Anti-Inflammatory Drug
ORT	Opioid Risk Tool
PCA	Patient-Controlled Analgesia
PDMP	Prescription Drug Monitoring Program
PEG	Average Pain Intensity (P), Interference with Enjoyment of Life (E), and Interference with General Activity (G).
PHQ-9	Patient Health Questionnaire, Ninth edition
PMQ	Patient Medication Questionnaire
POC	Point Of Collection
POMI	Prescription Opioid Misuse Index
PTSD	Post-Traumatic Stress Disorder
RCT	Randomized Controlled Trial
SIMP	Structured Intensive Multidisciplinary Program

SOAPP-R	Screener and Opioid Assessment for Patients with Pain–Revised
TICS	Two-Item Conjoint Screen
UDT	Urine Drug Test
WHYMPI	West Haven-Yale Multidimensional Pain Inventory

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NOTE: The evidence levels for individual studies listed below were evaluated based on the MTUS Methodology for Evaluating Medical Evidence. This methodology is intended solely for the evaluation of individual studies, not guidelines; thus, the Evidence Level for recommendations based on guidelines was not evaluated. The reader is referred to the relevant guideline for further information on these recommendations.

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SUPPLEMENT 2:

SUMMARY OF RECOMMENDATIONS FROM OPIOID GUIDELINES REVIEWED

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Guide to Supplement 2

This table summarizes in tabular format excerpts of recommendations from a review of opioid guidelines for noncancer pain available as of April 2015. This review forms the basis of most recommendations in Part 1 of the Opioids Medical Treatment Guidelines.

Note to users of these charts:

Text within quotation marks is exact language from the guidelines. *DWC comments are italicized.*

The number in parentheses after most quoted text indicates the page number in the original guideline. Page numbers were not provided for the ODG (Official Disability Guidelines), because the guidelines are online in html and have no page numbers. In lieu of page numbers, the title of the section from which each quote came in bracketed text introduces each quote.

Guidelines in the summary table of Supplement 2:

ACOEM—2011: *ACOEM's Guidelines for the Chronic Use of Opioids.* American College of Occupational and Environmental Medicine. 2011 [102]

ACOEM—2014: *ACOEM's Guidelines for the Chronic Use of Opioids.* American College of Occupational and Environmental Medicine. 2014. [4]

APS/AAPM—2009: Chou, R., et al., American Pain Society-American Academy of Pain Medicine (APS/AAPM). *Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain.* 2009. [49]

ASIPP—2012: Manchikanti, L., et al., *American Society of Interventional Pain Physicians (ASIPP) guidelines for responsible opioid prescribing in chronic non-cancer pain: Part 2--guidance.* 2012. [71]

Canadian Guideline—April 2010: *Canadian Guideline for Safe and Effective Use of Opioids for Chronic Noncancer Pain.* National Opioid Use Guideline Group (NOUGG). April 30 2010 Version 4.5. [28]

ODG—April 2015: Work Loss Data Institute. ODG Evidence-Based Medical Treatment and Return-to-Work Guidelines (Official Disability Guidelines). Chronic Pain Chapter. (updated April 6, 2015). [29]

Utah 2009: *Utah Clinical Guidelines on Prescribing Opioids for Treatment of Pain.* Utah Department of Health. 2009. [1]

VA/DoD Guideline—May 2010: *U.S. Veterans Affairs Administration VA/DoD Clinical Practice Guideline for Management of Opioid Therapy for Chronic Pain.* Version 2.0, May 2010. [30]

WA Interagency Guidelines (AMDG)—2010 Update: *Interagency Guideline on Opioid Dosing for Chronic Noncancer Pain*. Agency Medical Directors' Group (AMDG). 2010. [2]

WA Workers' Compensation Guidelines—2013: *Guideline for Prescribing Opioids to Treat Pain in Injured Workers*. Washington State Department of Labor & Industries. July 1, 2013. [3]

[*If acute pain phase not defined here, then it was not defined in the guideline*.]

A. Opioids for Acute Pain	
ACOEM—2011	*No specific recommendation.[Guidelines on opioids are only for chronic pain: "Guidelines for the Chronic Use of Opioids"]* "[Opioids] are potent analgesics widely viewed as helpful in managing moderate to severe acute pain and cancer pain." (1)
ACOEM—2014	*Acute phase defined as up to 4 weeks. Opioids primarily recommended for acute, severe pain, with tapering off recommended within 2 weeks, and a threshold for opioid-naïve patients of 50 mg (MED).* ***The general recommendations:*** "1. Recommendation: […] Routine opioid use is strongly not recommended for treatment of non-severe acute pain (e.g., low pain, sprains, or minor injury without signs of tissue damage)." (p. 18) *Strength of Evidence* – **Strongly Not Recommended, Evidence (A)** *Level of Confidence* – High "2. Recommendation: [. . .} Opioids are recommended for treatment of acute, severe pain (e.g., crush injuries, large burns, severe fractures, injury with significant tissue damage) uncontrolled by other agents and/or with functional deficits caused by pain. They also may be indicated at the initial visit for a brief course for anticipated pain accompanying severe injuries (i.e., failure of other treatment is not mandatory). A Schedule IVii opioid may be indicated if there is true allergy to NSAIDs and acetaminophen, other contraindication to an alternative medication, or insufficient pain relief with an alternative. Recommend to taper off opioid use in 1 to 2 weeks." (p. 18) "**Indications – Patients should meet all of the following**: 1) Severe injury with a clear rationale for use (objective functional limitations due to pain resulting from the medical problem, e.g., extensive trauma such as forearm crush injury, large burns, severe radiculopathy).iii 2) Other more efficacious treatments should have been instituted,[footnote: "Treatments to have tried

generally include NSAIDs and acetaminophen. For LBP patients, additional considerations include muscle relaxants, progressive aerobic exercise, and directional exercise"] and either:

2a) failed and/or

2b) have reasonable expectations of the immediate need for an opioid to obtain sleep the evening after the injury.

3) Where available, prescription databases (usually referred to as Prescription Drug Monitoring Program (PDMP)) should be checked and not show evidence for conflicting opioid prescriptions from other providers or evidence of misreporting [*footnote:* "Exceptions such as acute, severe trauma should be documented."]

4) Non-opioid prescriptions (e.g., NSAIDs, acetaminophen) absent contraindication(s) should nearly always be the primary treatment and accompany an opioid prescription.

5) Low-dose opioids may be needed in the elderly who have greater susceptibility to the adverse risks of opioids. Those of lower body weight may also require lower opioid doses.

6) Dispensing quantities should be only what is needed to treat the pain. Short-acting opioids are recommended for treatment of acute pain. Long-acting opioids are not recommended.

7) Due to greater than 10-fold elevated risks of adverse effects and death, considerable caution is warranted

among those using other sedating medications and substances including: i) benzodiazepines, ii) antihistamines (H1-blockers), and/or iii) illicit substances.(105, 109, 167, 168) Patients should not receive opioids if they use illicit substances unless there is objective evidence of significant trauma or moderate to severe injuries. Considerable caution is also warranted among those who are unemployed as the reported risks of death are also greater than 10-fold.(109, 167) Due to elevated risk of death and adverse effects, caution is also warranted when considering prescribing an opioid for patients with any of the following characteristics: depression, anxiety, personality disorder, untreated sleep disorders, substance abuse history, current alcohol use or current tobacco use, attention deficit hyperactivity disorder (ADHD), post-traumatic stress disorder (PTSD), suicidal risk, impulse control problems, thought disorders, psychotropic medication use, chronic obstructive pulmonary disease

(COPD), asthma, or recurrent pneumonia.(78, 102, 104, 108, 109, 169-186) Considerable caution is also warranted among those with other comorbidities such as chronic hepatitis and/or cirrhosis,(187) as well as coronary artery disease, dysrhythmias, cerebrovascular disease, orthostatic hypotension, asthma, recurrent pneumonia, thermoregulatory problems, advanced age (especially with mentation issues, fall risk, debility), osteopenia, osteoporosis, water retention, renal failure, severe obesity, testosterone deficiency, erectile dysfunction, abdominal pain, gastroparesis, constipation, prostatic hypertrophy, oligomenorrhea, pregnancy, human immunodeficiency virus (HIV), ineffective birth control, herpes, allodynia, dementia, cognitive dysfunction and impairment, gait problems, tremor, concentration problems, insomnia, coordination problems, and slow reaction time.

There are considerable drug-drug interactions that have been reported (see Appendices 2-3).” (pp. 18-19)

“**Frequency/Duration** – Generally, opioids should be prescribed at night or while not working.(82) Lowest effective, short-acting opioid doses are preferable as they tend to have the better safety profiles, less risk of escalation,(188) less risk of lost time from work,(112) and faster return to work.(189) Short-acting opioids are recommended for treatment of acute pain and long-acting opioids are not recommended. Recommend opioid use as required by pain, rather than in regularly scheduled dosing.” (p. 19)

“If parenteral administration is required, ketorolac has demonstrated superior efficacy compared with opioids for acute severe pain,(190, 191) although ketorolac’s risk profile may limit use for some patients. Parenteral opioid administration outside of obvious acute trauma or surgical emergency conditions is almost never required, and requests for such treatment are clinically viewed as red flags for potential substance abuse.

Indications for Discontinuation – Resolution of pain, sufficient improvement in pain, intolerance or adverse effects, non-compliance, surreptitious medication use, consumption of medications or substances advised to not take concomitantly (e.g., sedating medications, alcohol, benzodiazepines), or use beyond 2 weeks.” (p. 19)

Strength of Evidence – **Recommended, Evidence (C)**

A. Opioids for Acute Pain	
	Level of Confidence – High "3. Recommendation: Initial screening of patients is recommended with more detailed screening for: i) requiring continuation of opioids beyond 2 weeks for those with an acute severe injury; and ii) at consideration of initiation for severe pain but no objective evidence." (pp. 19-20) *Strength of Evidence* ☐**Recommended, Insufficient Evidence (I)** *Level of Confidence* – High "4. Recommendation: The maximum daily oral dose recommended for opioid-naïve, acute pain patients based on risk of overdose/death is 50mg morphine equivalent dose (MED). Only the dosage required should be dispensed." (p. 20) *Strength of Evidence* – **Recommended, Evidence (C)** *Level of Confidence* – Moderate
APS/AAPM—2009	*No specific recommendation* "Management of cancer pain, pain at end of life, acute pain, postsurgical pain, labor pain, or CNCP in children and adolescents is outside the scope of this guideline." (115)
ASIPP—2012	*No specific recommendations*
Canadian Guideline— **April 2010**	*No specific recommendation [Guidelines on opioids are only for chronic pain: "Canadian Guideline for Safe and Effective Use of Opioids for CNCP"]* *[This guideline does have a recommendation for acute or urgent health care facilities for who deal with chronic pain patients asking for prescriptions*: "**R24:** Acute or urgent health care facilities should develop policies to provide guidance on prescribing opioids for chronic pain to avoid contributing to opioid misuse or diversion. (Grade C)." (64)] *Almost no specific recommendations* [*ODG Opioid Guidelines are in the chapter on chronic pain*] [Medications for acute pain (analgesics)]
ODG *(no page numbers provided because it is an*	*In the "Opioids" entry of the Lower Back Pain chapter:* "Not recommended except for short use for severe cases, not to exceed 2 weeks. […] When used only for a time-limited course, opioid analgesics are an option in the management of patients with acute low back problems." *In the "Opioids" entry of the Pain chapter:* "*Short-acting opioids:* also known as "normal-release" or

A. Opioids for Acute Pain	
html document)	"immediate-release" opioids are seen as an effective method in controlling both acute and chronic pain." *The focus of recommendations for opioid treatment in the ODG guideline is on treatment of chronic pain.*
Utah—2009	**"Opioid Treatment for Acute Pain** **1)** Opioid medications should only be used for treatment of acute pain when the severity of the pain warrants that choice and after determining that other non-opioid pain medications or therapies will not provide adequate pain relief. **2)** When opioid medications are prescribed for treatment of acute pain, the number dispensed should be no more than the number of doses needed based on the usual duration of pain severe enough to require opioids for that condition. **3)** When opioid medications are prescribed for treatment of acute pain, the patient should be counseled to store the medications securely, to not share with others, and to dispose of medications properly when the pain has resolved in order to prevent non-medical use of the medications. **4)** Long duration-of-action opioids should not be used for treatment of acute pain, including post-operative pain, except in situations where monitoring and assessment for adverse effects can be conducted. Methadone is rarely if ever indicated for treatment of acute pain." (3)
VA/DoD Guideline—May 2010	**"Supplementary Therapy** 12. Avoid use of long-acting agents for acute pain or on an as-needed basis in an outpatient setting."
WA Interagency Guidelines (AMDG)—2010 Update	"Do not prescribe long-acting or controlled-release opioids (e.g., OxyContin®, fentanyl patches, and methadone) for acute pain." (1) "Use opioid medications for acute or chronic pain only after determining that alternative therapies do not deliver adequate pain relief. The lowest effective dose of opioids should be used." (1)
WA Workers' Comp Guidelines—2013	"DO NOT USE: Long-acting or extended-release opioids (e.g. Oxycontin®) for acute pain or post-operative pain in an opioid-naive worker." (6) [*boldface in original text*] **"**In general, opioid use for acute pain should be reserved for post-surgery, for the most severe pain (e.g. pain scores ≥ 7), or when alternative treatments such as NSAIDs and non-pharmacological therapies are ineffective**. Evidence does not support the use of opioids as initial treatment for back sprain or other strains, but if**

A. Opioids for Acute Pain	
	they are prescribed, use should be limited to short-term (e.g. ≤ 14 days). Pain intensity and pain interference should decrease during the acute phase as part of the natural course of recovery following surgery or most injuries. Resumption of pre-injury activities, such as return to work, should be expected during this period. **If use in the acute phase (0-6 weeks) does not lead to improvements in pain and function of at least 30%, or to pain interference levels of 4 or less, continued opioid use is not warranted." (8)**

[*If subacute pain phase not defined here, then it was not defined in the guideline*.]

B. Opioids for Subacute Pain	
ACOEM—2011	*No specific recommendations [Guidelines are for chronic pain only]*
ACOEM—2014	*Defined as pain lasting 1-3 months in duration. See recommendations for Chronic Pain.*
APS/AAPM—2009	*No specific recommendations* "Management of cancer pain, pain at end of life, acute pain, postsurgical pain, labor pain, or CNCP in children and adolescents is outside the scope of this guideline." (115)
ASIPP—2012	*No specific recommendations*
Canadian Guideline—April 2010	*No specific recommendations [Guidelines are for chronic pain only]*
ODG	*No specific recommendations [Guidelines are for chronic pain only]*
Utah—2009	**"**The use of opioids should be reevaluated carefully, including assessing the potential for abuse, if persistence of pain suggests the need to continue opioids beyond the anticipated time period of acute pain treatment for that condition." (3)
VA/DoD Guideline—May 2010	*No specific recommendations [Guidelines are for chronic pain only]*
WA Interagency Guidelines (AMDG)—2010 Update	*No specific recommendations [Guidelines are for chronic pain only]*
WA Workers' Comp Guidelines —2013	"During the subacute phase, providers should review the effects of opioid therapy on pain and function to determine whether opioid therapy should continue. Opioids should be discontinued during this phase if: • There is no clinically meaningful improvement in function when compared to function measured during the acute phase. • Treatment resulted in a severe adverse outcome. • Worker has a current substance use disorder (excluding nicotine). • Worker has a history of opioid use disorder (with rare exceptions)." (9)

C. General Guidelines Regarding Initiation of Chronic Opioid Therapy			
	Use opioids only after alternative treatments (pharma and non-pharma) have failed?	**Counsels for or against opioid treatment for specific conditions?**	**Exact language**
ACOEM—2011	*Yes.* *Specifies alternative treatments. (2)*	*Yes.* *Counsels for opioid treatment for select patients with chronic persistent pain (chronic severe radiculopathy, severe arthroses, severe LBP, chronic severe peripheral neuropathies, or CRPS. (6)*	"Routine use of opioids for treatment of chronic non-malignant pain conditions is not recommended, although selected patients may benefit from judicious use." (2) "Opioids are recommended for select patients with chronic persistent pain, neuropathic pain, or CRPS. Select patients with chronic persistent pain that is not well-controlled (manifested by decreased function attributable to their pain) with non-opioid treatment approaches may be tried on opioids. Other approaches that should have been first utilized include physical restorative approaches, behavioral interventions, self-applied modalities, non-opioid medications (including topical agents) and functional restoration." (2) "Patients with prior psychological disorders, depression, histories of drug abuse/dependence, and/or a personality disorder are often more at risk for a poor outcome and should be cautiously treated with opioids." (2) "High-dose opioids (e.g., morphine, oxycodone) should generally be avoided, as these agents have higher adverse effect profiles. Use of agents such as meperidine, propoxyphene, combination agonists, and mixed agonists/antagonists (butorphanol, nalbuphine, and pentazocine) for management of chronic pain is not recommended." (7)
ACOEM—2014	*Yes.*	*Yes. Same as 2011, except LBP deleted (23)*	"1. Recommendation: Routine Use of Opioids for Subacute and Chronic Non-malignant Pain: Opioid use is moderately not recommended for treatment of subacute and chronic non-

C. General Guidelines Regarding Initiation of Chronic Opioid Therapy			
	Use opioids only after alternative treatments (pharma and non-pharma) have failed?	**Counsels for or against opioid treatment for specific conditions?**	**Exact language**
			malignant pain. Opioid prescription should be patient-specific and limited to cases in which other treatments are insufficient and criteria for opioid use are met (see below). Harms – May inadequately treat severe subacute or chronic pain. Benefits – Less debility, fewer adverse effects, reduced accident risks, lower risks of dependency, addiction, overdoses, and deaths. Strength of Evidence (B) Level of Confidence – High" (23) "2. Recommendation: Opioids for Treatment of Subacute or Chronic Severe Pain The use of an opioid trial is recommended if other evidence-based approaches for functional restorative pain therapy have been used with inadequate improvement in function. Opioids are then recommended for treatment of function impaired by subacute or chronic severe pain (e.g., inability to work due to any of the following: chronic severe radiculopathy, chronic severe peripheral neuropathies, complex regional pain syndrome (CRPS), and severe arthroses)." [. . . *many indications*] Harms – Adverse effects are many (see section on "Opioids Benefits and Harms"). May initiate path to opioid dependency. Benefits – Improved short-term pain ratings. Theoretical potential to improve short-term function impaired by a painful condition.

