

## **OPIOID WITHDRAWAL**

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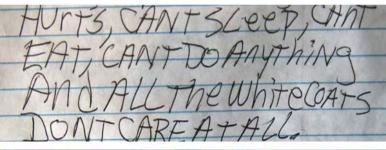
#### **OBJECTIVES**

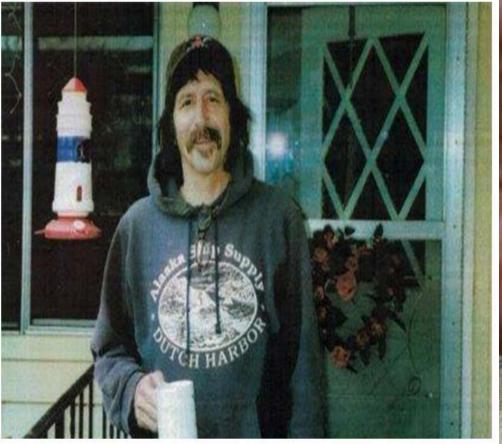
- 1. Participants will be able to discuss characteristics and considerations of appropriate medically supervised opioid withdrawal.
- 2. Participants will be able to summarize the signs and symptoms of opioid withdrawal.
- 3. Participants will be able to compare and contrast treatment options for medically supervised withdrawal.



Desperation and death after Seattle Pain Centers close: 'The whitecoats don't care'

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# MEDICALLY SUPERVISED WITHDRAWAL CONSIDERATIONS



# WHEN TO CONSIDER MEDICALLY SUPERVISED WITHDRAWAL

- Patient request
- No improvement in functioning
- Risks of continued use outweigh benefits
- Severe adverse events or overdose
- Substance use disorder
- Use of opioids is beyond recommendations
- Aberrant behaviors



### **PEG PAIN SCREENING TOOL**

1. What number best describes your pain on average in the past week:

0	1	2	3	4	5	6	7	8	9	10
No	pain									Pain as bad as
										you can imagine

2. What number best describes how, during the past week, pain has interfered with your enjoyment of life?

0	1	2	3	4	5	6	7	8	9	10
Doe	s not									Completely
inter	fere									interferes

3. What number best describes how, during the past week, pain has interfered with your general activity?

0	1	2	3	4	5	6	7	8	9	10
Does										Completely interferes



Mark each box that applies	Female	Male							
Family history of substance abuse									
Alcohol	1	3							
Illegal drugs	2	3							
Rx drugs	4	4							
Personal history of substance abuse									
Alcohol	3	3							
Illegal drugs	4	4							
Rx drugs	5	5							
Age between 16—45 years	1	1							
History of preadolescent sexual abuse	3	0							
Psychological disease									
ADD, OCD, bipolar, schizophrenia	2	2							
Depression	1	1							
Scoring totals			©2						

OPIOID RISK TOOL



#### A SUCCESSFUL WITHDRAWAL

- Physiologically stable
- Avoids hazardous medical consequences of withdrawal
- Minimizes discomfort
- Has dignity and respect
- Completes the taper
- Continues care for substance use

