Toronto Academic Pain Medicine Institute

Primary Care Opioid Stewardship Principles for Chronic Non Cancer Pain

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Background

Canadian physicians have dramatically increased their opioid prescribing since the 1990s. This has benefited many patients with chronic non-cancer pain (CNCP), but among those taking opioids, there has also been a rise in serious injuries and overdose deaths. As such, there has been growing concerns both from the public and health care practitioners in Canada about the safe use of opioids.

Evidence-based guidelines and best practices on opioid prescribing for chronic pain have been developed, however application of these guidelines into to practice has been inconsistent.

What follows outlines the role of opioids in CNCP management, provides a thought process for prescribing opioids, how to taper opioids and highlights principles on how to prevent the harms associated with chronic opioid use.

How do Opioids Work?

The pharmacological effects of opioids result it binding with three opioid receptor types. Opioids modulate the ascending pain transmission system by interacting with receptors in the periphery, pre/post synaptic sites within the spinal cord dorsal horn, brain stem, thalamus, and cortex, and as well as structures that make up the descending inhibitory system.

Analgesic effects at opioid receptors

	Mu (μ) Mu 1 – Analgesia Mu 2 – Sedation, vomiting, respiratory depression, pruritus, euphoria, urinary retention, physical dependence	**Delta (δ)** Analgesia, spinal anesthesia	**Kappa (Ƙ)** Analgesia, sedation, psychomimetic effects, miosis, respiratory depression, euphoria, dysphoria,
Agonist			
Morphine	Agonist		Weak agonist
Codeine	Weak agonist	Weak agonist	
Oxycodone	Agonist		Weak agonist
Hydromorphone	Agonist		
Fentanyl	Agonist		
Methadone	Agonist	Agonist	
Tapentadol	Agonist		
Tramadol	Agonist		
Partial Agonist			
Buprenorphine ± naloxone	Partial agonist	Antagonist	Antagonist
Antagonist			
Naloxone	Antagonist	Weak Antagonist	Antagonist
Naltrexone	Antagonist	Weak Antagonist	Antagonist

Opioid Indications and Contraindications

When are they Indicated?

- Well-defined pain condition (nociceptive or neuropathic) that impairs daily function and has not responded to an adequate trial of non-opioid treatments
- Patients with active cancer
- End of Life/Palliative care

When are they Contraindicated?

Relative Contraindications

- Low back pain, headache, and fibromyalgia
- Unable to manage opioid therapy responsibly
- Social instability
- Acute psychiatric instability or high suicide risk
- Past substance abuse
- Pregnancy

Absolute Contraindications

- Current substance abuse
- Absence of pathology
- Illegal activity: diversion, prescription forgery, active illicit drug use, history of significant illegal activity

NOUGG 2010
Kahan M, META:PHI 2016

Conducting an Opioid Initiation Trial

Pre Visit

Opioid therapy should be treated as a therapeutic trial. Prepare patients for the possibility that therapy will be discontinued if it is ineffective or there is evidence of harm.

- Establish pain diagnosis

- Conduct chart review noting factors that may influence treatment choices
  - ✓ History of general medical condition
  - ✓ Psychosocial history
  - ✓ Psychiatric status
  - ✓ Substance use history
  - ✓ Previous medication trials

- Prepare opioid care package
  - ✓ Opioid Manager (Appendix A)
  - ✓ Screening questionnaires (Appendix B)
  - ✓ Naloxone information sheets (Appendix J)
  - ✓ Patient education material on opioid/chronic pain management

Conducting an Opioid Initiation Trial

Visit 1 - Information Gathering

- Pain History
  - ✓ Evaluate pain condition
  - ✓ Evaluate previous response to opioid, non-opioid treatments and non-pharmacological modalities (CBT, physiotherapy)
  - ✓ Assess function ex **B**rief **P**ain **I**nventory, **P**atient **S**pecific **F**unctional **S**cale *(Appendix D and E)*
  - ✓ Have the patient rate the severity of their pain on a 0–10 scale, at rest and with activity.

- Confirm and clarify past medical history
  - ✓ Screen for depression and anxiety
  - ✓ Evaluate substance misuse risk ex. **O**pioid **R**isk **T**ool *(Appendix B)*

- Family and Social History

- Conduct comprehensive physical exam
  - ✓ Check renal and respiratory status especially risks for sleep apnea

- Urine Drug Screening (as needed) - *refer to page 15,16*
  - ✓ Conduct baseline measure of risks

Visit 2 - Initiation of Opioids

- Opioid choice-Select based on clinical circumstances (refer to page 9)
  - ✓ Initiate opioid treatment with “weak” opioids i.e oral codeine, tramadol, or buprenorphine patch
  - ✓ If insufficient analgesia with weak opioids, consider low dose morphine, oxycodone or hydromorphone
  - ✓ Trial short acting opioids before long acting
  - ✓ For constant pain throughout the day, IR preparations should not exceed 10–30% of total daily opioid dose.
  - ✓ Consider patient’s social determinant and drug plan coverage
- Starting dose
  - ✓ Start on the lowest effective dose and increase gradually
- Duration of Initial Treatment
  - ✓ Several weeks up to 3 months
  - ✓ Possibly > 3 months if there is evidence of functional benefits
- Documentation
  - ✓ Opioid Manager (Appendix A)
  - ✓ Implement pain treatment agreements (Appendix I)
- Collaboratively set criteria for stopping and continuing opioid right from the very beginning.
- Develop an exit strategy

Conducting an Opioid Initiation Trial

Visit 2 - Initiation of Opioids

Initiation Checklist	Yes	No
Explained potential benefits		
Explained adverse effects		
Explained risks and benefits		
Set criteria for stopping or continuing opioids		
Collaborative determination of patients goals (S.M.A.R.T)		
Sign Treatment Agreement		

Identifying and Setting S.M.A.R.T Goals

Specific

Measureable

Achievable

Relevant

Timely

NOUGG 2010-Opioid Manager

Opioid Options

Opioid	Max initial dose Max initial dose increase	Min # of days btw dose increase	Unique Opioid Features
Codeine	200mg/d increase by max of 50mg/d	7 days IR 14 days CR	Variable efficacy CYP2D6 polymorphisms
Morphine	40mg/d increase by max of 10mg/d	7 days IR 14 days CR	Contraindicated in patients with renal insufficiency
Oxycodone	30mg/d increase by max of 5mg/d IR or 10mg/d CR	7 days IR 14 days CR	Less cognitive effects than morphine -higher abuse potential
Hydromorphone	8mg/d increase by max of 1–2 mg/d IR or 3 mg/d CR	7 days IR 14 days CR	Less cognitive effects than morphine
Tramadol	Please refer to pages 10- 13 for more information		
Tapentadol			
Buprenorphine			

Transdermal Fentanyl <u>should not</u> be used in opioid naïve patients with less severe pain. It has a high overdose risk. Use only if the patient has taken at least 60–100 mg morphine equivalent daily (MED) for at least 2 weeks.

