Optimizing Health by Advancing the Quality of Medication Use

Retirement Consideration: PQA-Endorsed Performance Measures

The specifications for four PQA-endorsed performance measures recommended for retirement consideration, including one nursing home performance measure and three health plan performance measures, are detailed on the pages that follow.

Table of Contents

5911 KINGSTOWNE VILLAGE PARKWAY, SUITE 130
ALEXANDRIA, VA 22315
T 703.347.7963 W WWW.PQAALLIANCE.ORG

I. One NURSING HOME Performance Measure

Antipsychotic Use in Persons with Dementia: MDS (APD-MDS)

Description

The percentage of long-stay nursing home residents with dementia who are persistently receiving an antipsychotic medication without evidence of a psychotic disorder or related condition.

A lower rate indicates better performance.

PQA Endorsed 2013.

Intended Use

Intended Use	The unit of measure is a nursing home facility.
Related Measures	*Antipsychotic Use in Persons with Dementia* (APD) (PQA).

Definitions

Measurement Period	Quarterly using two consecutive time periods with MDS assessment.
Long-stay Residents	Residents with Cumulative Days in the Facility (CDIF) greater than or equal to 101 days.
Cumulative Days in the Facility	The total number of days within an episode during which the resident was in the facility. It is the sum of the number of days within each stay included in an episode. If an episode consists of more than one stay separated by periods of time outside the facility (e.g., hospitalizations), only those days within the facility would count towards CDIF. Any days outside of the facility (e.g., hospital, home, etc.) would not count towards the CDIF total.
Antipsychotics	See Medication Table ANTIPSYCHOTICS: Antipsychotics

Eligible Population

Ages	18 years and older on the prior assessment
Skilled Nursing Facility – long–stay residents	Residents with cumulative days in the facility greater than100 days.

Administrative Specification

Data Source	MDS 3.0 - Assessment complete in the target quarter and a prior assessment with which to compare Assessments can include: A0130A = {01, 02, 03, 04, 05, 06} or A0130B = {01, 02, 03, 04, 05, 06} or A0310F = {10, 11} A0310A. Federal OBRA

Admission
Quarterly.
Annual.
Significant change in status.
Significant correction to prior comprehensive.
Significant correction to prior quarterly.

A0310B. PPS Assessment.
01. 5-day 02. 14-day 03. 30-day
04. 60-day 05. 90-day 06. Readmission/return assessment

A0310F. Entry/discharge reporting
10 Discharge -return not anticipated.
11 Discharge -return anticipated.

Denominator

Eligible population with an active diagnosis (Section I) of 14200 Alzheimer's Disease or 14800 Non-Alzheimer Dementia on either the prior or the target assessment and/or if cognitive impairment is indicated based on covariate = 0 in the following definition on either the prior or the target assessment

Independence or modified independence in daily decision-making for either the prior or target assessment
Covariate = 1 if C1000 = [0, 1] ***or*** if (C0500 ≥ [13] and C0500 ≤ [15])
Covariate = 0 if C1000 = [2, 3] ***or*** if (C0500 ≥ [00] and C0500 ≤ [12]).
Covariate = missing if ***either*** of the following are true:
1. C0500 = [99,-,^] ***and*** C1000 = [-,^].
2. Neither a prior or target assessment is available.

Denominator Exclusions

Exclude from the Denominator:

- Any person in the measurement quarter that does not have a prior assessment and any person where N0410A is missing on either the prior or target assessment, or
- Any person with any of the following Active Diagnoses from Section I in either the prior or the target assessment:
  - I5250 Huntington's Disease
  - I5350 Tourette's Syndrome
  - I5900 Manic Depression (bipolar disease)
  - I6000 Schizophrenia (e.g., schizoaffective and schizophreniform disorders)

Facilities reporting must have ≥30 long-stay residents in the denominator

Numerator

Individuals in the denominator with use of an antipsychotic medication verified in Section N (N0410A) equal to ≥12 (days) when combining both assessments.

Medication Table

Table ANTIPSYCHOTICS: Antipsychotics[a,b]

Antipsychotic Medications		
• aripiprazole	• iloperidone	• pimavanserin
• asenapine	• loxapine	• pimozide
• brexpiprazole	• lumateperone	• quetiapine
• cariprazine	• lurasidone	• risperidone
• chlorpromazine	• molindone	• thioridazine
• clozapine	• olanzapine	• thiothixene
• fluphenazine	• paliperidone	• trifluoperazine
• haloperidol	• perphenazine	• ziprasidone

[a] Includes combination products.

[b] Includes oral and long-acting injectable products.

II. Three HEALTH PLAN Performance Measures

Initial Opioid Prescribing at High Dosage (IOP-HD)

Description

The percentage of individuals ≥18 years of age with ≥1 initial opioid prescriptions with an average daily morphine milligram equivalent (MME) of ≥50.

A lower rate indicates better performance.

PQA Endorsed 2019.

Intended Use

Intended Use

Performance measurement for health plans.