Source: Mattick & Hall 1996



### IS A HIGHER LEVEL OF CARE NEEDED?

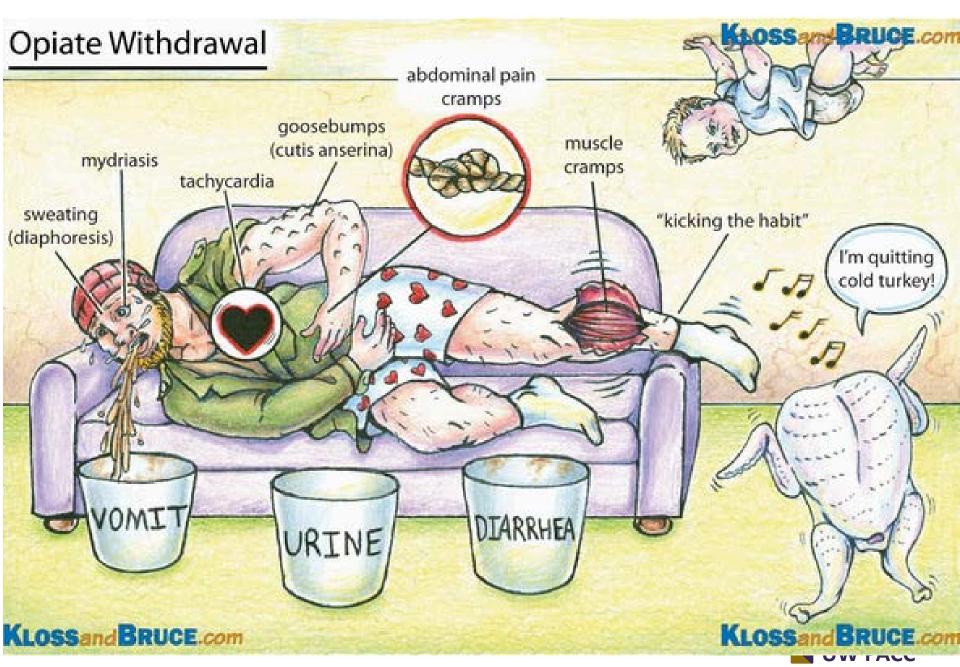
- ≥90 MED daily
- Comorbid substance use, mental health issue
- Comorbid medical issue
- On methadone or fentanyl
- ≥8 on Opioid Risk Tool
- Problems following opioid care plan





## WITHDRAWAL SYMPTOMS





#### CHARACTERISTICS OF WITHDRAWAL

- Onset and duration varies by substance
  - Short-acting (eg, heroin, oxycodone): onset 8-12
     hrs; peak 48-72 hours
  - Long-acting (eg, methadone, buprenorphine):
     onset 24-48 hr; peak 3-5 days
- Not medically dangerous (usually) but EXTREMELY uncomfortable
- Can last up to several weeks

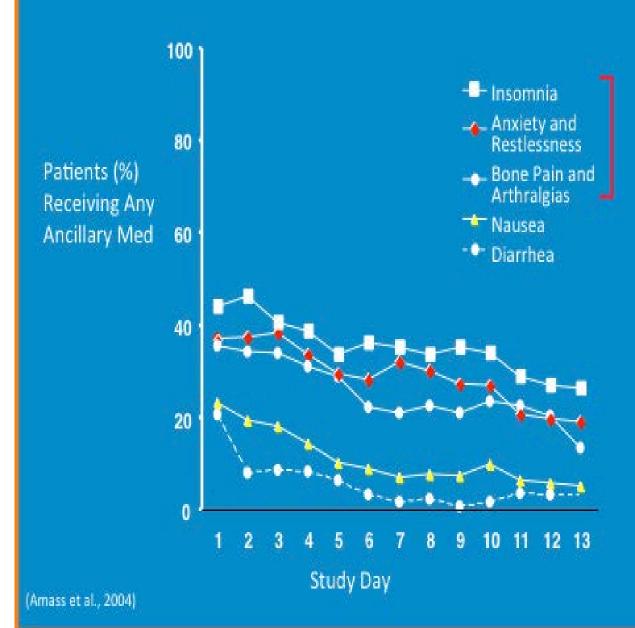


#### **COMPLICATED WITHDRAWAL**

- GI: vomiting-> electrolyte imbalances, dehydration
  - PO/ IV fluids
- Cardiac issues -> autonomic instability can exacerbate underlying issues
- Fever
  - Should be self-limited, if not look to other causes (eg, abscess, PNA)
- Pain
  - Will worsen, esp dental and low back pain



## **Ancillary Medication Use**





#### MANAGEMENT WITHOUT MEDICATIONS

"Management of this syndrome without medications can produce needless suffering in a population that tends to have limited tolerance for physical pain."

