

Opioid Pain Management: Advice on Prescribing

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Objectives

- Why and how to perform routine outcomes and risk assessment when prescribing opioids for chronic non-cancer pain.
- Understand limits to opioid responsiveness.
- Properly determine “morphine equivalent dose (MED)” for single and multiple drug treatments.
- Conduct a time-limited and functional outcome directed opioid trial.

Chronic Pain Treatment Responses*

- Opioids: 30-50%
- Tricyclics/AEDs: 30-50%
- Acupuncture: 10%
- CBT/Mindfulness: 30-60%
- Physical fitness: 30-60%

*Evidence based VAS/NRS reductions, *may* be additive

Chronic Opioid Outcome *Monitoring* ... means *Using Measurement Tools*

- Ongoing Psychiatric/Psychological monitoring to assess response to treatments (Rx and CBT)
- Physical function to monitor response to rehabilitation and Rx interventions
- Aberrant/Addiction monitoring

6 Pain Treatment Domains

1. Pain Intensity (VAS/NRS)
2. Physical Functioning
3. Emotional functioning
4. Global improvement
5. Symptoms and adverse effects
6. Disposition: compliance/adherence

Evidence Based Assessment Tools

1. Pain Intensity
2. Functional capacity
 - Self reported goals
 - Pain interference
 - Roland-Morris
3. Mood measurement
 - CESD-10
 - PHQ-9
 - GAD-7

4. Addiction Risk
 - ORT, COMM,
 - CAGE-AID,
 - SOAPP-R,
 - AUDIT
5. Urine Drug Testing
 - “Rational interpretation”

Reisfield, Annals Clin & Lab
Sci., 2007



Interagency Guideline on Opioid Dosing for Chronic Non-cancer Pain:

An educational aid to improve care and safety with opioid therapy

2010 Update

What is New in this Revised Guideline

- New data, including scientific evidence to support the 120mg MED dosing threshold
- Tools for calculating dosages of opioids during treatment and when tapering
- Validated screening tools for assessing substance abuse, mental health, and addiction
- Validated two-item scale for tracking function and pain
- Urine drug testing guidance and algorithm
- Information on access to mentoring and consultations (including reimbursement options)
- New patient education materials and resources
- Guidance on coordinating with emergency departments to reduce opioid abuse
- New clinical tools and resources to help streamline clinical care

You can find this guideline and related tools at the Washington State Agency Medical Directors' site at www.agencymeddirectors.wa.gov

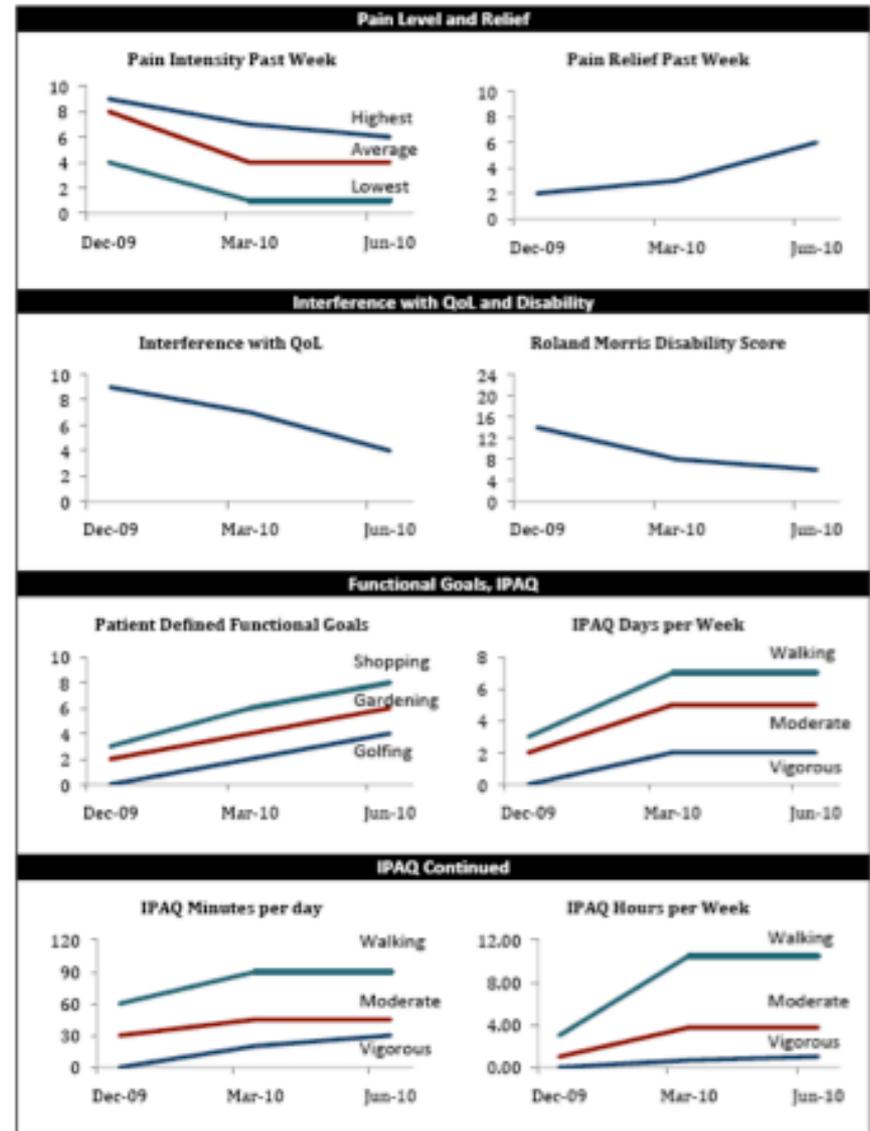
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C-PAIN™