Kahan M, META:PHI 2016

Tramadol and Tapentadol

	Tramadol	Tapentatol
Availability	Tramadol + Acetaminophen (Tramacet 325/37.5mg) Tramadol XL (Ralivia,Tridural, Zytram XL) Tramadol IR (Ultram)	IR and ER (Nucynta)
Cost	Not covered through Ontario Drug Benefit	
Place in Therapy	Mild to moderate pain	Moderate to severe pain
Dosing	Usual: Tramacet 2 tablets q6hprn Max 8 tabs/day Tramadol XL 200mg q24h Max 400mg/day	Usual: IR: 600 mg/d ER: 75-250mg BID Max 400-500mg/day (Dose ratio of Tapentadol to oxycodone is 5:1)
Pharmacology	Weak μ receptor agonist, serotonin and norepinephrine reuptake inhibitor. Liver metabolized mainly through CYP2D6 to active metabolites	μ receptor agonist, norepinephrine reuptake inhibitor. Liver metabolized to inactive metabolites
Precautions	↑ seizure (dose related), suicide risks, ↑ serotonin syndrome when on concurrent serotonergic drugs. At therapeutic doses, post marketing studies have reported lower abuse liability compared to other mu agonists.	

RC Dart et al. J Opioid Manag 2012
Adams et al J Pain Symptom Manage 2006
Cicero TJ et al. PharmEpi & Drug Safety 2005
Micromedex, Lexicomp
Butler SF et al. Pain Med 2015

Buprenorphine

Pharmacology

- Partial mu opioid agonist: “ceiling effect” less overdose risks.
- Full κ-opioid antagonist: less dysphoria and psychotomimetic effects
- Tight affinity to opioid receptor- blocks the analgesic action of other opioids
- Peak affect: 1-4 hours
- Elimination half-life: 24-60 hours (~32 hours), duration of action: 24-36 hours
- Metabolized via cytochrome p450 3A4 enzyme – risks for drug interactions

Availability

Buprenorphine transdermal patch *(Butrans - 5,10 or 20mcg/hr)*

- Not covered through ODB

Buprenorphine/naloxone *(Suboxone sublingual tablets 2mg/0.5mg and 8mg/2mg)*

- Buprenorphine/naloxone combination tablet composed of buprenorphine and naloxone in a fixed 4:1 ratio (Appendix F)
- All doses covered through ODB

Contraindications

- Pregnancy
- Hypersensitivity
- Severe liver dysfunction, elevated transaminases (beyond 3-5x ULN)
- Acute severe respiratory illness
- Decreased LOC
- Paralytic ileus
- MAOIs within 14 days

Handford C et al. Buprenorphine/Naloxone for Opioid Dependence: Clinical Practice Guideline CAMH 2011

RxFiles Q and A Summary Butrans Patch

Buprenorphine (Butrans Patch)

Indicated for persistent pain of moderate intensity in adults.

Dosing

- Initiate at 5mcg/hr patch applied once weekly, maximum dose: 20mcg/hr
- Adjust doses after at least 3-7 days (steady state 3 days)
- Breakthrough pain medications may be provided during initial dose titration
- No dose adjustment required in renal dysfunction
- May initiate in opioid naïve patients

Administration

- Apply to non-irritated, dry intact skin
- Skin creams and ointments applied <6 hours prior to application will affect adhesion
- Rotate sites with each new patch (upper outer arm, upper chest, upper back or side of chest)
- Avoid exposure of patch to direct sunlight or extreme heat sources (e.g. heat pad, hot bath, sauna, sunbathing, fever) as this will increase absorption

Medication Withdrawal

- Withdrawal usually mild and will resolve within 2 weeks
- Upon patch removal, levels decline slowly ~50% over (10-24 hours)
- Delay administering another opioid until 24 hours after removal

RxFiles Q and A Summary Butrans Patch

Buprenorphine/Naloxone (Suboxone)

- Indicated for substitution treatment of opioid dependence in adults.
- In Ontario there are no restrictions on who can prescribe Suboxone.
- The completion of prescribing course and/or a one day observer-ship and ongoing CME in opioid dependency treatment is recommended.
- *Please refer to appendix F for induction pathway*

Handford C et al. Buprenorphine/Naloxone for Opioid Dependence**:** Clinical Practice Guideline CAMH 2011

Monitoring and Follow up

Visit 3 and onward - Follow Up

Schedule visits every 2 weeks to titrate dose to optimal dose

- 5 A's – Opioid therapy monitoring tool
  - Activity: progress on patient's functional goals
  - Analgesia: pain rating over last 24hours
  - Adverse effects: i.e. constipation, nausea, dizziness, drowsiness
  - Aberrant Behavior: signs of problematic behaviours, medication abuse/misuse
  - Affect: pain impacting on the patient's mood

- **Optimal dose** reached when:
  - Pain relief at least 2 points on 10-point scale, with no benefit from 1–2 additional dose increases.
  - Improved functioning at work, school, and with family; increased physical activities.
  - No major side effects.

- Conduct urine drug screening

Continue opioids only after confirming clinically improvements in pain and function without significant risks or harm.

