

Centers for Disease Control and Prevention (CDC) Guidelines: Prescribing Opioids for Chronic Pain (2016)^{1,2}

1. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy
2. Both treating practitioner and patient should establish treatment goals with all patients. It should be known the discussion of benefits vs risks will be brought up at each appointment with the patient.
3. When starting with an opioid-naïve patient, recommended to use immediate-release opioids instead of extended-release/long-acting opioids
4. Start with the lowest effective dose. Must reassess evidence of benefit vs risk often. Very important to watch when dosages reach 50 MME or more per day. **CDC recommends avoiding doses greater than 90 MME per day.** If a patient “requires” this, there must be documentation of justification of usage and consider referring the patient to a pain specialist.
5. When prescribing for acute pain: < 3 days rule (more than 7 days will rarely be needed for acute pain treatment)
6. Patient assessment: evaluate benefit vs risk within 1 to 4 weeks of starting opioid for chronic pain. Continued **evaluation should occur at least every 3 months**, if not more frequently
7. Incorporate education into the management plan strategies to mitigate risk of overdose/ harm. Recommended **patients receiving > 50 MME per day of opioids should be prescribed naloxone** and have it available to them (purchased and have at home).
8. Should review the prescription drug monitoring program (PDMP) prior to dispensing opioids (INSPECT account)
9. Should use urine drug testing before starting therapy and performed at least annually
10. Should avoid opioid prescribing and benzodiazepines together

Documentation of Prudent Prescribing of Opioids ²

It is important to understand and convey to the patient **opioid use for chronic pain is only validated in instances of active cancer treatment, palliative care, and end-of-life care**. Because of this practitioners who prescribe opioids must be vigilant in documenting uses of opioids in patients who do not fit this population, whether that is for his/her own legal protection or having evidentiary support of the efficacy of this therapy option.

Although the CDC pain guidelines are not legal requirements for prescribing opioids, they provide recommendations for safer practice, and **due to the uniqueness of the guidelines, they may be utilized in court as support for better practice guidelines for prescribing opioids**. The following are mentioned as best practice for documenting rationale behind prescribing opioids for patients (especially those receiving >90 MME per day).

- Justification for what is being prescribed should include:
 - Diagnosis
 - Ensure utilization of validated pain assessment tools to accurately document pain
 - Trials and results of other treatment options utilized
 - Reason why other treatment options may not be best for an individual patient
 - Efficacy documentation over the course of increasing the MME per day
 - Functionality may qualify as documentation of efficacy of therapy. For example, ability to walk to the mailbox before and after initiation of therapy
- Prescribe naloxone
- Justify co-use of benzodiazepine (if applicable)
- Urine drug testing
- Use of PDMP (INSPECT)
- Patient education of risks of opioid use
 - Tolerance, addiction, misuse, side effects, overdose, etc.
 - Overdose risk doubles when MME is >20

As mentioned above, when assessing degree of chronic pain, it is important to use validated pain scales for accurate documentation as well as follow-up assessments for consistency. Below are pain assessment tools which may be utilized:

- | | |
|--|---|
| -Numeric Pain Rating Scale (NPRS) | -Wong-Baker (FACES) Scale |
| -Pain, Enjoyment of Life, General Activity (PEG) | -Two-Item Chronic Pain Scale |
| -Oswestry Low Back Pain Questionnaire | -STarT Back |
| -Indiana Polyclinic Combined Pain Scale | -Indiana Polyclinic Combined Function Scale |

What is MME and how can I use it in practice?

Morphine milligram equivalents (MME) is the current method utilized to standardize and have an understanding of equivalencies among opioids and their dosing. Because opioid potencies vary from drug to drug and across drug classes, it is difficult to create a standardized tool for the purposes of switching from one drug to another or comparing treatments. That being said there is no standard MME conversion chart. Below are examples of MME conversion charts:

Conversion chart utilized by Centers for Medicare & Medicaid Services (CMS)

<u>Type of Opioid (strength units)</u>	<u>MME Conversion Factor</u>
Buprenorphine film/tablet ³ (mg)	30
Buprenorphine patch ⁴ (mcg/hr)	12.6
Buprenorphine film (mcg)	0.03
Butorphanol (mg)	7
Codeine (mg)	0.15
Dihydrocodeine (mg)	0.25
Fentanyl buccal or SL tablets, or lozenge/troche ⁵ (mcg)	0.13
Fentanyl film or oral spray ⁶ (mcg)	0.18
Fentanyl nasal spray ⁷ (mcg)	0.16
Fentanyl patch ⁸ (mcg)	7.2
Hydrocodone (mg)	1
Hydromorphone (mg)	4
Levorphanol tartrate (mg)	11
Meperidine hydrochloride (mg)	0.1
Methadone ⁹ (mg)	3
>0, <= 20	4
>20, <=40	8
>40, <=60	10
>60	12
Morphine (mg)	1
Opium (mg)	1
Oxycodone (mg)	1.5
Oxymorphone (mg)	3
Pentazocine (mg)	0.37
Tapentadol ¹⁰ (mg)	0.4
Tramadol (mg)	0.1

