ED GUIDELINE

Opioid Withdrawal
Age ≥ 12 yrs

Children's MINNESOTA

Aim: Provide patients in opioid withdrawal evidence-based care in a safe environment without discrimination or bias.

Exclusion criteria:
- Patients under 12 years of age
- Patient under 50 kg (all medication doses are based on adult-size patients)
- Acute intoxication with opioid, alcohol or other substance
- Alcohol, sedative-hypnotic, or poly-substance withdrawal
- Concurrent illness or injury
- Patients taking or withdrawing from prescribed or iatrogenic opioids

Patient with non-prescription opioid use presents to ED with opioid withdrawal (Note 1) or desires sobriety or is post-naloxone resuscitation.
(See page 8 for Shared Understanding)

Provider assessment:
- **When and what did you last use?**
- **Have you ever previously withdrawn? What was your experience?**
- **Have you ever taken buprenorphine/naloxone before? Are you interested in buprenorphine/naloxone therapy?**
- Physical exam as indicated (Note 2). Note weight (see exclusions)
- Lab/testing as indicated (Note 3)

COWS = 0 (p.7)

Patient last used opioid ≤ 48 h?

No

Patient wants buprenorphine/naloxone and it is indicated? (page 5)

No
- Social Work Mental Health Crisis Assessment
- Naloxone Rx
- Discharge from ED

Yes

Buprenorphine 8 mg/naloxone 2 mg (Note 7)
- If patient feels worse, consider precipitated withdrawal (page 4)
- Repeat PRN buprenorphine 8 mg/naloxone 2 mg q1h for any withdrawal symptoms up to 24 mg total dose
- Remain ED 2 hours after last buprenorphine/naloxone dose
- Evaluate for discharge (p. 6)

Yes

At risk for withdrawal?
- Hx of withdrawal
- Long-acting opioid w/in last 72 hrs (e.g. methadone)
- No hx of withdrawal but using opioids >3 days/week ≥ 1 month

No

Yes

Admit to Hospitalist

COWS 1-7 (p.7)
Some symptoms, beginning of withdrawal

- Use Symptomatic Management (p.3)
- Admit to Hospitalist
- Recheck COWS (p.7) Q4h for first 24h

COWS ≥ 8 (p.7)
Mild to Severe withdrawal

Patient wants buprenorphine/naloxone (note 4) **and it's indicated?** (page 5)

No

Use Symptomatic Management Pathway (p.3) and admit to Hospitalist

Yes

Buprenorphine 8 mg/naloxone 2 mg (Note 7)
Reassess after 30 mins
How is the patient feeling?
(May utilize COWS score to differentiate between same/better/worse if unclear (p.7))

Worse:
Concern for precipitated withdrawal. Remain in ED and use Precipitated Withdrawal Pathway (page 4)

Same:
Give additional buprenorphine 8 mg/naloxone 2 mg (Note 7). Admit to Hospitalist

Better:
Admit to Hospitalist

Disclaimer: This guideline is designed for general use with most patients; each clinician should use their own independent judgment to meet the needs of each individual patient. This guideline is not a substitute for professional medical advice, diagnosis or treatment.

INPATIENT GUIDELINE

Opioid Withdrawal
Age ≥ 12 yrs

Children's MINNESOTA

Aim: Provide patients in opioid withdrawal evidence-based care in a safe environment without discrimination or bias.

Has the patient received buprenorphine/naloxone in the ED?

No

- Use Symptomatic Management (p.3)
- Check COWS Q4h while awake until COWS ≥ 8 or 48 hrs since last use (p.7)

COWS ≥ 8 (p.7) or 48 hrs since last use and **Buprenorphine/naloxone indicated and desired?** (p.5)

No

Use Symptomatic Management Pathway (p.3) until withdrawal resolved or manageable at home.
Evaluate for discharge (p.6)

Yes

Buprenorphine 8 mg/naloxone 2 mg (Note 7)
Reassess 30 mins after.
(May utilize COWS score to differentiate between same/better/worse if unclear (p.7))
How is the patient feeling?