C. General Guidelines Regarding Initiation of Chronic Opioid Therapy			
	Use opioids only after alternative treatments (pharma and non-pharma) have failed?	**Counsels for or against opioid treatment for specific conditions?**	**Exact language**
			Strength of Evidence – Recommended, Insufficient Evidence (I) Level of Confidence – Low
APS/AAPM—2009	*Yes, but only in the discussion, not in the recs.*	*Yes, but only in the discussion.* *Counsels against opioid treatment for conditions with high psychosocial contributors.*	**"Patient Selection and Risk Stratification Recommendations** • Before initiating COT, clinicians should conduct a history, physical examination and appropriate testing, including an assessment of risk of substance abuse, misuse, or addiction (strong recommendation, low-quality, low-quality evidence). • Clinicians may consider a trial of COT [*chronic opioid therapy*] as an option if CNCP is moderate or severe, pain is having an adverse impact on function or quality of life
			and potential therapeutic benefits outweigh or are likely to outweigh potential harms (strong recommendation, low-quality evidence). • A benefit to harm evaluation including a history, physical examination, and appropriate diagnostic testing, should be performed and documented before and on an ongoing basis during COT (strong recommendation, low-quality evidence)."(115) ***Discussion.*** [*from first full paragraph*] *"[R]andomized trials that demonstrate the benefits of CIT are most applicable to patients with moderate or more severe pain who have not responded to nonopioid therapies.* [. . .] [E]vidence that demonstrates the efficacy of COT for conditions with strong psychosocial contributors such as some types of chronic low back pain,[74] daily headache,[119] and fibromyalgia[48] is sparse." (116)

C. General Guidelines Regarding Initiation of Chronic Opioid Therapy			
	Use opioids only after alternative treatments (pharma and non-pharma) have failed?	**Counsels for or against opioid treatment for specific conditions?**	**Exact language**
ASIPP —2012	*Not specified*.	*Not specified*.	*No specific recommendation*
Canadian Guideline— April 2010	*Not specified*.	*Yes.* *Discusses opioid efficacy in treating a variety of specific conditions (gives high level of detail).* (16-17)	**"Physician considers opioid therapy** (R01-R04): • Comprehensive assessment • Risk of misuse • UDS an option • Opioid efficacy for diagnosis" [fig. 1, p. 8] "R01: Before initiating opioid therapy, ensure comprehensive documentation of the patient's pain condition, general medical condition and psychosocial history (Grade C), psychiatric status, and substance use history. (Grade B). **Comprehensive assessment**" (9) "R04: Before initiating opioid therapy, consider the evidence related to effectiveness in patients with chronic non-cancer pain. (Grade A). **Opioid Efficacy**" (16) *See guideline for more detail about level of efficacy with different strengths and doses of opioids for musculoskeletal pain, neuropathic pain, migraines, GI problems, and fibromyalgia.* (16-17) [*see subsequent charts for the other two recommendations, R02, Addiction-risk screening and R03, Urine drug screening*]
ODG (*no page numbers provided because it is an*	*Yes (only non-opioid medications, not non-*	*Yes. Lists specific conditions that opioids do not treat successfully.*	*ODG is unique in distinguishing between the decision to initiate long-term opioid treatment with a trial and the decision to continue opioid treatment 6 months later.*

C. General Guidelines Regarding Initiation of Chronic Opioid Therapy			
	Use opioids only after alternative treatments (pharma and non-pharma) have failed?	**Counsels for or against opioid treatment for specific conditions?**	**Exact language**
html document)	*pharma treatments)*	*Not recommended for headaches or long-term back pain. Not recommended as first-line treatment for some conditions (neuropathic pain osteoarthritis).*	["Opioids, criteria for use"] **"1) Establish a Treatment Plan:** Ask about Red Flags indicating that opioids may not be helpful in the chronic phase: (1) Little or no relief with opioid therapy in the acute and subacute phases. (2) The patient has been given a diagnosis in one of the particular diagnostic categories that have not been shown to have good success with opioid therapy: conversion disorder; somatization disorder; pain disorder associated with psychological factors (such as anxiety or depression, or a previous history of substance abuse). Patients may misuse opioids prescribed for pain to obtain relief from depressed feelings, anxiety, insomnia, or discomforting memories. There are better treatments for this type of pathology. (Sullivan, 2006) (Sullivan, 2005) (Wilsey, 2008) (Savage, 2008)**"** **2) Steps to Take Before a Therapeutic Trial of Opioids:** • Attempt to determine if the pain is nociceptive or neuropathic. Also attempt to determine if there are underlying contributing psychological issues. Neuropathic pain may require higher doses of opioids, and opioids are not generally recommended as a first-line therapy for some neuropathic pain. • A therapeutic trial of opioids should not be employed until the patient has failed a trial of non-opioid analgesics. (g) The patient should have at least one physical and psychosocial assessment by the treating doctor (and a possible second opinion by a specialist) to assess whether a trial of opioids should occur. When subjective complaints do

C. General Guidelines Regarding Initiation of Chronic Opioid Therapy			
	Use opioids only after alternative treatments (pharma and non-pharma) have failed?	**Counsels for or against opioid treatment for specific conditions?**	**Exact language**
			not correlate with imaging studies and/or physical findings and/or when psychosocial issue concerns exist, a second opinion with a pain specialist and a psychological assessment should be obtained. (Sullivan, 2006) (Sullivan, 2005) (Wilsey, 2008) (Savage, 2008) (Ballyantyne, 2007)"
			["Opioids for chronic pain"] "Extreme caution is required for any opioid use in patients with the following: (1) Individuals with a high risk for misuse or diversion; (2) Individuals with evidence of substance abuse issues; (3) Individuals with a family history of substance abuse; (4) Individuals with underlying psychiatric disease. [. . .] - *Chronic back pain*: Opioids appear to be efficacious but should be limited for short-term pain relief in patients with acute low back pain. Long-term efficacy is unclear (>16 weeks), and there is also limited evidence for the use of opioids for chronic low back pain. (Martell-*Annals*, 2007) (White, 2011) (Franklin, 2009) [. . .] *Headaches:* Not recommended, in particular, due to the risk of medication overuse headache. (Lake, 2008) (Olesen, 2006) See Medication overuse headache." ["Opioids, long-term assessment"] **"Long-term Users of Opioids (6-months or more)"** **1)** "Re-assess" [a-f: includes measuring functional improvement, assessing need for psychological consultation and abuse/addiction screening] **2)** "Strategy for maintenance"

C. General Guidelines Regarding Initiation of Chronic Opioid Therapy			
	Use opioids only after alternative treatments (pharma and non-pharma) have failed?	**Counsels for or against opioid treatment for specific conditions?**	**Exact language**
			a) Do not attempt to lower the dose if it is working b) Supplemental doses of break through medication may be required for incidental pain, end of dose pain, and pain that occurs with predictable situations. This can be determined by information that the patient provides from a pain diary or evaluation of additional need for supplemental medication. c) The standard increase in dose is 25 to 50% for mild pain and 50 to 100% for severe pain (Wisconsin)" **3)** "Visit Frequency" [*a: as needed, between 1 and 6 month intervals*] ["Opioids, long-acting"] "The best solution is to avoid prescribing opioids entirely for chronic pain because there is no high-quality evidence that they are effective for this indication, and the risk of adverse effects, including death from unintentional overdose, is great. (Miller, 2015)"
Utah—2009	*Yes.* *Does not specify alternatives; they should be tried or documented.*	*No specific recommendations.*	**"Before prescribing opioid treatment for chronic pain:** "Recommendation: A comprehensive evaluation should be performed. […] The evaluation should specifically address these issues: • Assess pain and prior treatment of pain. • Assess presence of social factors, and medical or mental health conditions that might influence treatment especially those that might interfere with appropriate and safe use of opioid therapy (Department of Veterans

C. General Guidelines Regarding Initiation of Chronic Opioid Therapy			
	Use opioids only after alternative treatments (pharma and non-pharma) have failed?	**Counsels for or against opioid treatment for specific conditions?**	**Exact language**
			Affairs & Department of Defense [Veteran's Admin/DOD], 2003)" (8) "2.1 Recommendation: Alternatives to opioid treatment should be tried (or an adequate trial of such treatments by a previous provider documented) before initiating opioid treatment." (9) • [*see subsequent charts for recommendations to use screening tools to identify risk of addiction or abuse and to use the Prescription Monitoring System*]
VA/DoD Guideline—May 2010	*Yes.* *Alternatives referred to in broad terms.*	**"Relative contraindications (Initiate Trial with Caution)** Chronic or recurrent headache" (26)	"A trial of opioid therapy (OT) is indicated for a patient with chronic pain who meets all of the following criteria: a. Moderate to severe pain that has failed to adequately respond to indicated non-opioid and non-drug therapeutic interventions b. The potential benefits of OT are likely to outweigh the risks (i.e., no absolute contraindications) c. The patient is fully informed and consents to the therapy d. Clear and measurable treatment goals are established " (15) "Information from the pain history and physical exam should be reviewed to ensure that the patient has had an adequate therapeutic trial of non-opioid medication therapies." (17)
WA Interagency Guidelines (AMDG)—2010 Update	*Yes.* *Specifies alternative treatments.*	*No specific recommendations.*	**"BEFORE you decide to prescribe opioids for chronic pain** Consider opioid therapy when: • Other physical, behavioral and non-opioid measures have failed (e.g. physical therapy, cognitive behavioral therapy, NSAIDs, antidepressants, antiepileptics), and • The patient has demonstrated sustained improvement in

C. General Guidelines Regarding Initiation of Chronic Opioid Therapy			
	Use opioids only after alternative treatments (pharma and non-pharma) have failed?	**Counsels for or against opioid treatment for specific conditions?**	**Exact language**
			function and pain levels in previous opioid trial, and the patient has no relative contraindication to the use of opioids (e.g. current or past alcohol or other substance abuse, including).” (5)
WA Workers’ Comp Guidelines—2013	*Yes.* *To get prior authorization, doctor must document that alternative treatments failed.*	*No specific recommendations.*	“If opioids are to be prescribed beyond 12 weeks post-injury or post-surgery, the provider **must** have received prior authorization from the department. With the exception of catastrophic injuries, the provider must document the following before L&I or insurer can authorize payment for opioids during the chronic phase: • Clinically meaningful improvement in function (≥ 30%) has been established with opioid use in the acute or subacute phase. • Failure of trials of reasonable alternatives to opioids. • Signed treatment agreement (pain contract). • A time-limited treatment plan, addressing whether chronic opioid therapy is likely to improve the worker’s vocational recovery (e.g. work hardening, vocational services). • Consultation with a pain management specialist if the worker’s dose is above 120mg/d morphine equivalent dose (MED) and there is no CMIF. Additional appropriate consultations are recommended if the worker has a co-morbid substance use or poorly controlled mental health disorder. • Worker has no contraindication to the use of opioids. • No evidence or likelihood of having serious adverse outcomes from opioid use.” (10)

D. Screening For High Risk Patients (Tools and General Assessment)		
	Risk assessment recommendations <u>prior to</u> chronic opioid therapy (part of decision-making process)	**General recommendations if assessment finds high risk[4]**
ACOEM—2011	*The SOAPP questionnaire is provided in the guideline's appendix (19) and its use is recommended in combination with other questions the doctor should ask the patient directly as part of the initial assessment.* "Screening of patients by asking about prior substance abuse with simple tools and using currently available screening tools designed for use in populations on or considering opioid therapy is recommended as there is evidence that patients with a prior history of drug or alcohol abuse or psychological problems are at increased risk of developing opioid related use/abuse problems. A psychological evaluation would also be indicated in most cases." *Strength of Evidence* – **Recommended, Insufficient Evidence (I)** [*I = consensus based*] (3) "**Screening for Risk of Addiction or Abuse**. "In addition, the Screener and Opioid Assessment for Patients with Pain (SOAPP), a validated, self-administered questionnaire consisting of 24, 14, or 5 questions (see Figure 1c) can be used. This questionnaire does not replace the need for formal professional assessment of abuse or addiction potential for any patient considered for maintenance therapy. Screening for addiction should be done as	"Patients with prior psychological disorders, depression, histories of drug abuse/dependence, and/or a personality disorder are often more at risk for a poor outcome and should be cautiously treated with opioids." (2) "Opioids should be avoided in patients who have prior psychopathology or risk factors for abuse and addiction. If the benefits are felt to substantially outweigh the risks, it may be reasonable to trial opioid therapy. However, these patients are thought to require especially explicit rules of acceptable conduct (i.e., written agreement), careful follow-up by the prescribing physician, and regular follow-up by an appropriate mental health professional prior to, or in conjunction with, the opioid trial unless the treating practitioner has prior experience in the management of patients with chronic pain and opioid use in particular in this population of patients, and is consequently capable of managing the complex psychosocial issues that often impact on outcomes in these patients. The practitioner providing the physical or

[4] *For <u>current</u> substance use, see the chart on comorbidities following this one.)*

D. Screening For High Risk Patients (Tools and General Assessment)		
	Risk assessment recommendations prior to chronic opioid therapy (part of decision-making process)	**General recommendations if assessment finds high risk[4]**
	part of the questions to ascertain whether any of the following are present: a. history of alcohol, opioid, or other substance abuse, or a history of chronic, benzodiazepine or other sedative use; b. active alcohol, tobacco, or other substance abuse; c. borderline personality disorders; d. mood disorders (e.g., depression) or psychotic disorders; e. other disorders that are primarily depressive in nature; f. off work for more than 6 months; and g. poor response to opioids in the past." (6)	psychological intervention should be informed of his or her responsibility for both monitoring objective parameters representing patient progress and communicating information regarding progress, or lack of progress, to the physician managing the opioids." (6)
ACOEM—2014	*Appendix 1 contains the following screening tools: Opioid Risk Tool (ORT), SOAPP-R, and COMM.* *The narrative text also describes the Pain Medication Questionnaire and gives references for studies on it. (144)* "3. Recommendation: Screening Patients Prior to Initiation of Opioids Screening of patients is recommended prior to consideration of initiating a trial of opioids for treatment of subacute or chronic pain. Screening should include history(ies) of depression, anxiety, personality disorder and personality profile, other psychiatric disorder, substance abuse history, sedating medication use	(*part of Recommendation 3*) "Those who screen positive, especially to multiple criteria, are recommended to: i) undergo greater scrutiny for appropriateness of opioids (may include psychological and/or psychiatric evaluation(s) to help assure opioids are not being used instead of appropriate mental health care); ii) consideration of consultation and examination(s) for complicating conditions and/or appropriateness of opioids; and iii) if opioids are prescribed, more frequent assessments for compliance, achievement of functional gains and symptoms and signs of aberrant use." (25)

D. Screening For High Risk Patients (Tools and General Assessment)		
	Risk assessment recommendations prior to chronic opioid therapy (part of decision-making process)	**General recommendations if assessment finds high risk[4]**
	(e.g., anti-histamine/anti-H1 blocker), benzodiazepine use, opioid dependence, alcohol abuse, current tobacco use, and other substance use history, COPD, PTSD, other psychotropic medications, (severe) obesity, cognitive impairment, balance problems/fall risk, osteoporosis, and renal failure (see Appendix 1). Harms – Negligible. If a consultation is needed, additional costs are incurred. Benefits – Identification of patients at increased risk of adverse effects. Improved identification of more appropriate and safe candidates for treatment with opioids. This should reduce adverse effects. In cases where the patient has elevated, but potentially acceptable risk, this may alert the provider to improve surveillance for complications and aberrant behaviors. [. . . *see next column*] Strength of Evidence – Recommended, Insufficient Evidence (I) Level of Confidence – High" (22)	
APS/AAPM—2009	*Summary of recommended tools*, p. 116: 1. SOAAP, Version 1 and the SOAPP-R (the revised version) 2. Opioid Risk Tool 3. DIRE instrument "Before initiating COT, clinicians should conduct a history, physical examination and appropriate testing, including an assessment of risk of substance abuse, misuse, or addiction (strong recommendation, low-	"**High-Risk Patients** **Recommendations** 6.1 Clinicians may consider COT [*chronic opioid therapy*] for patients with CNCP and history of drug abuse, psychiatric issues, or serious aberrant drug-related behaviors only if they are able to implement more frequent and stringent monitoring parameters. In such situations, clinicians should strongly consider

D. Screening For High Risk Patients (Tools and General Assessment)		
	Risk assessment recommendations prior to chronic opioid therapy (part of decision-making process)	**General recommendations if assessment finds high risk[4]**
	quality evidence).” (115) “DIRE is clinician-administered and is designed to assess potential efficacy as well as harms. The SOAPP Version 1, SOAPP-R and ORT are patient self-report questionnaires that assess risk of aberrant drug-related behaviors.” (116) [*All tools are provided in the Appendices of this guideline.*]	consultation with a mental health or addiction specialist (strong recommendation, low-quality evidence).” (119)
ASIPP—2012	“1. There is limited evidence for reliability and accuracy of available instruments in screening for opioid abuse or illicit drug use due to lack of high quality studies. 2. There is limited evidence that screening for opioid abuse by any of the instruments will reduce the abuse, with lack of long-term published quality literature. 3. There is good evidence that PMPs provide data on patterns of prescription usage. 4. There is fair evidence that prescription drug monitoring programs may reduce prescription drug abuse or doctor shopping. 5. There is limited evidence that prescription drug monitoring programs reduce emergency room visits, drug overdoses, or deaths, due to lack of high quality literature.” (S38)	“1. The evidence of effectiveness and safety of chronic opioid therapy in the elderly for chronic non-cancer pain is fair for short-term and limited for longterm due to lack of high quality studies. 2. The evidence of effectiveness and safety in children and adolescents is limited due to lack of quality studies. 3. The evidence of effectiveness and safety in pregnancy is poor; however, the evidence is good with regards to adverse effects. 4. Effectiveness and safety of opioids in patients with generalized anxiety disorder and depression is limited due to lack of high quality studies with fair evidence of increased risk. 5. The evidence of prevalence of high use of opioids in depression is fair. 6. The evidence of effectiveness and safety in high risk psychological disorder patients with personality disorders and addiction disorders is limited due to lack of high quality studies,

D. Screening For High Risk Patients (Tools and General Assessment)		
	Risk assessment recommendations <u>prior to</u> chronic opioid therapy (part of decision-making process)	**General recommendations if assessment finds high risk[4]**
		with good evidence of increased risk and adverse effects." (S31-S32)
Canadian Guideline—2010	*This is a summary of tools recommended (2-4 are only in the appendix, not mentioned by name in the recommendation):* 1. Opioid Risk Tool 2. Interview guide for alcohol – CAMH 2004 3. Interview guide for substance use 4. CAGE questionnaire "R02: Before initiating opioid therapy, consider using a screening tool to determine the patient's risk for opioid addiction. (Grade B). Addiction-risk screening." (11) Most of the screening tools have not been studied in depth, validated, or been compared to each other but the Opioid Risk Tool (ORT) is widely used (see Appendix B-2: ORT). See Appendix B-1 for examples of interview guides and assessment tools that may be used to supplement a comprehensive history of alcohol and substance use." (11) **"Summary of Peer-Reviewed Evidence:** A systematic review of predictors for opioid misuse concluded that none of the screening tools can be recommended with confidence, because the samples were small and unrepresentative (Turk 2008). A personal history of abuse of illicit drugs or alcohol remains the strongest predictor of opioid misuse and	"R11: When initiating a trial of opioid therapy for patients at higher risk for misuse, prescribe only for well-defined somatic or neuropathic pain conditions (Grade A), start with lower doses and titrate in small-dose increments (Grade B), and monitor closely for signs of aberrant drug-related behaviors. (Grade C). **Risk: Opioid misuse**" (40) "The following factors could indicate patients at higher risk of opioid misuse: 1) history of alcohol or substance abuse (patient and/or family) 2) uncertain security in the home (e.g., living in a boarding home with minimal protection for possessions), and 3) past aberrant drug-related behaviors" (40)

D. Screening For High Risk Patients (Tools and General Assessment)		
	Risk assessment recommendations <u>prior to</u> chronic opioid therapy (part of decision-making process)	**General recommendations if assessment finds high risk[4]**
	abuse." (11)	
ODG	"[Opioids, screening tests for risk of addiction & misuse] *Recommend screening tests for the risk of misuse of prescription opioids and/or aberrant drug behavior (defined as behavior that suggests the presence of substance abuse or addiction), prior to initiating opioid therapy and with ongoing therapy (though frequency of testing is not well defined).* [. . .] "Results of screening tests should be used in the context of other sources in order to stratify risk and identify those individuals who are not good candidates for opioid therapy, or who require more careful monitoring with use. [. . .] There is minimal literature available to recommend any one tool over another, and a recent study which compared several screening instruments to a risk rating performed by a psychologist found the clinical assessment was the most sensitive predictor of discharge status, with the SOAPP-R being the most sensitive of the self-report measures. (Jones, 2012) Another recent study recommended the use of DIRE Score, ABC Checklist, Screening Tool by Atluri & Sudarshan, SOAPP, PDUQP, or PMQ. (Atluri, 2012)" *Gives detailed objective description of eleven screening tests, labeled as "subjective screening tools" and including the SOAPP, SOAPP-R, ORT, COMM, and CAGE tests.* *Global judgment introducing the list*: "The risk of use	["Opioids, criteria for use"] **"4) On-Going Management**. Actions Should Include: (e) Use of drug screening or inpatient treatment with issues of abuse, addiction, or poor pain control. (Webster, 2008)" ["Opioids, screening tests for risk of addiction & misuse"] "It is important to note that being at risk does not necessarily indicate that a patient will develop an addiction disorder, or is addicted. A history of an addiction disorder does not preclude a patient from being treated with opioids. (Savage 1999) (Portenoy, 1996) (Chou, 2009b) (Bohn, 2011) (Turk, 2008) (Moore, 2009) (Jones 2012) (Jones, 2011) (Jamison, 2011) (Atluri, 2013) (Sehgal, 2012)"

D. Screening For High Risk Patients (Tools and General Assessment)		
	Risk assessment recommendations prior to chronic opioid therapy (part of decision-making process)	**General recommendations if assessment finds high risk[4]**
	of a subjective tool is that abusers may not be truthful." *Directly below this list is another list of three screening tests "containing objective measures": ABC (Addiction Behaviors Checklist), DIRE (Diagnosis, Intractability, Risk, Efficacy) and Atluri.*	
Utah—2009	"1. SOAPP-R 2. Opioid Risk Tool 3. Urine Drug Tests* 4. Signs of Substance Misuse†" (55) **weaker recommendation*, *see UDT chart later in this matrix* †*A list of signs to look for* **"3.1 Recommendation:** Use a screening tool to assess the patient's risk of misuse prior to prescribing an opioid medication long term for chronic pain. [. . .] **3.2 Recommendation:** Consider performing drug screening before initiating long term opioid treatment for chronic pain." (9)	**"12. Consultation and management of complex patients"** **"12.2 Recommendation** Patients with a history of addiction or substance use disorder or who have positive drug screens indicative of a problem should be considered for referral to an addiction specialist for evaluation of recurrence risk and for assistance with treatment." (19) "The main goal of a consultation is for the prescribing clinician to receive recommendations for ongoing treatment." (19) **"12.4 Recommendation** Patients with coexisting psychiatric disorder should receive ongoing mental health support and treatment while receiving opioid medication for pain control." (19) "Tools to accompany Recommendation 12: • Strategies for Tapering and Weaning • Directory of Resources" (19)
VA/DoD Guideline—May 2010	*Does not name any screening tools, but lists topics of interest for identifying high-risk patients:* "The comprehensive assessment should include:	**"Absolute contraindications:** **a.** Acute psychiatric instability. [. . .] **c.** True Allergy to opioid agents" (25)

