Opioid Prescribing Improvement Program: Overview of sentinel measures

The opioid prescribing sentinel measures support the quality improvement arm of the DHS Opioid Prescribing Improvement Program (OPIP). These seven measures assess individual prescribing behavior in the acute pain, post-acute pain and chronic pain phases. The measures were developed by DHS and the Opioid Prescribing Work Group, and are supported by clinical recommendations in the Minnesota Opioid Prescribing Guidelines.

This overview provides key measure definitions and a summary of each measure. The complete measure technical specifications are available on the OPIP web site. Comments and questions may be submitted to dhs.opioid@state.mn.us.

Measure Definitions

- **Index Opioid Prescription**: The first opioid prescription in the measurement period after at least 90 days of opioid naiveté.
- **Opioid Naïve User**: A patient prescribed an opioid medication in the measurement year who does not have an active opioid prescription in the 90 day period prior to the measurement year index prescription.
- **Morphine Milligram Equivalence (MME)**: The equianalgesic of a specific dose and formulation of opioids to parenteral morphine. Standard conversion ratios are used to calculate each opioid’s equianalgesic dose.
- **Days’ Supply**: The total days’ supply is the sum of the days’ supply from all opioid prescriptions prescribed during the measurement period.
  - If multiple prescriptions for different medications or the same medication are dispensed on the same day, the days’ supply is determined by the prescription with the longest days’ supply.
  - If multiple different prescriptions are dispensed on different days but have overlapping days' supply, count each day in the intake period only once.
  - If multiple prescriptions for the same medication have different service dates, but the days' supply overlaps, both days' supply are included in the total.
- **Chronic Opioid Analgesic Therapy (COAT)**: A ≥ 60 consecutive days’ supply of opioids from any number of prescriptions. A ≤ 3 day gap is permissible between prescriptions.
- **Prescriber**: Clinician licensed to prescribe an opioid and prescribing to Minnesota Health Care Program enrollees during the measurement year.
- **Chronic Opioid Prescriber**: A provider who prescribes at least a 28-day supply of opioids to a COAT patient during the measurement year.
- **High dose COAT**: A ≥ 60 consecutive days’ supply of opioids and the daily dose is ≥ 90 MME.
- **Elevated dose COAT**: A ≥ 60 consecutive days’ supply of opioids and the daily dose is ≥ 50 MME.
- **Concomitant COAT and benzodiazepine prescriptions**: A ≥ 60 consecutive days’ supply of opioids and a benzodiazepine prescription which has > 7 days’ supply of overlap with the COAT during the measurement year.
- **Opioid formulations (acute pain)**: Only oral tablet formulations are used for the index opioid prescription and initial opioid prescribing episode measures.
- **Opioid formulations (chronic pain)**: All formulations are included in the chronic opioid prescribing measures. Excluded drugs include buprenorphine-naloxone buccal films, fentanyl transdermal device, injectables and opioid cold and cough products.
# Opioid Prescribing Sentinel Measures

*Note: Sentinel measures are provider-specific for the OPIP, but could be adapted to the group level if desired.*

<table>
<thead>
<tr>
<th>Measure Description</th>
<th>Numerator</th>
<th>Denominator</th>
<th>QI Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of enrollees prescribed an index opioid prescription</td>
<td>Distinct number of patients with one or more index opioid prescriptions prescribed in the measurement period</td>
<td>Distinct number of patients seen by the provider in the measurement period</td>
<td>Prescribing rate is &gt; 8% (non-surgical specialties only)</td>
</tr>
<tr>
<td>Percent of index opioid prescriptions exceeding the recommended dose</td>
<td>Number of index opioid prescriptions exceeding 100 MME (medical specialty) or 200 MME (surgical specialty) prescribed in the measurement period</td>
<td>Number of index opioid prescriptions prescribed in the measurement period</td>
<td>Prescribing rate is &gt; 50%</td>
</tr>
<tr>
<td>Percent of prescriptions exceeding 700 cumulative MME in the post-acute pain phase</td>
<td>Number of prescriptions that cross the 700 cumulative MME threshold or exceed 700 cumulative MME prescribed in the measurement period</td>
<td>Number of opioid prescriptions prescribed during an initial opioid prescribing episode in the measurement period</td>
<td>Prescribing rate is &gt; 15%</td>
</tr>
<tr>
<td>Percent of patients with chronic opioid analgesic therapy (COAT)</td>
<td>Number of patients with a prescription during a COAT period (≥ 60 consecutive days’ supply of opioids) during the measurement period.*</td>
<td>Number of patients with at least one opioid prescription prescribed during the measurement period.</td>
<td>No quality improvement threshold</td>
</tr>
<tr>
<td>Percent of COAT enrollees exceeding 90 MME/day (High-dose COAT)</td>
<td>Number of patients prescribed COAT of &gt; 90 MME/day in the measurement period.**</td>
<td>Number of patients with a prescription during a COAT period during the measurement period.*</td>
<td>Prescribing rate is &gt; 10%</td>
</tr>
<tr>
<td>Percent of enrollees receiving elevated dose COAT who received a concomitant benzodiazepine</td>
<td>Number of patients prescribed COAT of &gt; 50 MME/day and an overlapping benzodiazepine prescription &gt; 7 days in the measurement period.**</td>
<td>Number of patients with a prescription during a COAT period during the measurement period.*</td>
<td>Prescribing rate is &gt; 10%</td>
</tr>
<tr>
<td>Percent of COAT patients receiving opioids from multiple prescribers</td>
<td>Number of patients on COAT who received opioids from 2+ additional providers while on COAT during the measurement period.</td>
<td>Number of patients with a prescription during a COAT period during the measurement period.*</td>
<td>No quality improvement threshold</td>
</tr>
</tbody>
</table>

*Multiple prescribers can be attributed to a patient receiving chronic opioid analgesic therapy (COAT). For example, the patient may have received 30 days’ supply from one prescriber and 30 days’ supply from another prescriber. Both prescribers will have this patient in their patient count.

**Patients are attributed to the provider only when they are a chronic opioid prescriber. All prescribed MME are included in the calculation for these measures, even if more than one provider prescribed opioids to the patients during the chronic period.