eCQM Title	Documentation of Current Medications in the Medical Record
eCQM Identifier (Measure Authoring Tool)	68
eCQM Version Number	14.1.000
CBE Number	Not Applicable
GUID	9a032d9c-3d9b-11e1-8634-00237d5bf174
Measurement Period	January 1, 20XX through December 31, 20XX
Measure Steward	Centers for Medicare & Medicaid Services (CMS)
Measure Developer	Mathematica
Endorsed By	None
Description	Percentage of visits for which the eligible clinician attests to documenting a list of current medications using all immediate resources available on the date of the encounter
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Measure Scoring	Proportion
Measure Type	Process
Stratification	None
Risk Adjustment	None
Rate Aggregation	None
Rationale	According to the National Center for Health Statistics, during the years of 2013-2016, 48.4% of patients (both male and female) were prescribed at least one prescription medication with 12.6% taking 5 or more medications. Additionally, 89.8% of patients (both male and female) aged 65 years and older were prescribed at least one medication with 40.9% taking 5 or more medications (2018). In this context, maintaining an accurate and complete medication list has proven to be a challenging documentation endeavor for various health care provider settings. While most of outpatient encounters (two-thirds) result in providers prescribing at least one medication, hospitals have been the focus of medication safety efforts (Stock, Scott, & Gurtel, 2009). Nassarulla, Naeesms, Chaudhry, Hansen, and Schiefel (2007) caution that this is at odds with the current trend, where patients with chronic illnesses are increasingly being treated in the outpatient setting and require careful monitoring of multiple medications. Additionally, Nassarulla et al. (2007) reveal that it is in fact in outpatient settings where more fatal adverse drug events (ADE) occur when these are compared to those occurring in hospitals (1 of 131 outpatient deaths compared to 1 in 854 inpatient deaths). In the outpatient setting, ADEs occur 25% of the time and over one-third of these are considered preventable (Tache, Sonnichsen, & Ashcroft, 2011). Particularly vulnerable are patients over 65 years, with evidence suggesting that the rate of ADEs per 10,000 person per year increases with age; 25-44 years old at 1.3; 45-64 at 2.2, and 65 + at 3.8 (Sarkar, López, Maselli, & Gonzales, 2011). Other vulnerable groups include individuals who are chronically ill or disabled (Nabhanizadeh, Oppewal, Boot, & Maes-Festen, 2019). These population groups are more likely to experience ADEs and subsequent hospitalization. A multiplicity of providers and inadequate care coordination among them has been identified as barriers to collecting complete and reliable medication records. A study conducted by Poorsima et al. (2015) indicates that reconciliation and documentation continue to be poorly executed with discrepancies occurring in 92% of patients (74 of 80) admitted to the emergency room. Of 80 patients included in the study, the home medications were reordered for 65% of patients on their admission. Of the 65%, 29% had a change in their dosing interval, while 23% had a change in their route of administration, and 13% had a change in dose. A total of 361 medication discrepancies, or the difference between the medications patients were taking before admission and those listed in their admission orders, were identified in at least 74 patients. The study found that "Through an appropriate reconciliation programme, around 80% of errors relating to medication and the potential harm caused by these errors could be reduced" (Poorsima et al., 2015). Presley et al. (2020) also recognized specific barriers to sufficient medication documentation and reconciliation in rural and resource-limited care settings. Documentation of current medications in the medical record facilitates the process of medication review and reconciliation by the provider, which is necessary for reducing ADEs and promoting medication safety. The need for provider to provider coordination regarding medication records, and the existing gap in implementation, is highlighted in the American Medical Association's Physician's Role in Medication Reconciliation, which states that "critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes" (2007). This