Related Measures

- *Annual Monitoring for Persons on Long-Term Opioid Therapy* (AMO) (PQA, NQF #3541)
- *Initial Opioid Prescribing for Long Duration* (IOP-LD) (PQA, NQF #3558)
- *Initial Opioid Prescribing for Long-Acting/Extended-Release Opioids* (IOP-LA) (PQA).
- *Concurrent Use of Opioids and Benzodiazepines* (COB) (PQA; NQF #3389).
- *Use of Opioids at High Dosage in Persons without Cancer* (OHD) (PQA, NQF #2940).
- *Use of Opioids from Multiple Providers in Persons without Cancer* (OMP) (PQA, NQF #2950).
- *Use of Opioids at High Dosage and from Multiple Providers in Persons without Cancer* (OHDMP) (PQA, NQF #2951).

Definitions

Opioids

See Medication Table OPIOIDS: Opioids.

Morphine Milligram Equivalent (MME)

Oral morphine milligram equivalent. The MME conversion factor used to retrospectively calculate daily MME to inform analyses of risks associated with opioid prescribing. (See NDC list for MME conversion factors).

Measurement Year

The calendar year (January 1 through December 31) when the measure is assessed.

Prescription Claims

Only paid, non-reversed prescription claims are included in the data set to calculate the measure.

Index Prescription Start Date (IPSD)

The earliest date of service for an opioid medication during the measurement year.

Initial Opioid Prescriptions

The earliest date of service for an opioid prescription claim during the measurement year following a negative medication history.

Since individuals may have multiple opioid prescription dates with a negative medication history, there may be more than one initial opioid prescription for an individual within the measurement year.

Lookback period

A period of 90 days prior to each opioid prescription claim.

Negative Medication History	Individuals with no prescription claims for opioids in the lookback period.
Opioid Initiation Period	The 7-day time period when the numerator is assessed. The opioid initiation period includes the date of the initial opioid prescription plus 6 days. Since individuals may have multiple initial opioid prescriptions, there may be multiple opioid initiation periods. If the opioid initiation period extends beyond the end of the measurement year, the opioid initiation period is truncated to the last day of the measurement year (i.e., December 31).
Hospice Exclusion	Any individuals in hospice care at any time during the measurement year or 90 days prior to the IPSD. • Hospice indicator from the enrollment database, if available (e.g. Medicare); or • ≥1 claim, encounter, or medical record. See Hospice Encounter Value Set and Hospice Intervention Value Set (e.g., Medicaid, commercial).
Cancer Diagnosis	Any individual with cancer during the measurement year or 90 days prior to the IPSD. • ≥1 claim with cancer in the primary diagnosis or any other diagnosis fields. See Value Set, Cancer.
Sickle Cell Disease Diagnosis	Any individual with sickle cell disease during the measurement year or 90 days prior to the IPSD. • ≥1 claim with sickle cell disease (SCD) in the primary diagnosis or any other diagnosis fields. See Value Set, Sickle Cell Disease.
Palliative Care Exclusion	Any individual in palliative care during the measurement year. • ≥1 claim with palliative care in the primary diagnosis or any other diagnosis fields during the measurement year. See Value Set, Palliative Care.

Eligible Population

Ages	≥18 years of age as of the first day of the measurement year.
Continuous Enrollment	Individuals must be continuously enrolled during the measurement year and the 90 days prior to the IPSD.
Allowable Gap	None.
Anchor Date	None.
Benefit	Medical and pharmacy.
Event/Diagnosis	Use the steps below to determine the eligible population.
Step 1	Identify individuals ≥18 years of age as of the first day of the measurement year.
Step 2	Identify individuals with ≥1 prescription claims for an opioid (Medication Table OPIOIDS) during the measurement year.
Step 3	Identify individuals continuously enrolled during the measurement year and the 90 days prior to the IPSD.

Step 4 Identify unique individuals with a negative medication history for any opioid medication during the lookback period.

For example, an individual has opioid prescription claims on August 1, September 15 and December 20. For each of these dates of service, use the lookback period of 90 days to determine if the individual had no prescription claims for opioids. For example, for August 1, determine whether the individual had no prescription claims for opioids from May 3 – July 31. Repeat for the September 15 and December 20 opioid prescription claims.

Note:

- The prescription claims can be for the same or different opioids.
- If multiple opioid claims with the same date of service, calculate the number of days covered by an opioid using the prescription claims with the longest days' supply.
- If multiple opioid claims with different dates of service, sum the days' supply for all the prescription claims regardless of overlapping days' supply.
- Count the unique individuals (i.e., if an individual has multiple lookback periods, count the individual only once in the denominator).

Step 5 Exclude individuals with any of the following during the measurement year or the 90 days prior to the IPSD:

- Hospice
- Cancer
- Sickle cell disease
- Palliative care

Administrative Specification

Data Sources Prescription claims, medical claims.

Denominator The eligible population.

Numerator The number of individuals from the denominator with an average daily morphine milligram equivalent (MME) of ≥50 within any opioid initiation period.