“Comprehensive Metabolic Profile (CMP)” for Pain

CPAIN Patient Profile Report - Update

John Public ID: 102345643



<http://www.cpain.com/>

Simplest 2 Question Tool

Pain intensity and interference

In the last month, on average, how would you rate your pain? Use a scale from 0 to 10, where 0 is "no pain" and 10 is "pain as bad as could be"? *[That is, your usual pain at times you were in pain.]*

No pain										Pain as bad as could be
0	1	2	3	4	5	6	7	8	9	10

In the last month, how much has pain interfered with your daily activities? Use a scale from 0 to 10, where 0 is "no interference" and 10 is "unable to carry on any activities"?

No interference										Unable to carry on any activities
0	1	2	3	4	5	6	7	8	9	10

Summary of Public Domain Screening Tools

	To Screen For		Depression, Mental/ Behavioral Health	To Monitor	Tool Characteristics			
	Risk of Opioid Addiction	Current/Past Substance Abuse		Opioid Therapy	Administration	Time to Complete	Length	Available for Public Use (Cost)
Opioid Risk Tool (ORT) See Page 19.	X				Clinician or patient self-report	5 minutes	5 (yes/no) questions	X (Free)
CAGE Adapted to Include Drugs (CAGE-AID) See Page 20.		X			Clinician	< 5 minutes	4 (yes/no) questions	X (Free)
Patient Health Questionnaire 9 (PHQ-9) See Page 21.			X		Patient self-report	< 5 minutes	10 items	X (Free)
Screeener and Opioid Assessment for Patients with Pain (SOAPP-R) www.painedu.org/soapp.asp	X				Patient self-report	< 10 minutes	24 items	X (Free, with licensing agreement)
Alcohol Use Disorders Identification Test (AUDIT) See Page 24.		X			Clinician or patient self-report	< 5 minutes	10 items	X (Free)
Center for Epidemiologic Studies Depression Scale (CES-D) See Page 26.			X		Patient self-report	5 minutes	20 items	X (Free)
Global Appraisal of Individual Needs Short Screener (GAIN-SS) See Page 29.			X		Staff or patient self-report	5 minutes	15 (yes/no) questions	X (Free)
Current Opioid Misuse Measure (COMM) www.painedu.org/soapp.asp				X	Patient self-report	< 10 minutes	17 items	X (Free, with licensing agreement)

*The tools listed in this table have demonstrated good content, face, and construct validity in screening for risk of addiction and monitoring opioid therapy. Further validation studies and prospective outcome studies are needed to determine how the use of these tools predicts and affects clinical outcomes.

PHQ-9 Scoring Tally Sheet	Not at all	Several days	More than half the days	Nearly every day
	0	1	2	3
Little interest or pleasure in doing things				
Feeling down, depressed, or hopeless				
Trouble falling asleep, staying asleep, or sleeping too much				
Feeling tired or having little energy				
Poor appetite or overeating				
Feeling bad about yourself, feeling that you are a failure, or feeling that you have let yourself or your family down				
Trouble concentrating on things such as reading the newspaper or watching television				
Moving or speaking so slowly that other people could have noticed. Or being so fidgety or restless that you have been moving around a lot more than usual				
Thinking that you would be better off dead or that you want to hurt yourself in some way				
Totals				
If you checked off any problem on this questionnaire so far:	Not Difficult At All	Somewhat Difficult	, Very Difficult	Extremely Difficult
	0	1	2	3
How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?				