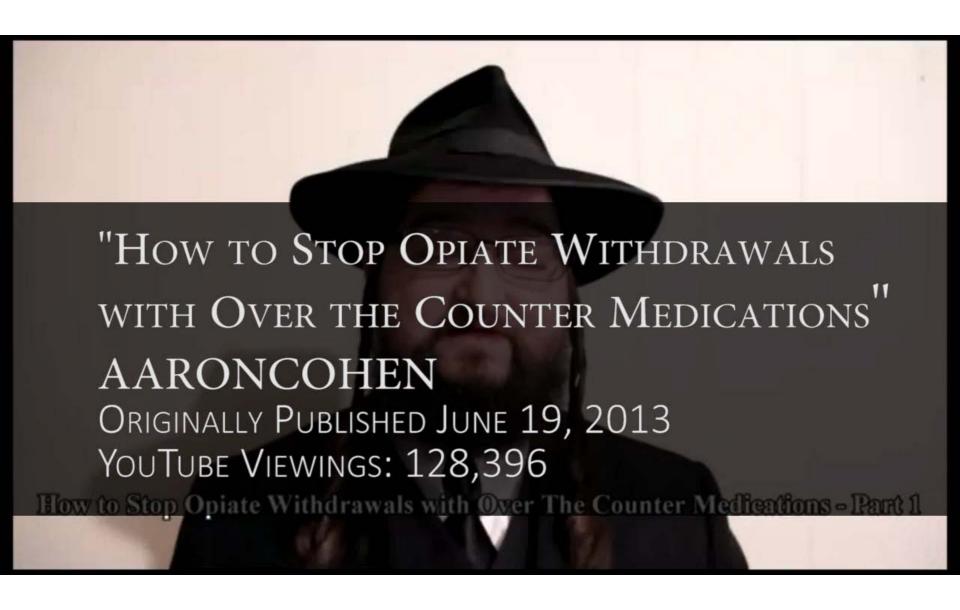




Source: SAMHSA TIP 45

### WITHDRAWAL MEDICATIONS







# WHO IS AT RISK OF WITHDRAWAL/ WHO TO TAPER

- Regularly scheduled opioids
- Longer than a few days- three weeks
- Higher than starting doses
- Taper length
  - opioid doses
  - duration
- Naloxone challenge



#### WITHDRAWAL MEDICATIONS

- Suboxone: partial agonist
  - Waiver needed
- Methadone: agonist
  - At SAMHSA clinics and detox centers
  - While hospitalized
- Clonidine: alpha-adrenergic agnoist
  - Relieves many of the signs
  - Not subjective symptoms



#### **COCHRANE REVIEW 2009**

Figure 4. Forest plot of comparison: I Buprenorphine versus methadone, outcome: I.I Completion of withdrawal.

	Buprenorp	hine	Methad	one		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% CI	M-H, Fixed, 95% CI
Bickel 1988	17	22	14	23	31.5%	1.27 [0.85, 1.89]	+-
Petitjean 2002	17	19	16	18	37.8%	1.01 [0.80, 1.26]	<del>+</del>
Seifert 2002	9	14	5	12	12.4%	1.54 [0.71, 3.35]	<del></del>
Steinmann 2008	9	30	8	30	18.4%	1.13 [0.50, 2.52]	-
Total (95% CI)		85		83	100.0%	1.18 [0.93, 1.49]	•
Total events	52		43				
Heterogeneity: Chi2=	2.49, df = 3	(P = 0.4)	8); $I^2 = 0\%$	6			0.1 0.2 0.5 1 2 5 10
Test for overall effect	Z=1.35 (P	= 0.18)					0.1 0.2 0.5 1 2 5 10 Favours methadone Favours buprenorphine

- Buprenorphine equivalent to methadone
  - 61% vs. 52% completed (RR 1.18)



Figure 10. Forest plot of comparison: 2 Buprenorphine versus clonidine, outcome: 2.6 Number completing withdrawal treatment.