Use the steps below to identify the numerator population.

Step 1 For each individual in the denominator population, identify all initial opioid prescriptions and any additional opioids within each opioid initiation period.

For example, if the date of service for an initial opioid prescription is on March 15, identify any opioid prescription claims from March 15 through March 21.

Step 2 Calculate the daily MME for each opioid prescription claim within each opioid initiation period (i.e. initial opioid prescription + 6 days), using the following equation: [Strength * (Quantity Dispensed / Days' Supply)] * MME conversion factor. The strength and MME conversion factor are provided for each NDC code in the NDC file.

Example:
10 mg oxycodone tablets X (120 tablets / 30 days) X 1.5 = 60 MME/day

Step 3 Apply the MME for each opioid prescription claim to the days from the date of service to the date of the last dose (date of service + days' supply – 1) or the end of the opioid initiation period, whichever occurs first.

Note:

- For multiple opioid claims with the same date of service or different dates of service and overlapping days' supply, do not adjust for overlap and calculate the daily MME using the days' supply for each prescription claim.
- If the opioid initiation period extends beyond the end of the measurement year, the opioid initiation period is truncated to the last day of the measurement year.

Step 4 For each individual, sum the MMEs across all days during the opioid initiation period.

Step 5 Calculate the average MME across all days during the opioid initiation period. The average daily MME = total MME/days covered by an opioid during the opioid initiation period. Calculate the average daily MME rounded to the nearest hundredth (e.g. 49.98597 is rounded to 49.99).

Step 6 Count the unique individuals with an average daily dosage ≥50.00 MME during any opioid initiation period within the measurement year.

Rate Divide the numerator by the denominator and multiply by 100.

Stratification Commercial, Medicaid, Medicare (report each product line separately). For Medicare, report rates for low-income subsidy (LIS) and non-LIS populations separately.

Medication Table

Table OPIOIDS: Opioids[a,b]

Opioid Medications		
• benzhydrocodone	• hydromorphone	• oxycodone
• butorphanol	• levorphanol	• oxymorphone
• codeine	• meperidine	• pentazocine
• dihydrocodeine	• methadone	• tapentadol
• fentanyl	• morphine	• tramadol
• hydrocodone	• opium	

[a] Includes combination products.

[b] Excludes the following: injectable formulations; opioid cough and cold products; sublingual sufentanil (used in a supervised setting); and all buprenorphine products (as a partial opioid agonist is not expected to be associated with overdose risk in the same dose-dependent manner as doses for full agonist opioids).

Notes

This measure is not intended for clinical-decision-making. This measure is intended for retrospective evaluation of populations of patients and should not be used to guide clinical decisions for individual patients. For clinical guidance on opioid prescribing, see the Center for Disease Control and Prevention CDC Guideline for Prescribing Opioids for Chronic Pain and Guideline Resources.

The MME conversion factor is intended solely for research, analytical purposes, surveillance of population-level medication utilization, and other population-level monitoring purposes. This measure and oral MME conversion factors are NOT intended for any clinical decision-making by clinicians while prescribing opioids. Furthermore, the oral MME conversion factors of opioid analgesics DO NOT constitute any clinical guidance or recommendations for converting patients from one form of opioid analgesic to another. Please consult the manufacturer's full prescribing information for such guidance. For additional clinical guidance on oral MME conversion factors for some opioids commonly prescribed for treatment of chronic pain and additional information on calculations of daily oral MME, please see CDC's provider resources.

For further information about the MME conversion factors, please review the notes below. These notes are for informational purposes only.

1. Methadone: the conversion factor of 3 for methadone presented in this file could underestimate daily MME for a given prescription. It should NOT be used in clinical practice. Also, as noted in one FDA-approved methadone manufacturer's full prescribing information: "There is high interpatient variability in

absorption, metabolism, and relative analgesic potency. Population-based equianalgesic conversion ratios between methadone and other opioids are not accurate when applied to individuals."