Source:

<https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/Opioid-Morphine-EQ-Conversion-Factors-Aug-2017.pdf>

The MME conversion factor is intended only for analytic purposes where prescription data is used to calculate daily MME. **It is to be used in the formula: Strength per Unit X (Number of Units/ Days Supply) X MME conversion factor = MME/Day.** This value does not constitute clinical guidance or recommendations for converting patients from one form of opioid analgesic to another.

Opioid Calculator: Conversion Data and Methods of Practical Pain Management

Opioid Conversion Table¹

Opioid	Equianalgesic Doses: Parenteral (IV, IM, SQ ² , TD)	Equianalgesic Doses: Oral
Agonists		
Morphine	10 mg	30 mg
Codeine	100 mg	165 mg
Fentanyl ²	0.1 mg ³	Not available
APAP/Hydrocodone	Not available	30 mg
Hydrocodone ER	Not available	30 mg
Hydromorphone	1.5 mg	7.5 mg
Levorphanol	Not available	4 mg
Meperidine	100 mg	300 mg
Methadone	Not available	Use formulae listed in footnotes ⁴
Oxycodone	Not determined	20 mg
Oxymorphone	1 mg	10 mg
Tapentadol	Not available	100 mg
Tramadol	Not available ⁵	Not available ⁵
Partial Agonists		
Buprenorphine (IV, IM) ²	0.4 mg	Not determined
Buprenorphine (TD) ⁶	Not determined	See footnote 6 for conversion
Butorphanol	2 mg	Not available
Nalbuphine	10 mg	Not available
Pentazocine	60 mg	150 mg

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Rev: 014/2012

Source:

<https://opioidcalculator.practicalpainmanagement.com/methods.php>

Example of determining MME:
Rx: Percocet 5/325
Take 1 to 2 tab by mouth every 6 hours

If patient took maximum dosage:
8 tabs in one day-
40 mg of oxycodone:
(MME/40)=(30/20):
60 MME

Half maximum:
4 tabs in one day-
20 mg of oxycodone:
(MME/20)=(30/20):
30 MME

Another popular conversion chart utilized: Utilized at 2018 Pain Institute Seminar at APhA Annual 2018: McPherson ML. Demystifying Opioid Conversion Calculations.

Equianalgesic Opioid Dosing		
Drug	Parenteral (mg)	Oral (mg)
Morphine	10	30
Buprenorphine	0.3	0.4 (SL)
Codeine	100	200
Fentanyl	0.1	**See package insert for desired transmucosal agent
Hydrocodone	NA	30
Hydromorphone	1.5	7.5
Meperidine	100	300
Oxycodone	NA	20
Oxymorphone	1	10
Tramadol	NA	120

McPherson, Mary Lynn. Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing. American Society of Health System Pharmacists. 2009
Portenoy et al. Cancer Management with opioids: Optimizing analgesia. UpToDate. 2010
2011 ASHP Foundation Pain Management and Palliative Care Traineeship - Level 1-2
<http://www.ashpfoundation.org/MainMenu/Categories/Education/Traineeships/PainMgmtTraineeship/Level-One.aspx>

Example of determining MME:

Rx: Norco 5/325
Take 1 to 2 tab by mouth every 4-6 hours

If patient took maximum dosage:
12 tabs in one day-
60 mg of hydrocodone:
60 MME

Half maximum:
6 tabs in one day-
30 mg of hydrocodone:
30 MME

Recommended Resources for Prescribing Opioids for Chronic Pain

1. *CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016*. Centers for Disease Control and Prevention: Morbidity and Mortality Weekly Report (MMWR) Recommendations and Reports: 65 (1). Published March 2016.
2. Christo P, Fudin J, Gudin J, et al. *Opioid Prescribing and Monitoring: Primary Care Models for Pain Management: Second Edition*. Vertical Health, LLC. Montclair, NJ: 2017.

The above book is a book supplement to *Practical Pain Management*.

3. Nonopioid Pain Medications: Dosage, Adverse Effects, and More. American Pharmacists Association: APhA Pain Institute. APhA Annual Meeting. Nashville, TN. 2017.
4. DEA's 2006 Policy Statement on Dispensing Controlled Substances for the Treatment of Pain
5. Information for Providers. *Opioid Overdose*. Centers for Disease Control and Prevention. <https://www.cdc.gov/drugoverdose/providers/index.html>.

The above resource has patient friendly information as well as provider information I find very useful.

6. I recommend downloading the "CDC Opioid Guideline" Mobile App.