Maine Substance Use Disorders Learning Community

Together increasing access to OUD/SUD Care

General Educational Guidelines from the Maine Substance Use Disorder Learning Community Faculty

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These are general educational guidelines only and should not replace the clinical judgment of the treating provider. These are not medical guidance and advice. The provider retains sole responsibility for selecting and implementing the care for their patients. These guidelines were developed quickly as educational guidance in response to a requested need in Maine. 11/8/2022 v1.4. T

Methadone for chronic pain

Methadone dose triage

1. Screen for opioid use disorder. Patients on methadone who have or have had OUD should be transferred to an OTP (Opioid Treatment Program-methadone clinic). Patients desiring to switch to buprenorphine should be managed by the OTP.
2. For patients on 40mg a day or less:
    a. Enroll in pain management program (typically doses are split TID)
3. For patients on 41-60mg a day:
    a. Offer rapid taper (down to 40 within 2 weeks)
    b. Enroll in pain management program (typically doses are split TID)
    c. If unable to taper to 40, recommend OTP
4. For patients on > 60mg a day, recommend OTP as risk of these doses requires mitigation options only available at OTPs.
5. Perform EKG for all patients on methadone at initial visit. For elevated QTc (above 500), immediately reduce methadone dose by 20 mg, check electrolytes and replete potassium to ≥ 4 mEq/L and magnesium to ≥ 2 mEq/L, recheck EKG, and consult cardiology and an addiction or pain specialist.

Missed doses

1. If it has been more than 3 days since last methadone dose, reduce dose by 50%.

2. If it has been 4 days, reduce dose by 75%.
3. If it has been 5 or more days, only give 30 mg.
4. Observe for 2 hours typically if dosing has been interrupted.
5. Consider maximum of one week prescription.
6. Discuss with local OTPs about emergency admissions for dosing.

Tapering guidelines

1. Be aware, there is an "optimal care" approach, and then there is a “putting out fires” approach. For all approaches, expect anxiety, insomnia, and resistance. Typically, withdrawal symptoms after a dose reduction are not felt until 3-14 days later, and it may take as long as a month for the patient to adjust to the lower dose. Consequently, rapid tapers can result in severe withdrawal symptoms developing long after you see the patient.
2. Screen patient for opioid use disorder throughout the tapering process. If screens positive at any time, refer for methadone treatment through OTP.
3. Be sure that every patient who is on opioid medication is provided take home intranasal naloxone in the event of adverse medication events.
4. Typically, a 10% reduction in any opioid is well tolerated. For patients on high methadone doses in whom significant side effects are noted (i.e., prolonged QTc), consider dose reduction by as much as 20 mg at once for the initial decrease.
5. See patients weekly and perform all usual “universal precautions” for controlled substance prescribing.
6. Methadone is a potent opioid with a large distribution volume and a long half-life. The metabolism is variable based on the chronicity of dosing, and it is susceptible to drug interactions with enzyme inhibitors and inducers, which can increase or decrease the concentrations, respectively.
7. The Bamboo/Appriss PMP MME calculator does not always accurately reflect the MME strength of the total methadone dose. Unlike other opioids, methadone conversions are not linear as it has nonlinear pharmacokinetics, and thus, the conversion factor depends on the methadone starting dose. Here is a “snip” of the CDC guide for MME calculations for methadone.

Methadone	
1-20 mg/day	4
21-40 mg/day	8
41-60 mg/day	10
≥ 61-80 mg/day	12

1. Examples:
    a. For a patient on 70mg of methadone per day, you use a conversion factor of 12, so the MME = 70 * 12 = 840 MME.
    b. For a patient on 30mg of methadone per day, you use a conversion factor of 8, so the MME = 30 * 8 = 240 MME.
    c. Note, due to the non-linear conversion, if the 30mg methadone dose is doubled to 60mg, the MME is 600, rather than doubling the 30mg MME which would be 480 MME. Therefore, doubling the dose from 30mg to 60mg increases MME by 2.5 instead of 2.
2. When tapering methadone, the unusual metabolism creates several "cliffs" where a small reduction in methadone milligrams will result in a large reduction in MME. This happens between 20 and 21 mg, 40 and 41 mg, and again at 60-61 mg. (Example: 20 mg methadone = 80 MME, but 21 mg methadone = 168 MME).
3. It can take 2 months for methadone to fully clear out of a person's body and longer if CYP450 3A4 enzyme inhibiting medications are present, including some protease inhibitors, azole antifungals, cimetidine, cyclosporine, clarithromycin, erythromycin, amiodarone, verapamil, diltiazem, dexamethasone, and many more. CYP450 enzyme inducers include rifampin, phenytoin, and phenobarbital (and others).
4. When tapering, be aware of insurance quantity limits as well as the number and frequency of co-pays for the patient.

Additional pain management reference from the VA:

Tapering example 1

Starting daily dose	60 mg (600 MME)
First change	55 mg (550 MME)
Second change	50 mg (500 MME)
Third change	45 mg (450 MME)
Fourth change	45 mg alternating every other day with 40 mg (385 MME)
Fifth change	40 mg (320 MME)
Sixth change	35 mg (280 MME)
Seventh change	30 mg (240 MME)
Eighth change	25 mg (200 MME)
Ninth change	25 mg alternating every other day with 20 mg (140 MME)
Tenth change	25 mg alternating every 3rd day with 20 mg (120 MME)
Eleventh change	22.5 mg daily (90 MME)
Twelfth change	20 mg daily (80 MME)
Thirteenth change	17.5 mg daily (70 MME)
Fourteenth change	15 mg daily (60 MME)
Fifteenth change	12.5 mg daily (50 MME)
Sixteenth change	10 mg daily (40 MME)
Seventeenth change	7.5 mg daily (30 MME)
Eighteenth change	5 mg daily (20 MME)
Nineteenth change	2.5 mg daily (10 MME)

It is reasonable to make dosing changes between every 1-4 weeks. More rapid tapers may be more difficult for patients to tolerate.

Tapering example 2

If desired, a methadone taper can be completed switching to morphine later in the taper. I will start with the above example.

Starting daily dose	60 mg (600 MME)
First change	55 mg (550 MME)
Second change	50 mg (500 MME)
Third change	45 mg (450 MME)
Fourth change	45 mg alternating every other day with 40 mg (385 MME)
Fifth change	40 mg (320 MME)
Sixth change	35 mg (280 MME)
Seventh change	30 mg (240 MME)
Eighth change	25 mg (200 MME)
Ninth change	100 mg long-acting or short-acting morphine (100 MME)

Convert to morphine, decrease the dose by 50% to account for cross tolerance

Tenth change	90 mg morphine (90 MME)

The remainder of the decreases should be by 10 mg if at all possible. Please take note that often insurance requires a prior authorization for long-acting morphine, and pharmacies do not always stock a large supply of morphine products.