2. **IMPORTANT:** In the PQA National Drug Code (NDC) lists, all weight-based strengths are converted to milligrams since knowledgebase sources my express strengths differently. However, the CDC MME conversion factors for fentanyl are based upon micrograms. To address this issue, PQA multiplied the CDC **fentanyl** MME conversion factor by 1,000.
3. The PQA adjusted MME conversion factor for **fentanyl transdermal patches** is 7,200 which can be applied directly in the formula for calculating daily MME. In order to use the formula directly for calculating fentanyl transdermal patches' daily MME, a special adjustment was made for its MME conversion factor (1 mcg fentanyl = 0.1mg oral morphine, thus, 1 mg fentanyl = 100 mg oral morphine) was made to account for two facts: a) such patches' strength is uniquely measured as micrograms per hour rather than milligrams; b) each patch is supposed to be used for 3 days.
4. The PQA adjusted MME conversion factor for **fentanyl buccal tablets, sublingual tablets, and lozenges/troches** is 130. This conversion factor should be multiplied by the number of milligrams in a given tablet or lozenge/troche.
5. The PQA adjusted MME conversion factor for **fentanyl films and oral sprays** is 180. This reflects a 40% greater bioavailability for films compared to lozenges/tablets and 38% greater bioavailability for oral sprays compared to lozenges/tablets.
6. The PQA adjusted MME conversion factor for **fentanyl nasal spray** is 160, which reflects a 20% greater bioavailability for sprays compared to lozenges/tablets.
7. The oral MME conversion factor for **benzhydrocodone** is 1.2. (The inclusion of opioid products containing benzhydrocodone, a prodrug of hydrocodone, is new to this 2019 file version. CDC has designated these products as Drug = "Hydrocodone SA" but adjusted the conversion factor to account for the relative amount of hydrocodone equivalent to a given amount of benzhydrocodone. For example, 6.12 mg of benzhydrocodone = 7.5 mg of hydrocodone bitartrate. 7.5 mg hydrocodone is 7.5 MME based on hydrocodone's conversion factor of 1. Thus, the conversion factor for benzhydrocodone is 7.5 MME / 6.12 mg = 1.2)
8. **Tapentadol** is a mu receptor agonist and norepinephrine reuptake inhibitor. Oral MMEs are based on estimated degree of mu-receptor agonist activity, but it is unknown if this drug is associated with overdose in the same dose-dependent manner as observed with medications that are solely mu receptor agonists.
9. Please note that the "number of units" for some opioid sprays/solutions contained in prescription data sometimes represents the number of prescribed bottles of spray/solution rather than the total volume. Because the number of units from your prescription data should use the same scale as the unit of measure associated with the MME conversion factor, the correct quantity (number of units) needs to be extrapolated by using information on the number of milliliters per bottle. For example, a butorphanol spray is packaged as a 2.5ml bottle. The MME file indicates the strength is 10mg/ml and the conversion factor is 7. The prescription data lists a quantity of 1 and a days' supply of 30.
10. Please note that because "Number of Units" and "Days' Supply" have to be obtained from user's prescription data, the data quality of final calculated MME/day will depend on the availability and data quality of "Number of Units" and "Days' Supply" in user's prescription data.
11. A special adjustment was made to permit use of the MME formula with Lazanda (fentanyl nasal spray). The opioid strength for Lazanda was multiplied by 8 in the PQA NDC file because it is dispensed as a quantity of 1 but there are 8 sprays/bottle.
12. A special adjustment was made to Xtampza ER (oxycodone extended release) to reflect oxycodone equivalents (i.e., 9 mg is equivalent to 10 mg oxycodone, 13.5 mg is equivalent to 15 mg oxycodone, 18 mg is equivalent to 20 mg oxycodone, 27 mg is equivalent to 30 mg oxycodone, 36 mg is equivalent to 40 mg oxycodone).

Source Reference: National Center for Injury Prevention and Control. CDC File of National Drug Codes for Selected Opioid Analgesics and Linked Oral Morphine Milligram Equivalent Conversion Factors, 2020 Version. Atlanta, GA: Centers for Disease Control and Prevention; 2020. Requested at https://www.cdc.gov/drugoverdose/resources/data.html.

Initial Opioid Prescribing for Long-Acting or Extended-Release Opioids (IOP-LA)

Description

The percentage of individuals ≥18 years of age with ≥1 initial opioid prescriptions for long-acting or extended-release opioids.

A lower rate indicates better performance.

PQA Endorsed 2019.

Intended Use

Intended Use	Performance measurement for health plans.
Related Measures	• *Annual Monitoring for Persons on Long-Term Opioid Therapy* (AMO) (PQA, NQF #3541) • *Initial Opioid Prescribing at High Dosage* (IOP-HD) (PQA). • *Initial Opioid Prescribing for Long Duration* (IOP-LD) (PQA, NQF #3558). • *Concurrent Use of Opioids and Benzodiazepines* (COB) (PQA, NQF #3389). • *Use of Opioids at High Dosage in Persons without Cancer* (OHD) (PQA, NQF #2940) • *Use of Opioids from Multiple Providers in Persons without Cancer* (OMP) (PQA, NQF #2950) • *Use of Opioids at High Dosage and from Multiple Providers in Persons without Cancer* (OHDMP) (PQA, NQF #2951)

Definitions

Opioids	See Medication Table OPIOIDS: Opioids.
Long-Acting or Extended-Release (LA/ER) Opioids	See Medication Table IOP-LA-B: Long-Acting or Extended-Release Opioids.
Measurement Year	The calendar year (January 1 through December 31) when the measure is assessed.
Prescription Claims	Only paid, non-reversed prescription claims are included in the data set to calculate the measure.
Index Prescription Start Date (IPSD)	The earliest date of service for an opioid medication during the measurement year.
Initial Opioid Prescriptions	The earliest date of service for an opioid prescription during the measurement year following a negative medication history. Since individuals may have multiple opioid prescription dates with a negative medication history, there may be more than one initial opioid prescription for an individual within the measurement year.
Lookback period	A period of 90 days prior to each opioid prescription.