is because clinical decisions based on information that is incomplete and/or inaccurate are likely to lead to medication error and ADEs. Weeks, Corbette, and Stream (2010) noted similar barriers and identified the utilization of health information technology as an opportunity for facilitating the creation of universal medication lists. One 2015 meta-analysis showed an association between electronic health record (EHR) documentation with an overall risk ratio (RR) of 0.46 (95% CI = 0.38 to 0.55; P < 0.001) and ADEs with an overall RR of 0.66 (95% CI = 0.44 to 0.99; P = 0.045). This meta-analysis provides evidence that the use of the EHR can improve the quality of healthcare delivered to patients by reducing medication errors and ADEs (Campanella et al., 2016).
Clinical Recommendation Statement	The Joint Commission's 2023 Ambulatory Health Care National Patient Safety Goals guide clinicians to maintain and communicate accurate patient medication information (2023). Specifically, the section NPSG.03.06.01 "Maintain and communicate accurate patient medication information" states the following: "Obtain and/or update information on the medications the patient is currently taking. This information is documented in a list or other format that is useful to those who manage medication. Compare the medication information the patient brought to the organization with the medications ordered for the patient by the organization in order to identify and resolve discrepancies." The Joint Commission's 2023 Hospital National Patient Safety Goals also addressed documenting current medications (2023). Specifically, the section NPSG.03.06.01 "Maintain and communicate accurate patient information" states the following: "Obtain information on the medications the patient is currently taking when they are admitted to the hospital or is seen in an outpatient setting. This information is documented in a list or other format that is useful to those who manage medications." The National Quality Forum's Safe Practices for Better Healthcare (2010), states the following: "The healthcare organization must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care."
Improvement Notation	Higher score indicates better quality
Reference	Reference Type: CITATION Reference Text: "American Medical Association. (2007). The physician's role in medication reconciliation: Issues, strategies, and safety principles. http://www.docstuor.es/wp-content/uploads/2013/08/med-rec-monograph.pdf."
Reference	Reference Type: CITATION Reference Text: "Campanella, P., Lovato, E., Marone, C., Fallacara, L., Mancuso, A., Ricciardi, W., & Specchia, M. L. (2016). The impact of electronic health records on health care quality: A systematic review and meta-analysis. European Journal of Public Health, 26(1), 60-64. https://doi.org/10.1093/eurpub/ckv122".
Reference	Reference Type: CITATION Reference Text: "Nabhanizadeh, A., Oppewal, A., Boot, F. H., & Maes-Festen, D. (2019). Effectiveness of medication reviews in identifying and reducing medication-related problems among people with intellectual disabilities: A systematic review. Journal of Applied Research in Intellectual Disabilities, 32(4), 750–761. https://doi.org/10.1111/jar.12580"
Reference	Reference Type: CITATION Reference Text: "Nassarulla, C. L., Naeesms, J. M., Chaudhry, R., Hansen, M. A., & Schiefel, S. M. (2007). Implementation of a medication reconciliation process in an ambulatory internal medicine clinic. Quality and Safety in Health Care, 16(2), 90-94. http://doi.org/10.1136/qshc.2006.021113"
Reference	Reference Type: CITATION Reference Text: "National Center for Health Statistics. (2018). Health, United States, 2018: Supplementary Table 38: Prescription drug use in the past 30 days, by sex, race and Hispanic origin, and age: United States, selected years 1988–1994 through 2013–2016. https://www.cdc.gov/nchs/data/hus/2018/038.pdf"
Reference	Reference Type: CITATION Reference Text: "National Quality Forum. (2010). Safe practices for better healthcare - 2010 update. https://www.qualityforum.org/publications/2010/04/safe_practices_for_better_healthcare_%E2%80%93_2010_update.aspx"
Reference	Reference Type: CITATION Reference Text: "Poorsima, P., Reshma, P., Ramakrishnan, T.V., Rani, N. V., Devi, G. S., Seshadri, P. (2015). Medication reconciliation and medication error prevention in an emergency department of a tertiary care hospital. Journal of Young Pharmacists, 7(3), 241-249. https://www.jyoungpharm.org/sites/default/files/JYP_7_3_15.pdf"