D. Screening For High Risk Patients (Tools and General Assessment)		
	Risk assessment recommendations <u>prior to</u> chronic opioid therapy (part of decision-making process)	**General recommendations if assessment finds high risk[4]**
	• Past Psychiatric history (including depression, anxiety, other emotional disorders, risk of suicide including family history and previous suicidal attempts) • Medications (including current and past analgesics, their effectiveness, side effects, and tolerability, as well as drugs that may interact with opioid therapy) • Substance use history (personal, family, peer group) • Family history • Social history (including employment, cultural background, social network, marital history, and legal history, other behavioral patterns (i.e. impulse behaviors)) • Abuse (sexual, physical and mental)" (17) "A urine drug test (UDT) should be used to screen for the presence of illegal drugs, unreported prescribed medication, or unreported alcohol use prior to starting therapy. [B]" (17)	*(the others involve medications and adverse effects. See the VA guideline.)* **"Determine appropriate setting for opioid therapy** **Recommendation:** For patients with history of drug abuse, psychiatric issues, or serious aberrant drug-related behaviors, initiation of a trial of OT in the primary care setting should only be considered if more frequent and stringent monitoring can be provided. In such situations, clinicians should strongly consider consultation with a mental health or addiction specialist." (28) [*makes same recommendation for patients with current disorders*] "**Psychiatric History—Include the following:** […] Patients being treated for depression with MAOIs should not be treated with opioid therapy." (18) **"Substance Use History**— Current substance use disorder (SUD) is not a contraindication to OT. […] Physicians should be especially cautious about prescribing controlled substances to these patients. […] Consultation with an addiction specialist for evaluation or co-management may be useful, as well as involvement of the patient's family. An alternative would be the provision of opioids in a structured setting (i.e., Opioid Pain

D. Screening For High Risk Patients (Tools and General Assessment)		
	Risk assessment recommendations prior to chronic opioid therapy (part of decision-making process)	**General recommendations if assessment finds high risk[4]**
		Clinic) that can provide support and evaluation needed for this group of patients (Wiedemer, 2007).” (19)
WA Interagency Guidelines (AMDG)—2010 Update	“1. The Opioid Risk Tool (ORT) 2.The CAGE-AID to screen for alcohol or drug problems 3. The PHQ-9 to screen for depression severity 4. A baseline urine drug test 5. A baseline assessment of function and pain with the 2 item Graded Chronic Pain Scale (provided in appendix)” (5)	“If substantial risk is identified through screening, extreme caution should be used and a specialty consultation (e.g. addiction or mental health specialist) is strongly encouraged. In such cases, a baseline risk assessment using the following tools should be performed and documented in the record: [see list in column the left]” (5) “High risk does not necessarily contraindicate the use of opioids but additional monitoring is indicated whenever risk is increased for any reason. Additional monitoring may include increased frequency of reassessment of pain, function, and aberrant behaviors, decreased number of doses prescribed, and increased frequency of UDT.” (6)
WA Workers’ Comp Guidelines—2013	*Tools not specified* (*this guideline supplements the WA Interagency guideline)*	“Chronic opioid therapy (COT) should not be prescribed in the presence of current substance use disorder (excluding nicotine) and cautiously if there is past substance use disorder.” (3)

E. Impact of Comorbid Conditions[5] on the Decision of Whether to Initiate Opioid Treatment			
	Is active substance abuse a contra-indication for initiating opioid treatment?	**Are any other prescribed medications (relative) contraindications for opioid treatment?**	**Exact language (indicated by quotes)**
ACOEM—2011	*Not specified*	*Use with caution: tramadol with tricyclic, SSRI, or SNRI anti-depressants*	"Patients with prior psychological disorders, depression, histories of drug abuse/dependence, and/or a personality disorder are often more at risk for a poor outcome and should be cautiously treated with opioids." (2) "**Criteria for Initiation:** [. . .] **4. Contra-indications** – There is no evidence of significant psychopathology or an elevated risk of abuse, addiction, or adverse outcome (see Figure 1c for a screening tool). These are relative rather than absolute contraindications to opioid therapy. However, their presence requires the practitioner to take added precautions by increasing patient education and the degree to which opioid use is both monitored and controlled. **5. Expert Consultation** – Patients with a "chronic pain syndrome" or "pain disorder" characterized by behavioral and emotional issues, poor coping, dysfunctional pain behaviors, life disruption, and delayed recovery with symptoms inconsistent with objective findings both clinically and on diagnostic testing should not be considered for opioid therapy until they have had a psychological evaluation and, if warranted, referred for appropriate psychological, behavioral, and/or rehabilitative interventions." (4) "Tramadol should be used cautiously in patients taking tricyclic, SSRI, or SNRI anti-depressants because of the increased risk of

[5] For instance: current substance use disorder (including cannabis), concomitant use of sedative/hypnotics and benzodiazepines, as well as other pre-existing medical conditions such as renal disorder, upper respiratory problems, sleep apnea, and constipation.

E. Impact of Comorbid Conditions[5] on the Decision of Whether to Initiate Opioid Treatment			
	Is active substance abuse a contra-indication for initiating opioid treatment?	**Are any other prescribed medications (relative) contraindications for opioid treatment?**	**Exact language (indicated by quotes)**
			central nervous system depression, psychomotor impairment, seizures, and serotonin syndrome. If tramadol is contraindicated or ineffective, other short-acting opioids such as 5mg oxycodone or 5mg hydrocodone every 4 to 6 hours may be used as needed for pain relief." (7)
ACOEM—2014	*Yes, but only if patient has mild, acute pain.*	*Any current substance abuse discovered during an opioid trial or ongoing treatment should lead to discontinuation or weaning. (26)* *Considerable caution needed with use of sedatives (including benzodiazepines) and anti-histamines (18)* *Many pre-existing physical and mental conditions also warrant caution.*	*Active substance abuse:* "Patients should not receive opioids if they use illicit substances unless there is objective evidence of significant trauma or moderate to severe [acute] injuries." (18) "Due to greater than 10-fold elevated risks of adverse effects and death, considerable caution is warranted among those using other sedating medications and substances including: i) benzodiazepines, ii) antihistamines (H1-blockers), and/or iii) illicit substances." (18) _____ *Other Comorbidities* Mental conditions for which "caution is also warranted": "depression, anxiety, personality disorder, untreated sleep disorders, substance abuse history, current alcohol use or current tobacco use, attention deficit hyperactivity disorder (ADHD), post-traumatic stress disorder (PTSD), suicidal risk, impulse control problems, thought disorders" (19)

E. Impact of Comorbid Conditions[5] on the Decision of Whether to Initiate Opioid Treatment			
	Is active substance abuse a contra-indication for initiating opioid treatment?	**Are any other prescribed medications (relative) contraindications for opioid treatment?**	**Exact language (indicated by quotes)**
			Physical conditions for which ""caution is also warranted": "chronic obstructive pulmonary disease (COPD), asthma, or recurrent pneumonia." *Physical conditions for which* "considerable caution is warranted": "chronic hepatitis and/or cirrhosis,(187) as well as coronary artery disease, dysrhythmias, cerebrovascular disease, orthostatic hypotension, asthma, recurrent pneumonia, thermoregulatory problems, advanced age (especially with mentation issues, fall risk, debility), osteopenia, osteoporosis, water retention, renal failure, severe obesity, testosterone deficiency, erectile dysfunction, abdominal pain, gastroparesis, constipation, prostatic hypertrophy, oligomenorrhea, pregnancy, human immunodeficiency virus (HIV), ineffective birth control, herpes, allodynia, dementia, cognitive dysfunction and impairment, gait problems, tremor, concentration problems, insomnia, coordination problems, and slow reaction time." (19)
APS/AAPM—2009	*No, but must be done with extreme care in consultation with specialists.*		**"Recommendation 6.1** Clinicians may consider COT [*chronic opioid therapy*] for patients with CNCP and history of drug abuse, psychiatric issues, or serious aberrant drug-related behaviors only if they are able to implement more frequent and stringent monitoring parameters. In such situations, clinicians should strongly consider consultation with a mental health or addiction specialist (strong recommendation, low-quality evidence)." (119) *Comorbidities mentioned in the discussion:* "Preexisting constipation, nausea, pulmonary disease, and cognitive impairment probably predict risk for opioid-related adverse

E. Impact of Comorbid Conditions[5] on the Decision of Whether to Initiate Opioid Treatment			
	Is active substance abuse a contra-indication for initiating opioid treatment?	**Are any other prescribed medications (relative) contraindications for opioid treatment?**	**Exact language (indicated by quotes)**
			effects, though no studies have adequately evaluated the utility of these factors for use in risk stratification." (116)
ASIPP—2012	*Not specified.*	*Not specified.*	"1. There is good evidence that the increased supply of opioids, use of high dose opioids, doctor shoppers, and patients with multiple comorbid factors contribute to the majority of fatalities." (S34)
Canadian Guideline—April 2010	*Not specified.*	*Makes nuanced rec regarding patients taking benzodiazepines (and driving)*	"**Benzodiazepine tapering** R06: For patients taking benzodiazepines, particularly for elderly patients, consider a trial of tapering (Grade B). If a trial of tapering is not indicated or is unsuccessful, opioids should be titrated more slowly and at lower doses. (Grade C). " (25) Discussion: "A successful trial of benzodiazepine tapering can mean either a dose reduction or elimination of benzodiazepines." (25) **"LTOT and Driving** R14: When assessing safety to drive in patients on long-term opioid therapy [LTOT], consider factors that could impair cognition and psychomotor ability, such as a consistently severe pain rating, disordered sleep, and concomitant medications that increase sedation [such as benzodiazepines and anticholinergics, tricyclic antidepressants, anticonvulsants, antihistamines, breakthrough pain medication]. (Grade C)." (45) "**Co-morbid psychiatric diagnoses** R20: Patients with a psychiatric diagnosis are at greater risk for adverse effects from opioid treatment. Usually in these patients, opioids should be reserved for well-defined somatic or neuropathic pain conditions. Titrate more slowly and monitor closely; seek consultation where

E. Impact of Comorbid Conditions[5] on the Decision of Whether to Initiate Opioid Treatment			
	Is active substance abuse a contra-indication for initiating opioid treatment?	**Are any other prescribed medications (relative) contraindications for opioid treatment?**	**Exact language (indicated by quotes)**
			feasible. (Grade B).” (55) “Prescribing Cautions for Co-morbid Psychiatric Conditions [includes the two recs in R20 and three others]: 3. Use structured opioid therapy (see Recommendation 21), with a specific treatment agreement, conservative dosing, frequent dispensing, and monitoring for aberrant drug-related behaviours. 4. Closely monitor the patient’s mood and functioning. 5. Consider tapering if opioid effectiveness is inadequate (opioid effectiveness = improved function or at least 30% reduction in pain intensity).” (55) *Recs for other comorbidities:* ”Patients at higher risk of opioid overdose are those with: 1. **Renal or hepatic impairment:** Caution is advised, because opioids are metabolized in the liver and excreted through the renal system (Tegeder 1999, Foral 2007). Morphine is contraindicated in renal insufficiency. 2. **Chronic obstructive pulmonary disease (COPD) and sleep apnea**: Opioid use may be a risk factor for central sleep apnea (Mogri 2008). Tolerance to the respiratory depressant effects of opioids develops slowly and incompletely, putting COPD patients at risk for respiratory depression with a higher dose increase. 3. **Sleep disorders:** Sleep disorders, including insomnia and daytime sleepiness, are common among opioid users (Zgierska 2007). They may reflect the effects of pain, or the sedating effects of opioids, or concurrent depression 4. **Cognitive impairment:** Opioids should be avoided in

E. Impact of Comorbid Conditions[5] on the Decision of Whether to Initiate Opioid Treatment			
	Is active substance abuse a contra-indication for initiating opioid treatment?	**Are any other prescribed medications (relative) contraindications for opioid treatment?**	**Exact language (indicated by quotes)**
			cognitively impaired patients who live alone, unless ongoing medication supervision can be arranged." (21, from table 5-5.2 and footnote to table)
ODG *(no page numbers provided because it is an html document)*	*No, not stated specifically.*	*No, but strongly recommends against concomitant opioid treatment and benzodiazepines or other sedative drugs*	[Opioids for chronic pain] "Benzodiazepines are commonly implicated in opioid overdose deaths and they lower the lethal opioid dose. Consideration of tapering the use of sedative hypnotics and benzodiazepines before starting opioid use if possible is strongly recommended. (Mirakbari, 2003) (Kahan, 2011) (Gomes, 2011) (Toblin 2010)"
Utah—2009	*No, can be done in consultation with specialists.*		**"Consultation and management of complex patients"** (19) "12.1 Recommendation: Clinicians should consider consultation for patients with complex pain conditions, patients with serious co-morbidities including mental illness, patients who have a history or evidence of current drug addiction or abuse, or when the provider is not confident of his or her abilities to manage the treatment." (19) "12.2 Recommendation: Patients with a history of addiction or substance use disorder or who have positive drug screens indicative of a problem should be considered for referral to an addiction specialist for evaluation of recurrence risk and for assistance with treatment." (19) "12.3 Recommendation: Pain patients who are addicted to medications/drugs should be referred to a pain management, mental health or substance use disorder specialist if available, for recommendations on the treatment plan and possibly for assistance in management. "(19)

E. Impact of Comorbid Conditions[5] on the Decision of Whether to Initiate Opioid Treatment			
	Is active substance abuse a contra-indication for initiating opioid treatment?	**Are any other prescribed medications (relative) contraindications for opioid treatment?**	**Exact language (indicated by quotes)**
			"12.4 Recommendation: Patients with coexisting psychiatric disorder should receive ongoing mental health support and treatment while receiving opioid medication for pain control." (19)
VA/DoD Guideline—May 2010	*Yes, excluding nicotine.*	*Yes.* "Providers should carefully evaluate potential drug interactions prior to initiating opioid therapy, (such as MAOI with concurrent meperidine use, methadone with benzodiazepines, fentanyl with CYP3A4 inhibitors, or propoxyphene and alcohol and other CNS depressants" (25)	**"Are There Contraindications to Opioid Therapy that Cannot be Resolved?** **Recommendation"** (24) "1. Opioid therapy trial should NOT be initiated in the following situations (absolute contraindications): • Severe respiratory instability • Acute psychiatric instability or uncontrolled suicide risk • Diagnosed non-nicotine Substance Use Disorder (DSM-IV criteria) not in remission and not in treatment • True allergy to opioid agents (cannot be resolved by switching agents) • Co-administration of drug capable of inducing life-limiting drug-drug interaction • QTc interval > 500 millisecond for using methadone • Active diversion of controlled substances (providing the medication to someone for whom it was not intended) • Prior adequate trials of specific opioids that were discontinued due to intolerance, serious adverse effects that cannot be treated, or lack of efficacy." (24) "2. Opioid therapy trial can be initiated with caution in the following situations. Consider consultation with appropriate specialty care to evaluate if potential benefits outweigh the risks

E. Impact of Comorbid Conditions[5] on the Decision of Whether to Initiate Opioid Treatment			
	Is active substance abuse a contra-indication for initiating opioid treatment?	**Are any other prescribed medications (relative) contraindications for opioid treatment?**	**Exact language (indicated by quotes)**
			of therapy. a. Patient receiving treatment for diagnosed Substance Use Disorder (DSM-IV criteria). (See Annotation P1) b. Medical condition in which OT may cause harm: • Patient with obstructive sleep apnea not on CPAP • Patients with central sleep apnea (See Annotation P2) Chronic pulmonary disease (mild-moderate asthma, COPD) • Cardiac condition (QTc interval 450-500 milliseconds) that may increase risk of using methadone • Known or suspected paralytic ileus • Respiratory depression in unmonitored setting • Risk for suicide or unstable psychiatric disorder • Complicated pain • Headache not responsive to other pain treatment modalities." (24)
WA Interagency Guidelines (AMD)—2010	*Yes (no specs regarding nicotine)*	*sedative-hypnotics, benzodiazepines, barbiturates*	"Opioid prescribing should be *avoided* in patients with active alcohol or other substance abuse. Extreme caution should be used, and a consultation with an addiction specialist is strongly encouraged, prior to prescribing opioids for patients with a history of alcohol or other substance abuse." (8) "Do not combine opioids with sedative-hypnotics, benzodiazepines or barbiturates for chronic non-cancer pain unless there is a specific medical and/or psychiatric indication for the combination and increased monitoring is initiated." (5)

E. Impact of Comorbid Conditions[5] on the Decision of Whether to Initiate Opioid Treatment			
	Is active substance abuse a contra-indication for initiating opioid treatment?	**Are any other prescribed medications (relative) contraindications for opioid treatment?**	**Exact language (indicated by quotes)**
WA Workers' Comp Guidelines—2013	*Yes, excluding nicotine*	*NOT RECOMMENDED: opioids with Carisoprodol, benzodiazepines, sedative-hypnotics or barbiturates (with caveat for spasticity, see exact language column)* *Use with CAUTION : opioids with acetaminophen with acetaminophen combination opioids (such as Vicodin and others*	"Chronic opioid therapy (COT) should not be prescribed in the presence of current substance use disorder (excluding nicotine) and cautiously if there is past substance use disorder." (3) "Because of the increased risk for adverse outcomes from the use of COT [*chronic opioid therapy*] in patients with mental health disorders, such as borderline personality disorder, mood disorders (e.g. depression, bipolar disorder, anxiety, post-traumatic stress disorder or PTSD) or psychotic disorders, providers should be cautious when prescribing COT for workers with these co-morbid conditions. Furthermore, workers with current substance use disorders as defined by DSM (excluding nicotine) should not receive COT. Workers with a history of opioid use disorder should only receive COT under exceptional circumstances." (6) "*There may be specific indications for such combinations, such as the co-existence of spasticity. In such cases, a pain specialist consultation is strongly recommended. Consider alternatives such as tricyclic antidepressants or antihistamines to manage insomnia." (7, italics in original)*

F. Urine Drug Testing				
	Required for all patients before initiating opioid treatment?	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
ACOEM—2011	*No, only high-risk patients.* "While the initial evaluation and treatment plan will not necessarily require urine drug monitoring to ascertain that the prescribed medication is being used and other substances avoided (since opioids use should generally be short-term), this may be warranted if the patient's past history suggests that there is a risk of substance abuse, misuse, or diversion." (6)	*All patients on COT*	*1-4 times a year, randomly, and also "for cause" [synthesis of the two passages quoted below]* "Randomly, at least twice and up to 4 times a year and at termination. Screening should also be performed "for cause" (e.g., provider suspicion of substance misuse including over-sedating, drug intoxication, motor vehicle crash, other accidents and injuries, driving while intoxicated, premature prescription renewals, self-directed dose changes, lost or stolen prescriptions, using more than one provider for prescriptions, non-pain use of medication, using alcohol for pain treatment or excessive alcohol use, missed appointments, hoarding of medications and selling medications). *Strength of Evidence* – **Recommended, Evidence (C)**" (3) "Patients on opioids should be regularly screened on a random basis via urine testing, with frequency of testing being at least yearly or more often as needed.[4]" (10) [4]Jamison and Pham 2007	*No.*
ACOEM—2014	*Yes. Baseline test for all patients on opioids*	*All patients on opioids for chronic pain.*	*Recommendation 6 (for sub-acute and chronic pain)*	*Yes. Explains many different types of*

F. Urine Drug Testing				
	Required for all patients before initiating opioid treatment?	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
	for subacute pain.		"Screening is recommended at baseline, randomly at least twice and up to 4 times a year and at termination. More intensive screening is recommended for those consuming more than 50mg MED (see above)." (26) " Screening should also be performed "for cause" (e.g., provider suspicion of substance misuse including oversedating, drug intoxication, motor vehicle crash, other accidents and injuries, driving while intoxicated, premature prescription renewals, self-directed dose changes, lost or stolen prescriptions, using more than one provider for prescriptions, non-pain use of medication, using alcohol for pain treatment or excessive alcohol use, missed appointments, hoarding of medications, and selling medications)." (26) "Strength of Evidence ☐ Recommended, Evidence (C) Level of Confidence – High"	*testing: the NIDA , testing done in federally certified labs (the 2-step process), and Immunoassay tests done in the office.* "Standard urine drug/toxicology screening processes should be followed (consult a qualified medical review officer).[240-242] (26)

F. Urine Drug Testing				
	Required for all patients before initiating opioid treatment?	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
APS/AAPM—2009		*Strong recommendation to test high-risk patients, softer rec to test all patients*	*Periodically, for all types of patients, weak rec for weekly testing of very high-risk patients*	*No.*
ASIPP - 2012	"1.There is fair evidence for the diagnostic accuracy of UDT. 2. There is fair evidence to identify patients who are non-compliant or abusing prescription drugs or illicit drugs. 3. There is fair evidence that UDT may decrease prescription drug abuse or illicit drug use when patients are in chronic pain management therapy." (S40)			
Canadian Guideline-April 2010	*No specifications recommendations address this rubric's questions, but they have a recommendation on UDTs:* "**R03** When using urine drug screening (UDS) to establish a baseline measure of risk or to monitor compliance, be aware of benefits and limitations, appropriate test ordering and interpretation, and have a plan to use results. (Grade C). *Urine drug screening"* (12) *The discussion of UDTs addresses other issues <u>in depth</u>, including a detailed comparison in the appendix of the two types of UDTs, immunoassays and chromatography. (68)* *Explains immunoassays vs. chromatography*			

