

Mountain-Pacific Quality Health

PROGRAM NEWS

SUMMER 2018

Montana Medicaid Announces Dosage Restrictions for All Opioids Based on Maximum Morphine Milligram Equivalents

EFFECTIVE 8/27/2018

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The Drug Utilization Review
(DUR) Program, administered by
Mountain-Pacific
through a contract with the
Allied Health Services Bureau
of the Montana
Department of Public Health
and Human Services, is
the quality assurance body
seeking to assure the quality
of pharmaceutical care
and to help provide
rational, cost-effective
medication therapy for
Montana's Medicaid recipients.

Montana Medicaid Drug Prior Authorization Unit 1-800-395-7961

Morphine Milligram Equivalents (MME)

- Also described as MEDD (Morphine Equivalent Daily Dose) or MED (Morphine Equivalent Dose).
- MME are used to assess <u>comparative</u> potency to morphine, but not to convert from a particular opioid dosage to another.
- The calculation to determine morphine equivalent daily dosing includes drug strength, quantity, day's supply and a defined conversion factor unique to each drug. Dose conversions to MME are estimated and do not account for incomplete cross-tolerance or individual differences in pharmacokinetics; therefore it should not be used to convert from one opioid to another.
- By converting the dose of an opioid to a morphine equivalent dose, a clinician
 can determine whether a cumulative daily dose of opioids approaches an amount
 associated with an increased risk.

Rationale for Requiring Prior Authorization

- The benefits of high-dose opioids for chronic pain have not been established.
- The U.S. Centers for Disease Control and Prevention (CDC) "Guideline for Prescribing Opioids for Chronic Pain" recommends close follow up for patients receiving >50 morphine milligram equivalents (MME) per day and avoiding >90 MME per day unless cautiously justified.
- Recent clinical studies demonstrate that a
 patient's cumulative daily MME can be
 utilized as an indicator of potential doserelated risk for serious harms, such as
 motor vehicle injury, opioid use disorder
 and overdose.



• The clinical evidence suggests that a patient receiving >100 mg MME daily

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Montana Medicaid Announces Dosage Restrictions for All Opioids Based on Maximum Morphine Milligram Equivalents, Continued

is up to nine times more likely to overdose than a patient on a lower dose.

Effective 8/27/2018, the initial implementation phase will allow a limit of 180 MME per day for non-malignant pain for currently established patients. Individual claims or multiple claims exceeding this average daily limit will be rejected at the pharmacy. New starts will be limited to a maximum of 90 MME.

With advance provider notice, Montana Medicaid will be lowering the maximum limit over time.

This information was provided in advance of the limit implementation to allow prescribers to collaborate with existing patients on an individualized tapering plan to reduce to the current allowed maximum dose of \leq 180 MME per day. It may be appropriate to taper a patient's dose over a period of time. For example, the CDC Guideline for Prescribing Opioids for Chronic Pain recommends that the dose of an opioid should be tapered by 10% weekly to 10% monthly (see Section 7 in the guideline for further information).

For reference:

180 MME/day = **180** mg hydrocodone = **120** mg oxycodone = **60** mg oxymorphone = **45** mg hydromorphone

Online MME calculators available at:

CDC Opioid Guideline App with MME calculator: https://www.cdc.gov/drugoverdose/prescribing/app.html
Washington Agency Medical Director's Group: http://www.agencymeddirectors.wa.gov/opioiddosing.asp

Reference: Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. DOI: http://dx.doi.org/10.15585/mmwr.rr6501e1.

The Montana Medicaid provider notice for the MME clinical edit was published 7/05/2018 and can be accessed at: https://medicaidprovider.mt.gov/Portals/68/docs/providernotices/2018/provnotice192744dosagemorphine07032018.pdf

Evidence-Based Prescribing: Medications to Avoid in Children

CODEINE, HYDROCODONE AND TRAMADOL

Codeine and hydrocodone-containing cough and cold products—are no longer indicated to treat cough in children <18 y.o. following an extensive clinical evidence review by the FDA and advisory committee input (FDA - January 2018). (Prescription codeine products are contraindicated <12 for analgesia and The American Academy of Pediatrics warns against its use in children <18 for any reason).

Tramadol is contraindicated to treat pain in children <12 y.o., not recommended in children 12-18 y.o. if obese/obstructive sleep apnea/severe lung disease and contraindicated in children <18 y.o. to treat pain after surgery to remove tonsils and/or adenoids. (FDA - April 2017). (Tramadol is not FDA approved in children, but may have been used off-label as a codeine alternative).

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Evidence-Based Prescribing: Medications to Avoid in Children, Continued

WHY AVOID USE IN CHILDREN ≤18 y.o.? Serious risks outweigh the benefits.

<u>Codeine</u> (3-methylmorphine) is a pro-drug, opioid analgesic with a low affinity for opioid receptors within the central nervous system and has been used extensively as an analgesic and antitussive. Although codeine was historically considered safe with a wide therapeutic index, current understanding of pharmacogenetic variations in metabolism warrant closer scrutiny for its use. Codeine must first be metabolized to its active form, morphine, by the CYP2D6 enzyme within the liver in order to exert its analgesic effect.

- Toxicity and limited efficacy potential: Ultra-rapid metabolizers can produce toxic levels of morphine resulting in respiratory depression, apnea or death after a therapeutic dose. Slow metabolizers may produce low morphine levels and have little or no analgesic effect.
- Codeine was a factor in 64 cases of severe respiratory depression and 24 deaths in children between 1965 and 2015, according to a FDA review of Adverse Event Reporting Sytem data.

<u>Hydrocodone</u> is a full μ -opioid receptor agonist metabolized by CYP2D6 to the active metabolite, hydromorphone, which can accumulate in ultra-rapid metabolizers (up to 8x higher levels) and may provide inadequate analgesia in slow metabolizers.

 $\underline{\text{Tramadol}}$ is a synthetic μ -opioid receptor agonist and weak serotonin/norepinephrine reuptake inhibitor. It is also metabolized by CYP2D6 to an active metabolite, O-desmethyltramadol. Ultra-rapid metabolizers can produce high levels of the active metabolite which can lead to toxicity (identified in one case of an ultra-rapid metabolizer which prompted the FDA to update tramadol labeling). Inadequate analgesia may occur in slow metabolizers.

ALL AGENTS: Addiction potential exists. Alternative agents are available which can reduce unnecessary exposure to opioids in children.

EVIDENCE-BASED ALTERNATIVES:

mild to moderate pain - acetaminophen or ibuprofen.

severe pain - morphine.

cough - vaporizer, humidifier, fluids, honey (if ≥ 1 y.o.), benzonatate (≥ 10 y.o. if rx tx necessary).

SUMMARY

The use of codeine, hydrocodone and tramadol in pediatrics should be avoided due to the potential for limited effectiveness, toxicity and/or future addiction. The use of alternative agents with superior safety and efficacy profiles are strongly recommended in pediatric patients <18 years old.

Sources:

Clinical Resource, Analgesics in Kids: FAQs. Pharmacist's Letter/Prescribers Letter. March 2018.

Benzonatate. Drug Facts and Comparisons. Facts & Comparisons eAnswers. Wolters Kluwer Health, Inc. Riverwoods, IL. Available at: http://online.factsandcomparisons.com Accessed 5/8/2018.

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Montana Medicaid Top Therapeutic Classes YTD 2018



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