The Roland-Morris Questionnaire*

1. I stay at home most of the time.
2. I change position frequently to try to get comfortable.
3. I walk more slowly than usual.
4. I am not doing any jobs that I usually do around the house.
5. I use a handrail to get upstairs.
6. I lie down to rest more often.
7. I have to hold on to something to get out of an easy chair.
8. I try to get other people to do things for me.
9. I get dressed more slowly than usual.
10. I only stand up for short periods of time.
11. I try not to bend or kneel down.
12. I find it difficult to get out of a chair.
13. It is painful almost all of the time.
14. I find it difficult to turn over in.
15. My appetite is not very good.
16. I have trouble putting on my sock (or stockings) because of pain.
17. I can only walk short distances.
18. I sleep less well because of my pain.
19. I get dressed with the help of someone else.
20. I sit down for most of the day.
21. I avoid heavy jobs around the house.
22. I am more irritable and bad tempered with people than usual.
23. I go upstairs more slowly than usual.
24. I stay in bed most of the time.

*modified for *any* pain condition

Opioid Risk Tool (ORT)

Physician Form

With Item Values to Determine Risk Score

Name _____

Date _____

Mark each box that applies		Female	Male
1. Family history of substance abuse	<ul style="list-style-type: none"> ■ Alcohol ■ Illegal drugs ■ Prescription drugs 	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 4	<input type="checkbox"/> 3 <input type="checkbox"/> 3 <input type="checkbox"/> 4
2. Personal history of substance abuse	<ul style="list-style-type: none"> ■ Alcohol ■ Illegal drugs ■ Prescription drugs 	<input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	<input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
3. Age (mark box if 16-45 years)		<input type="checkbox"/> 1	<input type="checkbox"/> 1
4. History of preadolescent sexual abuse		<input type="checkbox"/> 3	<input type="checkbox"/> 0
5. Psychological disease	<ul style="list-style-type: none"> ■ Attention-deficit/hyperactivity disorder, obsessive-compulsive disorder, bipolar disorder, schizophrenia ■ Depression 	<input type="checkbox"/> 2 <input type="checkbox"/> 1	<input type="checkbox"/> 2 <input type="checkbox"/> 1
Low (0-3) Moderate (4-7) High (≥8)	Scoring totals	<input type="checkbox"/>	<input type="checkbox"/>