F. Urine Drug Testing				
ODG Guideline	**Required for all patients before initiating chronic opioid treatment (COT)?**	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
(no page numbers provided because it is an html document)	*Yes.* [Urine drug testing (UDT), Criteria for Use of UDT] "**1.** A point-of-contact (POC) immunoassay test is recommended prior to initiating chronic opioid therapy. This is not recommended in acute care situations (i.e. for treatment of nociceptive pain). " [Urine drug testing (UDT) Indications for UDT] "*At the onset of treatment*: (1) UDT is recommended at the onset of treatment of a new patient who is already receiving a controlled substance or when chronic opioid management is considered." BUT elsewhere, they make a much softer recommendation to	*With high-risk patients and patients for whom opioid treatment is not lowering pain and increasing function.* *[Urine drug testing (UDT)]* "Ongoing monitoring: (1) If a patient has evidence of a "high risk" of addiction (including evidence of a comorbid psychiatric disorder (such as depression, anxiety, attention-deficit disorder, obsessive-compulsive disorder, bipolar disorder, and/or schizophrenia), has a history of aberrant behavior, personal or family history of substance dependence (addiction), or a personal history of sexual or physical trauma, ongoing urine drug testing is indicated as an adjunct to monitoring along with	*Frequency depends on risk level of patient. Random screens are recommended.* [Urine drug testing] "Random screens are recommended as patients may change their behavior when expected to be tested. (Chou, 2009b)" "**Cost of Testing:** The Centers for Medicare and Medicaid Services (CMS) recently changed codes for UDT from 80101 to G0431 due to excessive use of UDT and abuse. The new G-code is defined as "drug screen, qualitative; single drug class method (e.g. Immunoassay, enzyme assay) each drug class" and excludes chromatography. An example of reimbursement by CMS for CPT code G0431 at POC is $160. This may vary for State fee guidelines and/or geographic location. Cost effectiveness analysis is currently not available for use of monitoring including urine drug testing. CMS has revised G0431 such that now it may be billed only once per patient encounter, regardless of the number of drug	

F. Urine Drug Testing				
ODG Guideline	**Required for all patients before initiating chronic opioid treatment (COT)?**	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
	do so: [Opioids, criteria for use] "**Steps to Take Before a Therapeutic Trial of Opioids:** (j) Consider the use of a urine drug screen to assess for the use or the presence of illegal drugs."	clinical exams and pill counts. (2) If dose increases are not decreasing pain and increasing function, consideration of UDT should be made to aid in evaluating medication compliance and adherence." "**On-Going Management**. Actions Should Include: e) Use of drug screening or inpatient treatment with issues of abuse, addiction, or poor pain control. (Webster, 2008)"	classes tested. (CMS, 2012)" Limitations to UDT: There is currently no way to tell from a urine drug test the exact amount of drug ingested or taken, when the last dose was taken, or the source of the drug. A recent systematic review of the use of drug treatment agreements and urine drug testing to discourage misuse when opioids are prescribed for chronic noncancer pain, found weak, heterogeneous evidence that these strategies were associated with less misuse. Limited research did find that UDT was a valuable tool to detect use of nonprescribed drugs and confirm adherence to prescribed medications beyond that identified by patient self-report or impression of the treating physician. (Katz, 2002) (Katz, 2003) (Brahm, 2010) (Compton, 2007) (Gourlay, 2010) (Gourlay 2009) (Heit, 2010) (Heit, 2004) (Jaffee, 2008) (Moeller, 2008) (Nafziger, 2009) (Schneider, 2008) (Starrels, 2010) (Chou, 2009b) (McCarberg, 2011) (Owen, 2012) (Owen, 2012) (Christo, 2011) (Melanson, 2009) (Peppin, 2012) (Atluri, 2012) (Standridge, 2010)	

F. Urine Drug Testing				
ODG Guideline	**Required for all patients before initiating chronic opioid treatment (COT)?**	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
			"Criteria for Use of Urine Drug Testing" 2. "Frequency of urine drug testing should be based on documented evidence of risk stratification including use of a testing instrument. *An explanation of "low risk," "moderate risk," and "high risk" of addiction/aberrant behavior is found under* ***Opioids, tools for risk stratification & monitoring*** *and* ***Opioids, screening tests for risk of addiction & misuse****.*" [Hyperlinks] [*See definitions below point 5 in this column]* *3*. 3. Patients at "low risk" of addiction/aberrant behavior should be tested *within 6 months of beginning COT* [*chronic opioid therapy*] *and yearly after that. "*There is no reason to perform confirmatory testing unless the test is inappropriate or there are unexpected results. If required, confirmatory testing should be for the questioned drugs only." 4. Patients at "moderate risk" for addiction/aberrant behavior are recommended for point-of-contact screening *2 to 3 times a year* "with	

F. Urine Drug Testing				
ODG Guideline	**Required for all patients before initiating chronic opioid treatment (COT)?**	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
			confirmatory testing for inappropriate or unexplained results. This includes patients undergoing prescribed opioid changes without success, patients with a stable addiction disorder, those patients in unstable and/or dysfunction social situations, and for those patients with comorbid psychiatric pathology." 5. Patients at "high risk" of adverse outcomes may require testing *as often as once a month.* This category generally includes individuals with active substance abuse disorders. *[This list of recs on UDTS has 19 recs total, many of which are about what to do given different UDT results.]* *[Definitions of risk levels come from the entry, "Opioids, tools for risk stratification & monitoring"]* ***High Risk**: Clinical findings*: Minimal objective findings are documented to explain pain. Symptom magnification can be noted. Hyperalgesia may be present. Underlying pathology can include diseases associated with substance abuse including HIV, hepatitis B and C, and pathology	

F. Urine Drug Testing				
ODG Guideline	**Required for all patients before initiating chronic opioid treatment (COT)?**	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
			associated with alcoholism or drug abuse. Patients with suicidal risks or poorly controlled depression may be at higher risk for intentional overdose when prescribed opioids for chronic pain. (Cheatle, 2011) ***Moderate Risk:*** The patient generally has objective and subjective signs and symptoms of an identifiable diagnostic problem but may have some but not all of the identifiers found under the "high risk" category. Some authors indicate that individuals with treated or non-active substance abuse issues. or significant family history of this, fall into this category. These patients may have psychiatric comorbidity. (Gourlay, 2009) ***Low Risk:*** *Clinical findings;* Pathology is identifiable with objective and subjective symptoms to support a diagnosis. There is an absence of psychiatric comorbidity. (Note: ODG advises that extreme caution is required for any opioid use in patients with underlying psychiatric disease. See **Opioids for chronic pain** [*this is an ODG hyperlink*].	

F. Urine Drug Testing				
	Required for all patients before initiating opioid treatment?	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
Utah—2009	*Yes, a soft recommendation to test <u>all</u> patients, but with reservations about UDTs explained in the discussion* **"Recommendation 3.2:** Consider performing drug screening [=*drug tests*] before initiating long term opioid treatment for chronic pain." (9) "It is recommended that this be considered for all patients. When screening is limited to situations where there is suspicion of substance misuse, some misuse may be missed." (9)	*Nearly all.* "**Recommendation 8.2** Providers should consider performing drug screening on randomly selected visits and any time aberrant behavior is suspected." (15) "It may not be appropriate or necessary for all patients, but should be strongly considered by providers and may provide an opportunity to discuss the risks and problems that can occur with opioid treatment." (15)	*Frequency should match the risk level.* "Base the frequency of random drug screening on the assessed degree of risk of aberrant behavior for the individual patient. Pill counts may also be useful in some circumstances." (15)	*Urine drug screen or other lab test that can detect illegal drugs, other meds or alcohol use. (9)* *Explains immunoassays' strengths and weaknesses. (10)*
VA/DoD Guideline—May 2010	*Yes, with patient consent.* [*Recommendations on UDTs*] "3. With patient	*All patients, with patient consent.*	*Periodic and random.* "Recommendations: 1. Inform patients that drug testing is a routine procedure for all patients	"6. Understanding of lab methods for drug testing and reporting

F. Urine Drug Testing				
	Required for all patients before initiating opioid treatment?	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
	consent, obtain a UDT in all patients prior to initiation of OT. [B]" (59)		starting or on opioid therapy, and is an important tool for monitoring the safety of their treatment." (59) "2. With patient consent monitor all patients on OT with periodic random UDTs to confirm adherence to the treatment plan. Increase the frequency of UDTs based on risk level for aberrant drug-related behaviors and following each dose increase. [B]" (59)	are necessary to interpret UDT results (i.e., screen versus confirmatory test, substances tested, cut-off levels for tests)." (59)
WA Interagency Guidelines (AMDG)—2010 Update	*Yes.* *"*This baseline UDT should be performed on all transferring patients who are already using opioids and for those patients who you are considering for chronic opioid therapy (e.g. 3rd opioid prescription or >6 weeks after an acute injury)." (8)	*All patients on chronic opioid therapy [COT] (see quote in column to the left)*	*Frequency should match the risk level.* *[exact language from table 2, page 8]* • "Low Risk by ORT =Periodic (e.g. up to 1/year)" • "Moderate Risk by ORT = Regular (e.g. up to 2/year)" "High Risk by ORT or opioid doses >120 mg MED/d = Frequent (e.g. up to 3–4/year)" • "Aberrant Behavior [. . .] = At time of visit (Address aberrant behaviors in person, not by telephone)"	*Description of immunoassays and chromatography tests. Recommends the latter to* "confirm unexpected immunoassay results." (9) "It may be more useful to order an expanded urine drug panel to include any of the drugs listed below in

F. Urine Drug Testing				
	Required for all patients before initiating opioid treatment?	**Who to test after chronic opioid therapy has started?**	**UDTs in monitoring phase frequency? Random or planned?**	**Specific tests explained or recommended**
				addition to drugs you are prescribing: " (9) *[See guideline for list.]*
WA Workers' Comp Guidelines—2013* **See row just below for recs added by this guideline that don't fit this chart's rubric.*	*This guideline supplements the Washington Interagency Guidelines.*	*All patients on COT.* **"Executive Summary"** [*of all recs*] "Use of chronic opioid therapy requires regular monitoring and documentation, such as [. . .] administering random urine drug tests." (3)	*Randomly.*	*This guideline supplements the Washington Interagency Guidelines.*
WA Workers' Comp Guidelines—2013*	*Recs on UDTs for acute and subacute phases.* **"Opioids in the Acute Phase (0 to 6 weeks after injury or surgery)"** "Use urine drug tests, the state's PMP and other screening tools in the AMDG Guideline to ensure controlled substances history is consistent with prescribing record and worker's report." (8) **"Opioids in the Subacute Phase (between 6 and 12 weeks)"** "Administer a baseline urine drug test (UDT). If results reveal "red flags" such as the confirmed presence of cocaine, amphetamines or alcohol, opioid use beyond the acute phase is not indicated [. . .]. Unless cannabis use disorder is diagnosed, the presence of cannabis on a UDT does not preclude the use of opioids." (9)			

G. Opioid Treatment Agreement					
	Counsels a written agreement?	**Who should have a written agreement?**	**How frequently should written agreement be reviewed and updated?**	**What should written agreement include?**	**Exact Language**
ACOEM—2011	*Yes.*	*All patients*	"Every month initially, then approximately every 3 months in patients stable on treatment for at least 6 months, then every 6 months in well established, stable patients." (8)	*Appendix includes an example of a treatment agreement from the Washington State Treatment Guidelines. (20)* "[P]atients with prior psychopathology or risk factors for abuse and addition [. . .] are thought to require especially explicit rules of acceptable conduct (i.e., written agreement)" (6)	***"Recommendation: Opioid Treatment Agreement ("Opioid Contract") for Patients with Chronic Pain*** The use of a treatment agreement to document patient understanding and agreement with the expectations of opioid use is recommended. There is evidence that many patients do not adhere to prescribed treatment (including with an agreement);[3] however, these agreements are felt to be needed and coupled with a urine drug screening program.[3,4] Patients should be informed about what is responsible use of opioids and how to interact with their physician and pharmacy in obtaining medication. If literacy is a problem, the physician should read the

G. Opioid Treatment Agreement					
	Counsels a written agreement?	**Who should have a written agreement?**	**How frequently should written agreement be reviewed and updated?**	**What should written agreement include?**	**Exact Language**
					agreement to the patient and ascertain that they understand it or revise the agreement so they can read and understand its content. *Strength of Evidence* – Recommended, Insufficient Evidence (I)" (3)
ACOEM—2014	*Yes, though it is not stated explicitly, it is strongly implied, (26) since synonyms for the opioid treatment agreement include an "opioid contract."*	*All patients.*	*Not specified.*	*Agreement should (1) educate the patients on adverse effects of opioids, and it should also outline (2) how doctor will monitor the patient, (3) the treatment goals and expectations, and (4) conditions for opioid cessation. (26)* *Sample agreement provided (p. 171), but there is no statement that an agreement should include everything in the sample.*	"The use of an opioid treatment agreement (opioid contract, doctor/patient agreement, or informed consent) is recommended to document patient understanding, acknowledgement of potential adverse effects, and agreement with the expectations of opioid use (see Appendix 1).(71, 72, 223-233) If consent is obtained, it is recommended that appropriate family members be involved in this agreement." (26)

G. Opioid Treatment Agreement					
	Counsels a written agreement?	**Who should have a written agreement?**	**How frequently should written agreement be reviewed and updated?**	**What should written agreement include?**	**Exact Language**
					Strength of Evidence--Recommended, Insufficient Evidence (I) Level of Confidence – Moderate
APS/AAPM—2009* *Recommends getting "informed consent" in discussion. (116)*	*Weak rec. for **written** agreement.*	*For high-risk patients a written agreement* "may be particularly helpful"*.* (117)	*No specific recommendation.*	*No specific recommendations, but does give a list of possible content, followed by this disclaimer:* "[T]here is insufficient evidence to guide specific recommendations on which provisions to include. A sample COT [*chronic opioid therapy*] management plan is shown in Appendix 7." (117) *It is from the American Academy of Pain Medicine.*	"2.1 When starting COT, informed consent should be obtained. A continuing discussion with the patient regarding COT should include goals, expectations, potential risks, and alternatives to COT (strong recommendation, low-quality evidence). 2.2 Clinicians may consider using a written COT management plan to document patient and clinician responsibilities and expectations and assist in patient education (weak recommendation, low quality evidence)." (116)
ASIPP—2012					*Not specified*
Canadian Guideline—	*Weak rec. for **written***	*High-risk patients or*	*No specific recommendations.*	*No specific recommendations (only*	"**R05** Before initiating opioid therapy, ensure

G. Opioid Treatment Agreement					
	Counsels a written agreement?	**Who should have a written agreement?**	**How frequently should written agreement be reviewed and updated?**	**What should written agreement include?**	**Exact Language**
April 2010	*agreement*	*patients that the physician doesn't know well.*		*describes what agreements typically include). (22) [See guideline for list.]*	informed consent by explaining potential benefits, adverse effects, complications and risks (Grade B). A treatment agreement may be helpful, particularly for patients not well known to the physician or at higher risk for opioid misuse. (Grade C). Risks, adverse effects, complications." (18)***I(***
ODG *(no page numbers provided because it is an html document)*	*Yes.*	*All patients.*	*No specific recommendation*	[Opioids, pain treatment agreement] "This plan should be signed and dated and placed in the patient's chart, and include the following: ((1) Goals of therapy, (2) Only one provider gives prescriptions, (3) Only one pharmacy dispenses prescriptions, (4) There will be a limit of number of medications, and dose of specific medications, (5) Medications are not to be altered without the	[Opioids, pain treatment agreement] "Recommended. A written consent or pain agreement for chronic use is not required but may make it easier for the physician and surgeon to document patient education, the treatment plan, and the informed consent."

G. Opioid Treatment Agreement					
	Counsels a written agreement?	**Who should have a written agreement?**	**How frequently should written agreement be reviewed and updated?**	**What should written agreement include?**	**Exact Language**
				prescribing doctor's permission, (6) Heavy machinery and automobile driving is not to occur until drug-induced sedation/drowsiness has cleared, (7) Refills are limited, and will only occur at appointments, (8) Treatment compliance must occur for all other modalities enlisted, (9) Urine drug screens may be required, (10) The patient must acknowledge that they are aware of potential adverse effects of the use of opioids including addiction, (11). Information about opioid management can be shared with family members and other providers as necessary, (12) If opioid use is not effective, the option of discontinuing this therapy may occur, (13) The	

G. Opioid Treatment Agreement					
	Counsels a written agreement?	**Who should have a written agreement?**	**How frequently should written agreement be reviewed and updated?**	**What should written agreement include?**	**Exact Language**
				consequence of non-adherence to the treatment agreement is outlined." *Includes a sample treatment plan from the Utah guidelines.*	
Utah—2009	*Yes.*	*All patients.*	*No specific recommendations.*	*Summary of points (See exact language of recs in column to the right.)* • *Risks and benefits of opioid treatment (including details on possible adverse effects)* • *Responsibilities of patient and clinician* *Goals of treatment* • *Guidelines for prescription refills* • *Consent to submit to UDTs* • *Reasons for tapering* • *Also lists other optional points to include in*	"5.1 Recommendation: The patient should be informed of the risks and benefits and any conditions for continuation of opioid treatment, ideally using a written and signed treatment agreement." (12) "5.3 Recommendation: The treatment plan, which defines the responsibilities of both patient and clinician, should be documented." (13) "5.4 Recommendation: The treatment plan should contain goals of treatment, guidelines for prescription refills, agreement to submit to urine or serum

G. Opioid Treatment Agreement					
	Counsels a written agreement?	**Who should have a written agreement?**	**How frequently should written agreement be reviewed and updated?**	**What should written agreement include?**	**Exact Language**
				agreement. (13)	medication." (13)
VA/DoD Guideline—May 2010	*Yes.*	*All patients.*	*No specific recommendation.*	*Gives a long list of 16 points that should be part of the informed consent discussion. It includes all the points recommended by other guidelines for the written agreement, and then some. No explicit recommendation that these topics should be included in the written agreement. All the points in the list appear in the sample agreement, as well as several others not in this list.* (*See guideline for list, page 32.)*	"Discuss treatment agreement with patient and family. Request a written opioid treatment agreement." (11) "Discuss a trial of opioid therapy with the patient, and obtain the patient's informed consent in a shared decision-making discussion. Document the informed consent discussion. 2. Review and discuss a written Opioid Pain Care Agreement (OPCA) with the patient who is expected to receive daily opioid therapy for the treatment of chronic pain. The signed agreement can serve as documentation of an informed consent discussion. (For a sample agreement, see Appendix C)." (32)
WA Interagency	*Yes.*	*All patients.*	*No specific*	• "Treatment goals, which must include	"When instituting chronic opioid therapy, both

G. Opioid Treatment Agreement					
	Counsels a written agreement?	**Who should have a written agreement?**	**How frequently should written agreement be reviewed and updated?**	**What should written agreement include?**	**Exact Language**
Guidelines (AMDG)—2010			*recommendation.*	improvements in both function and pain while monitoring for and minimizing adverse effects • Expectation for routine urine drug testing A follow-up plan with specific time intervals to monitor treatment" (5)	prescriber and patient should discuss and agree on all of the following: • Risks and benefits of opioid therapy supported by an opioid agreement (sample agreements can be found in Appendix G)" (5)
WA Workers' Comp Guidelines—2013	*Yes.*	*All patients, except for victims of catastrophic injuries.*	*No specific recommendation.*	*No specific recommendation. This guide supplements the Interagency guidelines.*	"With the exception of catastrophic injuries, the provider must document the following before L&I or insurer can authorize payment for opioids during the chronic phase: [. . .] • Signed treatment agreement (pain contract)." (10) "Continued coverage of COT [*chronic opioic therapy*] will depend on the prescriber documenting the following: [. . .]