Worse:
Concern for precipitated withdrawal.
Use Precipitated withdrawal (p.4)

Same or Better

Yes

- Give PRN buprenorphine 4 mg/naloxone 1 mg q1h (Note 7) for any withdrawal symptoms (Note 1) up to 24 mg of buprenorphine in 24 hrs.
- Provider will prescribe the sum buprenorphine/naloxone dose (in preceding 24 hrs) as the daily dose for next day with additional PRN buprenorphine 4 mg/naloxone 1 mg q1h for any withdrawal symptoms, including subjective patient report
- Evaluate for discharge (p.6)

Care Considerations:

- This is not a behavioral health/mental health admission unless concurrent concerns identified (no suicide precautions or other behavioral risk precautions initiated unless specific risk identified).
- Security SOP for searches. Drug paraphernalia will be confiscated by security.
- Hospital visitor policy applies, no additional restrictions.
- Start pulse oximetry monitoring as tolerated (Note 5).
- Once buprenorphine/naloxone has been given, COWS scoring is only done as needed to clarify withdrawal status.
- No special precautions needed regarding IV access, which is rarely indicated. IV access should be removed when no longer clinically indicated.
- Social Work Mental Health Crisis Assessment

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ED/INPATIENT GUIDELINE

Opioid Withdrawal: Symptomatic Management
Age ≥ 12 yrs

Children's MINNESOTA

Aim: Provide patients in opioid withdrawal evidence-based care in a safe environment without discrimination or bias.

If patient does NOT want buprenorphine/naloxone therapy, treat based on symptoms. Medications may also be used as adjuncts for those also on buprenorphine/naloxone. Proceed to next tier medication if symptoms persist. All medication dosing based on adult sized patients (>50 kg)

Nausea, vomiting:
- Ondansetron 4-8 mg IV or PO q6-8h prn (Note 6)

Diarrhea:
- Loperamide 4 mg PO x 1 followed by 2 mg PO q6h prn (Note 6)

Abdominal cramping:
- Dicyclomine 20 mg PO q6h prn

Insomnia
- Hydroxyzine 25-50 mg PO q6h prn + melatonin 5-10 mg PO qhs prn (Note 5)
- Trazodone 50-100 mg PO qhs prn (Note 5)

Itching, anxiety, dysphoria, lacrimation, rhinorrhea
- Hydroxyzine 25-50 mg Q6h prn (Note 5)
- Diphenhydramine 25-50 mg PO, IM, or slow push IV q6h prn (Note 5)

Pain, myalgias, arthralgias:
- Acetaminophen PO or IV, then ibuprofen PO or ketorolac IV prn
- Gabapentin 100-300 mg PO TID until symptoms improving (Note 5) (do not prescribe for outpatient use)

Restlessness, anxiety, HTN, tachycardia:
- Clonidine (immediate release) 0.1-0.2 mg q 1-6 hours prn (max 0.8 mg daily) (Note 5). Scheduled TID may help if persistent symptoms. Monitor BP.
- Gabapentin 300 mg TID (Note 5) (do not prescribe for outpatient use)

Severe, refractory anxiety, agitation, discomfort:
- Olanzapine 5-10 mg PO (ODT) or IM (may repeat 2 hours later if needed)
- Diazepam 5 mg PO (may repeat q4h prn up to 20 mg/day; monitor for respiratory compromise). May use IV second line
- Place PIV and give Ketamine 0.1 mg/kg IV (Note 5), may repeat within 5 minutes until effective or a max of 0.6 mg/kg in one hour. Admit to PICU