Reference	Reference Type: CITATION Reference Text: "Presley, C. A., Wooldridge, K. T., Byerly, S. H., Aylor, A. R., Kaboli, P. J., Roumie, C. L., Schnipper, J. L., Dittus, R. S., Moran, A. S. (2020). The Rural VA Multi-Center Medication Reconciliation Quality Improvement Study (R-VA-MARQUIS). American Journal of Health-System Pharmacy, 77, 128-137. https://doi.org/10.1093/ajhp/zxz275"
Reference	Reference Type: CITATION Reference Text: "Sarkar, U., López, A., Maselli, J. H., Gonzales, R. (2011). Adverse drug events in U.S. adult ambulatory medical care. Health Services Research, 46(5), 1517-1533. http://doi.org/10.1111/j.1475-6773.2011.01269.x"
Reference	Reference Type: CITATION Reference Text: "Stock, R., Scott, J., & Gurtel, S. (2009). Using an electronic prescribing system to ensure accurate medication lists in a large multidisciplinary medical group. The Joint Commission Journal on Quality and Patient Safety, 35(5), 271-277"
Reference	Reference Type: CITATION Reference Text: "Tache, S. V., Sonnichsen, A., & Ashcroft, D. M. (2011). Prevalence of adverse drug events in ambulatory care: A systematic review. The Annals of Pharmacotherapy, 45(7-8), 977-989. http://doi.org/10.1345/aph.1P627"
Reference	Reference Type: CITATION Reference Text: "The Joint Commission. (2023). Ambulatory Health Care: 2023 National Patient Safety Goals. https://www.jointcommission.org/-/media/tjc/documents/standards/national-patient-safety-goals/2023/npsg_chapter_ahc_jul2023.pdf"
Reference	Reference Type: CITATION Reference Text: "The Joint Commission. (2023). Hospital: 2023 National Patient Safety Goals. https://www.jointcommission.org/-/media/tjc/documents/standards/national-patient-safety-goals/2023/npsg_chapter_hap_jul2023.pdf"
Reference	Reference Type: CITATION Reference Text: "Weeks, D. L., Corbette, C. F., & Stream, G. (2010). Beliefs of ambulatory care physicians about accuracy of patient medication records and technology-enhanced solutions to improve accuracy. Journal for Healthcare Quality, 32(5), 12-21. http://doi.org/10.1111/j.1945-1474.2010.00097.x"
Definition	Current Medications: Medications the patient is presently taking including all prescriptions, over-the-counter products, herbals, vitamins, minerals, dietary (nutritional) supplements, and cannabis/cannabidiol (CBD) products with each medication's name, dosage, frequency and administered route. Route: Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Guidance	This eCQM is an episode-based measure. An episode is defined as each eligible encounter during the measurement period. This measure is to be reported for every eligible encounter during the measurement period. Eligible clinicians reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. By reporting the action described in this measure, the provider attests to having documented a list of current medications utilizing all immediate resources available on the day of the encounter. This list must include all known prescriptions, over-the-counter products, herbals, vitamins, minerals, dietary (nutritional) supplements, cannabis/cannabidiol (CBD) products AND must contain the medications' name, dosage, frequency and route of administration. This measure should also be reported if the eligible clinician documented the patient is not currently taking any medications. This version of the eCQM uses QDM version 5.6. Please refer to the eCQI resource center (https://ecqi.healthit.gov/qdm) for more information on the QDM.
Transmission Format	TBD
Initial Population	All visits occurring during the 12-month measurement period
Denominator	Equals Initial Population
Denominator Exclusions	None
Numerator	Eligible clinician attests to documenting, updating, or reviewing the patient's current medications using all immediate resources available on the date of the encounter
Numerator Exclusions	Not Applicable
Denominator Exceptions	Documentation of a medical reason(s) for not documenting, updating, or reviewing the patient's current medications list (e.g., patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status)
Supplemental Data Elements	For every patient evaluated by this measure also identify payer, race, ethnicity and sex

