

Opioid Daily Dosage: Total MMEq/day

i4C Indicator MED-OPI-003: Opioid Daily Dosage: Total MMEq/day v 2.1

Category: Medication Management/Opioids

Purpose:

This indicator is used to identify patients who have a high cumulative daily dosage of opioids based on current opioid prescriptions.

Source:

Based on the Opioid Prescribing indicators defined in the technical appendix of the HQO MyPractice: Primary Care Report version 3 (December 2018), as well as the HQO Quality Standards on Opioid Prescribing and Opioid Addiction.

Base Population:

All non-palliative care patients with an Active demographic status recorded in the EMR who have one or more current opioid prescriptions recorded in the EMR.

Indicator Segments:

Total MMEq/day < 50: Count of non-palliative care patients WITH a cumulative Opioid MMEq/day < 50

50 <= Total MMEq/day < 90: Count of non-palliative care patients WITH a cumulative Opioid MMEq/day >= 50 and < 90

Total MMEq/day >= 90: Count of non-palliative care patients WITH a cumulative Opioid MMEq/day >= 90

Prescription Details Not Available: Count of patients WITH one or more current opioid prescriptions that are missing medication strength, amount, or frequency information.

Conversion Factor Not Available: Count of patients WITH all current opioid prescriptions containing complete information BUT WITH MMEq conversion information not available for one or more current opioid prescriptions.

A *current opioid prescription* is any of the following medications (identified by brand or generic name) that is a current (not discontinued) medication:

'Alfentanil'	'Buprenorphine'	'Butorphanol'	'Codeine'
'Dihydrocodeine'	'Fentanyl'	'Hydrocodone'	'Hydromorphone'
'Meperidine'	'Methadone'	'Morphine'	'Nalbuphine'
'Opium'	'Oxycodone'	'Pentazocine'	'Pethidine'
'Remifentanil'	'Sufentanil'	'Tapentadol'	'Tramadol'

MMEq stands for Morphine Milligram Equivalent and is calculated from a product of an opioid medication's strength (e.g., 5mg), amount (e.g., 3 pills) and frequency (e.g., 3x daily) which is then converted to a standardized daily dosage expressed as its morphine equivalent.

MMEq for fentanyl patches is calculated differently from opioids taken orally, and is based on the patch strength (e.g., 25 mcg/hour) and the number of patches applied.

Total MMEq is the sum of the MMEq calculated for each current opioid prescription. Total MMEq will only be calculated when complete prescription information (strength, amount, frequency) and a morphine conversion factor is available for all current opioid prescriptions.

The following conversion factors are used, based on guidelines from McMaster's National Pain Centre and the U.S.A. Medicare guidelines:

Opioid	Conversion Factor	Source
Morphine	1	HQO (McMaster National Pain Centre)
Codeine	0.15	HQO (McMaster National Pain Centre)
Oxycodone	1.5	HQO (McMaster National Pain Centre)
Hydrocodone	1	HQO (McMaster National Pain Centre)
Hydromorphone	5	HQO (McMaster National Pain Centre)
Meperidine	0.1	HQO (McMaster National Pain Centre)
Tramadol	0.1	HQO (McMaster National Pain Centre)
Transfermal Fentanyl Patch - 12.5 g/h	67	HQO (McMaster National Pain Centre)
Transfermal Fentanyl Patch - 25 mcg/h	134	HQO (McMaster National Pain Centre)
Transfermal Fentanyl Patch - 37.5 mcg/h	179	HQO (McMaster National Pain Centre)
Transfermal Fentanyl Patch - 50 mcg/h	224	HQO (McMaster National Pain Centre)
Transfermal Fentanyl Patch - 75 mcg/h	314	HQO (McMaster National Pain Centre)
Transfermal Fentanyl Patch - 100 mcg/h	404	HQO (McMaster National Pain Centre)
Butorphanol	7	Medicare Conversion Factors
Dihydrocodeine	0.25	Medicare Conversion Factors
Opium	1	Medicare Conversion Factors
Oxymorphone	3	Medicare Conversion Factors
Pentazocine	.037	Medicare Conversion Factors
Tapentadol	0.4	Medicare Conversion Factors

Non-palliative care patients are patients WITHOUT any of the following Service Codes billed for the patient: A945, C945, C882, C982, W872, W882, W972, W982, K023, B998, B966, B997, G511, G512 AND WITHOUT diagnosis Z51.5 (ICD-10) coded Z51.5

Suggested Indicator Use:

Physician use of this indicator is to review charts of patients with a daily cumulative Morphine Equivalent dosage ≥ 90 for possible recall or other follow-up actions. Another use of this indicator is to help physicians identify prescriptions entered in a non-standard way which prevents the opioid daily cumulative Morphine Equivalent dosage from being accurately calculated.