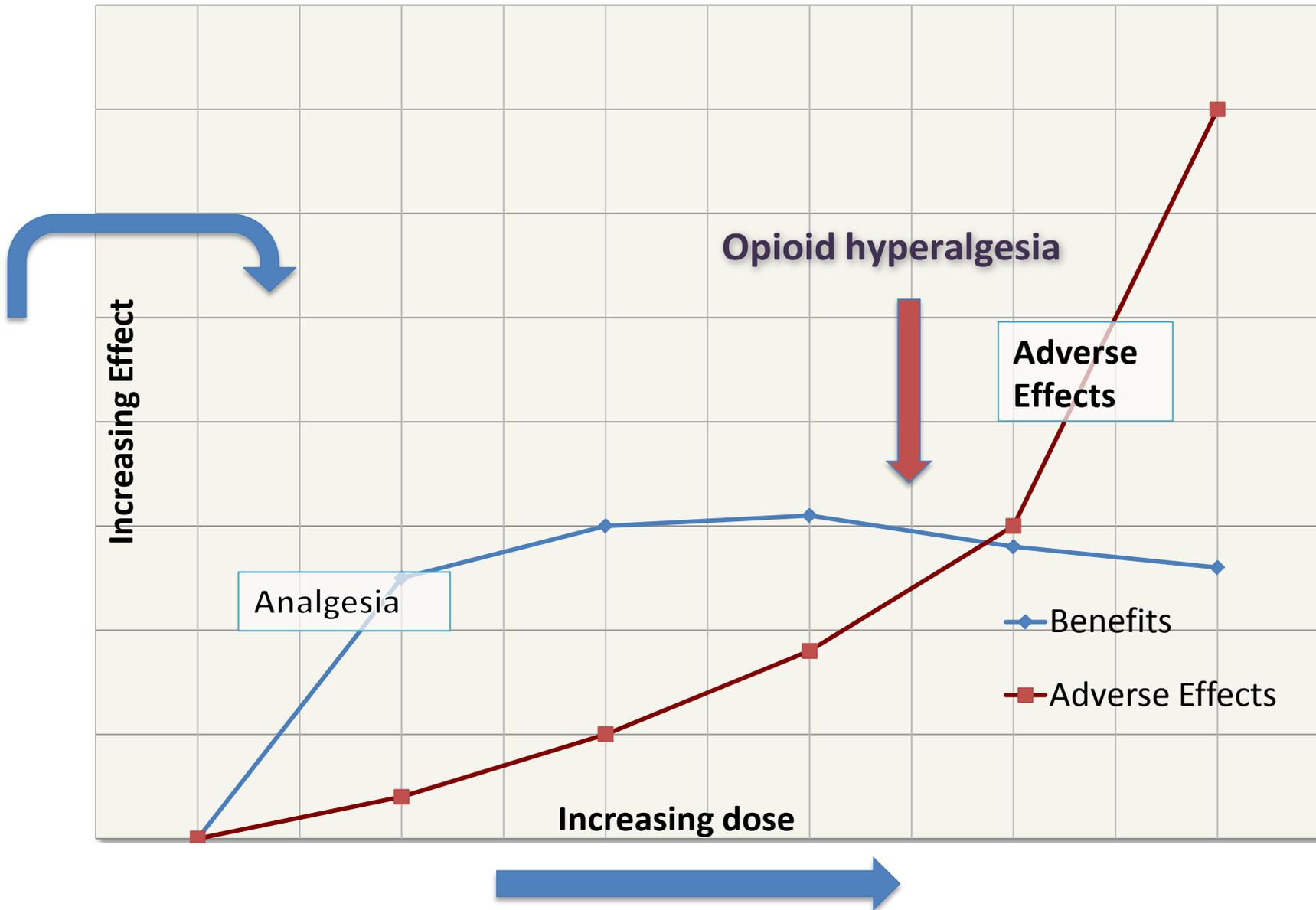
Clinical Opioid Pharmacology

- Alters central release of neurotransmitters
 - Signal modulation
 - Direct inhibitory effects on primary nociceptive afferents and spinal dorsal neurons
- *Analgesic not anesthetic*
“Disconnects the brain from body’s sensations”
 - Narcotize “perception of pain”
- Acute pain: Use short acting agents only!
 - No Methadone, Oxycontin[®], MS ER, or Fentanyl patch
- Chronic pain: Rx short- or long-acting
 - Seek lowest total MED combination

Opioid Trial

- Intention to assess “opioid responsiveness”
 - Analgesia
 - Activity
 - Adverse effect
 - Aberrant behavior
- Intention to discontinue/reduce when benefits \leq risks
- Opioid “Rotation”
 - When side-effects occur
 - Possibly when “Opioid Non-Responsive”

Opioid Induced Hyperalgesia



Opioids are part of plan, not *The* plan

“Avoid ... *primary reliance* on opioid prescribing, which, when applied *alone or in a non-coordinated* fashion, may be inadequate to effectively address persistent pain as a disease process and, *when employed as the “sole” treatment, is associated with significant societal expense and treatment failure.*”

– ABPM Pain Medicine Position Paper, Pain Medicine 2009

Washington State Agency Medical Directors Group: Interagency Guideline on Opioid Dosing for *Chronic Non-cancer Pain*



www.agencymeddirectors.wa.gov/guidelines.asp

- ‘Take a breath’ at **90 mg** MED
- ‘Take 5’ before exceeding **120 mg** MED dose threshold:
 - No pain management consultation if prescriber documenting sustained improvement in both *function and pain*.
 - *Consider specialty consultation if frequent adverse effects or lack of response*
 - *Significant psychological condition affecting treatment*
 - *Potential alternative treatments to reduce or discontinue use of opioids*
 - *Risk and benefit of a possible trial with opioid dose >120 mg/day MED*

Opioid Dose Conversion*

“Morphine Equivalent”

Morphine 30 mg**
Codeine 200 mg
Fentanyl (TD) 12.5
Hydrocodone 30 mg
Hydromorphone 6 mg
Oxycodone 20 mg
Oxymorphone 10 mg

Methadone in MEDs

Pharmacologically
“logarithmic”

- <30 mg = 3-4 x Morphine
- 30-40 mg = 4-6 x MS
- 40-60 mg = 10 x MS
- >60 mg = 12 x MS