Negative Medication History	Individuals with no prescription claims for opioids in the lookback period.
Opioid Initiation Period	The 7-day time period when the numerator is assessed. The opioid initiation period includes the date of the initial opioid prescription plus 6 days. Since individuals may have multiple initial opioid prescriptions, there may be multiple opioid initiation periods. If the opioid initiation period extends beyond the end of the measurement year, the opioid initiation period is truncated to the last day of the measurement year (i.e., December 31).
Hospice Exclusion	Any individuals in hospice care at any time during the measurement year or 90 days prior to the IPSD. • Hospice indicator from the enrollment database, if available (e.g. Medicare); or • ≥1 claim, encounter, or medical record. See Hospice Encounter Value Set and Hospice Intervention Value Set (e.g., Medicaid, commercial).
Cancer Diagnosis	Any individual with cancer during the measurement year or 90 days prior to the IPSD. • ≥1 claim with cancer in the primary diagnosis or any other diagnosis fields. See Value Set, Cancer.
Sickle Cell Disease Diagnosis	Any individual with sickle cell disease (SCD) during the measurement year or 90 days prior to the IPSD. • ≥1 claim with SCD in the primary diagnosis or any other diagnosis fields. See Value Set, Sickle Cell Disease.
Palliative Care Exclusion	Any individual in palliative care during the measurement year. • ≥1 claim with palliative care in the primary diagnosis or any other diagnosis fields during the measurement year. See Value Set, Palliative Care.

Eligible Population

Ages	≥18 years of age as of the first day of the measurement year.
Continuous Enrollment	Individuals must be continuously enrolled during the measurement year and the 90 days prior to the IPSD.
Allowable Gap	None.
Anchor Date	None.
Benefit	Medical and pharmacy.
Event/Diagnosis	Use the steps below to determine the eligible population.
Step 1	Identify individuals ≥18 years of age as of the first day of the measurement year.
Step 2	Identify individuals with ≥1 prescription claims for an opioid (Medication Table OPIOIDS) during the measurement year.
Step 3	Identify individuals continuously enrolled during the measurement year and the 90 days prior to the IPSD.

Step 4 Identify individuals with a negative medication history for any opioid medication during the lookback period.

For example, an individual has opioid prescription claims on August 1, September 15 and December 20. For each of these dates of service, use the lookback period of 90 days to determine if the individual had no prescription claims for opioids. For example, for August 1, determine whether the individual had no prescription claims for opioids from May 3 – July 31. Repeat for the September 15 and December 20 opioid prescription claims.

Note:

- The prescription claims can be for the same or different opioids.
- For multiple opioid claims with the same date of service, calculate the number of days covered by an opioid using the prescription claim with the longest days' supply.
- For multiple opioid claims with different dates of service, sum the days' supply for all the prescription claims regardless of overlapping days' supply.
- Count the unique individuals (i.e., if an individual has multiple lookback periods, count the individual only once in the denominator).

Step 5 Exclude individuals who met at least one of the following during the measurement year or the 90 days prior to the IPSD:

- Hospice
- Cancer
- Sickle cell disease
- Palliative care

Administrative Specification

Data Sources Prescription claims, medical claims.

Denominator The eligible population.

Numerator The number of individuals from the denominator with ≥1 prescription claims for a long-acting or extended-release (LA/ER) opioid (Medication Table IOP-LA-B) within any opioid initiation period.

Use the steps below to identify the numerator population.

Step 1 For each individual in the denominator population, identify all initial opioid prescriptions and corresponding opioid initiation periods.

Step 2 For each individual, starting with each initial opioid prescription, identify any prescriptions claims for LA/ER opioids (Medication Table IOP-LA-B) within any opioid initiation period (i.e., date of service for the initial opioid prescription + 6 days).

For example, if the date of service for an initial opioid prescription is on March 15, identify any prescription claims for LA/ER opioids from March 15 through March 21.

Note:

- If the opioid initiation period extends beyond the end of the measurement year, the opioid initiation period is truncated to the last day of the measurement year.

Step 3 Count the unique individuals with ≥1 LA/ER opioid prescription claim during any opioid initiation period in the measurement year.

Rate Divide the numerator by the denominator and multiply by 100.

Stratification Commercial, Medicaid, Medicare (report each product line separately). For Medicare, report rates for low-income subsidy (LIS) and non-LIS populations separately.

Medication Tables

Table OPIOIDS: Opioids[a,b]

Opioid Medications		
• benzyhydrocodone	• hydromorphone	• oxycodone
• butorphanol	• levorphanol	• oxymorphone
• codeine	• meperidine	• pentazocine
• dihydrocodeine	• methadone	• tapentadol
• fentanyl	• morphine	• tramadol
• hydrocodone	• opium	

[a] Includes combination products.

[b] Excludes the following: injectable formulations; opioid cough and cold products; sublingual sufentanil (used in a supervised setting); and all buprenorphine products (as a partial opioid agonist is not expected to be associated with overdose risk in the same dose-dependent manner as doses for full agonist opioids).