NOUGG 2010
Kahan M, META:PHI 2016

Urine Drug Screening-FAQ

Inform the patient of the routine nature of test
(e.g. “I do this routinely for all of my patients on opioids…”)
Engage the patient in the process.
(e.g. “what should I expect to see in the results?”)
Aim to improve transparency during treatment and not police. Provide opportunities for patient to address unexpected results.

Why do Urine Drug Screening?

To improve safety, effectiveness and transparency of long term opioid therapy. It helps to verify self-report of medication history.

How often should it be completed?

Those at higher risk or exhibiting aberrant drug-related behaviours (e.g.q2-4wks); others less frequently (e.g. random, 1-4 times per year).

Chromatography or Mass Spectrometry	Immunoassay
Differentiates: codeine, morphine, oxycodone, hydromorphone, heroin More sensitive for semisynthetic & synthetic opioids	Does not differentiate between various opioids. Low sensitivity for semi-synthetic and synthetic opioids
Does not react to poppy seeds.	Will show false positives with poppy seeds
Shorter drug detection timeframe (1-2 days)	Longer drug detection timeframe (5-7 days) **will vary according to the drug’s concentration in urine & the assay’s cutoff concentration*
Expensive & may take longer to get results	Inexpensive and rapid results

Moeller KE et al. Mayo Clin Proc 2008
NOUGG 2010
RxFiles UDS FAQ March 2011

Urine Drug Screening-FAQ

Drug	Immunoassay (Usual detection time)	GC, LC or MS
Amphetamines	~2-5 days {may be false positive from interfering agents)	
Benzodiazepines	1-7 days for short-acting; 20+ days if long-acting	Varies
Cannabis/THC (depends on grade & frequency of use)	Single use – 1-3 days. Moderate use: 5-7 days. Daily use: 15- 30 days. **Nabilone (Cesamet®)** does not contain THC**-never detected in urine.** **Sativex® will produce positive results.**	Varies
Cocaine + metabolite	1-4 days	1-2 days
Heroin & 6-MAM monoacetylmorphine	Heroin rarely detected (half-life =3-5 minutes). {Heroin → 6-MAM → morphine} 6-MAM difficult to detect (half-life=25-30 min)	<12 hours
Methadone & EDDP	~3 days. {Up to 6 days with EDDP (metabolite)}	
Opioids	<2-5 days	1-2 days

Cross Reacting Compounds

Substance Tested via immunoassay	Interfering agents
Amphetamine	Amantadine, Bupropion, Desipramine, diet pills, dextroamphetamine, Doxepin, Labetalol, Methamphetamine, Pseudoephedrine, Ranitidine, Trazodone, Venlafaxine, desvenlafaxine
Benzodiazepine	Sertraline
Cannabinoids	Pantoprazole, Efavirenz
Cocaine	Coca leaf tea, Topical anesthetics containing cocaine
Opioids, opiates	Dextromethorphan, Poppy seeds, Quinine, Quinolones Rifampin, Verapamil

RxFiles UDS FAQ March 2011
Moeller KE et al. Mayo Clin Proc 2008

Dose Considerations

Schedule reassessments at regular intervals (≤ 3 months)

- Opioids have dose-related medical complications, including overdose, sleep apnea, and falls and fractures.
- Patients opioid doses of **40 mg MED** or more should have monthly visits to assess:
  - Pain levels, at rest and with activity
  - 5 A's

New Upper Dose Limit

The 2017 Canadian guidelines for Opioid Use in Chronic Non Cancer Pain suggest increased caution at doses of

≥ 90mg/day MED

At doses of **90mg MED**, reassess the opioid's analgesic effectiveness and side effects, and consider tapering opioids to the lowest effective dose, potentially including discontinuation. Consider making a specialist referral.

Kahan M, META:PHI 2016
CDC Guideline for Prescribing Opioids for Chronic Pain 2016

Opioid Tapering

Precautions

1. **Pregnancy**: Rapid and severe opioid withdrawal is associated with premature labour and spontaneous abortion.
2. **Unstable medical and psychiatric conditions**: Opioid withdrawal can cause significant anxiety and insomnia which may exacerbate unstable medical and psychiatric conditions.
3. **Addiction to opioids obtained from multiple doctors or "the street:"** Outpatient tapering is unlikely to succeed if patient regularly accesses opioids from other sources; such patients are usually best managed in an opioid agonist treatment program (methadone or buprenorphine).
4. **Concurrent medications**: Avoid sedative-hypnotic drugs, especially benzodiazepines, during the taper.

NOUGG 2010

General Considerations

1. **Emphasize** the benefits of tapering are to make the patient feel better, to reduce pain intensity, and to improve mood and function.
2. **The duration of a taper** can range from a few weeks to several months.
3. **The tapering schedule may be held/reassessed** at any point if pain/function deteriorates or withdrawal symptoms are severe.
4. **Formulations** that offer smaller dose increments are useful for more gradual tapers once in the lower end of the dosage range.
5. **More rapid tapers** are sometimes desired. In such cases, use of an opioid withdrawal scale (COWS) & corresponding protocols may be recommended, allowing for successful withdrawal within 1-2 weeks.
6. **Optimize other adjuvant** pain medications.
7. **Encourage functional goal setting** to enhance non-pharmacological approaches in pain management.

RxFiles Opioid Tapering July 2014
NOUGG 2010

Opioid Tapering

Initial Plan

The rate of the taper can vary from 10% of the total daily dose reduced every day, to 10% every 1-2+ weeks. Once 1/3 of the original dose is reached, smaller dose reductions (e.g. 5% every 2-4+ weeks) may be more optimal for a successful taper.

1. Use controlled-release formulations if feasible
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. Schedule frequent visits during the taper (e.g. weekly).
    - At each visit, ask about pain status, withdrawal symptoms and possible benefits of the taper: reduced pain and improved mood, energy level and alertness.
    - Use urine drug screening to assess compliance.

Completing the Taper

Patients who are unable to complete the taper may stay at lower opioid doses if their mood and functioning improve and they continue to follow the treatment agreement.

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RxFiles Opioid Tapering July 2014
NOUGG 2010

Opioid Tapering

Taper Schedule

Strongly caution patients that their tolerance to opioids is lost after as little as 3-7 days of abstinence, therefore their risk for overdose if they relapse/resume their original dose is increased.