G. Opioid Treatment Agreement					
	Counsels a written agreement?	**Who should have a written agreement?**	**How frequently should written agreement be reviewed and updated?**	**What should written agreement include?**	**Exact Language**
					• A current signed treatment agreement." (10)

H. Prescription Drug Monitoring System	
ACOEM—2011	*No specific recommendation.*
ACOEM—2014	*Included in the indications of the recommendations for using opioids to treat many different stages of pain.* *For Acute, Severe Pain:* "Where available, prescription databases (usually referred to as Prescription Drug Monitoring Program (PDMP)) should be checked and not show evidence for conflicting opioid prescriptions from other providers or evidence of misreporting." (18) *For Post-operative Pain*: "Where available, prescription databases (usually referred to as Prescription Drug Monitoring Program (PDMP)) should be checked for other opioid prescriptions."(21) *For Subacute and Chronic Pain:* "Where available, prescription databases (usually referred to as Prescription Drug Monitoring Program (PDMP)) should be checked for conflicting opioid prescriptions from other providers or evidence of misreporting." (24)
APS/AAPM—2009	*Soft recommendation*. "Clinicians should also be aware of and use prescription monitoring programs if they are available in their area of practice, as they can help identify patients who obtain drugs from multiple sources." (119)

H. Prescription Drug Monitoring System	
ASIPP—2012	"4. There is limited evidence to recommend a routine monitoring of asymptomatic patients on chronic opioid therapy for chronic non-cancer pain for hormonal deficiencies, due to only preliminary evidence and lack of high quality long-term follow-up. 5. There is fair evidence that prescription drug monitoring programs can reduce prescription drug abuse or doctor shopping." (S34) "5. There is limited evidence that prescription drug monitoring programs reduce emergency room visits, drug overdoses, or deaths, due to lack of high quality literature. (S38)
Canadian Guideline—April 2010	"R22: To reduce prescription fraud, physicians should take precautions when issuing prescriptions and work collaboratively with pharmacists. (Grade C). **Prescription Fraud**" 62 "If available, physicians and pharmacists should access electronic prescription databases that provide information about patient prescription history." (62) *Recommendations for preventing prescription fraud if there is no effective drug monitoring system:* **"Taking Precautions.** In issuing prescriptions, physicians should take the following precautions, which are considered to reduce opioid misuse: 1. Fax prescriptions directly to the pharmacy. 2. If using a paper prescription pad: • Use carbon copies or numbered prescription pads. • Write the prescription in words and numbers. • Draw lines through unused portions of the prescription. • Keep blank prescription pads secure. 3. If using desk-top prescription printing, it is especially important to write a clear signature and not use a scribbled initial. 4. If using fax or electronic transmission of the prescription (in jurisdictions that permit it) ensure confidentiality, confirm destination, and retain copies. 5. Promote patient's use of a single dispensing pharmacy." (62)**R22**
ODG *(no page numbers provided because it is an*	*Soft recommendation*. [Opioids, screening tests for risk of addiction & misuse]

H. Prescription Drug Monitoring System	
html document)	"Results of screening tests should be used in the context of other sources in order to stratify risk and identify those individuals who are not good candidates for opioid therapy, or who require more careful monitoring with use. These include history and physical examination, clinical interview, discussions with family members, urine drug testing results, other monitoring findings (including prescription monitoring program reports and pill counts) and review of medical records."
Utah—2009	*Summary: recommends consulting the prescription drug monitoring system 1) before initiating treatment, 2) at least quarterly during titration and 3) at least annually during maintenance (more often for high-risk patients).* "**Screening for risk of addiction or abuse**" (9)"**3.3 Recommendation:** The prescriber should check Utah's Controlled Substance Database before prescribing opioids for chronic pain." (10) **"Titration phase"** (14) "**7.3 Recommendation:** During the titration phase, until the patient is clinically stable and is judged to be compliant with therapy, it is recommended that the clinician check the Controlled Substances Database at least quarterly." (15) _____ *Also mentioned in context of what can be included in the opioid agreement:* "Specific grounds for immediate termination of the agreement and cessation of prescribing may also be specified, such as forgery or selling of prescriptions or medications (VA/DOD, 2003; Trescot et al., 2008) or obtaining them from multiple providers as documented by Utah's Controlled Substance Database Program." (13) "**Maintenance – Periodic monitoring and dose adjustments**" (15) "**8.2 Recommendation**: During maintenance phase, Controlled Substances Database should be checked at least annually." (16) "The Controlled Substances Database should be checked more often for high risk patients and patients exhibiting aberrant behavior." (16) _____ *In sample treatment plan for prescribing opioids, provided in Appendix:* "___ I agree to obtain prescription medication from one designated licensed pharmacist. I understand that my doctor may check the Utah Controlled Substance Database at any time to check my compliance." (33) _____

H. Prescription Drug Monitoring System	
	Page in Appendix entitled Opioid Risk Tool (which isn't ORT) specifies how frequently to consult database depending on the risk level of the patient. • *Low-risk patients*: "Communicate with pharmacies or obtain initial reports from prescription-monitoring programs (where available) and prior medical providers." (52) • *Moderate-risk patients*: "Conduct regular checks (every 6-12 months) of your state's prescription monitoring database, if available, or consult with the patient's pharmacist." (52) • *High-risk patients:* "Consult a prescription database (if available) more frequently." (52)
VA/DoD Guideline—May 2010	"No reliable evidence was found on the diagnostic accuracy of urine toxicology testing, pill counts, or prescription drug monitoring programs, or on clinical outcomes associated with implementation of different monitoring approaches (APS/AAPM, 2009)." (20) *Mentioned in sample opioid agreement*: "My providers may obtain information from State controlled substances databases and other prescription monitoring programs." (103)
WA Interagency Guidelines (AMDG)—2010	*No specific recommendation.*
WA Workers' Comp Guidelines—2013	*In Executive Summary of recommendations:* "Use of chronic opioid therapy requires regular monitoring and documentation, such as screening for risk of co-morbid conditions with validated tools, checking the Prescription Monitoring Program database, assessing clinically meaningful improvement in function and administering random urine drug tests." (3) *Consultation of database at different phases of pain:* *Acute phase (0 to 6 weeks after onset of pain):* **"**Preliminary data from the Prescription Monitoring Program (PMP) has suggested that substantial numbers of newly injured workers received opioids or other controlled substances in the 60 days prior to injury. For this reason, providers should check the PMP prior to prescribing opioids for new injuries or occupational diseases." (8) *Subacute phase:* "Access the state's PMP to ensure that the controlled substance history is consistent with the prescribing record and worker's report." (9) *Chronic phase: "*Prescribers should also continue to check the PMP and administer UDTs based on risk, in accordance with AMDG recommendations and DOH regulations." (10) *Pre-operative pain:* The evaluator should also check the opioid prescribing history in the PMP." (11)

I. Dosing Threshold		
	Numerical threshold or range recommended	**Exact Language indicated in quotes**
ACOEM—2011	*No specific recommendations.*	"If the patient has improved on opioids but still states that his or her activities are limited by pain, a judicious increase in opioid dose can be considered but must be followed by evidence of appropriate pain reduction and/or increased function." (p. 7) *Provides a link to the WA opioid dosing calculator, which includes a threshold:* "(An opioid-dosing calculator developed by the Washington State Agency Medical Directors' Group is available on-line at www.agencymeddirectors.wa.gov/Files/DosingCalc.xls.)" (p. 7) *Provides recommended dosage for tramadol*: "Based on the literature, the lower dose combination medication of 37.5mg tramadol/325mg acetaminophen has the best safety profile, although there have been reports of problems with addiction especially among health care workers, along with reports of seizures associated with withdrawal." (7)
ACOEM—2014	*50 mg (MED) for all patients at all stages of pain, 100 mg at the very highest for patients with "documented functional improvements"*	*For patients with acute pain:* "**The maximum daily oral dose recommended for opioid-naïve, acute pain patients based on risk of overdose/death is 50mg morphine equivalent dose (MED)**[vi(193)] (see Figure 2). Only the dosage required should be dispensed. In rare cases with documented functional improvement (see Appendix 1), higher doses may be considered; however, risks are substantially higher and greater monitoring is also recommended (see Subacute/Chronic Opioid recommendations below). Lower doses should be used for patients at higher risk of dependency, addiction, or other adverse effects. Monitoring is also recommended and consultation may be considered for those patients on higher doses." (20) *For patients with subacute and chronic pain:*

I. Dosing Threshold		
	Numerical threshold or range recommended	**Exact Language indicated in quotes**
		"**The maximum daily oral dose recommended for subacute or chronic pain patients based on risk of overdose/death is 50mg morphine equivalent dose (MED).** In rare cases with documented functional improvements occurring with use above 50 mg MED, subsequent doses up to 100 mg may be considered, however, risks of death are much greater and more intensive monitoring is then also recommended. Lower doses should be considered in high risk patients." (25)
APS/AAPM—2009	*Yes (threshold)*	"When opioid doses reach **200 mg** daily of morphine (or equivalent), more frequent and intense monitoring is often appropriate, to sufficiently inform the decision to continue therapy or consider additional dose escalations." (p. 120)
ASIPP—2012		"3. There is good evidence that the increased supply of opioids, use of high dose opioids, doctor shoppers, and patients with multiple comorbid factors contribute to the majority of fatalities. 4. There is fair evidence that long-acting opioids and a combination of long- acting opioids contribute to increasing fatalities and that even low-doses of 40 mg or 50 mg of daily morphine equivalent doses may be responsible for emergency room admissions with overdoses and deaths. 5. There is good evidence that approximately 60% of fatalities originate from opioids prescribed within the guidelines with approximately 40% of fatalities occurring in 10% of drug abusers." (S1)
Canadian Guideline—April 2010	*Yes (threshold)*	"Chronic non-cancer pain can be managed effectively in most patients with dosages at or below **200 mg/day** of morphine or equivalent (Grade A). Consideration of a higher dosage requires careful reassessment of the pain and of risk for misuse, and frequent monitoring with evidence of improved patient outcomes." (p. 5)
ODG *(no page*	*Yes.*	[Opioids, dosing]

I. Dosing Threshold		
	Numerical threshold or range recommended	**Exact Language indicated in quotes**
numbers provided because it is an html document)		"Recommend that dosing not exceed 100 mg MED (morphine equivalents dosage/day), while there should be increased caution for dosing over 50 MED. [. . .] Escalation of doses greater than 100 mg (MED) should be done with caution, and generally under the care of pain specialists, and in certain cases, addiction specialists, with the understanding that many patients who progress to chronic opioid therapy have underlying psychiatric disease and substance abuse issues." *[Entry includes summaries of the studies showing increased risk for doses 50-100 mg MED (Bohnert, 2011, Dunn 2010, and Gomes 2011)]*
Utah—2009	*Yes (range, with thresholds for specific opioid medications)*	"No clear threshold for high dose has been established based on evidence. The Washington State guideline (WSAMDG, 2007) suggested a threshold of 120 mg of morphine equivalent per day, but has been criticized for that decision. It seems reasonable to increase clinical vigilance at daily doses that exceed 120-200 mg of morphine equivalent per day." (p. 15) [*taken from table in Dosing Guidelines Tool in appendix of guideline*) **Recommended dose threshold for pain consult (not Equianalgesic):** Codeine: 800mg per 24 hours Fentanyl, Transdermal: 50mcg/hour (q 72 hr) Hydrocodone: 30 mg per 24 hours Hydromophone: 30mg per 24 hours (page 73)
VA/DoD Guideline—May 2010	*Yes (threshold)*	***21.*** If a medication provides less than satisfactory pain reduction despite increasing the dose as tolerated to **a reasonable level (less than 200 mg/day** morphine equivalent), evaluate for potential causes such as non-adherence and drug interactions

I. Dosing Threshold		
	Numerical threshold or range recommended	**Exact Language indicated in quotes**
		(see Appendix E, Table E6 in the original guideline document [Drug Interactions]), and consider changing to an alternate opioid medication. ***22.*** Medication may be increased until limited by adverse effects or clear evidence of lack of efficacy. If a **high dose of medication (greater than 200 mg**/day morphine equivalent) provides no further improvement in function, consider consultation rather than further increasing the dose. (HTML format, no pagination)
WA Interagency Guidelines (AMDG)—2010 Update	*Yes (threshold)*	"The hallmark of this guideline is a recommendation to *not* prescribe more than an **average daily MED of 120mg** without *either* the patient demonstrating improvement in function and pain *or* first obtaining a consultation from a pain management expert." (p. 3)
WA Workers' Comp Guidelines—2013	*This guideline supplements the WA Interagency Guidelines*	The guideline warns strongly against high-dose opioids: "High-dose opioids (e.g., morphine, oxycodone) should generally be avoided, as these agents have higher adverse effect profiles. Use of agents such as meperidine, propoxyphene, combination agonists, and mixed agonists/antagonists (butorphanol, nalbuphine, and pentazocine) for management of chronic pain is not recommended."

J. Using Methadone to Treat Pain *(for recommendations on methadone's role in tapering, see the tapering chart)*		
	Dosing	**Advisability of treating with methadone**
ACOEM—2011	*No specific dose recommendations either for equianalgesic parenteral or oral drug admin or for starting doses:* "The conversion ratio of methadone is highly variable depending on factors such as patient tolerance, morphine dose, and length of dosing (short term versus chronic dosing). Because the analgesic duration of action is shorter than the half-life, toxicity due to drug accumulation can occur within 3 to 5 days." (22)	*No specific recommendations.* "Magnitudes of risk reportedly exceed automobile crashes and methadone has been found to be the most hazardous amongst medications reported." (1) "Methadone has different pharmacokinetics and while the analgesic half-life is 6 to 12 hours, the pharmacological half-life of more than 100 hours for some patients is associated with significant risks of toxicity from accumulation. Methadone is also a more difficult opioid analgesic to use in clinical practice and has frequently been thought to be responsible for elevated mortality rates." (8)
ACOEM—2014	*No (at least no such recommendation could be found easily).*	*No specific recommendations within the Recommendations section of the guideline, but in the section entitled "Opioid Benefits and Harms," methadone is discussed:* "Prescribers of methadone should be experienced; physicians and patients may both be unfamiliar with methadone and its potential for inappropriate dosing and long and unpredictable half life." (96) "Methadone should not be used to treat breakthrough pain or as an as needed medication.[71]"(96)

J. Using Methadone to Treat Pain *(for recommendations on methadone's role in tapering, see the tapering chart)*		
	Dosing	**Advisability of treating with methadone**
APS/AAPM—2009	"Methadone should therefore be started at low doses and titrated slowly. Based on panel consensus, a safe starting dose in most opioid-naıve patients is 2.5 mg every 8 hours, with dose increases occurring no more frequently than weekly. In older patients or those with renal or hepatic comorbidities, less frequent dosing and more cautious dose titration are recommended." (118)	"4.1 Methadone is characterized by complicated and variable pharmacokinetics and pharmacodynamics and should be initiated and titrated cautiously, by clinicians familiar with its use and risks (strong recommendation, moderate-quality evidence)." (118)
ASIPP—2012		"5. The evidence for methadone is limited due to lack of quality studies." (S41) "There were no adequate clinical studies available for methadone or for other opioids such as hydrocodone. The authors concluded that there is growing evidence that opioids are efficacious in non-cancer pain, but require individual dose titration and consideration of respective tolerability profiles." (S28)

J. Using Methadone to Treat Pain *(for recommendations on methadone's role in tapering, see the tapering chart)*		
	Dosing	**Advisability of treating with methadone**
Canadian Guideline—April 2010	*No specific recommendations, aside from high vigilance.*[6]	*For treating severe pain, methadone should be considered a third-line treatment (after morphine, oxycodone, hydromorphone [first-line] and fentanyl [second-line]. (27)* "Use methadone to treat pain only if holding a written Health Canada exemption. Titration is hazardous due to its very long half life leading to bio-accumulation. (See Supporting Evidence item 5.)[7]" (28)
ODG *(no page numbers provided because it is an html document)*	[Opioids, dosing] Opioid Dosing Calculator, MED factor: "Methadone, >60mg per day – 12" [*no evidence cited*] "Methadone conversion requires careful consideration because of its long half-life and unusual pharmacokinetic profile compared with most other opioids. In addition, converting methadone to morphine is not bidirectional. When switching from an established dose of methadone to another opioid, we must consider that measurable methadone serum levels will be around for days, so both drugs are now readily available, increasing the overall risk for opioid toxicity.	[Methadone] "Recommended as a second-line drug for moderate to severe pain, only if the potential benefit outweighs the risk, unless methadone is prescribed by pain specialists with experience in its use and by addiction specialists, where first-line use may be appropriate. Due to the complexity of dosing and potential for adverse effects including respiratory depression and adverse cardiac events, this drug should be reserved for use by experienced practitioners (i.e. pain

[6] "One observational study of chronic pain patients on opioid therapy was designed to assess whether a dose relationship exists between methadone, non-methadone opioids, benzodiazepines and the indices measuring sleep apnea. They included all consecutive (392) patients on around-the-clock opioid therapy for at least 6 months with a stable dose for at least 4 weeks. Available data were analyzed on 140 patients. The apnea-hypopnea index was abnormal (≥5 per hour) in 75% of patients (39% had obstructive sleep apnea, 4% had sleep apnea of indeterminate type, 24% had central sleep apnea, and 8% had both central and obstructive sleep apnea); 25% had no sleep apnea. They found a direct relationship between the apnea-hypopnea index and the daily dosage of methadone (P = 0.002) but not to other around-the-clock opioids. They concluded that sleep-disordered breathing was common in chronic pain patients on opioids. The dose-response relationship of sleep apnea to methadone and benzodiazepines calls for increased vigilance (Webster 2008)." (38)

<table>
<tr><th colspan="3">J. Using Methadone to Treat Pain
(for recommendations on methadone's role in tapering, see the tapering chart)</th></tr>
<tr><th></th><th>Dosing</th><th>Advisability of treating with methadone</th></tr>
<tr><td></td><td>(Fudin, 2008)”</td><td>medicine or addiction specialists).
“While methadone is considered safe and effective when used as prescribed it has been suggested by government agencies such as the National Drug Intelligence Center that patients prescribed methadone should be monitored by a physician well trained in the pharmacodynamic and pharmacokinetic properties of the drug, particularly if the patient is opioid naïve. ” [no evidence cited]
“Patients should be informed of arrhythmia risk when prescribed methadone. An assessment should be made of history of structural heart disease, arrhythmia, and syncope. No firm guides are agreed upon in terms of pre-treatment or interval EKGs, but recommendation for use is particularly made for patients on high dose drug with cardiac history or evidence of syncope or seizures. (Peng, 2008)”</td></tr>
<tr><td>Utah—2009</td><td>[Tool: Dosing Guidelines]
“Starting Methadone Dose
<table>
<tr><th>Morphine Equivalent</th><th>Healthy Adult <70 yrs</th><th>Adult w/ chronic illness or >70 yrs</th></tr>
<tr><td>Opioid naïve</td><td>5 mg tid</td><td>2.5 mg bid</td></tr>
<tr><td>60 mg –</td><td>5 mg tid</td><td>5 mg bid</td></tr>
</table></td><td>“13.1 Recommendation: Methadone should only be prescribed by clinicians familiar with its risks and use, and who are prepared to conduct the necessary careful monitoring.” (20)
“Methadone interacts with several other medications that can alter its metabolism changing the effects of a given dose on pain and on respiratory depression. Potential for interactions should be considered before</td></tr>
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<tr><td></td><td>
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<tr><td>100 mg</td><td></td><td></td></tr>
<tr><td>>100 mg</td><td>5 mg qid</td><td>5 mg bid</td></tr>
</table>
*Webster, 2005"

[Dosing Guidelines]. "Methadone is difficult to titrate due to its half-life variability. It may take a long time to reach a stable level in the body. Methadone dose should not be increased more frequently than every 7 days. Do not use as PRN or combine with other long acting (LA) opioids."[8] (74)
[Tool: The Role of Methadone in the Management of Chronic Non Malignant Pain, from the College of Physicians and Surgeons of Ontario] "In opioid-naïve patients or patients taking codeine preparations, methadone 2.5 mg a8h is safe and usually well-tolerated. For patients already on a major opioid analgesic like oxycodone or morphine, a reasonable starting dose of methadone is 5 mgq8h with dose increments of 5 mg q8h every 5-7 days. A general rule is to provide careful dose titration until adequate pain relief is achieved - or side effects limit further dose escalation. [. . .] Patients should be seen weekly during the titration phase and every month or two during the maintenance phase." (71-72)
"Additional ECG examinations were recommended if</td><td>starting methadone in a patient taking other medications and before starting any medication in a patient taking methadone." (20) [no evidence provided]
"Caution should be used in prescribing methadone to any patient at risk for prolonged QTc interval, including those with structural cardiac disease, cardiac arrhythmias or cardiac conduction abnormalities and in patients taking another medication associated with QTc
interval prolongation (Arizona Center for Education and Research on Therapeutics 2008). (20)
"Clinicians should consider obtaining an electrocardiogram (ECG) to evaluate the QTc interval in patients treated with methadone, especially at higher doses. A recently published consensus guideline (Krantz 2009) recommended that an ECG be performed before prescribing methadone, within the first 30 days, and annually. Additional ECG examinations were recommended if the methadone dose exceeds 100 mg per day or if a patient on methadone has unexplained syncope or seizure." (20)</td></tr>
</table>

[8] [*Dosing Guidelines Tool*] "Produced by Utah Department of Health, 2009 adapted from Washington State Agency Medical Director's Group, 2007 and Webster, 2005" (74)