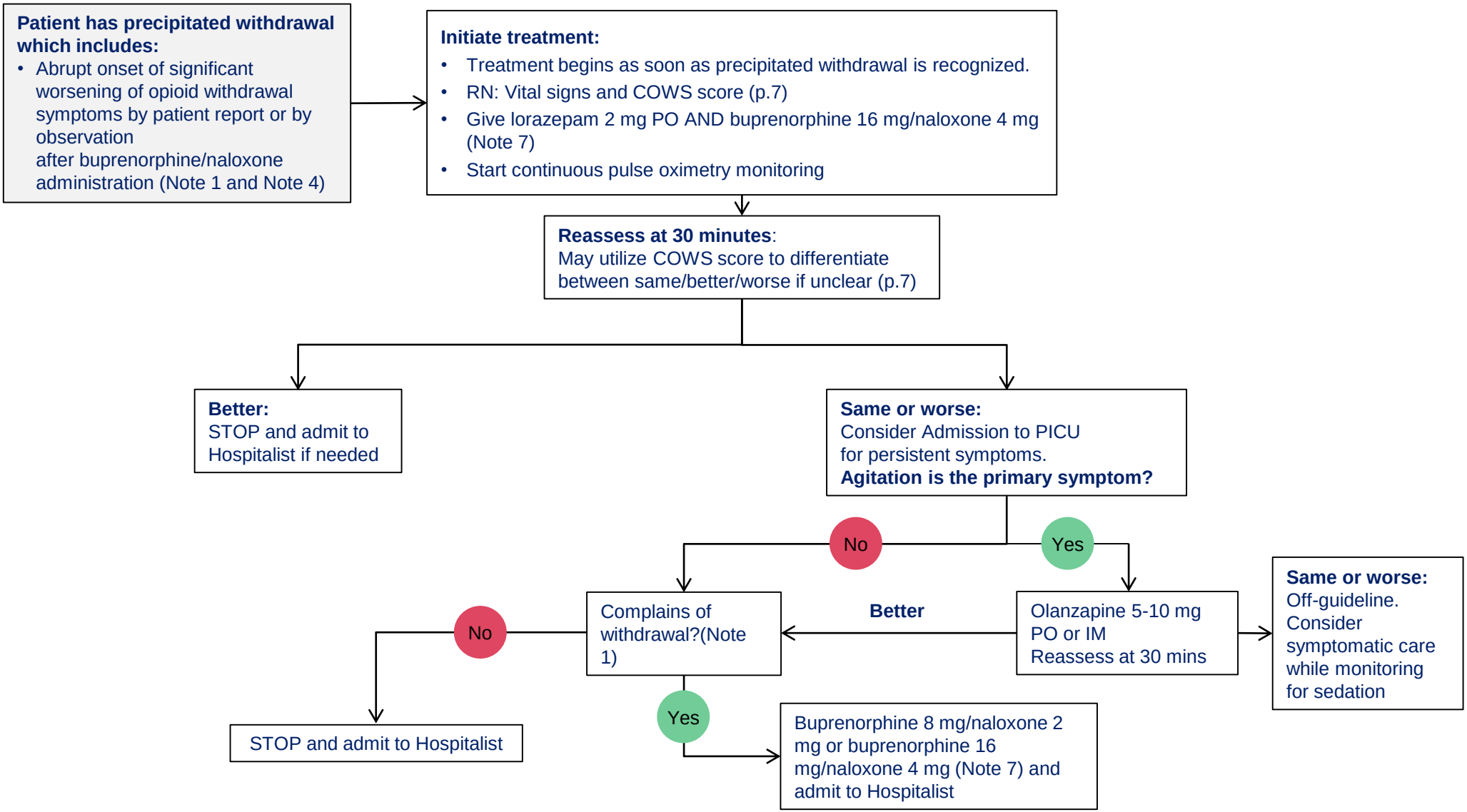
Disclaimer: This guideline is designed for general use with most patients; each clinician should use their own independent judgment to meet the needs of each individual patient. This guideline is not a substitute for professional medical advice, diagnosis or treatment.

ED/INPATIENT GUIDELINE

Opioid Withdrawal: Buprenorphine/Naloxone Associated Precipitated Withdrawal Age ≥ 12 yrs

Children's MINNESOTA

Aim: Provide patients in opioid withdrawal evidence-based care in a safe environment without discrimination or bias.



Disclaimer: This guideline is designed for general use with most patients; each clinician should use their own independent judgment to meet the needs of each individual patient. This guideline is not a substitute for professional medical advice, diagnosis or treatment.

ED/INPATIENT GUIDELINE

Opioid Use Disorder Criteria & Indications for Buprenorphine/Naloxone
Age ≥ 12 yrs

Children's MINNESOTA

Aim: Provide patients in opioid withdrawal evidence-based care in a safe environment without discrimination or bias.