Name: _____ Date: _____

Address: _____

Opioid Tapering Template
www.RxFiles.ca

(May switch to 50-60% equivalent morphine dose if not already on.)
Reduced dose accounts for incomplete cross tolerance. See Opioid Manager Switching Tool.

A) Tapering Schedule*: Drug _____

	Dates	(# wks)	Single Dose	Frequency	Total Dose/Day	*Quantities Needed*
0.	Current		mg		mg	
1.		x wk	mg		mg	
2.		x wk	mg		mg	
3.		x wk	mg		mg	
4.		x wk	mg		mg	
5.		x wk	mg		mg	
6.		x wk	mg		mg	
7.		x wk	mg		mg	
8.		x wk	mg		mg	
9.		x wk	mg		mg	
10.		x wk	mg		mg	
11.		x wk	mg		mg	
12.		x wk	mg		mg	

*template may be adjusted based on patient's progress; decisions on further tapering, etc. Last 20-30 mg may require more time

RxFiles Opioid Tapering July 2014

Clinical Features of Withdrawal

OPIOID	ONSET and DURATION	SYMPTOMS
Short acting Opioids	EARLY SYMPTOMS Onset: 6-24 hours Duration: 4-10 days *(peak within 36-72 hours)*	• anxiety restlessness/tremor • Sweating • rapid short respirations • runny nose, tearing eyes • dilated reactive pupils • mild/moderate insomnia • abdominal cramps • mild tachycardia
Long acting Opioids	LATE SYMPTOMS Onset: 12-48 hours Duration: 10-20 days *(peak within 72 hours)*	• runny nose, tearing eyes • rapid breathing, yawning • Tremor • diffuse muscle spasms, • Aches • pilo-erection • nausea and vomiting, • Diarrhea • abdominal pain • fever, chills
Long acting Opioids (Methadone)	PROLONGED SYMPTOMS Onset: 24-48 hours Duration: 2-3 weeks or longer *(peak within 72 hours)*	• Restlessness • bradycardia • decreased body temperature • cravings • insomnia • dysphoria and anxiety

Butt P et al. http://www.quadrant.net/cpss/pdf/Opioid_Withdrawal_Protocol.pdf

RxFiles Opioid Tapering July 2014

Opioid Withdrawal Management

General Principles

- Reassure the patient that withdrawal from opioids is **uncomfortable but not life threatening.**
- **Many common symptoms may not be seen** with a gradual taper.
- Physical withdrawal symptoms generally resolve by 5-10 days following opioid dose reduction/cessation.
- Psychological withdrawal symptoms (dysphoria, insomnia) may take longer

RxFiles Opioid Tapering July 2014

Opioid Withdrawal Management

Target Symptoms	Medication and Dosing Guidelines
Nausea and vomiting	• Natural Gravol (ginger) 20mg q4hprn • Gravol (dimenhydramine) 50-100mg po q4-6hprn • prochlorperazine 5-10mg po q6-8h • haloperidol 0.5-1mg po q8-12h
Diarrhea	Loperamide 4mg for diarrhea, then 2mg po as needed for loose bowel movements (max 16mg/24 hours)
Myalgias	• Acetaminophen 325-650mg po q4hprn • NSAIDs
Anxiety, dysphoria, lacrimation, rhinorrhea	• Hydroxyzine 25-50mg TIDprn • *Benzodiazepines for acute anxiety*
Insomnia	Trazodone 50-100mg qhs x 4 days then as needed *Sleep hygiene measures should be employed*
Autonomic physical symptoms (sweating, diarrhea, vomiting, abdominal cramps, chills, anxiety, insomnia, and tremor)	Clonidine 0.1mg twice daily Initial test dose 0.1mg x1; check BP & HR 1 hr later (if BP <90/60, postural hypotension, or HR <60, do not prescribe further). May titrate up to 4 times daily. *Utilize Opioid withdrawal scale at least every 24 hours to rate symptoms and severity.* *May continue clonidine until off of opioids for 3-5 days* **** Clonidine must be tapered.***

Butt P et al. http://www.quadrant.net/cpss/pdf/Opioid_Withdrawal_Protocol.pdf

RxFiles Opioid Tapering July 2014

Appendices

Appendix A:Opioid Manager

Appendix B: Opioid Risk Tool (ORT)

Appendix C: Common Opioid Misuse Measure (COMM)

Appendix D: Brief Pain Inventory (BPI)

Appendix E: Patient Specific Functional Scale

Appendix F: Buprenorphine/Naloxone (Suboxone) Induction algorithm

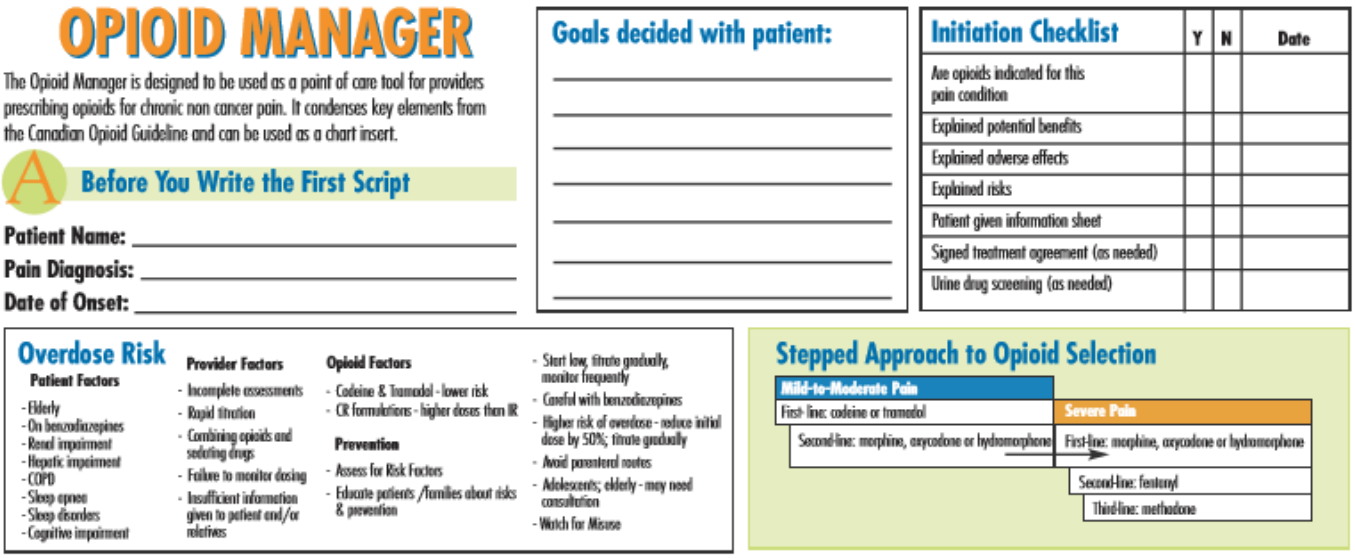
Appendix G: Clinical Opioid Withdrawal Scale (COWS)