Table of Contents

Population Criteria

Initial Population

"QualifyingEncounter during day of Measurement Period" QualifyingEncounter

Denominator

"Initial Population"

Denominator Exclusions

None

Numerator

"QualifyingEncounter during day of Measurement Period" QualifyingEncounter
with ("Procedure, Performed": "Documentation of current medications (procedure)"
union ["Intervention, Performed": "Documentation of current medications (procedure)"]) MedicationsDocumented
such that Global."NormalizeInterval" (MedicationsDocumented.relevantDatetime, MedicationsDocumented.relevantPeriod) during day of QualifyingEncounter.relevantPeriod

Numerator Exclusions

None

Denominator Exceptions

"QualifyingEncounter during day of Measurement Period" QualifyingEncounter
with ("Procedure, Not Performed": "Documentation of current medications (procedure)"
union ["Intervention, Not Performed": "Documentation of current medications (procedure)"] MedicationsNotDocumented
such that MedicationsNotDocumented.authorDatetime during QualifyingEncounter.relevantPeriod
and MedicationsNotDocumented.negationRationale in "Medical Reason"

Stratification

None

Definitions

Denominator

"Initial Population"

Denominator Exceptions

"QualifyingEncounter during day of Measurement Period" QualifyingEncounter
with ("Procedure, Not Performed": "Documentation of current medications (procedure)"
union ["Intervention, Not Performed": "Documentation of current medications (procedure)"]) MedicationsNotDocumented
such that MedicationsNotDocumented.authorDatetime during QualifyingEncounter.relevantPeriod
and MedicationsNotDocumented.negationRationale in "Medical Reason"

Initial Population

"QualifyingEncounter during day of Measurement Period" QualifyingEncounter

Numerator

"QualifyingEncounter during day of Measurement Period" QualifyingEncounter
with ("Procedure, Performed": "Documentation of current medications (procedure)"
union ["Intervention, Performed": "Documentation of current medications (procedure)"]) MedicationsDocumented
such that Global."NormalizeInterval" (MedicationsDocumented.relevantDatetime, MedicationsDocumented.relevantPeriod) during day of QualifyingEncounter.relevantPeriod

Qualifying Encounter during day of Measurement Period

["Encounter, Performed": "Encounter to Document Medications"] ValidEncounter
where ValidEncounter.relevantPeriod during day of "Measurement Period"

SDE Ethnicity

["Patient Characteristic Ethnicity": "Ethnicity"]

SDE Payer

["Patient Characteristic Payer": "Payer Type"]

SDE Race

["Patient Characteristic Race": "Race"]

SDE Sex

["Patient Characteristic Sex": "ONC Administrative Sex"]

Functions

Global.NormalizeInterval(pointInTime DateTime, period Interval<DateTime>)

if pointInTime is not null then Interval[pointInTime, pointInTime]
else if period is not null then period
else null as Interval<DateTime>

Terminology

- code "Documentation of current medications (procedure)" ("SNOMEDCT Code (428191000124101)")
- valueset "Encounter to Document Medications" (2.16.840.1.113883.3.600.1.1834)
- valueset "Ethnicity" (2.16.840.1.114222.4.11.837)
- valueset "Medical Reason" (2.16.840.1.113883.3.526.3.1007)
- valueset "ONC Administrative Sex" (2.16.840.1.113762.1.4.1)
- valueset "Payer Type" (2.16.840.1.114222.4.11.3591)
- valueset "Race" (2.16.840.1.114222.4.11.836)

Data Criteria (QDM Data Elements)

- "Encounter, Performed: Encounter to Document Medications" using "Encounter to Document Medications (2.16.840.1.113883.3.600.1.1834)"
- "Intervention, Not Performed: Documentation of current medications (procedure)" using "Documentation of current medications (procedure) (SNOMEDCT Code 428191000124101)"
- "Intervention, Performed: Documentation of current medications (procedure)" using "Documentation of current medications (procedure) (SNOMEDCT Code 428191000124101)"
- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity (2.16.840.1.114222.4.11.837)"
- "Patient Characteristic Payer: Payer Type" using "Payer Type (2.16.840.1.114222.4.11.3591)"
- "Patient Characteristic Race: Race" using "Race (2.16.840.1.114222.4.11.836)"
- "Patient Characteristic Sex: ONC Administrative Sex" using "ONC Administrative Sex (2.16.840.1.113762.1.4.1)"
- "Procedure, Not Performed: Documentation of current medications (procedure)" using "Documentation of current medications (procedure) (SNOMEDCT Code 428191000124101)"
- "Procedure, Performed: Documentation of current medications (procedure)" using "Documentation of current medications (procedure) (SNOMEDCT Code 428191000124101)"

Supplemental Data Elements

SDE Ethnicity

["Patient Characteristic Ethnicity": "Ethnicity"]

SDE Payer

["Patient Characteristic Payer": "Payer Type"]

SDE Race

["Patient Characteristic Race": "Race"]

SDE Sex

["Patient Characteristic Sex": "ONC Administrative Sex"]

Risk Adjustment Variables

None

Measure Set	CLINICAL QUALITY MEASURE SET