	Buprenor	phine	Adrenergic ag	gonist		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI
2.6.1 Inpatient							
Cheskin 1994	10	12	8	13	8.3%	1.35 [0.82, 2.23]	<del></del>
Collins 2005	27	37	6	34	5.5%	4.14 [1.95, 8.77]	
Ling 2005	59	77	8	36	6.8%	3.45 [1.85, 6.43]	
Nigam 1993	22	34	22	38	10.2%	1.12 [0.77, 1.61]	<del></del>
Ponizovsky 2006	90	100	50	100	12.4%	1.80 [1.46, 2.21]	
Subtotal (95% CI)		260		221	43.1%	1.93 [1.27, 2.92]	•
Total events	208		94				
Heterogeneity: Tau <sup>2</sup> :	= 0.16; Chi2=	18.61,	df = 4 (P = 0.00)	$09); I^2 =$	79%		
Test for overall effect	Z = 3.08 (P	= 0.002	)				
2.6.2 Outpatient							
Janiri 1994	11	13	11	13	10.7%	1.00 [0.72, 1.39]	+
Ling 2005	46	157	4	74	3.8%	5.42 [2.03, 14.49]	
Lintzeris 2002A	50	58	32	56	11.9%	1.51 [1.18, 1.94]	-
Marsch 2005	13	18	7	18	6.5%	1.86 [0.97, 3.54]	-
O'Connor 1997	43	53	36	55	12.1%	1.24 [0.98, 1.56]	•
Raistrick 2005	70	107	47	103	11.8%	1.43 [1.11, 1.84]	<u>*</u>
Subtotal (95% CI)		406		319	56.9%	1.45 [1.12, 1.88]	<b>◆</b>
Total events	233		137				
Heterogeneity: Tau <sup>2</sup> :	= 0.07; Chi <sup>z</sup> =	17.16,	df = 5 (P = 0.00)	$(4); I^2 = 7$	1%		
Test for overall effect	Z= 2.79 (P	= 0.005	)				
Total (95% CI)		666		540	100.0%	1.64 [1.31, 2.06]	•
Total events	441		231				
Heterogeneity: Tau <sup>2</sup> :		42.42.		0001); l²	= 76%		
Test for overall effect							0.05 0.2 1 5 20
							Favours adrenergic Favours buprenorphine

- Buprenorphine > clonidine
  - RR 1.64 for completing treatment



#### **SUBOXONE**

- μ- partial agonist (buprenorphine) + naltrexone
- Can precipitate withdrawal sx
- Ceiling effect
- Waiver needed
  - Except on inpatient



Day	Bup/ Nx Dose (mg of bup)							
1	4(+4 if needed)							
2	8							
3	16							
4	14							
5	12							
6	10							
7	8							
8-9	6							
10-11	4							
12-13	2							
Source: Short-term Opioid Withdrawal Using	Source: Short-term Opioid Withdrawal Using Buprenorphine Findings from the News PAGE							

#### **METHADONE**

- Long-acting µ- receptor agonist that replaces heroin and other opioids and restabilizes the site
- Underdosing and overdosing are both risks
  - Physical exam can provide clues
- Dosing depends on reported use
  - Up to 30-40 mg/day
  - Can do challenge dose
  - Reduce 5-10 mg daily for 3-5 day taper



Source: SAMHSA TIP 45

#### **CLONIDINE**

- α agonist
- Wide, off-label use for opioid withdrawal
- No intoxication potential?
- No special licensing needed
- Completion rates for clonidine detoxification are low



#### **CLONIDINE**

- 0.1 mg test dose should be given with BP before and after dosing
- 0.1- 0.2 mg q4-6 h PRN withdrawal sx, max 1.2 mg in first day and 2.0 mg in future days
- Taper to avoid rebound hypertension



### **COWS PROTOCOL**

#### Resting Pulse Rate: Record Beats per 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

#### Sweating: Over Past 1/2 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 = flushed or observable moistness on face

3 = beads of sweat on brow or face

4 = sweat streaming off face

#### Restlessness Observation During Assessment

0 = able to sit still

1 = reports difficulty sitting still, but is able to do so • 5 = Unable to sit still for more than a few seconds

• 3 = frequent shifting or extraneous movements of legs/arms

#### **Pupil Size**

0 = pupils pinned or normal size for room light

2 = pupils moderately dilated

1 = pupils possibly larger than normal for room light • 5 = pupils so dilated that only the rim of the iris is visible

## Bone or Joint Aches if Patient was Having Pain Previously, only the Additional Component Attributed to Opiate Withdrawal is Scored

0 = not present

• 2 = patient reports severe diffuse aching of joints/muscles

1 = mild diffuse discomfort • 4 = patient is rubbing joints or muscles and is unable to sit still because of discomfort