Table IOP-LA-B: Long-Acting and Extended-Release Opioids [a,b]

Opioid Medications		
• fentanyl transdermal	• methadone	• oxymorphone extended release
• hydrocodone extended release	• morphine extended release	• tapentadol extended release
• hydromorphone extended release	• oxycodone extended release	• tramadol extended release
• levorphanol		

[a] Includes combination products.

[b] Excludes the following: injectable formulations; opioid cough and cold products; sublingual sufentanil (used in a supervised setting); and all buprenorphine products (as a partial opioid agonist is not expected to be associated with overdose risk in the same dose-dependent manner as doses for full agonist opioids).

Notes

This measure is not intended for clinical-decision-making. This measure is intended for retrospective evaluation of populations of patients and should not be used to guide clinical decisions for individual patients. For clinical guidance on opioid prescribing, see the Center for Disease Control and Prevention CDC Guideline for Prescribing Opioids for Chronic Pain and Guideline Resources.

Use of Opioids at High Dosage and from Multiple Providers in Persons Without Cancer (OHDMP)

Description

The percentage of individuals ≥18 years of age who received prescriptions for opioids with an average daily dosage of ≥90 morphine milligram equivalents (MME) AND who received prescriptions for opioids from ≥4 prescribers AND ≥4 pharmacies.

A lower rate indicates better performance.

PQA Endorsed 2015 (Updated 2019) (NQF #2951).

Intended Use

Intended Use

Performance measurement for health plans.

Related Measures

- *Annual Monitoring for Persons on Long-Term Opioid Therapy* (AMO) (PQA, NQF #3541)
- *Initial Opioid Prescribing at High Dosage* (IOP-HD) (PQA).
- *Initial Opioid Prescribing for Long Duration* (IOP-LD) (PQA, NQF #3558).
- *Initial Opioid Prescribing for Long-Acting/Extended-Release Opioids* (IOP-LA) (PQA).
- *Concurrent Use of Opioids and Benzodiazepines* (COB) (PQA; NQF #3389).
- *Use of Opioid at High Dosage in Persons Without Cancer* (OHD) (PQA, NQF #2940).
- *Use of Opioids from Multiple Providers in Persons Without Cancer* (OMP) (PQA NQF #2951).

Definitions

Opioids

See Medication Table OPIOIDS: Opioids.

Morphine Milligram Equivalent (MME)

Oral morphine milligram equivalent. The MME conversion factor used to retrospectively calculate daily MME to inform analyses of risks associated with opioid prescribing. (See NDC list for MME conversion factors).

Measurement Year

The calendar year (January 1 through December 31) when the measure is assessed.

Prescription Claims

Only paid, non-reversed prescription claims are included in the data set to calculate the measure.

Index Prescription Start Date (IPSD)

The earliest date of service for an opioid medication during the measurement year.

The IPSD must occur at least 90 days before the end of the measurement year (i.e. January 1 – October 3).

Opioid Episode

The period of time from the date of service of the first prescription claim for an opioid during the measurement year (i.e., IPSD) through the last days' supply of the last prescription claim for an opioid during the measurement year (i.e., date of service + days' supply - 1). If the days' supply extends past the measurement year, the opioid episode length is truncated to the last day of the measurement year (i.e., December 31).

	The opioid episode must be ≥90 days during the measurement year.
Numerator Evaluation Period	The ≤180-day time period when the numerator is assessed for unique prescribers and pharmacies. Each date of service for one or more opioid prescription claims represents the beginning of a numerator evaluation period of ≤180 days during the opioid episode.
National Provider Identifier (NPI)	Use the NPI to determine unique prescribers or pharmacies for each opioid prescription claim.
Hospice Exclusion	Any individuals in hospice care at any time during the measurement year. • Hospice indicator from the enrollment database, if available (e.g. Medicare); or • ≥1 claim, encounter, or medical record during the measurement year. See Hospice Encounter Value Set and Hospice Intervention Value Set (e.g., Medicaid, commercial).
Cancer Diagnosis	Any individual with cancer during the measurement year. • ≥1 claim with cancer in the primary diagnosis or any other diagnosis fields during the measurement year. See Value Set, Cancer.
Sickle Cell Disease Diagnosis	Any individual with sickle cell disease during the measurement year. • ≥1 claim with sickle cell disease (SCD) in the primary diagnosis or any other diagnosis fields during the measurement year. See Value Set, Sickle Cell Disease.
Palliative Care Exclusion	Any individual in palliative care during the measurement year. • ≥1 claim with palliative care in the primary diagnosis or any other diagnosis fields during the measurement year. See Value Set, Palliative Care.