Indications for Buprenorphine/Naloxone (one of the following):

- Patient was previously diagnosed with an opioid use disorder
- Provider diagnoses the patient with an opioid use disorder by using the DSM V criteria for substance use disorders (see below).
- Patient was previously on buprenorphine/naloxone therapy
    - Verify dose via prescription drug monitoring program. Note, dose is based on the buprenorphine component
    - If dose was in increments including decimals instead of round numbers, patient was likely on a product that has different bioavailability such as Bunavail® or Zubsolv®. Consider working with pharmacy to ensure appropriate conversion
        - Bunavail® (buccal film) buprenorphine/naloxone 4.2mg/0.7mg = buprenorphine/naloxone 8mg/2mg sublingual film or tablet.
        - Zubsolv® sublingual tablet buprenorphine/naloxone 5.7mg/1.4mg = buprenorphine/naloxone 8mg/2mg sublingual film or tablet

Diagnostic Criteria for Opioid-Use Disorder:

- Use of opioid in increased amounts for longer than intended
- Persistent wish or unsuccessful effort to cut down or control opioid use
- Great deal of time spent to obtain, use or recover from opioid use
- Strong desire, urge, or craving to use an opioid
- Interference of opioid use with important obligations (like school or work)
- Continued opioid use despite resulting interpersonal problems and/or social problems (e.g. disrupted relationships)
- Elimination or reduction of activities because of opioid use (social, recreational, or occupational)
- Use of an opioid in physically hazardous situations (e.g. while driving)
- Continued opioid use despite knowing it may cause or worsen problems (physical, psychological, or both)
- Need for increased doses of an opioid for effects, diminished effect per dose, or both[1]
- Withdrawal when dose of an opioid is decreased, use of drug to relieve withdrawal, or both[1]

*If two or three items cluster together in the same 12 months, the disorder is mild; if four or five items cluster, the disorder is moderate; and if six or more items cluster, the disorder is severe. Criteria are from the *Diagnostic and Statistical Manual of Mental Disorders,* fifth edition.

[1]If the opioid is taken only as prescribed, this item does not count towards a diagnosis of an opioid-use disorder

ED/INPATIENT GUIDELINE

Opioid Withdrawal: Discharge
Age ≥ 12 yrs

Children's MINNESOTA

Aim: Provide patients in opioid withdrawal evidence-based care in a safe environment without discrimination or bias.

OUTPATIENT PRESCRIBERS OF BUPRENORPHINE/NALOXONE FOR PEDS/ADOLSCENTS

Scan QR code for most recent updates to the list of prescribers. Link to pdf.

Walk-In Clinic:

MHealth Fairview Recovery Clinic
M-F walk in clinic. 9-11:30am and 12:30-3pm
2312 South 6th St Suite 105, Minneapolis
Phone: 612-273-5530
Fax 612-273-5513

Non-Walk In Clinics (need appointment):

East Side Clinic
Dr. Kaltenborn, Dr. Leonardsmith, Dr. Presley, Dr. Weinert
895 E 7th St, St. Paul
Phone: 651-602-7500
24 hour care line: 952-883-7449

La Clinica
153 Cesar Chavez St, St. Paul
Phone: 651-602-7500
24 hour care line: 952-883-7449

M Health Fairview Clinic - Eagan
Julie Kovanda, NP
3305 Central Park Village Dr, Eagan
Phone: 651-406-8860

Park Nicollet Minneapolis
Dr. Ting
2001 Blaidsdell Ave S, Minneapolis
Phone: 952-993-2000

Allina Health United Family Physicians Clinic
233 Grand Ave
St. Paul, MN 55102
Phone: 651-241-5200

NorthPoint Health & Wellness
Dr. Helen Thomas
2220 Plymouth Ave N
Minneapolis, MN 55411
Phone: 612-543-2500
Human Services: 612-767-9500

Hennepin Healthcare Pediatrics Clinic:
Dr. Gerwitz O'Brien, Dr. Patel. Dr. Andersen
715 S 8th Street, Minneapolis
Phone: 612-873-6963

Hennepin Healthcare Addiction Medicine
Brooklyn Park & Whittier Minneapolis
Phone: 612-873-5500

Community-University Health Care Center (CUHCC)
2001 Bloomington Avenue S.
Minneapolis, MN 55404
Phone: 612-301-3433
Fax: 612-426-4710
Night and Weekend Nurse Line:
866-492-7055

ADMISSION CRITERIA:

- Patient in active opioid withdrawal or require buprenorphine/naloxone induction with barriers to outpatient care such as psychosocial or education needs.