Appendix H: Morphine Equivalency Chart

Appendix I: Treatment Agreement

Appendix J: Naloxone Infographic

Appendix A: Opioid Manager



OPIOID MANAGER

The Opioid Manager is designed to be used as a point of care tool for providers prescribing opioids for chronic non cancer pain. It condenses key elements from the Canadian Opioid Guideline and can be used as a chart insert.

A Before You Write the First Script

Patient Name: _____

Pain Diagnosis: _____

Date of Onset: _____

Goals decided with patient:

_____

_____

_____

_____

_____

_____

_____

Initiation Checklist

Initiation Checklist	Y	N	Date
Are opioids indicated for this pain condition			
Explained potential benefits			
Explained adverse effects			
Explained risks			
Patient given information sheet			
Signed treatment agreement (as needed)			
Urine drug screening (as needed)			

Overdose Risk

Patient Factors
- Elderly
- On benzodiazepines
- Renal impairment
- Hepatic impairment
- COPD
- Sleep apnea
- Sleep disorders
- Cognitive impairment

Provider Factors
- Incomplete assessments
- Rapid titration
- Combining opioids and sedating drugs
- Failure to monitor dosing
- Insufficient information given to patient and/or relatives

Opioid Factors
- Codeine & Tramadol - lower risk
- CR formulations - higher doses than IR

Prevention
- Assess for Risk Factors
- Educate patients /Families about risks & prevention
- Start low, titrate gradually, monitor frequently
- Careful with benzodiazepines
- Higher risk of overdose - reduce initial dose by 50%; titrate gradually
- Avoid parenteral routes
- Adolescents; elderly - may need consultation
- Watch for Misuse

Stepped Approach to Opioid Selection

Mild-to-Moderate Pain
- First-line: codeine or tramadol
- Second-line: morphine, oxycodone or hydromorphone

Severe Pain
- First-line: morphine, oxycodone or hydromorphone
- Second-line: fentanyl
- Third-line: methadone

See http://nationalpaincentre.mcmaster.ca/opioid/ for complete tool.

Appendix B: Opioid Risk Tool

Opioid Risk Tool

Item	Mark each box that applies	Item score if female	Item score if male
1. Family History of Substance Abuse:			
Alcohol	[ ]	1	3
Illegal Drugs	[ ]	2	3
Prescription Drugs	[ ]	4	4
2. Personal History of Substance Abuse:			
Alcohol	[ ]	3	3
Illegal Drugs	[ ]	4	4
Prescription Drugs	[ ]	5	5
3. Age (mark box if 16-45)	[ ]	1	1
4. History of Preadolescent Sexual Abuse	[ ]	3	0
5. Psychological Disease			
Attention Deficit Disorder, Obsessive-Compulsive Disorder, or Bipolar, Schizophrenia	[ ]	2	2
Depression	[ ]	1	1
Total		___	___
Total Score Risk Category: Low Risk: 0 to 3 Moderate Risk: 4 to 7 High Risk: 8 and above			

Webster LR et al. Pain Med 2005

Appendix C: Common Opioid Misuse Measure

Current Opioid Misuse Measure (COMM)®

Please answer each question as honestly as possible. Keep in mind that we are only asking about the **past 30 days**. There are no right or wrong answers. If you are unsure about how to answer the question, please give the best answer you can.

Please answer the questions using the following scale:	Never	Seldom	Sometimes	Often	Very Often
	0	1	2	3	4
1. In the past 30 days, how often have you had trouble with thinking clearly or had memory problems?	O	O	O	O	O
2. In the past 30 days, how often do people complain that you are not completing necessary tasks? (i.e., doing things that need to be done, such as going to class, work or appointments)	O	O	O	O	O
3. In the past 30 days, how often have you had to go to someone other than your prescribing physician to get sufficient pain relief from medications? (i.e., another doctor, the Emergency Room, friends, street sources)	O	O	O	O	O
4. In the past 30 days, how often have you taken your medications differently from how they are prescribed?	O	O	O	O	O
5. In the past 30 days, how often have you seriously thought about hurting yourself?	O	O	O	O	O
6. In the past 30 days, how much of your time was spent thinking about opioid medications (having enough, taking them, dosing schedule, etc.)?	O	O	O	O	O

http://www.painedu.org/registration.asp?target=terms

Appendix C: Common Opioid Misuse Measure

Please answer the questions using the following scale:	Never	Seldom	Sometimes	Often	Very Often
	0	1	2	3	4
7. In the past 30 days, how often have you been in an argument?	O	O	O	O	O
8. In the past 30 days, how often have you had trouble controlling your anger (e.g., road rage, screaming, etc.)?	O	O	O	O	O
9. In the past 30 days, how often have you needed to take pain medications belonging to someone else?	O	O	O	O	O
10. In the past 30 days, how often have you been worried about how you're handling your medications?	O	O	O	O	O
11. In the past 30 days, how often have others been worried about how you're handling your medications?	O	O	O	O	O
12. In the past 30 days, how often have you had to make an emergency phone call or show up at the clinic without an appointment?	O	O	O	O	O
13. In the past 30 days, how often have you gotten angry with people?	O	O	O	O	O
14. In the past 30 days, how often have you had to take more of your medication than prescribed?	O	O	O	O	O
15. In the past 30 days, how often have you borrowed pain medication from someone else?	O	O	O	O	O
16. In the past 30 days, how often have you used your pain medicine for symptoms other than for pain (e.g., to help you sleep, improve your mood, or relieve stress)?	O	O	O	O	O
17. In the past 30 days, how often have you had to visit the Emergency Room?	O	O	O	O	O

http://www.painedu.org/registration.asp?target=terms

Appendix D: Brief Pain Inventory

1903

Date: (month) / (day) / (year)