Eligible Population

Ages	≥18 years of age as of the first day of the measurement year.
Continuous Enrollment	The measurement year, with one allowable gap.
Allowable Gap	No more than one gap in enrollment of up to 31 days during the measurement year. When enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).
Anchor Date	December 31.
Benefit	Medical and pharmacy.
Event/Diagnosis	Use the steps below to determine the eligible population.
Step 1	Identify individuals ≥18 years of age as of the first day of the measurement year.
Step 2	Identify individuals meeting the continuous enrollment criteria.
Step 3	Identify individuals with ≥2 prescription claims for opioid medications on different dates of service and with a cumulative days' supply ≥15 during the measurement year. Exclude days' supply that occur after the end of the measurement year.

Note:
- The prescription claims can be for the same or different opioids.
- For multiple opioid claims with the same date of service, calculate the number of days covered by an opioid using the prescription claims with the longest days' supply.
- For multiple opioid claims with different dates of service, sum the days' supply for all prescription claims regardless of overlapping days' supply.

Step 4 Identify individuals with an IPSD from January 1 – October 3 of the measurement year.

Step 5 Identify individuals with an opioid episode ≥90 days during the measurement year.

Note:
- Exclude days' supply that occur after the end of the measurement year.

Step 6 Exclude individuals with any of the following during the measurement year:
- Hospice
- Cancer diagnosis
- Sickle cell disease diagnosis
- Palliative care

Administrative Specification

Data Sources Prescription claims, medical claims.

Denominator The eligible population.

Numerator The numerator includes individuals from the denominator with an average daily dosage ≥90 MME during the opioid episode AND with opioid prescription claims from ≥4 prescribers AND ≥4 pharmacies within ≤180 days during the opioid episode.

Step 1 For each individual in the denominator population, identify all opioid prescription claims during the opioid episode.

Step 2 Calculate the daily MME for each opioid prescription claim during the opioid episode, using the following equation: [Strength * (Quantity Dispensed / Days' Supply)] * MME conversion factor.

The strength and MME conversion factor are provided for each NDC code in the NDC file.

Example:
10 mg oxycodone tablets X (120 tablets / 30 days) X 1.5 = 60 MME/day

Step 3 Apply the daily MME for each opioid prescription claim to the days from the date of service to the date of the last dose (date of service + days' supply - 1).

Note:
- For multiple opioid claims with the same date of service or with different dates of service and overlapping days' supply, do not adjust for overlap and calculate the daily MME using the days' supply for each prescription claim.
- Apply the MME through to the last day of the opioid episode, i.e., do not include days that extend beyond the end of the opioid episode.

Step 4 For each individual, sum the daily MMEs across all days during the opioid episode.

Step 5 For each individual, calculate the average daily MME across all days during the opioid episode. The average daily MME = total MME/days in opioid episode. Calculate the average daily MME rounded to the nearest hundredth (e.g. 89.97597 is rounded to 89.98).

Step 6 Identify individuals with an average daily dosage ≥90.00 MME during the opioid episode.

Step 7 For each individual identified in step 6, starting with each unique date of service (for ≥1 opioid prescription claims) within the opioid episode, identify the number of unique prescribers by NPI occurring within ≤180 days or through the end of the opioid episode, whichever is shorter.

Note:
- Each date of service for ≥1 opioid prescription claims represents the beginning of a numerator evaluation period of ≤180 days during the opioid episode.

Step 8 For each individual in step 7, starting with each unique date of service (for ≥1 opioid prescription claims) within the opioid episode, identify the number of unique pharmacies by NPI occurring within ≤180 days or through the end of the opioid episode, whichever is shorter.

Step 9 Count the individuals (from step 8) with any numerator evaluation periods with opioid prescription claims from ≥4 prescribers AND ≥4 pharmacies during the opioid episode.

Rate Divide the numerator by the denominator and multiply by 100.

Stratification Commercial, Medicaid, Medicare (report each product line separately). For Medicare, report rates for low-income subsidy (LIS) and non-LIS populations separately.

Medication Table

Table OPIOIDS: Opioids[a,b]

Opioid Medications		
• benzhydrocodone	• hydromorphone	• oxycodone
• butorphanol	• levorphanol	• oxymorphone
• codeine	• meperidine	• pentazocine
• dihydrocodeine	• methadone	• tapentadol
• fentanyl	• morphine	• tramadol
• hydrocodone	• opium	

[a] Includes combination products.

[b] Excludes the following: injectable formulations; opioid cough and cold products; sublingual sufentanil (used in a supervised setting); and all buprenorphine products (as a partial opioid agonist is not expected to be associated with overdose risk in the same dose-dependent manner as doses for full agonist opioids).

Notes

This measure is not intended for clinical-decision-making. This measure is intended for retrospective evaluation of populations of patients and should not be used to guide clinical decisions for individual patients. For clinical guidance on opioid prescribing, see the Center for Disease Control and Prevention CDC Guideline for Prescribing Opioids for Chronic Pain and Guideline Resources.