J. Using Methadone to Treat Pain *(for recommendations on methadone's role in tapering, see the tapering chart)*		
	Dosing	**Advisability of treating with methadone**
	the methadone dose exceeds 100 mg per day or if a patient on methadone has unexplained syncope or seizure. Guidance was provided for actions to be taken at two levels of QTc prolongation (450-500 ms and greater than 500 ms)." (20) [Krantz 2009]	[*from the Tool cited in the column to the left*] "Clinicians should question patients about symptoms and signs of sleep apnea and consider obtaining a sleep study in patients treated with opioids if they develop any signs of sleep-disordered breathing or respiratory depression. This is particularly important for patients receiving higher doses of opioid medications. In one recent study, 92% of patients on opioid doses at or above 200 mg morphine equivalents had developed ataxic or irregular breathing (Walker, 2007)." (20) [*from the Tool cited in the column to the left*] "Patients should be warned about potential side effects (especially drowsiness and respiratory depression) and the possibility that side effects can continue to evolve for five to seven days after each dose adjustment The spouse or significant other should be available at least twice daily to monitor for toxicity. [. . .] Elderly patients (over the age of 65), patients with severe lung disease and patients who cannot be adequately monitored at home should be considered for inpatient initiation of methadone treatment." (72)
VA/DoD Guideline—May 2010	*Five-page in-depth appendix, entitled,* "Methadone Dosing Recommendations for Treatment of Chronic Pain." *Provides separate dosing recommendations for opioid-*	"**Cautions for use of Methadone in Patients with Chronic Pain:** Methadone is characterized by complicated and variable pharmacokinetics and

J. Using Methadone to Treat Pain *(for recommendations on methadone's role in tapering, see the tapering chart)*		
	Dosing	**Advisability of treating with methadone**
	naïve patients and opioid-tolerant patients *Salient points:* "The equianalgesic dose of methadone in repetitive dosing is much smaller (1/5th to 1/10th) than that suggested by single-dose studies" (135) "**Table F 1: Points to Consider about Equianalgesic Conversion Ratios** • A number of equianalgesic dosing tables underestimate the potency of methadone.† • Conversion ratios in many equianalgesic dosing tables do not apply to repeated doses of opioids. • The morphine- or hydromorphone-to-methadone conversion ratio increases (i.e., the potency of methadone increases) as the previous dose of morphine or hydromorphone increases.‡ • Conversion ratios may not be bi-directional (i.e., the morphine-to-methadone conversion ratio may not be the same as the methadone-to-morphine ratio).§ • There may be large interpatient variability in the equianalgesic conversion ratio; a single ratio may not be applicable to all patients.§ • The use of high but ineffective doses of previous opioid may result in overestimation of the equivalent dose of methadone. • The relative analgesic potency ratio of oral to parenteral methadone is 2:1; however,	pharmacodynamics and should be initiated and titrated cautiously by clinicians who are familiar with its use and risks, or who can consult with clinicians experienced in dosing methadone. Only under these requirements should methadone be considered as an alternative first-line drug for OT in the primary care setting. 11. When using methadone: a. Inform patients of the arrhythmia risk b. Ask patients about heart disease, arrhythmia, and syncope c. Obtain an electrocardiogram (ECG) to measure the QTc interval before starting methadone and once the dose is stabilized (maintenance phase). Measure the QTc annually thereafter if the patient history is positive for risk factors for prolonged QTc interval, or has known prolonged QTc interval. Perform additional electrocardiography if the methadone dosage exceeds 100 mg/day, or if the patient has unexplained syncope or seizures d. If the QTc interval is greater than 450ms, but less than 500ms, reevaluate and discuss with the patient the potential risks and benefits of therapy, and the need for monitoring the QTc more frequently

J. Using Methadone to Treat Pain *(for recommendations on methadone's role in tapering, see the tapering chart)*		
	Dosing	**Advisability of treating with methadone**
	confidence intervals are wide.|| "The present dosing recommendations are provided to offer guidance on dosing methadone in the treatment of patients with chronic noncancer pain (CNCP) or chronic cancer pain, particularly when converting from another opioid to methadone. If in doubt, a practitioner should consult a pain management specialist, clinical pharmacist, or another practitioner who has the relevant knowledge.	e. If the QTc interval exceeds 500 ms, discontinue or taper the methadone dose and consider using an alternative therapy. Other contributing factors, such as drugs that cause hypokalemia, or QT prolongation should be eliminated whenever possible f. Be aware of interactions between methadone and other drugs that may prolong QTc interval, or slow the elimination of methadone, and educate patients about drug interaction." (38)
	Dosing Strategies Recommendations for the use of methadone in the management of chronic non-cancer pain are extrapolated from studies involving mostly patients with cancer pain.	"Recommendations: 1. Opioid therapy trial should NOT be initiated in the following situations (absolute contraindications): f. QTc interval > 500 millisecond for using methadone" (24) --- "2. Opioid therapy trial can be initiated with caution in the following situations. Consider consultation with appropriate specialty care to evaluate if potential benefits outweigh the risks of therapy." b. Medical condition in which OT may cause harm: • Cardiac condition (QTc interval 450-500 milliseconds) that may increase risk of using methadone" (24)

<table>
<tr><th colspan="3">J. Using Methadone to Treat Pain
(for recommendations on methadone's role in tapering, see the tapering chart)</th></tr>
<tr><th></th><th>Dosing</th><th>Advisability of treating with methadone</th></tr>
<tr><td></td><td>

Table F 2: Dosing recommendations for patients receiving codeine preparations or no previous opioids

<table>
<tr><th>Dosing strategy</th><th>Initial MET dose</th><th>Increments</th><th>Comments</th></tr>
<tr><td>Gradual titration
(For CNCP and situations necessitating</td><td>2.5 mg q 8 h</td><td>2 2.5 mg q 8 h every 5 to 7 d</td><td>As a general rule, start low and go slow.</td></tr>
<tr><td>less frequent monitoring</td><td></td><td></td><td></td></tr>
<tr><td>Faster titration
(For cancer pain and situations where frequent monitoring is possible)</td><td>2.5 mg q 6 or 8 h</td><td>2.5 mg q 6 or 8 h as often as every day over about 4 d</td><td></td></tr>
</table>

The dosing recommendations for gradual titration were modified with permission from *Evidence-Based Recommendations for Medical Management of Chronic Non-Malignant Pain*, College of Physicians and Surgeons of Ontario, November 2000. **All doses refer to oral administration."** (136)

"Use additional caution with elderly patients (65 years

</td><td>

"Providers should carefully evaluate potential drug interactions prior to initiating opioid therapy, (such as MAOI with concurrent meperidine use, methadone with benzodiazepines, fentanyl with CYP3A4 inhibitors, or propoxyphene and alcohol and other CNS depressants)." (25)

Risk of undetected diversion:

"Routine UDT often does not detect synthetic and semi-synthetic opioids (methadone, oxycodone, fentanyl, hydrocodone, meperidine or hydromorphone). (26)

"Initiation strategy for continuous, persistent daily pain:

7. For continuous chronic pain, an agent with a long duration of action, such as controlled release morphine or methadone is recommended." (37)

</td></tr>
</table>

<table>
<tr><th colspan="3">J. Using Methadone to Treat Pain
(for recommendations on methadone's role in tapering, see the tapering chart)</th></tr>
<tr><th></th><th>Dosing</th><th>Advisability of treating with methadone</th></tr>
<tr><td></td><td>and older), patients with liver, renal, or pulmonary disease, debilitated patients, and patients previously receiving high doses of opioid. Patients who cannot be monitored at home may be considered for inpatient titration of methadone." (138)</td><td></td></tr>
<tr><td>WA Interagency Guidelines (AMDG)—2010</td><td>[verbatim from Table 4. Dosing Threshold for Selected Opioids, Appendix A: Opioid dose calculations]
<table>
<tr><th>Recommended dose threshold (not equianalgesic)</th><th>Rec'd starting dose for opioid-naïve patients</th><th>Considerations</th></tr>
<tr><td>40 mg per 24 hrs</td><td>2.5-5mg BID – TID</td><td>Methadone is difficult to titrate due to its half-life variability. It may take a long time to reach a stable level in the body. Methadone dose should not be increased more frequently than every 7 days. Do not use as PRN or combine with other long-acting (LA)</td></tr>
</table></td><td>[Centers for Disease Control and Prevention Control recommendation] "Do not prescribe long-acting or controlled-release opioids (e.g., OxyContin®, fentanyl patches, and methadone) for acute pain."[9] (1)
"Special care should be taken when prescribing methadone for chronic pain. One helpful article for clinicians is: Methadone Treatment for Pain States.[10] Also, free mentoring services are available for prescribing methadone, using the Physician Clinical Support System. See Appendix H, "Additional Resources." (5)
[from Appendix H] "Physician Clinical Support System has mentors available to</td></tr>
</table>

J. Using Methadone to Treat Pain *(for recommendations on methadone's role in tapering, see the tapering chart)*		
	Dosing	**Advisability of treating with methadone**
	opioids. (16) [*From Table 5. MED for Selected Opioids, Appendix Opioid dose calculations*] "Methadone: Chronic: 4mg* *Equianalgesic dosing ratios between methadone and other opioids are complex, thus requiring slow, cautious conversion (Ayonrinde 2000)" (16)	help you, by phone or email, with questions on methadone or buprenorphine. In addition, guidance on specific clinical questions and helpful tools can be downloaded from the website. There is no cost for this service. Once you register at **http://www.pcssmentor.org/** a mentor will be assigned to you within 2 days." (46) *Recommends getting assistance from a pain management expert for questions about methadone treatment.* (10)
WA Workers' Comp Guidelines—2013	*No specific recommendations. This guideline supplements the Washington Interagency guideline.* "**To prevent serious complications from methadone, prescribers should read and carefully follow the methadone (Dolophine®) prescribing information at** www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm" "Methadone for pain (see box warning below). Due to methadone's nonlinear pharmacokinetics, unpredictable clearance and multiple drug-drug interactions, providers should use extreme caution when prescribing this drug for pain. Additional information is available at www.agencymeddirectors.wa.gov/opioiddosing.asp." (7)	"DO NOT USE • methadone for acute or break-through pain" (6) *[first and last sentences of a large shaded box on the possible adverse effects of methadone]* **Prescribing methadone is complex.** [. . .] "Methadone treatment for analgesic therapy in patients with acute or chronic pain should only be initiated if the potential analgesic or palliative care benefit of treatment with methadone is considered and outweighs the risks." (7)

K. Opioid Dosing Calculator (*for when patient is taking multiple opioids, not for converting from one opioid to another*)	
ACOEM—2011	"(An opioid-dosing calculator developed by the Washington State Agency Medical Directors' Group is available on-line at www.agencymeddirectors.wa.gov/Files/DosingCalc.xls.)" (7) *Appendix 1 of the guideline provides a two-page chart entitled "Equianalgesic Dosing of Opioids for Pain Management"* (22) *An important caveat precedes the chart (I have kept the italics from the original): "Equianalgesic doses contained in this chart are approximate, and should be used only as a guideline. Dosing must be titrated to individual response. There is often incomplete cross-tolerance among these drugs. It is, therefore, typically necessary to begin with a dose lower (e.g., 25% to 50% lower) than the equianalgesic dose when changing drugs and then titrate to an effective response. Dosing adjustments for renal or hepatic insufficiency and other conditions that affect drug metabolism and kinetics may also be necessary.* A *website with an equianalgesic dose calculator is available at http://www.hopweb.org."* *A cautionary caveat also follows the chart: "Users of this document are cautioned to use their own professional judgment and consult any other necessary or appropriate sources prior to making clinical judgments based on the content of this document. Our editors have researched the information with input from experts, government agencies, and national organizations. Information and Internet links in this article were current as of the date of publication."* [*See guideline for specific dose recs*]
ACOEM—2014	*No specific recommendations to use any particular dosing calculator, though it does refer to the Washington State online dosing calculator as well as the GlobalRPH Opioid Analgesic Converter in the reference list. (87, 205) The 2014 edition does not include that appeared in the appendix of the previous edition, ""Equianalgesic Dosing of Opioids for Pain Management."*
APS/AAPM—2009	*No specific dosage recommendations.* *"*In patients who are opioid-naive, or have modest previous opioid exposure, opioids should be started at a low dose and titrated slowly, to decrease risk of opioid-related adverse effects. However, there is insufficient evidence to recommend specific optimal starting doses and methods of dose titration. In general, opioid doses should be individualized based on risk for adverse outcomes and responses to therapy. Some patients, such as frail older persons or those with comorbidities, may benefit from more cautious initiation and titration of therapy." (117)

K. Opioid Dosing Calculator (*for when patient is taking multiple opioids, not for converting from one opioid to another*)	
ASIPP—2012	*No recommendations*
Canadian Guideline—April 2010	"Table B-9.1 Opioid Suggested Initial Dose and Titration, Modified from Weaver 2007 with information from the e-CPS (Canadian Pharmacists Association, 2008)" (35)
ODG *(no page numbers provided because it is an html document)*	**[Opioids, dosing]** ***"Opioid dosing conversions:*** Different formulations of opioids can be compared in terms of doses by converting to morphine equivalents. The table highlighted in blue below lists standard conversion factors although there are drawbacks to equivalency tables because they do not consider a recommended dose reduction for opioid cross-tolerance. The Washington State Agency Medical Director's Group guidelines include a convenient opioid conversion table. (AMDG, 2010) **[…]** **Opioid Dosing Calculator** **Morphine Equivalent Dose (MED) factor:** Codeine: 0.15 Fentanyl transdermal (in mcg/hr): 2.4 Hydrocodone: 1 Hydromorphone: 4 Methadone, <10 mg per day: 4 Methadone, 10 to 70 mg per day: increasing linear conversion depending upon dose due to changes in metabolism with increasing dose (see MED Calculator) Methadone, >70 mg per day: 12 Morphine: 1 Oxycodone: 1.5 Oxymorphone: 3 Tapentadol: 0.367 Tramadol: 0.2"

<table>
<tr><th colspan="2">K. Opioid Dosing Calculator
(for when patient is taking multiple opioids, not for converting from one opioid to another)</th></tr>
<tr><td></td><td></td></tr>
<tr><td>Utah—2009</td><td>**Adapted from Washington 2007 Guidelines” (from Dosing Guidelines Tool, page 73)
<table><tr><th>“MED for Selected Opioids*</th><th>Approximate Equianalgesic Dose (oral & transdermal)*</th></tr><tr><td>“Morphine (reference)</td><td>30 mg</td></tr><tr><td>Codeine</td><td>200 mg</td></tr><tr><td>Fentanyl transdermal</td><td>12.5 mcg/hr</td></tr><tr><td>Hydrocodone</td><td>30 mg</td></tr><tr><td>Hydromorphone</td><td>7.5 mg</td></tr><tr><td>Oxycodone</td><td>20 mg</td></tr><tr><td>Oxymorphone</td><td>10 mg</td></tr></table></td></tr>
<tr><td>VA/DoD Guideline—May 2010</td><td>Appendix E: Drug Tables
Table E 1: Short-acting, Orally Administered Opioids in Adults (106-109)
Table E 2: Use of Long-acting Opioids in Adults (110-113)</td></tr>
<tr><td>WA Interagency Guidelines (AMDG)—2010</td><td>Recommends using their online opioid dosing calculator when patients are taking different types of opioids: http://agencymeddirectors.wa.gov/mobile.html</td></tr>
<tr><td>WA Workers’ Comp Guidelines—2013</td><td>No specific recommendations. This guideline supplements the WA Interagency Guidelines.</td></tr>
</table>

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
ACOEM—2011	*Yes, see column to right. (1)*	"**Functional Improvement:** Functional benefit should be represented by improvement in objective parameters of physical, behavioral, or occupational/vocational performance as a result of opioid use. This requires documentation regarding the pain problem, objective physical findings, and current functional status both at home and at work and at the initiation of treatment, including a clear statement regarding what objective or functional goals are to be achieved through use of the opioids if other than full functional recovery. Examples of documentation supporting functional improvement include increased physical output or performance (with focus on job specific activities), resolution of physical findings (such as improvement in radicular symptoms, or weakness); increased active range of motion, strength or aerobic capacity; and increased social engagement accompanied by decreased emotional distress." (1) *Provides list of relevant factors that a physician should evaluate in the initial*	*Yes.* (Recommendation 2, *see middle column)*	*Not specified.*

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
		examination, presumably to determine baseline for assessing functional improvement later on. (4) "While opioids are prescribed due to their analgesic effects, the purpose of opioid therapy is to improve function." (7) **Recommendations for Opioid Use** 2. "*Indications for Discontinuation* – Failure of initial trial to result in objective functional improvement, resolution, improvement to the point of not requiring this intervention, intolerable adverse effects that are not self-limited, non-compliance, and/or surreptitious medication use." (2)		
ACOEM—2014	*Yes.*	*No definition given in the guidelines aside from a table provided in Appendix 1, entitled "Opioid Treatment Functional Goals", which lists the following functions in the first column that the provider should ask the patient about:* "Return to work, modified Return to work, full Household chores (Specify)	*Yes.* (24) *In context of an opioid trial:* "Opioids should be discontinued based **on lack of functional benefit**[(115)] (see Appendix 1), resolution of pain, improvement to the point of not requiring	*Yes.* (87) "Discontinuation is also recommended for subacute and chronic pain patients who: i) used opioids on a chronic basis, and ii) [any one of] **no demonstrated functional gain,** non-compliance, aberrant drug

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
		Sport/Activity (Specify) Activity (ies) of Daily Living (Specify) Other (3 times)" (170) *The chart also provides 8 columns, with the following column heads:* Goal Baseline Recheck (1-6)	opioids, intolerance or adverse effects, non-compliance, surreptitious medication use, medication misuse (including self-escalation and sharing medication), aberrant drug screening results, diversion, consumption of medications or substances advised to not take concomitantly (e.g., sedating medications, alcohol, benzodiazepines)." (25, emphasis added)	screening results and/or diversion, adverse effects (e.g., cognitive impairment, falls, poor judgment, untreated sleep apnea, psychological disorders, and concurrent use of depressant medications such as benzodiazepines and diphenhydramine)].(64, 115)" (87, emphasis added)
APS/AAPM —2009	*Soft yes. It is mentioned as a factor to keep track of. [See specific*	*No specific definition.* "**5. Monitoring, Recommendations** 5.1 Clinicians should reassess patients on COT [*chronic opioid therapy*] periodically	*Not specified.*	*Not specified.*

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
	language in column to the right.]	and as warranted by changing circumstances. Monitoring should include documentation of pain intensity and level of functioning, assessments of progress toward achieving therapeutic goals, presence of adverse events, and adherence to prescribed therapies (strong recommendation, low quality evidence)." (118)		
ASIPP—2012		*No specific recommendations*		
Canadian Guideline—April 2010	*Yes.* *However, if pain is 30% less due to opioids, improved function is not necessary. See R09 in column to the right.*	*Initial evaluation should include an assessment of how pain affects patient's functions.* "Comprehensive knowledge of the patient's pain condition includes […] estimate of the pain intensity and the functional impairment that arises from it (impact of pain on work, school, home and leisure activities)." (9) "The goal of opioid therapy for chronic non-cancer pain is rarely the elimination of pain, but rather an improvement in function or a reduction of pain intensity by at least 30%. Before starting opioids, a discussion with the patient about specific goals related to pain reduction and functional improvement should address any unrealistic expectations. These agreed-on goals should be documented in the	*Not specified*	"Before prescribing over 200 mg/day, consider: 1. Patient's response to opioids: Has the patient shown appropriate opioid effectiveness (i.e., improved function or at least 30% reduction in pain intensity) in response to the dose increases to date? (Opioids have a graded response with the greatest benefit at the lowest

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
		patient's record; they are critical in determining that opioids are effective and should be monitored over time." (18) **"R09 Recommendation Statement** When conducting a trial of opioid therapy, start with a low dosage, increase dosage gradually and monitor opioid effectiveness until optimal dose is attained. (Grade C). Optimal dose. [. . .] **Opioid effectiveness = improved function or at least 30% reduction in pain intensity.** [. . .] **2.1 Assessing Function Change** The patient's progress in reaching agreed-on goals is an important indicator of function change. Self-report can be prompted by asking about work, household activity, mood, walking ability, sleep, and social activities. For an example of a structured assessment tool frequently use in trials, see Appendix B-9: Brief Pain Inventory©." (33) **Appendix B-9: Brief Pain Inventory** (77-78) *Inventory includes questions on function*		doses.) If response has been insignificant continuing to increase the dose will be futile. Switching or discontinuing the opioid could be considered." (36)[11]

[11] For extensive discussion of evidence of dangers of prescribing over 200 mg/day, see pages 37-39 of Canadian guideline.