Subject's Initials : _____

Study Subject #:

Study Name: _____

Protocol #: _____

PI: _____

Revision: 07/01/05

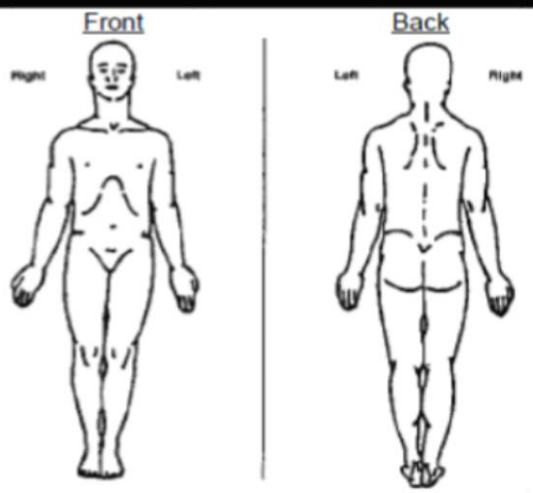
PLEASE USE BLACK INK PEN

Brief Pain Inventory (Short Form)

1. Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain today?

☐ Yes ☐ No

2. On the diagram, shade in the areas where you feel pain. Put an X on the area that hurts the most.



3. Please rate your pain by marking the box beside the number that best describes your pain at its worst in the last 24 hours.

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

No Pain — Pain As Bad As You Can Imagine

4. Please rate your pain by marking the box beside the number that best describes your pain at its least in the last 24 hours.

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

No Pain — Pain As Bad As You Can Imagine

5. Please rate your pain by marking the box beside the number that best describes your pain on the average.

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

No Pain — Pain As Bad As You Can Imagine

6. Please rate your pain by marking the box beside the number that tells how much pain you have right now.

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

No Pain — Pain As Bad As You Can Imagine

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http://www.npcrc.org/files/news/briefpain_short.pdf

Appendix D: Brief Pain Inventory

1903

Date: (month) / (day) / (year)

Subject's Initials : _____

Study Subject #:

Study Name: _____

Protocol #: _____

PI: _____

Revision: 07/01/05

PLEASE USE BLACK INK PEN

7. What treatments or medications are you receiving for your pain?

8. In the last 24 hours, how much relief have pain treatments or medications provided? Please mark the box below the percentage that most shows how much relief you have received.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
☐ No Relief	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐ Complete Relief

9. Mark the box beside the number that describes how, during the past 24 hours, pain has interfered with your:

A. General Activity

☐ 0 Does Not Interfere ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 Completely Interferes

B. Mood

☐ 0 Does Not Interfere ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 Completely Interferes

C. Walking ability

☐ 0 Does Not Interfere ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 Completely Interferes

D. Normal Work (includes both work outside the home and housework)

☐ 0 Does Not Interfere ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 Completely Interferes

E. Relations with other people

☐ 0 Does Not Interfere ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 Completely Interferes

F. Sleep

☐ 0 Does Not Interfere ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 Completely Interferes

G. Enjoyment of life

☐ 0 Does Not Interfere ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 Completely Interferes

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http://www.npcrc.org/files/news/briefpain_short.pdf Cleeland CS 1989

Appendix E: Patient Specific Functional Scale

The Patient-Specific Functional Scale

This useful questionnaire can be used to quantify activity limitation and measure functional outcome for patients with any orthopaedic condition.

Clinician to read and fill in below: Complete at the end of the history and prior to physical examination.

Initial Assessment:

I am going to ask you to identify up to three important activities that you are unable to do or are having difficulty with as a result of your _____ problem. Today, are there any activities that you are unable to do or having difficulty with because of your _____ problem? (Clinician: show scale to patient and have the patient rate each activity).

Follow-up Assessments:

When I assessed you on (state previous assessment date), you told me that you had difficulty with (read all activities from list at a time). Today, do you still have difficulty with: (read and have patient score each item in the list)?

Patient-specific activity scoring scheme (Point to one number):