#### Runny Nose or Tearing Not Accounted for by Cold Symptoms or Allergies

0 = not present

2 = nose running or tearing

= nasal stuffiness or unusually moist eyes

4 = nose constantly running or tears streaming down cheeks

## **COWS PROTOCOL**

GI Upset: Over Last 1/2 Hour	
0 = no Gl symptoms 1 = stomach cramps 2 = nausea or loose stool	<ul> <li>3 = vomiting or diarrhea</li> <li>5 = multiple episodes of diarrhea or vomiting</li> </ul>
Tremor Observation of Outstretched Hands	
0 = no tremor 1 = tremor can be felt, but not observed	<ul> <li>2 = slight tremor observable</li> <li>4 = gross tremor or muscle twitching</li> </ul>
Yawning Observation During Assessment	
0 = no yawning 1 = yawning once or twice during assessment	<ul> <li>2 = yawning three or more times during assessment</li> <li>4 = yawning several times/minute</li> </ul>
Anxiety or Irritability	
0 = none 1 = patient reports increasing irritability or anxiousness	<ul> <li>2 = patient obviously irritable/anxious</li> <li>4 = patient so irritable or anxious that participation in the assessment is difficult</li> </ul>
Gooseflesh Skin	
0 = skin is smooth 3 = piloerection of skin can be felt or hairs standing	5 = prominent piloerection up on arms



#### **ULTRA-RAPID DETOXIFICATION?**

- Low rates of long-term success
- Pt needs 20% of previous day's dose to avoid w/d sx



Table 4. Medications used to treat symptoms during gradual opioid taper						
Target symptoms	Medication	Dosing				
Hypertension, tremors, sweats, anxiety, restlessness	Clonidine 1	0.1 mg three times daily as needed				
Anxiety, restlessness	Hydroxyzine <sup>2</sup> or Diphenhydramine <sup>2</sup>	25 mg every 6 hours as needed				
Insomnia	Hydroxyzine <sup>2</sup> or Diphenhydramine <sup>2</sup>	25-50 mg daily at bedtime as needed				
Nausea/vomiting	Promethazine <sup>2</sup>	25 mg every 6 hours as needed				
	Metoclopramide <sup>2</sup>	10 mg every 6 hours as needed				
Dyspepsia	Calcium carbonate	500 mg 1–2 tabs every 8 hours as needed				
	Mylanta, Milk of Magnesia	Follow package instructions.				
Pain, fever	Acetaminophen (Tylenol)	500 mg every 4 hours (not to exceed 3 g/24 hours)				
	Ibuprofen	400 mg every 4 hours as needed				
Diarrhea	Loperamide <sup>2</sup>	4 mg initially, then 2 mg every loose stool as needed; maximum 16 mg/day				
Muscle spasm	Methocarbamol <sup>2</sup>	1,000 mg every 6 hours as needed				
		UW PACC				



#### **LONG-TERM MANAGEMENT**

- Do not abandon a patient under any circumstances
- Refer for needed specialty services
- Advise patient on the loss of tolerance after detoxification to avoid future overdose
- Naloxone kit



#### **RESOURCES**

- Center for Substance Abuse Treatment. Detoxification and Substance Abuse Treatment. Treatment Improvement Protocol (TIP) Series, No. 45. HHS Publication No. (SMA) 15-4131. Rockville, MD: Center for Substance Abuse Treatment, 2006. http://store.samhsa.gov/shin/content//SMA15-4131/SMA15-4131.pdf
- The Management of Opioid Therapy for Chronic Pain Working Group.
   Management of Opioid Therapy for Chronic Pain. Version 2.0. Department of Veterans Affairs and Department of Defense, 2010.
   http://www.healthquality.va.gov/guidelines/Pain/cot/COT\_312\_Full-er.pdf
- Washington State Agency Medical Directors Group (AMDG). Interagency Guideline on Prescribing Opioids for Pain. Olympia, WA: Washington State Agency Medical Directors' Group; 2015.
  - http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf
- Group Health. Safety Guideline for Patients on Chronic Opioid Therapy for Chronic Non-Cancer Pain. Group Health Cooperative, 2016.
   <a href="https://www.ghc.org/static/pdf/public/guidelines/opioid.pdf">https://www.ghc.org/static/pdf/public/guidelines/opioid.pdf</a>