DISCHARGE REQUIREMENTS:

- Begin preparing the below discharge requirements at the time of admission, especially prescribing buprenorphine/naloxone to allow time to complete PA process if needed
- Review Social Work psycho-social assessment and include referrals/recommendations in patient's discharge instructions.
- All patients (and/or their family) should be prescribed naloxone 4 mg nasal spray
    - Education on use required prior to discharge
    - Whenever possible, dispensed by Children's Minnesota pharmacy prior to patient leaving
- All patients should have an appointment scheduled with an outpatient prescriber.
- Prescribe the sum buprenorphine/naloxone dose (in preceding 24 hrs) as the daily dose for next day with additional buprenorphine 8 mg/naloxone 2 mg dose prn
    - Do not count doses that caused or treated precipitated withdrawal
    - If patient experiences sedation, decrease the discharge dose by 2-4 mg.
    - Fill supply to cover until first appointment or max of 14 days.
    - Return to ED or clinic for dose adjustment if requiring prn or symptoms not controlled.

DISCHARGE CRITERIA:

Patient may be considered for discharge when:

- Outpatient barriers to care have been addressed, if applicable
- Does not have symptoms of withdrawal at least 2 hours after buprenorphine/naloxone dosing
- Cravings resolved/minimal (per patient preference)
- No need for PRNs after morning daily dose

Clinical Opioid Withdrawal Scale (COWS)
Age ≥ 12 yrs

Aim: Provide patients in opioid withdrawal evidence-based care in a safe environment without discrimination or bias.

COWS SCORING

The Clinical Opiate Withdrawal Scale (COWS) is an 11-item scale to rate common signs and symptoms of opiate withdrawal and monitor these symptoms over time. The summed score for the complete scale can help determine the stage or severity of opiate withdrawal and assess the level of physical dependence on opioids.

- ***Pulse*** (after sitting for 1 min): 0 ≤ 80 bpm, 1= 81-100 bpm, 2= 101-120 bpm, 4 >120 bpm
- ***Sweating*** (Not accounted for by room temp or patient activity in last 30 mins): 0-none/no chills or flushing, 1-subjective report of chills or flushing, 2-flushed/observable moistness on face, 3-sweat beads on brow or face, 4-sweat streaming off face
- ***Restlessness***: 0-still, 1-reports difficulty sitting still, but able to do so, 3-frequent shifting or extraneous movements of legs/arms, 5-unable to be still for more than a few seconds
- ***Pupils size*****:** 0-pinned or normal for room light, 1- maybe larger than normal for room light, 2-moderately dilated, 5-dilated so only rim of the iris is visible
- ***Bone/joint aches*** (not attributable to previous pain): 0-none, 1-subjective mild diffuse discomfort, 2-subjective severe aching of joints/muscles, 4-rubbing joints/muscles and unable to sit because of discomfort
- ***Rhinorrhea, tearing*** (Not attributable to cold symptoms, allergies, or crying): 0-none, 1-congestion/unusually moist eyes, 2-running nose or eyes tearing, 4-nose constantly running or tears streaming down cheeks
- ***GI upset*** (last 30 minutes): 0- none, 1- stomach cramps, 2-nausea or loose stool, 3-vomiting/diarrhea, 5-multiple episode vomiting or diarrhea
- ***Tremor in outstretched hands***: 0-none, 1-tremor can be felt but not observed, 2-slight tremor observable, 4-gross tremor or muscle twitching
- ***Yawning observation***: 0-none, 1=1-2x during assessment, 2=3+ times during assessment, 4=several yawns/minute during assessment
- ***Anxiety/Irritability***: 0-none, 1-reports increasing irritability/anxiousness, 2-obviously irritable/anxious, 4-so irritable/anxious that participation in assessment is difficult
- ***Goosebumps****:* 0-smooth, 3- piloerection felt or hair standing up on arms, 5- prominent piloerection

Total: 5-12 mild withdrawal, 13-24 moderate, 25-36 moderately severe, >36 severe

ED/INPATIENT GUIDELINE

Opioid Withdrawal: Shared Understanding & Notes
Age ≥ 12 yrs

Children's MINNESOTA

Aim: Provide patients in opioid withdrawal evidence-based care in a safe environment without discrimination or bias.