0 1 2 3 4 5 6 7 8 9 10

Unable to perform activity

Able to perform activity at the same level as before injury or problem

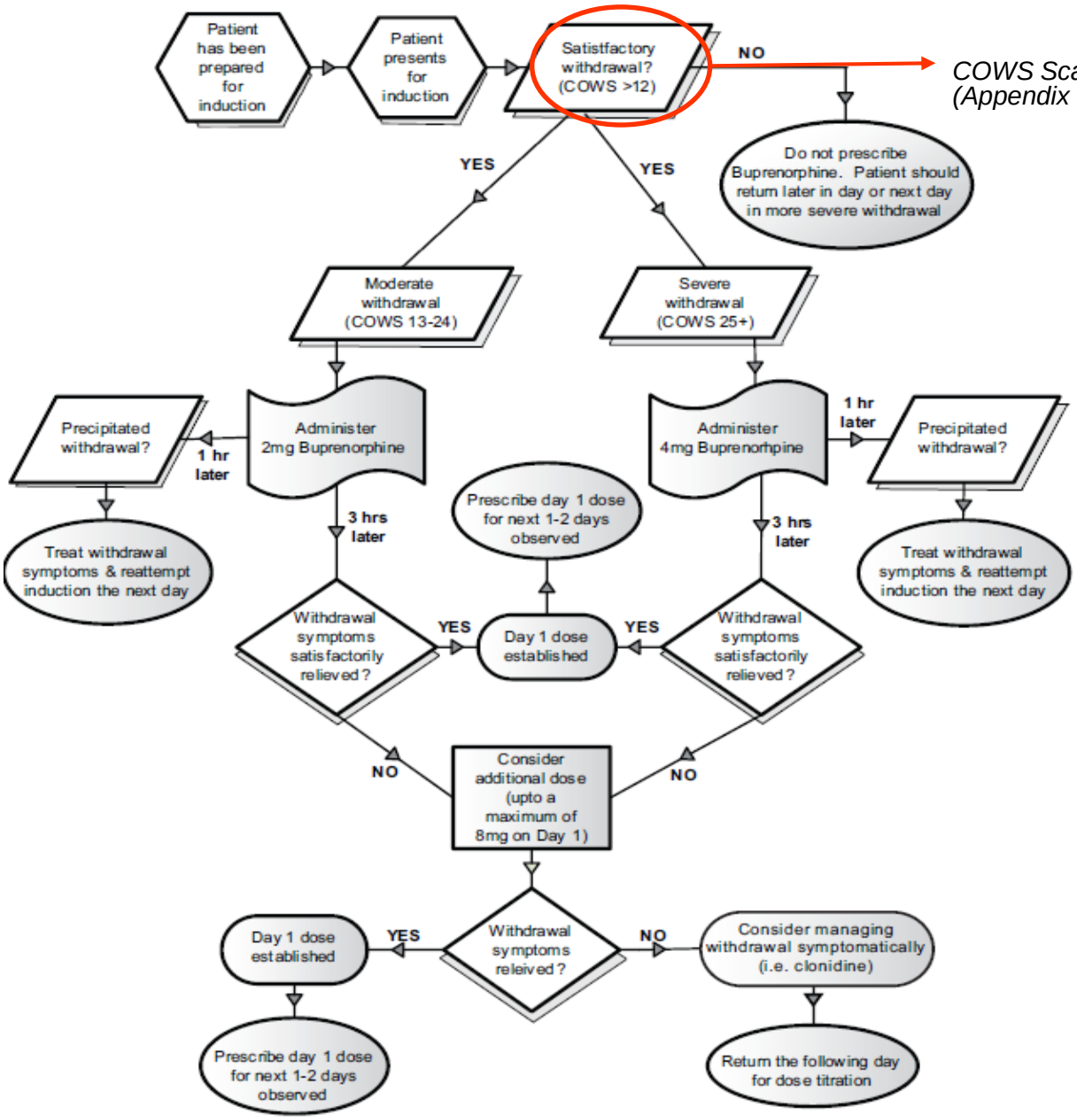
(Date and Score)

Activity	Initial					
1.						
2.						
3.						
4.						
5.						
Additional						
Additional						

Total score = sum of the activity scores/number of activities
Minimum detectable change (90%CI) for average score = 2 points
Minimum detectable change (90%CI) for single activity score = 3 points

Stratford P et al Physiotherapy Canada 1995

Appendix F: Buprenorphine/Naloxone (Suboxone) Induction Algorithm



Handford C et al. Buprenorphine/Naloxone for Opioid Dependence: Clinical Practice Guideline CAMH 2011

Appendix G: Clinical Opioid Withdrawal Scale

For each item in the list below, circle the number that best describes the patient's sign or symptom. Rate on just the apparent relationship to opiate withdrawal. For example, if heart rate is increased because the patient was jogging just prior to assessment, the increased pulse rate would not add to the score.

Score: 5–12 – mild withdrawal; 13–24 – moderate withdrawal;
25–36 – moderately severe withdrawal; more than 36 – severe withdrawal

Patient's Name: _____ Date and Time: ____/____/____:____

Reason for This Assessment: _____

_____

Resting Pulse Rate: _____beats/ minute *Measured after patient is sitting or lying for one minute* 0 pulse rate 80 or below 1 pulse rate 81–100 2 pulse rate 101–120 4 pulse rate greater than 120	**GI Upset:** *over last ½ hour* 0 no GI symptoms 1 stomach cramps 2 nausea or loose stool 3 vomiting or diarrhea 5 multiple episodes of diarrhea or vomiting
Sweating: *over past ½ hour not accounted for by room temperature or patient activity* 0 no report of chills or flushing 1 subjective report of chills or flushing 2 flush or observable moistness on face 3 beads of sweat on brow or face 4 sweat streaming off face	**Tremor:** *observation of outstretched hands* 0 no tremor 1 tremor can be felt, but not observed 2 slight tremor observable 4 gross tremor or muscle twitching
Restlessness: *Observation during assessment* 0 able to sit still 1 reports difficulty sitting still, but is able to do so 3 frequent shifting or extraneous movements of legs/arms 5 unable to sit still for more than a few seconds	**Yawning:** *Observation during assessment* 0 no yawning 1 yawning once or twice during assessment 2 yawning three or more times during assessment 4 yawning several times/minute

Wesson, DR et al Psychoactive Drugs 2003

Appendix G: Clinical Opioid Withdrawal Scale

Pupil Size: 0 pupils pinned or normal size for room light 1 pupils possibly larger than normal for room light 2 pupils moderately dilated 5 pupils so dilated that only the rim of the iris is visible	**Anxiety or Irritability:** 0 none 1 patient reports increasing irritability or anxiousness 2 patient obviously irritable anxious 4 patient so irritable or anxious that participation in the assessment is difficult
Bone or Joint Aches: *if patient was having pain previously, only the additional component attributed to opiate withdrawal is scored* 0 not present 1 mild diffuse discomfort 2 patient reports severe diffuse aching of joints/muscles 4 patient is rubbing joints or muscles and is unable to sit still because of discomfort	**Gooseflesh Skin:** 0 skin is smooth 3 piloerection of skin can be felt, or hairs standing up on arms 5 prominent piloerection
Runny Nose or Tearing: *not accounted for by cold symptoms or allergies* 0 not present 1 nasal stuffiness or unusually moist eyes 2 nose running or tearing 4 nose constantly running or tears streaming down cheeks	**Total Score** _____ The total score is the sum of all 11 items. Initials of Person Completing Assessment: _____