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
		tool, with questions on how pain has interfered with general activity, mood, walking ability, normal work (including housework and work outside the home), relations with other people, sleep, enjoyment of life, and school work (both class work and homework).		
ODG *(no page numbers provided because it is an html document)*	*Yes.*	[Opioids, criteria for use] **"2) Steps to Take Before a Therapeutic Trial of Opioids:** d) Baseline pain and functional assessments should be made. Function should include social, physical, psychological, daily and work activities, and should be performed using a validated instrument or numerical rating scale."	*No.* [Opioids, criteria for use] **"3. Initiating Therapy** (e) If partial analgesia is not obtained, opioids should be discontinued." [*no mention of discontinuing for lack of functional improvement*]	[Opioids, criteria for use] **4) On-Going Management**. Actions Should Include: "Satisfactory response to treatment may be indicated by the patient's decreased pain, increased level of function, or improved quality of life. Information from family members or other caregivers should be considered in determining the patient's response to treatment." [*i.e.,*

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
				decreased pain is sufficient for maintenance] **6) When to Discontinue Opioids:** a) If there is no overall improvement in function, unless there are extenuating circumstances [*not defined*] (b) Continuing pain with the evidence of intolerable adverse effects; lack of significant benefit (persistent pain and lack of improved function despite high doses of opiates- e.g. > 120 mg/day morphine equivalents) **7) When to**

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
				Continue Opioids (a) If the patient has returned to work (b) If the patient has improved functioning and pain [Weaning, scheduled medications [general guidelines]) Wean if there is "(5) lack of sustained functional improvement related to opioid use"
Utah—2009	*Yes.* *"Goals for treatment* of chronic pain should include improvement in the tolerability of the pain and in	"When opioids are to be used for treatment of chronic pain, a written treatment plan should be established that includes measurable goals for reduction of pain and improvement of function."* (3) * "Function" as used here is defined broadly to include physical, emotional, cognitive, psychological and social	*Not necessarily.* **"7.2 Recommendation:** When pain and function have not sufficiently improved on a current opioid dose, a trial of a slightly higher dose	**"10. Discontinuing opioid treatment** **10.2 Recommendation:** Discontinuation of opioid therapy is recommended if

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
	function (College of Physicians and Surgeons of Ontario, 2000).” (11)	function.” (3) “Assess the effects of pain on the person’s life and function. Assess the severity of pain, functional status of the patient, and the patient’s quality of life using a method/instrument that can be used later to evaluate treatment effectiveness. Tools to accompany Recommendation 1: • Sheehan Disability Tool • Pain Management Evaluation Tool” (8) “**4. Establish treatment goals** **4.2 Recommendation:** Goals for treatment of chronic pain should be measurable and should include improved function and quality of life as well as improved control of pain.” (10) “Goals for functional improvement and measures to track progress against those goals should be established and documented to serve as a basis of evaluating treatment outcome (VA/DOD, 2003; Hegmann, Feinberg, Genovese, Korevaar, & Mueller, 2008). These include: • Objective physical findings obtained by the examining clinician (e.g., improved	could be considered.” (14)	any of the following occurs: […] Patient claims or exhibits a lack of effectiveness” (17)

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
		strength, range of motion, aerobic capacity); • Functional status at work (e.g., increase in physical output, endurance, or ability to perform job functions); and • Functional status at home (e.g., increased ability to perform instrumental activities of daily living, and frequency and intensity of conditioning)." (11) "Document the patient's progress toward treatment goals, including functional status, at every visit, rather than merely reporting the patient's subjective report of decreased pain." (18)		
VA/DoD Guideline—May 2010	*Yes.* "The titration phase involves adjustment of the dosage to achieve the desired clinical outcomes (pain relief, improved function, and patient satisfaction	"A discussion of patient responsibilities should be patient-centered and address the following issues : • Goals of therapy -- Partial pain relief and improvement in physical, emotional, and/or social functioning." (32) "Evaluate pain-related function using objective documentation whenever possible, such as physical therapy progress notes, employment records, exercise diaries, family reports, clinician observations (e.g., walking distance), or validated instruments or NRS rating scales on a monthly basis during the titration	*Possibly.* "Failure to achieve at least partial analgesia, or improved function, at relatively low initial doses in the nontolerant patient raises questions about the potential efficacy of opioid therapy for the patient's pain syndrome." (63)	*Possibly*. "During the [titration]] phase, a lack of response despite dose escalation may indicate that the patient has opioid non-responsive pain and opioid therapy should be discontinued." (36)

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
	with minimal or tolerable adverse effects).” (36)	phase and every six months after the patient is on stable opioids. Assessment of function may include: • Employment • Enjoyment of life • Emotional distress (depression and anxiety) • Housework, chores, hobbies and other day to day activities • Sleep • Mobility • Self-care behaviors • Sexual function” (64)		
WA Interagency Guidelines (AMDG)—2010	*Yes.* “Treatment goals [. . .] must include improvements in both function and pain while monitoring for and minimizing adverse effects.” (5)	“The key to effective opioid therapy for chronic non-cancer pain is to achieve sustained improvement in pain and physical function. Tracking function and pain is critical in determining the patient’s ongoing response to opioids and whether any improvement is consistent with potential changes in opioid dosing. Critical to this guideline, if function and pain do not substantially improve with opioid dose increases, then significant tolerance to opioids may be developing and consultative assistance is strongly recommended.	*Yes (though stated inversely)* **“BEFORE you decide to prescribe opioids for chronic pain** Consider opioid therapy when: The patient has demonstrated sustained improvement in function and pain levels in previous	*Possibly.* “The total daily dose of opioids should not be increased above 120mg oral MED without either the patient demonstrating improvement in function and pain or first obtaining a consultation from a practitioner qualified

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
		An assessment of function and pain should consistently measure the same elements to adequately determine the degree of progress. While there is no universally accepted tool to assess opioid therapy's impact on function and pain, several are available and listed in Appendix C. In particular, the AMDG recommends using the two item Graded Chronic Pain Scale [...as an ongoing and rapid method to easily track function and pain in the medical record. See Appendix C for instructions on scoring and interpretation." (6) "Other functional assessment tools that may be helpful in monitoring your patient's progress include, but are not limited to: • **SF36 Health Survey*** **www.rand.org/health/surveys_tools/mos/mos_core_36item.html** • Brief Pain Inventory* • **www.ohsu.edu/ahec/pain/painventory.pdf** • ***Quick*Dash*** for musculoskeletal disorders of the upper extremities • **www.dash.iwh.on.ca/outcome_quick.htm** • Quality of Life Scale*	opioid trial, […]" (5) "If function and pain do not improve after a sufficient opioid trial, consider discontinuing opioids (see *Tapering or Discontinuing Opioids,* page 10)." (7)	in chronic pain management." (3)

L. Tracking Pain and Function (with focus on function)				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
		• **www.uic.edu/orgs/qli/questionaires/ questionnairehome.htm** • Oswestry Disability Index* • **www.workcover.com/public/download.aspx?id=794&str=disability index oswestry** • Neck Disability Index* • **www.workcover.com/public/download.aspx?id=792&str=disability index neck** • Short Musculoskeletal Function Assessment* See: **www.ejbjs.org/cgi/reprint/81/9/1245** * These instruments have all been independently validated and may be available at websites other than those listed above." (6-7)		
WA Worker's Comp Guidelines —2013	*Yes.* "Effective use of opioids must result in clinically meaningful improvement in function. Continuing to prescribe	"**Measuring the Impact of Opioid Use** Beyond the acute phase, effective use of opioids should result in **clinically meaningful improvement in function (CMIF)**. Providers should track function and pain on a regular basis, using the same validated instruments at each visit, to consistently determine the effect of opioid therapy. The department endorses the Two	*Yes.* [*in boldface in the original]* "**If use in the acute phase (0-6 weeks) does not lead to improvements in pain and function of**	**Executive Summary** [*last recommendation*] "Discontinue opioids if treatment has not resulted in clinically meaningful improvement in

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
	opioids in the absence of clinically meaningful improvement in function or after the development of a severe adverse outcome is not proper and necessary care in the Washington State workers' compensation system" (3) [*in boldface in original*] "**Obtain**	Item Graded Chronic Pain Scale [16] as a quick, two-question tool to track both function and pain when opioids are prescribed (see AMDG Guideline, Appendix C at **www.agencymeddirectors.wa.gov/Files/OpioidGdline.pdf**). CMIF is defined as an improvement in function of at least 30% as compared to the start of treatment or in response to a dose change [17, 18].[12] **A decrease in pain intensity in the absence of improved function is not considered CMIF.** Other validated instruments may also be used to measure functional improvement (see AMDG Guideline, Tools for Assessing Function and Pain at **www.agencymeddirectors.wa.gov/Files/OpioidGdline. The** American Chronic Pain Association has created a 10-item Quality of Life Scale for people with pain,	**at least 30%, or to pain interference levels of 4 or less, continued opioid use is not warranted**." (8) "During the subacute phase [*between 6 and 12 weeks*], providers should review the effects of opioid therapy on pain and function to determine whether opioid therapy should continue. Opioids should be discontinued during this phase if: • There is no clinically meaningful	function, or the worker has experienced a severe adverse outcome or overdose event" (3) "Continuing to prescribe opioids in the absence of clinically meaningful improvement in function or after the development of a severe adverse outcome is not considered proper and necessary care in the Washington State workers' compensation system. In addition, the use of

[12] 17. Dworkin, R.H., Turk, D.C., Wyrwich, K.W., Beaton, D., Cleeland, C.S., Farrar, J.T., Haythornthwaite, J.A., Jensen, M.P., Kerns, R.D., Ader, D.N., Brandenburg, N., Burke, L.B., Cella, D., Chandler, J., Cowan, P., Dimitrova, R., Dionne, R., Hertz, S., Jadad, A.R., Katz, N.P., Kehlet, H., Kramer, L.D., Manning, D.C., McCormick, C., McDermott, M.P., McQuay, H.J., Patel, S., Porter, L., Quessy, S., Rappaport, B.A., Rauschkolb, C., Revicki, D.A., Rothman, M., Schmader, K.E., Stacey, B.R., Stauffer, J.W., von Stein, T., White, R.E., Witter, J., and Zavisic, S., *Interpreting the clinical importance of treatment outcomes in chronic pain clinical trials: IMMPACT recommendations.* J Pain, 2008. **9**(2): p. 105-21.

18. Ostelo, R.W., Deyo, R.A., Stratford, P., Waddell, G., Croft, P., Von Korff, M., Bouter, L.M., and de Vet, H.C., *Interpreting change scores for pain and functional status in low back pain: towards international consensus regarding minimal important change.* Spine (Phila Pa 1976), 2008. **33**(1): p. 90-4.

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
	baseline measures of pain and pain interference (function) within 2 weeks of filing a claim." (8)	which helps correlate the Graded Chronic Pain Scale with actual daily activities [19].[13] Use of the PROMIS web-based tool (**www.nihpromis.org/**) may also be helpful in determining the effectiveness of COT. **Ultimately, effective COT** [*chronic opioid therapy*] **should result in improved work capacity or the ability to progress in vocational retraining.** Evaluation of clinically meaningful improvement should occur at three critical decision-making phases: 1. At the end of the acute phase (about 6 weeks following injury or surgery), to determine whether continued opioid therapy is warranted in the subacute phase. 2. At the end of the subacute phase (3 months following injury), to determine whether to prescribe COT. 3. Periodically during COT, to assess impact on function and risk of therapy." (5) "With the exception of catastrophic injuries, the provider must document the following before L&I or insurer can authorize	improvement in function when compared to function measured during the acute phase." (9)	escalating doses to the point of developing opioid use disorder is not proper and necessary care." (6) [*full text of one shaded box*]

[13] American Chronic Pain Association. Quality of Life Scale: A measure of function for people with pain.

L. Tracking Pain and Function *(with focus on function)*				
	Is improvement in function an important goal	**Definition of improvement in function (Exact language in quotes)**	**Discontinue opioids if there is no functional improvement with initial trial?**	**Discontinue opioids if there is no functional improvement even on higher levels of opioids?**
		payment for opioids during the chronic phase: Clinically meaningful improvement in function (≥ 30%) has been established with opioid use in the acute or subacute phase." (10) "Continued coverage of COT [*chronic opioid therapy*] will depend on the prescriber documenting the following: CMIF is maintained, or pain interference with function score is ≤ 4 with stable dosing. If COT dose is increased, CMIF must be demonstrated in response to the dose change." (10)		

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
ACOEM—2011	*For opioid-naïve patients, when there is improvement in function and less pain* *Recommended for opioid-tolerant patients:* *1) on high doses,* *2) with hyperalgesia,* *3) with more pain, decreased function.* *If first weaning trial unsuccessful, do yearly trials.*	*Slowly and carefully over several months for all patients who have been on opioids for over a month.*	*Yes, in most cases.* "In most cases, patients being weaned from opioids should be referred to a mental health professional with experience in substance abuse or management of patients on opioids. This is in order for the patient to be counseled regarding any anxiety associated with reduction of opioid dose as anxiety will complicate the weaning process." (8)	*Opioid-naïve patients:* "**Attempts at Weaning** – Once patients have demonstrated improvement in function, concomitant reduction in pain suggests that attempts to decrease the opioid dose may be appropriate. This should be done slowly in conjunction with careful monitoring of the patient's clinical and functional status, with the goal of weaning him or her entirely from opioids after several months. If attempts at weaning are accompanied by increased pain and worsened functional performance, the medication dose can be reinstituted and weaning may be attempted again after the patient has stabilized. If weaning remains problematic, consideration can be given to long-term opioid use. High-dose opioids are never indicated in patients without clear anatomic explanations for their pain." (7-8) *Opioid-tolerant patients:* "Patients on opioids may or may not have been appropriately placed on these agents and may be using excessive doses. A trial of weaning from opioids in conjunction with initiation of treatments and activities aimed at functional restoration is recommended for these patients, although the likelihood of success will be dependent upon the clinical presentation. Even with recognized benefit, opioids are not benign drugs and patients

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				should remain under medical scrutiny and undergo weaning trials no less than yearly. It is recognized by many pain specialists that a subset of patients are no worse off if they do not improve upon opioid detoxification." (8) "In general, use of high doses of extended release opioids or the equivalent forms of immediate action drugs (see Appendix 1 for common doses) should prompt efforts at weaning, especially if the patient has not reported any functional gains despite increases in dose. The presence of adverse effects such as opioid-induced hyperalgesia or simply increased pain and decreased function despite opioid use are also grounds for weaning." (8) *Regarding withdrawal symptoms:* "There must be judicious assessment for physiologic signs of withdrawal, and these should be managed with appropriate medical therapies when needed (potentially reinstating opioids prior to resuming a more gradual taper for significant withdrawal symptoms). Such withdrawal signs should be clearly discriminated from the patient's verbal complaints of symptoms, since the latter are often well learned in many patients with chronic pain. It is inappropriate to reduce doses rapidly in patients who have been on opioids for more than a month, as

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				some degree of physical dependence may have already developed." (8)
ACOEM—2014	*Patients who have achieved meaningful functional recovery.* *Patients who show no functional gain.* *Patients who are on over 50mg MED chronically.* *Patients whose UDT tests show aberrance and who cannot give a plausible explanation.* *Patients with serious adverse effects.*	"Patients treated for acute pain who are opioid-naïve should generally require no tapering. Patients with acute pain treated with continuous opioids over 50mg MED for longer than 3 weeks duration may benefit from brief tapering over three to seven days."(87). *"Frequency/Duration* **–** Duration of a taper is empirical and somewhat dependent on dose and prior opioid use duration. Rates of the taper vary. The following are options: --10% per day[456]	*Yes, but only if patient is complex:* "high-dose patients, prior withdrawal problems, complex psychosocial confounders" or has "unstable cardiovascular disease and polypharmacy dependence." (87)	*Acute pain recommendation:* "Discontinuation of opioids is recommended for acute pain and post-operative patients who have reached meaningful functional recovery." (87) *Subacute and Chronic pain recommendation:* "i) used opioids on a chronic basis, and ii) [any one of] no demonstrated functional gain, non-compliance, aberrant drug screening results and/or diversion, adverse effects (e.g., cognitive impairment, falls, poor judgment, untreated sleep apnea, psychological disorders, and concurrent use of depressant medications such as benzodiazepines and diphenhydramine)].[64, 115] Tapering is recommended if the opioid was used at a moderate or high level (e.g., above 50-100mg MED) on a chronic basis." (87) Strength of Evidence – Recommended, Insufficient Evidence (I) Level of Confidence – High *More detail on discontinuing opioids in patients with aberrant test results:*

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
	Patients with concurrent use of depressant meds such as benzodiazepines.	--20-50% per day until lower doses reached (e.g., oxycodone CR 30mg, then decrease dose by 10mg/day --every 2-5 days[64] --20% every 3-5 days[456] --10% per week[65, 457] --25% per week[456]" (87) "Conversion of opioids to a morphine-equivalent dose (MED) is helpful to transfer from one opioid to another. [. . .] To avoid drug overdoses, when transferring from one opioid to another, the MED prescribed should		"In the absence of a plausible explanation, those patients with aberrant [urine drug] test results should have the opioid discontinued or weaned." (26-27) "For patients on over 50mg MED chronically: For patients whose daily consumption is more than 50mg MED, greater monitoring is recommended to include: [. . .] ii) **at least semiannual attempts to wean below 50mg MED if not off the opioid;**" (26, emphasis added)

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
		be approximately 50% of the prior dose.[462-465]" (87)		
APS/AAPM—2009	*Aberrant drug behavior, adverse effects, failure to meet treatment goals*	*No specific recommendation, but lays out various options for how quickly to taper.*	*No specific recommendation, but when possible, inpatient setting may be best for patients with comorbidities.*	"Clinicians should taper or wean patients off of COT [*chronic opioid therapy*] who engage in repeated aberrant drug-related behaviors or drug abuse/diversion, experience no progress toward meeting therapeutic goals, or experience intolerable adverse effects (strong recommendation, low-quality evidence)." (120) "Patients should be tapered or weaned off COT when they engage in serious or repeated aberrant drug-related behaviors or diversion, experience intolerable adverse effects, or make no progress toward meeting therapeutic goals." (120) "Although there is insufficient evidence to guide specific recommendations on optimal strategies, a taper or wean can often be achieved in the outpatient setting in patients without severe medical or psychiatric comorbidities. When available, opioid detoxification in a rehabilitation setting (outpatient or inpatient) can be helpful, especially for patients unable to reduce their opioid dose in a less structured setting." (120) "Approaches to weaning range from a slow

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				10% dose reduction per week to a more rapid 25% to 50% reduction every few days. Evidence to guide specific recommendations on the rate of reduction is lacking, though a slower rate may help reduce the unpleasant symptoms of opioid withdrawal. [22,109,131]„ (120) "Anecdotal clinical experience of panel members suggests that at high doses (eg, over 200 mg/d of morphine or equivalent), the initial wean can be more rapid. The rate of dose reduction often must be slowed when relatively low daily doses, such as 60 to 80 mg daily of morphine (or equivalent), are reached, due to occurrence of more withdrawal symptoms." (120-121)
ASIPP—2012				*No specific recommendations.*
Canadian Guideline—April 2010	*For patients on <200mg/day who have seen "insignificant effects" from opioids* *Adverse effects or insufficient effectiveness and failed trials of other opioids.* *Pregnant patients*	*Extensive, detailed recommendations (1.3 pages worth).* *Use morphine to taper from oxycodone or hydromophone.* *Weekly visits.* *See last column for more detail.*	*No specific recommendation*	**"R13 Recommendation statement. Switching or discontinuing opioids.** For patients experiencing unacceptable adverse effects or insufficient opioid effectiveness from one particular opioid, try prescribing a different opioid or discontinuing therapy. (Grade B)." (43) "Opioids should be tapered and discontinued if the patient's pain remains unresponsive after a trial of several different opioids." (43) **"Considerations before Dose Exceeds 200 mg/day**

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				[. . .] If response has been insignificant, continuing to increase the dose will be futile. Switching or discontinuing the opioid could be considered." (36) **"Recommendation statement. Pregnant patients. R19** Pregnant patients taking long-term opioid therapy should be tapered to the lowest effective dose slowly enough to avoid withdrawal symptoms, and then therapy should be discontinued if possible. (Grade B)." (53) Withdrawal symptoms, and then therapy should be discontinued if possible. (Grade B). " (53) **Appendix B-12: Opioid Tapering** "**Precautions for Outpatient Opioid Tapering** 1) **Pregnancy:** Severe, acute opioid withdrawal has been associated with premature labour and spontaneous abortion. [. . .] 4) **Concurrent medications.** Avoid sedative-hypnotic drugs, especially benzodiazepines, during the taper. [. . .] **2.2 Type of Opioid, Schedule, Dispensing Interval** 1) Use controlled-release morphine if feasible (see 2.3 below).