*Always reduce to ~60% of calculated value to account

for “incomplete cross-tolerance.”
** $MS_{IV} = PO_{MS} \times 2-3$

MED dose converter

AMDG on-line tool

www.agencymeddirectors.wa.gov

OPIOID DOSE CALCULATOR		
Optional:	Patient name:	
	Today's date:	March 7, 2010
Instructions:	Fill in the mg per day* for whichever opioids your patient is taking. The spreadsheet will automatically calculate the total morphine equivalents per day.	
Opioid (oral or transdermal):	mg per day*:	Morphine equivalents:
codeine		0
fentanyl transdermal (in mcg/hr)		0
hydrocodone		0
hydromorphone		0
methadone		
up to 20mg per day		0
21 to 40mg per day	Since doses at or below 40mg per day are below the threshold for pain management consultation no opioid conversion calculations are necessary for this dosing range (assuming no other opioids are being taken).	
41 to 60mg per day		0
>60mg per day	80	960
morphine		0
oxycodone		0
oxymorphone		0
TOTAL daily morphine equivalent dose (MED)		
=		960
<p>* Note: All doses expressed in mg per day with exception of fentanyl transdermal, which is expressed in mcg per hour</p>		
<p>If this value is less than 120mg Morphine Equivalent Dose (MED), please follow Part I of the AMDG Interagency Guideline on Opioid Dosing for Chronic Non-cancer Pain. Referral for pain management consultation is recommended before exceeding 120mg MED daily. See www.agencymeddirectors.wa.gov/guidelines.asp</p>		
<p>If this value is greater than 120mg MED, please follow Part II of the AMDG Interagency Guideline on Opioid Dosing for Chronic Non-cancer Pain. See www.agencymeddirectors.wa.gov/guidelines.asp</p>		

Methadone caveats

- Significant accumulation with repeat dosing
 - Initial $T_{1/2}$ 13-47 hrs → 48-72 hrs
- Strong μ -agonist/ moderate NMDA-antagonist
- Weak 5-HT/NE Reuptake Blocker
- QT_c prolongation
 - Dose dependent
- 50% urine elimination*
- P-450: 1A2, 2D6, 3A4
 - Inducer ↓: carbamazepine, DPH, rifampin
 - Inhibitor ↑: amio, Ca-blockers, clarithro/erthro, itraconazole, metronidazole, HIV-antiretrovirals, fluoxetine, St John's wort, valerian, grapefruit juice

**like morphine, so caution for both in renal failure*

How To Do An Opioid Trial

Trial Duration:

1. Start with Short-acting Rx:
ie. hydrocodone cmpd, or oxycodone \pm cmpd, or morphine
2. Convert later onto long-acting Rx equivalents:
ie. MS ER, Oxycontin[®], or Methadone
3. Maximum dose MED:
90-120 mg/day
4. Avoid benzodiazepines and other sedating drugs
5. Measure/Record “4 A’s”:
 - ① A: Analgesia
 - ② A: Activity
 - ③ A: Adverse Effects
 - ④ A: Aberrant Behavior
6. Taper schedule as indicated:
 \cong 10% reduction every 1-2 weeks
Abrupt discontinuation if UDT+ methamphetamine/cocaine

Transition to Chronic Opioid Therapy Occurs at ~ 90 days

- Make ***explicit***:
 - Likely committed to *life-long* opioids
 - Continuous side-effect management issues:
 - Driving risks
 - OD risks
 - Abstinence syndrome
 - Sleep apnea
 - Hypogonadism
 - Informed consent “agreement”
 - Urine Drug Test

Toxicology Monitoring

- Urine Drug Testing
 - Point of Service:
 - Often misses oxycodone, methadone, benzodiazepines!
 - Confirmation testing:
 - Gas Chromatography/Mass Spectroscopy (GC/MS):
 - Metabolism
 - Codeine → Morphine → Hydromorphone
 - Codeine → Hydrocodone → Hydromorphone
- Interpretation of negatives/positives
 - Compliance measurement

Best Practice

Chronic Opioid Therapy for Non-Cancer Pain

1. Start with non-opioid, except acute injury prn
2. Avoid concurrent sedatives, esp. > 60-90 days
3. Monitor “4 A’s” regularly: follow-up q 30-90 day
4. Introduce Agreement and UDTs at 90 days
5. Limit dose below 100 - 120 mg MED
6. Get help early when *not going according to expectations*

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