Wesson, DR et al Psychoactive Drugs 2003

Appendix H: Morphine Equivalency Chart

Opioid	Analgesic Equivalence Value
Morphine (Reference Drug)	30mg
Codeine	200mg
Oxycodone	20mg
Hydromorphone	6mg
Tapentadol	No equivalence to morphine established. *CR has demonstrated comparable pain relief to oxycodone CR (dose ratio 5:1)*
Tramadol	No equivalence to morphine established
Transdermal buprenorphine	
Transdermal fentanyl	60 – 134 mg morphine = 25 mcg/h 135 – 179 mg = 37 mcg/h 180 – 224 mg = 50 mcg/h 225 – 269 mg = 62 mcg/h 270 – 314 mg = 75 mcg/h 315 – 359 mg = 87 mcg/h 360 – 404 mg = 100 mcg/h

NOUGG 2010

Appendix I:Treatment Agreement

Sample Opioid Treatment Agreement

I, *(name)*_____ understand that I am receiving opioid medication from Dr. _____to treat my pain condition.

I agree to the following:

1. I will not seek opioid medications from another physician. Only Dr. _____ will prescribe opioids for me.
2. I will not take opioid medications in larger amounts or more frequently than is prescribed by Dr. _____
3. I will not give or sell my medication to anyone else, including family members; nor will I accept any opioid medication from anyone else.
4. I will not use over-the-counter opioid medications such as 222's and Tylenol® No. 1.
5. I understand that if my prescription runs out early for any reason (for example, if I lose the medication, or take more than prescribed), Dr. _____ will not prescribe extra medications for me; I will have to wait until the next prescription is due.
6. I will fill my prescriptions at one pharmacy of my choice; pharmacy name:
   _____
7. I will store my medication in a secured location.

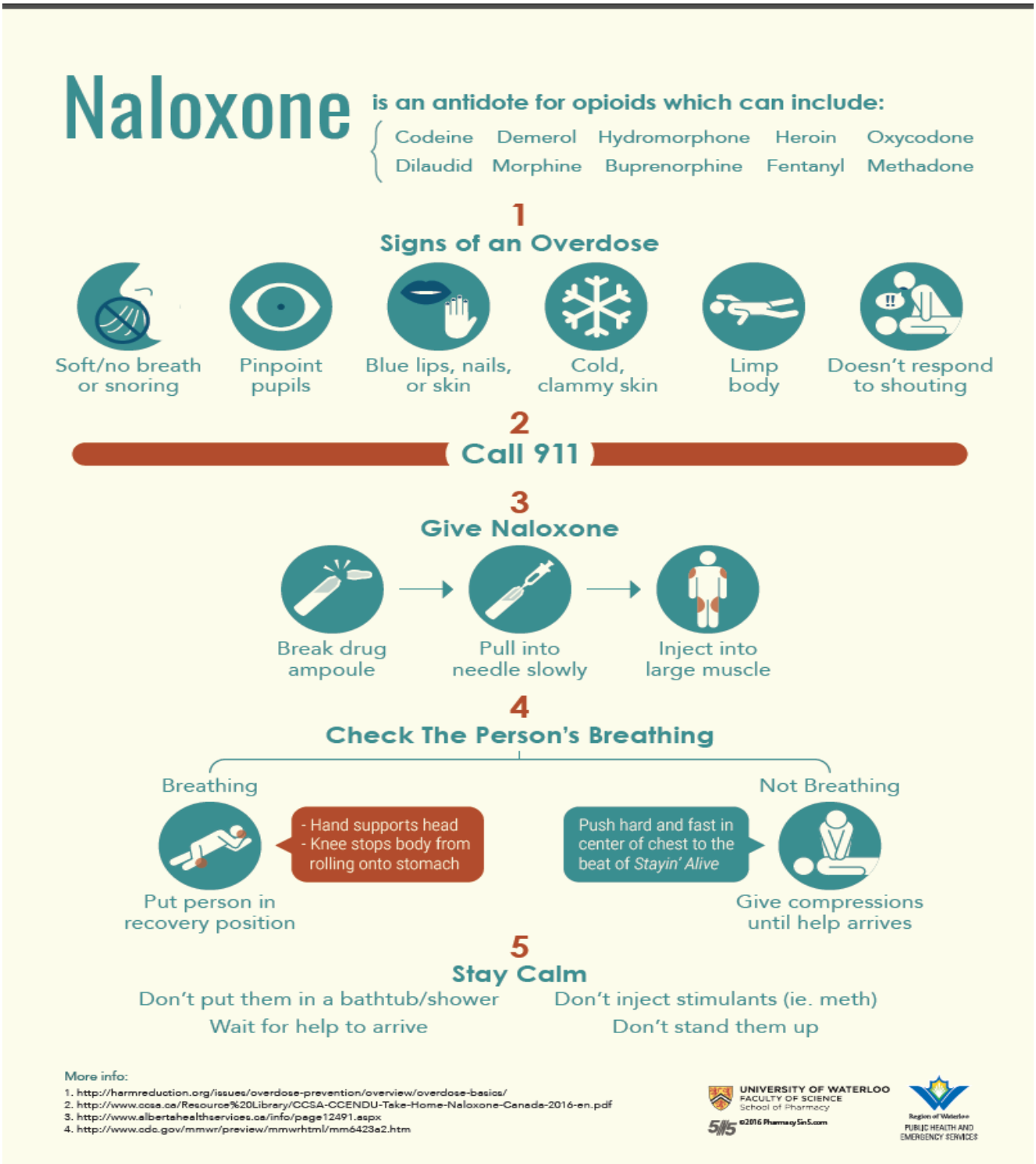
I understand that if I break these conditions, Dr. _____ may choose to cease writing opioid prescriptions for me.

_____ _____

Patient signature *Date*

Adapted from Kahan M et al Canadian Family Physician 2006

Appendix J: Naloxone Infographic



Assessed from: http://www.kellygrindrod.com/resources/

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Please note: The final recommendations for the 2017 National Opioid Use Guideline are pending. New Canadian recommendations are anticipated in spring or summer 2017.

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