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				2) Prescribe scheduled doses (not p.r.n.). 3) Prescribe at frequent dispensing intervals (daily, alternate days, weekly, depending on patient's degree of control over opioid use). Do not refill if patient runs out. 4) Keep daily schedule the same for as long as possible (e.g., t.i.d.). **2.3. Rate of the Taper** 1) The rate of the taper can vary from 10% of the total daily dose every day, to 10% of the total daily dose every 1–2 weeks. 2) Slower tapers are recommended for patients who are anxious about tapering, may be psychologically dependent on opioids, have co-morbid cardio-respiratory conditions, or express a preference for a slow taper. 3) Once one-third of the original dose is reached, slow the taper to one-half or less of the previous rate. [. . .] **2.4 Switching to Morphine** 1) Consider switching patients to morphine if the patient might be dependent on oxycodone or hydromorphone. 2) Calculate equivalent dose of morphine (see Appendix B-8: Oral Opioid Analgesic Conversion Table). 3) Start patient on one-half this dose

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				(tolerance to one opioid is not fully transferred to another opioid). 4) Adjust dose up or down as necessary to relieve withdrawal symptoms without inducing sedation." (85) **"2.5 Monitoring during the Taper** 1) Schedule frequent visits during the taper (e.g. weekly). [. . .] **2.6 Completing the Taper** 1) Tapers can usually be completed between 2–3 weeks and 3–4 months." (86)
ODG *(no page numbers provided because it is an html document)*	*No improved function or decreased function, adverse effects, aberrant drug behavior* *hyperalgesia*	*In the entry "Weaning, opioids (specific guidelines)," the guideline provides detailed recommendations on how to taper (but not one, set method) for providers who do not have the aid of an addiction specialist.* *In the entry "Opioids, criteria for use," the guideline*	*Not always.* [*See (c) in the list found in the column to the left of this one*] "If the patient cannot tolerate the taper, refer to an expert (pain specialist, addiction medicine specialist)"	[Weaning, opioids (specific guidelines)] *"Suggested tapering protocols in an office setting without the aid of an addiction specialist:* Opioid weaning should include the following: (a) Start with a complete evaluation of treatment, comorbidity, and psychological conditions; (b) Clear written instructions should be given to the patient and family; (c) If the patient cannot tolerate the taper, refer to an expert (pain specialist, addiction medicine specialist); (d) Taper by 20 to 50% per week of original dose for patients who are not addicted and are on relatively low doses (the patient needs 80% of the previous day's dose to prevent withdrawal); (e) A slower suggested taper is 10% every 2 to 4 weeks, slowing to a reduction of 5% once a dose of 1/3 of the

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
		indicates when immediate discontinuation should be considered as opposed to gradual weaning. *Medications discussed for managing withdrawal from opioids include methadone, buprenorphine, clonidine, and naltrexone.*		initial dose is reached; (f) Greater success may occur when the patient is switched to longer-acting opioids and then tapered; (g) Office visits should occur on a weekly basis or more frequently as needed; (h) Assess for withdrawal using a scale such as the Subjective Opioid Withdrawal Scale (SOWS), Objective Opioid Withdrawal Scale (OOWS), or Clinical Opiate Withdrawal Scale (COWS); & (i) Recognize that this may take months." [Opioids, criteria for use] *[When to discontinue immediately:]* "g) Immediate discontinuation has been suggested for: evidence of illegal activity including diversion, prescription forgery, or stealing; the patient is involved in a motor vehicle accident and/or arrest related to opioids, illicit drugs and/or alcohol; intentional suicide attempt; aggressive or threatening behavior in the clinic. It is suggested that a patient be given a 30-day supply of medications (to facilitate finding other treatment) or be started on a slow weaning schedule if a decision is made by the physician to terminate prescribing of opioids/controlled substances. (h) Many physicians will allow one "slip" from a medication contract without immediate termination of opioids/controlled substances,

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				with the consequences being a re-discussion of the clinic policy on controlled substances, including the consequences of repeat violations. (i) If there are repeated violations from the medication contract or any other evidence of abuse, addiction, or possible diversion it has been suggested that a patient show evidence of a consult with a physician that is trained in addiction to assess the ongoing situation and recommend possible detoxification. (Weaver, 2002) (j) When the patient is requesting opioid medications for their pain and inconsistencies are identified in the history, presentation, behaviors or physical findings, physicians and surgeons who make a clinical decision to withhold opioid medications should document the basis for their decision. (k) Routine long-term opioid therapy is not recommended, and ODG recommends consideration of a one-month limit on opioids for new chronic non-malignant pain patients in most cases, as there is little research to support use. The research available does not support overall general effectiveness and indicates numerous adverse effects with long-term use. The latter includes the risk of ongoing

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				psychological dependence with difficultly weaning." [Opioid hyperalgesia] "*Treatment*: Suggested treatment for patients with increasing pain (assumes that the patient has had improvement with opioids at some point): (1) It is not unreasonable to give a trial of opioid dose escalation to see if pain and function improves. If pain improves, the diagnosis is probable tolerance. If pain does not improve or worsens, this may be evidence of opioid hyperalgesia and the opioid dose should be reduced or weaned."
Utah—2009	*Opioids not effective, adverse effects, illegal behaviors* (17)	*10% decreased dose per week, slower (monthly decrease) for some patients and even faster for others* (68) *Treat withdrawal symptoms such as insomnia with antidepressants, but not with benzodiazepines*	*Only for patients with complicated withdrawal symptoms* (68) *Refer for counseling if there are significant behavioral issues* (68)	**"10. Discontinuing opioid treatment 10.1 Recommendation:** An opioid treatment trial should be discontinued if the goals are not met and opioid treatment should be discontinued at any point if adverse effects outweigh benefits or if dangerous or illegal behaviors are demonstrated. Reference Guidelines: 5 [. . .*Rec 10.2 doesn't contribute anything really new*] **10.3 Recommendation:** When possible, offer to assist patients in safely discontinuing medications even if they have withdrawn

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
		(68)		from treatment or been discharged for agreement violations. The goal is to taper all patients off opioid medication safely. "Strategies for Tapering and Weaning" in the Tool Section contains advice on tapering opioid medications (WSAMDG, 2007). If the patient is discharged, the clinician is obliged to offer continued monitoring for 30 days post-discharge. Tools to accompany Recommendation 10: • Strategies for Tapering and Weaning" (17) *This tool is on page 68. Unique to this guideline: recs for recognizing and managing behavioral issues during opioid weaning.*
Veteran's Admin-Guidelines—May 2010	*Treatment ineffective, adverse effects outweigh benefits, dangerous or illegal behaviors* (83)	*Discontinue immediately with unsafe or illegal patient behaviors* (84) *Various rates of tapering depending on the individual* (86)	*Not necessary if patient is choosing to taper* (86) *Patients with high risk for aberrant behaviors (diversion, suicide, etc.) should see an addiction or pain specialist "with*	− Do not treat withdrawal symptoms with opioids or benzodiazepines after discontinuing opioids. (Interagency Guideline on Opioid Dosing for Chronic Non-cancer Pain (2007) available at: http://www.agencymeddirectors.wa.gov/Files/OpioidGdline.pdf)" (87) "**Follow-up as Indicated** *RECOMMENDATIONS* 1. Do not abandon a patient under any circumstances.

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
			expertise in dealing with difficult cases" (86) *Complicated withdrawal symptoms-see a pain specialist or a center* (86) *Addicted patients: "referred for SUD treatment " "in a primary care setting"* (86)	2. Maintain contact with any patient who withdraws from treatment due to a disagreement. 3. Refer patients with comorbid psychiatric disorders to appropriate mental health providers." (89)
WA Inter-agency Guidelines (AMDG)—2010 Update	*No improvement in function and pain, significant adverse effects or high-risk behavior exhibiting drug-seeking behaviors (diversion, forging prescriptions,*	(11) *Use clonidine to treat other withdrawal symptoms, such as nausea.* (10) *[Utah guidelines picked up the AMDG tapering protocol guidelines verbatim, with no*	*Yes.* "Examples of when to seek assistance include tapering patients off opioids" (10)	"If function and pain do not improve after a sufficient opioid trial, consider discontinuing opioids." (7) "If the patient tested negative for prescribed opioids and if confirmatory testing substantiates a "red flag" result (see Table 3[14]), the prescriber should consider a controlled taper or stop prescribing opioids immediately." (9) *Tapering protocol (10) is absolutely identical (verbatim) to Utah Guideline (published after the AMDG), with one small exception. The*

[14] Table 3: Red flags = Positive for cocaine or metabolites; Positive for drug (benzodiazepines, opioids, etc) you did not prescribe or have knowledge of; Positive for alcohol

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
	stealing drugs, frequently losing prescriptions, aggressive demand for opioids, injecting opioids, unsanctioned use of opioids or dose escalation, use of illicit drugs, failing a drug screen, getting opioids from multiple prescribers, recurring emergency department visits for chronic pain management (13)	*alterations.]* *Appendix H (46) includes a description of the Opioid Taper Plan Calculator, developed by Washington State Medicaid in collaboration with the University of Washington pain management experts.*		*AMDG has the following sentence, which the Utah guidelines did not keep:* "Rapid reoccurrence of tolerance can occur for months to years after prior chronic use." (11) *Utah guidelines also picked up the AMDG advice on how to recognize and manage behavioral issues during opioid tapering. The differences between the two guidelines are minor. Below, strikeouts indicate sentences that were either deleted or reworded (but without changing the meaning significantly) in the Utah Guideline.* **"Recognizing and managing behavioral issues during opioid tapering** Opioid tapers can be done safely and do not pose significant health risks to the patient. Special care needs to be taken by the prescriber to preserve the therapeutic relationship at this time. Otherwise, taper can precipitate doctor-shopping, illicit drug use, or other behaviors that pose a risk to patient safety. Extremely challenging behavioral issues may emerge during an opioid taper38. Behavioral challenges frequently arise when a prescriber is tapering the opioid dose and a patient places great value on the opioid he/she is receiving. In this setting, some patients may feel overwhelmed or desperate and will try to convince the prescriber to

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				abandon the opioid taper. Challenges may include: • Focus on right to pain relief ("You don't believe I have real pain") • Arguments about poor quality of pain care with threats to complain to administrators or licensing boards • Attributing one's deteriorating psychological state, including suicidal thoughts, to opioid withdrawal.[15] There are no fool-proof methods for preventing behavioral issues during an opioid taper, but strategies implemented at the beginning of the opioid therapy are most likely to prevent later behavioral problems if an opioid taper becomes necessary (see *AFTER you decide with the patient to prescribe chronic opioid therapy*, page 5). Serious suicidal ideation (with plan or intent) should prompt urgent psychiatric consultation. (11)
WA Workers' Comp Guidelines—2013	*Same as AMDG recs, with the following specifications:*	*Same as AMDG for step 1, then adds on other protocols if that step is*	Not for all workers, only those who fail to taper in a	"**When to Discontinue Chronic Opioid Therapy** • Worker or AP requests opioid taper OR

[15] Utah guideline rewrite: "Guilt provocation ("You are indifferent to my suffering"); Threats of various kinds; Exaggeration of their actual suffering in order to disrupt the progress of a scheduled taper" (68)

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
	No sustained CMIF over three months of opioid treatment. *Use of opioids is not in compliance with various rules and guidelines (see last column for details).*	*unsuccessful. See Steps 1-2 in far-right column.*	community care setting or who are "at high risk for failure due to high dose, concurrent benzodiazepine use, or co-morbid substance use or mental health disorder" (13). In those cases, seek consultative assistance from "a pain management specialist, a structured intensive	• Worker is maintained on opioids for at least 3 months and there is no sustained CMIF, as measured by validated instruments OR • Worker's risk from continued treatment outweighs benefit OR • Worker has experienced a severe adverse outcome or overdose event OR • Evidence of aberrant behavior (inconsistent urine drug test result, lost prescriptions, multiple requests for early refills, multiple prescribers, unauthorized dose escalation, apparent intoxication, etc.) Or • Use of opioids is not in compliance with DOH's pain management rules, L&I's rules, AMDG Guideline or L&I's Guideline for Prescribing Opioids to Treat Pain in Injured Workers." (13) *How to taper:* "**Step 1: Discontinuing Opioids in a Community Care Setting** […] A gradual taper of approximately 10% per week (see AMDG Guideline, Tapering or Discontinuing Opioids and Appendix H at **www.agencymeddirectors.wa.gov/Files/OpioidGdline.pdf**) can be carried out by the attending provider. Adjuvant agents like clonidine and psychological support such as cognitive behavioral therapy can be

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				provided to assist with the taper process. The department or insurer may also authorize temporary coverage of buprenorphine or buprenorphine/naloxone to assist with the tapering process (see L&I coverage policy) [33]. The AP may also seek consultative assistance from a pain management specialist. **Step 2: Discontinuing Opioids in an Intensive Setting** For those workers who have failed step 1 or who are at high risk for failure due to high dose, concurrent benzodiazepine use, or co-morbid substance use or mental health disorder, the prescriber should consider seeking consultative assistance from a pain management specialist, a structured intensive multidisciplinary program (SIMP) provider or addiction medicine specialist. Adjuvant agents and psychological support can provided to assist with the taper Process. The department or insurer may also authorize temporary coverage of buprenorphine or buprenorphine/naloxone to assist with the tapering process (see L&I coverage policy). In these situations, formal inpatient detoxification and/or a 4-week SIMP treatment program may be required. [*in shaded box*] Due to the lack of high quality evidence of safety and comparative

M. Tapering I [*See "Tapering II" chart for two more tapering rubrics: 1) ancillary interventions and 2) what to do if tapering fails*.]				
	When to taper	**How to taper**	**Consult a specialist?**	**Exact language**
				efficacy, ultra rapid detoxification (e.g. within three days), using antagonist drugs with or without sedation, will not be covered." (13) **Additional Services:** *If steps 1 and 2 fail, can authorize up to 6 months of addiction treatment through a licensed chemical dependency treatment center. (14)* **"Treatment Options for Opioid Use Disorder:** – Buprenorphine (Subutex®, Suboxone®) – Methadone – Naltrexone (Depade®, Revia®, Vivitrol®) – Drug-free outpatient treatment" (14)

N. Tapering II		
	Ancillary Interventions to take during tapering	**If all attempts to taper are unsuccessful**
ACOEM—2011	"A referral to a physical therapist or equivalent for instruction in home exercise and individualized techniques to reduce or prevent muscle pain or stiffness should also be considered. Use of self-applied palliative remedies such as topical analgesics (including lidocaine and capsaicin) or heat (especially heat wraps) may be useful. Judicious participation in aerobic activities that do not exceed patient tolerance is recommended (it is better to build patients up gradually than have exercise lead to increased pain and requests for reinstitution of opioids at previous doses). Selected patients with access to a swimming pool may also benefit from a regular program of aquatic exercise. Use of adjunctive medications such as NSAIDs, acetaminophen, anti-depressants, herbal remedies, anti-convulsants, and any other medications appropriate for the patient's clinical presentation should be considered." (8-9)	"**Maintenance on Opioids** – If the patient is unable to tolerate further dose reduction despite the use of appropriate supportive interventions as described above, and assuming identifiable pathology linked to the chronic pain state, then in some circumstances opioids may be maintained. Such patients should be required to complete a formal opioid agreement and fulfill the other requirements recommended previously as prerequisites for maintaining them on chronic opioids." (9)
ACOEM—2014	"Other agents are used when dependence and addiction issues are more complex and commonly include naltrexone, methadone, buprenorphine and clonidine." (87) *In patient detox:* "Those patients with unstable cardiovascular disease and polypharmacy dependence should be considered for in-patient detoxification under the supervision of an addictionologist." (87)	"For those using chronically high doses with difficulty tapering and/or undue anxiety, referral to a psychologist may also be helpful to address anxiety and behavioral issues." (87)

N. Tapering II		
	Ancillary Interventions to take during tapering	**If all attempts to taper are unsuccessful**
	"**Transitioning to only an NSAID or acetaminophen or complete cessation of analgesics is/are generally indicated.**" (87, last sentence of the recommendation statement)	
VA/DoD Guideline—May 2010		"RECOMMENDATIONS 1. Do not abandon a patient under any circumstances. 2. Maintain contact with any patient who withdraws from treatment due to a disagreement. 3. Refer patients with comorbid psychiatric disorders to appropriate mental health providers. DISCUSSION A provider should never abandon a patient. This has both legal and ethical ramifications. Providers should seek both legal and ethical consultations if they fear their actions may be interpreted as patient abandonment. Providers should make every effort to find another treatment option for the patient. Providers should be aware, however, that prescribing opioid medications other than for legitimate medical purposes is against the law. Often, after a patient disagrees with the treatment decision to medically withdraw from opioid therapy, the patient will drop out of treatment. If this occurs, the provider should send a registered letter to the patient. The letter should inform the patient that he has two weeks to return to treatment or his case will be closed and he would have to go through intake again before care is resumed." (54)

O. Perioperative Pain for Opioid-Naïve Patients	
ACOEM—2011	*No specific recommendations* "Management of cancer pain, pain at end of life, acute pain, postsurgical pain, labor pain, or CNCP in children and adolescents is outside the scope of this guideline." (115)
ACOEM—2014	*Post-operative pain = up to 4 weeks* "For patients taking opioids chronically prior to surgery, consultations with anesthesiology and/or pain management are generally needed as post-operative dosing may be very high and management is often quite challenging." (21) *Recommendations for Post-Operative Pain:* "1. **Recommendation:** Limited use of opioids is recommended for post-operative pain management as an adjunctive therapy to more effective treatments." (p. 21) "Indications: For post-operative pain management, a brief prescription of short-acting opioids as an adjunct to more efficacious treatments (especially Cox-2 NSAIDs such as celecoxib, non-selective NSAIDs after risk of bleeding is no longer a concern). A brief course of opioids is often needed for minor surgical procedures. However, minor wound laceration repairs often require no opioids. Evidence suggests peri-operative pregabalin for 14 days and/or continuous femoral nerve catheter analgesia instead of solely using oral opioids results in superior knee arthroplasty functional outcomes with less venous thromboses." (p. 21) "2**. Recommendation:** Screening is recommended for patients requiring continuation of opioids beyond the second postoperative week." (p. 22) "3. **Recommendation:** The maximum daily oral dose recommended for opioid-naïve, acute pain patients based on risk of overdose/death is 50mg morphine equivalent dose (MED)." (p. 23) *Specific indications for post-operative pain resemble those for acute pain very closely (see indications #3-7 for acute pain)* "**Frequency/Duration** – For moderate and major surgeries, opioids are generally needed on a scheduled basis in the immediate post-operative period. Other post-operative situations may be sufficiently managed with an as needed opioid prescription schedule. Provision of opioids sufficient to

O. Perioperative Pain for Opioid-Naïve Patients	
	participate in therapeutic exercise (e.g., progressive ambulation) and allow sleep may be needed. However, high dose use at night is not recommended due to respiratory depression and disruption of sleep architecture. Weaning should begin as soon as function is recovering and pain is subsiding. Subsequent weaning to as needed opioid use is recommended." (p. 22) **"Indications for Discontinuation** – The physician should discontinue the use of opioids based on sufficient recovery, expected resolution of pain, lack of efficacy, intolerance or adverse effects, non-compliance, surreptitious medication use, self-escalation of dose, or use beyond 3 to 5 days for minor procedures, and 2 to 3 weeks for moderate/less extensive procedures. Use for up to 3 months may occasionally be necessary during recovery from more extensive surgical procedures (e.g., spine fusion surgery). However, with rare exceptions, only nocturnal use is recommended in months 2 to 3 plus institution of management as discussed in the subacute/chronic guidelines below. For those requiring opioid use beyond 1 month, the subacute/chronic opioid use recommendations below apply." (p. 22)
APS/AAPM—2009	*No specific recommendations*
ASIPP—2012	*No specific recommendations*
Canadian Guideline—April 2010	*No specific recommendations*
ODG	*No specific recommendations*
UTAH—2009	*No specific recommendations*
VA/DoD Guideline—May 2010	*No specific recommendations* **"Management of buprenorphine-treated patients transferred from another provider:** […] d. In the event of anticipated pain (i.e., an elective procedure or surgery) SL buprenorphine should be stopped for 48 hours before the scheduled event." (90-91)
WA Interagency Guidelines (AMDG)—2010 Update	*No specific recommendations*

O. Perioperative Pain for Opioid-Naïve Patients	
WA Workers' Comp Guidelines—2013	"DO NOT USE: Long-acting or extended-release opioids (e.g. Oxycontin®) for acute pain or post-operative pain in an opioid-naive worker." (6) *Many, very specific recommendations for each stage of the perioperative period (pre, intra and post). Here are some highlights:* "Based on the lack of evidence, there is no consensus on whether or not to taper chronic opioids before elective surgery." (11) **Before Surgery (pre-operatively), the surgeon and AP should:** • Have a coordinated treatment plan for managing surgical pain, including identifying the post-operative opioid prescriber. • Obtain a pre-operative anesthesia consult, as above. Workers on buprenorphine need special anesthesia care and should have a consult at least 2 weeks before surgery. • Access the PMP and review the worker's controlled substance history to get accurate information on opioid dose and concurrent medication use. Provider should discuss any apparent discrepancies with the worker. • Prepare the worker for elective surgery by setting appropriate expectations for pain management. Workers need reassurance that their pain management needs will be met, and they need to know that their opioid use is expected to return to the pre-operative dose, or less, following surgery. • Consider an opioid taper, but this is not required. Avoid escalating opioid dose before surgery. • Avoid prescribing new benzodiazepines or sedative-hypnotics. • Consider a consult with a pain management specialist before surgery for workers on high dose opioids or who have co-morbid mental health or substance use disorder. **Day of Surgery (intra-operatively), the anesthesiologist should:** • Use anti-inflammatories, acetaminophen or both, if not contraindicated. • Continue pre-operative opioids to decrease the risk of withdrawal symptoms and use regional blocks, if appropriate. • Consider the use of other non-opioid analgesic adjuncts (e.g., gabapentin, ketamine or lidocaine) for opioid sparing effects.