SHARED UNDERSTANDING

- Substance use is a pediatric problem.
- Substance use is a medical condition, not a character flaw or lack of willpower.
- Our goal is harm reduction and to remain a resource in the patient's continuum of care.
- Patients who use substances are stigmatized and experience discrimination in healthcare. We aim to provide non-judgmental care.

Note 1. Signs/Symptoms of opioid withdrawal: influenza-like symptoms with joint aches, nausea, vomiting, diarrhea, abdominal cramping, sweating/chills, eyes tearing, congestion/runny nose, goosebumps, yawning, general malaise, restlessness/agitation, dilated pupils, tachycardia.
Differential diagnosis: influenza, RSV or other viral illness, DKA, thyrotoxicosis, alcohol withdrawal, sepsis. Cough/trouble breathing does not usually occur.
Note 2. What to look for in a physical exam: frequency of yawning, congestion, watery eyes, pupil size, degree of piloerection, signs of dehydration, respiratory assessment (for alternative diagnosis), track marks, signs of skin infection, mental status, tremor.
Note 3. No urine toxicology testing needed if patient indicates they use opioids. Diagnostic studies (labs, EKG) only as clinically indicated for other reasons such as concerns for dehydration due to vomiting, etc.
Note 4: Counseling script: Buprenorphine/naloxone = Suboxone™ is one of the most effective treatments for opioid use disorder. Young people may have some concerns or misconceptions about its use. Here are some example questions/answers.

1) Am I just trading one addiction for another? No. buprenorphine/naloxone does not produce the same "high" as other opioids. It helps relieve cravings for opioids.
2) Won't I just overdose on this? No. buprenorphine/naloxone does not cause the same level of respiratory depression that other opioids cause. Overdose on buprenorphine/naloxone is vanishingly rare.
3) Will I have to be on this for the rest of my life? Maybe. Some people are. What I recommend is that you consider starting it now and we keep you comfortable as you withdraw from [what you were using]. Then we can set you up with a clinic doctor and talk more about long term use.

Some people experience worsening withdrawal after starting buprenorphine/naloxone. This is rare and the treatment is to give more buprenorphine/naloxone to overcome it.
Note 5. Pulse oximetry strongly recommended, as long as tolerated by patient. Start pulse oximetry monitoring if giving > 1 sedating medication (includes medications such as clonidine, hydroxyzine, diphenhydramine, trazodone, olanzapine, gabapentin, buprenorphine, or any benzodiazepine).
Note 6. EKG if ordering > 1 QT prolonging medication (includes medications such as ondansetron, loperamide, olanzapine, and methadone).
Note 7. Ensure buprenorphine/naloxone is dissolved sublingual and NOT swallowed. Swallowing affects efficacy and may cause nausea. If swallowed, re-dose sublingual. If more than one film is needed, the additional film should be placed under the tongue on the opposite side of the tongue from the first film. Minimize overlapping films as much as possible and do not move film after placement. If a third film is necessary to achieve the prescribed dose, place the third film under the tongue on either side after the first 2 films have dissolved.

Opioid Withdrawal: Other Resources & References
Age ≥ 12 yrs

Children's MINNESOTA

Aim: Provide patients in opioid withdrawal evidence-based care in a safe environment without discrimination or bias.

OTHER RESOURCES:

1. National Clinician Consultation Center Substance Use Warmline. M-F 6am-5pm PT. Voicemail 24 hours a day, 7 days a week. Specialty addiction medicine consultation (855) 300-3595

2. https://bridgetotreatment.org/tools/resources/ Bridge is a national program expanded from one developed by the Public Health Institute in Oakland, California. They provide evidenced-based treatment tools to equip providers, EDs and hospital, with the goal of every patient in every community having 24/7 access to medications for addiction treatment.

3. https://pcssnow.org Providers Clinical Support System: a program funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) created in response to the opioid overdose epidemic to train primary care providers in the evidence-based prevention and treatment of opioid use disorders (OUD) and treatment of chronic pain.

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