The MME conversion factor is intended solely for research, analytical purposes, surveillance of population-level medication utilization, and other population-level monitoring purposes. This measure and oral MME conversion factors are NOT intended for any clinical decision-making by clinicians while prescribing opioids. Furthermore, the oral MME conversion factors of opioid analgesics DO NOT constitute any clinical guidance or recommendations for converting patients from one form of opioid analgesic to another. Please consult the manufacturer's full prescribing information for such guidance. For additional clinical guidance on oral MME conversion factors for some opioids commonly prescribed for treatment of chronic pain and additional information on calculations of daily oral MME, please see CDC's provider resources.

For further information about the MME conversion factors, please review the notes below. These notes are for informational purposes only.

1. Methadone: the conversion factor of 3 for methadone presented in this file could underestimate daily MME for a given prescription. It should NOT be used in clinical practice. Also, as noted in one FDA-approved methadone manufacturer's full prescribing information: "There is high interpatient variability in absorption, metabolism, and relative analgesic potency. Population-based equianalgesic conversion ratios between methadone and other opioids are not accurate when applied to individuals."
2. **IMPORTANT:** In the PQA National Drug Code (NDC) lists, all weight-based strengths are converted to milligrams since knowledgebase sources may express strengths differently. However, the CDC MME conversion factors for fentanyl are based upon micrograms. To address this issue, PQA multiplied the CDC **fentanyl** MME conversion factor by 1,000.
3. The PQA adjusted MME conversion factor for **fentanyl transdermal patches** is 7,200 which can be applied directly in the formula for calculating daily MME. In order to use the formula directly for calculating fentanyl transdermal patches' daily MME, a special adjustment was made for its MME conversion factor (1 mcg fentanyl = 0.1mg oral morphine, thus, 1 mg fentanyl = 100 mg oral morphine) was made to account for two facts: a) such patches' strength is uniquely measured as micrograms per hour rather than milligrams; b) each patch is supposed to be used for 3 days.
4. The PQA adjusted MME conversion factor for **fentanyl buccal tablets, sublingual tablets, and lozenges/troches** is 130. This conversion factor should be multiplied by the number of milligrams in a given tablet or lozenge/troche.
5. The PQA adjusted MME conversion factor for **fentanyl films and oral sprays** is 180. This reflects a 40% greater bioavailability for films compared to lozenges/tablets and 38% greater bioavailability for oral sprays compared to lozenges/tablets.
6. The PQA adjusted MME conversion factor for **fentanyl nasal spray** is 160, which reflects a 20% greater bioavailability for sprays compared to lozenges/tablets.
7. The oral MME conversion factor for **benzhydrocodone** is 1.2. (The inclusion of opioid products containing benzhydrocodone, a prodrug of hydrocodone, is new to this 2019 file version. CDC has designated these products as Drug = "Hydrocodone SA" but adjusted the conversion factor to account for the relative amount of hydrocodone equivalent to a given amount of benzhydrocodone. For example, 6.12 mg of benzhydrocodone = 7.5 mg of hydrocodone bitartrate. 7.5 mg hydrocodone is 7.5 MME based on hydrocodone's conversion factor of 1. Thus, the conversion factor for benzhydrocodone is 7.5 MME / 6.12 mg = 1.2)
8. **Tapentadol** is a mu receptor agonist and norepinephrine reuptake inhibitor. Oral MMEs are based on estimated degree of mu-receptor agonist activity, but it is unknown if this drug is associated with overdose in the same dose-dependent manner as observed with medications that are solely mu receptor agonists.
9. Please note that the "number of units" for some opioid sprays/solutions contained in prescription data sometimes represents the number of prescribed bottles of spray/solution rather than the total volume. Because the number of units from your prescription data should use the same scale as the unit of measure associated with the MME conversion factor, the correct quantity (number of units) needs to be extrapolated by using information on the number of milliliters per bottle. For example, a butorphanol

spray is packaged as a 2.5ml bottle. The MME file indicates the strength is 10mg/ml and the conversion factor is 7. The prescription data lists a quantity of 1 and a days' supply of 30.

10. Please note that because "Number of Units" and "Days' Supply" have to be obtained from user's prescription data, the data quality of final calculated MME/day will depend on the availability and data quality of "Number of Units" and "Days' Supply" in user's prescription data.
11. A special adjustment was made to permit use of the MME formula with Lazanda (fentanyl nasal spray). The opioid strength for Lazanda was multiplied by 8 in the PQA NDC file because it is dispensed as a quantity of 1 but there are 8 sprays/bottle.
12. A special adjustment was made to Xtampza ER (oxycodone extended release) to reflect oxycodone equivalents (i.e., 9 mg is equivalent to 10 mg oxycodone, 13.5 mg is equivalent to 15 mg oxycodone, 18 mg is equivalent to 20 mg oxycodone, 27 mg is equivalent to 30 mg oxycodone, 36 mg is equivalent to 40 mg oxycodone).

Source Reference: National Center for Injury Prevention and Control. CDC File of National Drug Codes for Selected Opioid Analgesics and Linked Oral Morphine Milligram Equivalent Conversion Factors, 2020 Version. Atlanta, GA: Centers for Disease Control and Prevention; 2020. Requested at https://www.cdc.gov/drugoverdose/resources/data.html.