MEASURE TYPE:
Process

DESCRIPTION:
The percentage of discharges from any inpatient facility (e.g. hospital, skilled nursing facility, or rehabilitation facility) for patients 18 years of age and older seen within 30 days following discharge in the office by the physician, prescribing practitioner, registered nurse, or clinical pharmacist providing on-going care for whom the discharge medication list was reconciled with the current medication list in the outpatient medical record.

This measure is submitted as three rates stratified by age group:

- Submission Criteria 1: 18-64 years of age
- Submission Criteria 2: 65 years and older
- Total Rate: All patients 18 years of age and older

INSTRUCTIONS:
This measure is to be submitted at an outpatient visit occurring within 30 days of each inpatient facility discharge date during the performance period. This measure is appropriate for use in the ambulatory setting only. There is no diagnosis associated with this measure. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding. This measure is not to be submitted unless a patient has been discharged from an inpatient facility within 30 days prior to the outpatient visit.

This measure will be calculated with 3 performance rates:

1) Performance Rate 1: Percentage of discharges from any inpatient facility (e.g., hospital, skilled nursing facility, or rehabilitation facility) for patients 18-64 years of age seen within 30 days following discharge in the office by the physician, prescribing practitioner, registered nurse, or clinical pharmacist providing on-going care for whom the discharge medication list was reconciled with the current medication list in the outpatient medical record

AND

2) Performance Rate 2: Percentage of discharges from any inpatient facility (e.g., hospital, skilled nursing facility, or rehabilitation facility) for patients 65 years and older seen within 30 days following discharge in the office by the physician, prescribing practitioner, registered nurse, or clinical pharmacist providing on-going care for whom the discharge medication list was reconciled with the current medication list in the outpatient medical record

AND

3) Total Rate (Overall Performance Rate): Percentage of discharges from any inpatient facility (e.g., hospital, skilled nursing facility, or rehabilitation facility) for patients 18 years of age and older seen within 30 days following discharge in the office by the physician, prescribing practitioner, registered nurse, or clinical pharmacist providing on-going care for whom the discharge medication list was reconciled with the current medication list in the outpatient medical record
Measure Submission:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
All discharges from any inpatient facility (e.g., hospital, skilled nursing facility, or rehabilitation facility) for patients 18 years of age and older seen within 30 days following discharge in the office by the physician, prescribing practitioner, registered nurse, or clinical pharmacist providing on-going care.

DENOMINATOR NOTE: This denominator is based on discharges followed by an office visit, not patients. Patients may appear in the denominator more than once if there was more than one discharge followed by an office visit in the performance period.

Denominator Criteria (Eligible Cases):
SUBMISSION CRITERIA 1: Patients 18-64 years of age on date of encounter
SUBMISSION CRITERIA 2: Patients aged 65 years and older on date of encounter
SUBMISSION CRITERIA 3: All Patients 18 years of age and older
AND
Patient encounter during the performance period (CPT or HCPCS): 90791, 90792, 90832, 90834, 90837, 90839, 90845, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99495, 99496, G0402, G0438, G0439
AND
Patient discharged from an inpatient facility (e.g., hospital, skilled nursing facility, or rehabilitation facility) within the last 30 days
AND NOT
DENOMINATOR EXCLUSION:
Patient had hospice services any time during the measurement period: G9691

NUMERATOR (SUBMISSION CRITERIA 1 & 2 & 3):
Medication reconciliation conducted by a prescribing practitioner, clinical pharmacists or registered nurse on or within 30 days of discharge.

Definition:
Medication Reconciliation – A type of review in which the discharge medications are reconciled with the most recent medication list in the outpatient medical record. Documentation in the outpatient medical record must include evidence of medication reconciliation and the date on which it was performed. Any of the following evidence meets criteria: (1) Documentation of the current medications with a notation that references the discharge medications (e.g., no changes in meds since discharge, same meds at discharge, discontinue all discharge meds), (2) Documentation of the patient’s current medications with a notation that the discharge medications were reviewed, (3) Documentation that the provider “reconciled the current and discharge meds,” (4) Documentation of a current medication list, a discharge medication list and notation that the appropriate practitioner type reviewed both lists on the same date of service, (5) Notation that no medications were prescribed or ordered upon discharge; (6) Documentation that patient was seen for post-discharge follow-up with evidence of medication reconciliation or review, (7) Documentation in the discharge summary that the discharge medications were reconciled with the current medications; the discharge summary must be in the outpatient chart.

NUMERATOR NOTE: Medication reconciliation should be completed and documented on or within 30 days of discharge. If the patient has an eligible discharge but medication reconciliation is not performed and documented within 30 days, submit 1111F with 8P.
Numerator Options:

**Performance Met:** Discharge medications reconciled with the current medication list in outpatient medical record (1111F)

**OR**

**Performance Not Met:** Discharge medications not reconciled with the current medication list in outpatient medical record, reason not otherwise specified (1111F with 8P)

**RATIONALE:**
Medications are often changed while a patient is hospitalized. Continuity between inpatient and on-going care is essential.

**CLINICAL RECOMMENDATION STATEMENTS:**
Medication reconciliation post-discharge is an important step to catch potentially harmful omissions or changes in prescribed medications, particularly in elderly patients that are prescribed a greater quantity and variety of medications (Leape, 1991). Although the magnitude of the effect of medication reconciliation alone on patient outcomes is not well studied, there is agreement among experts that potential benefits outweigh the harm (Coleman, 2003; Pronovost, 2003; IOM, 2002; IOM, 2006). Medication reconciliation post-discharge is recommended by the Joint Commission patient safety goals (Kienle, 2008), the American Geriatric Society (Coleman, 2003), Society of Hospital Medicine (Kripalani, 2007; Greenwald, 2010), ACOVE (Assessing Care of Vulnerable Elders; Knight, 2001), and the Task Force on Medicines Partnership (2005). Additionally, measurement of medication reconciliation post-discharge has been cited by the National Quality Forum and the National Priorities Partnership as a measurement priority area (NQF, 2010).

No trials of the effects of physician acknowledgment of medications post-discharge were found. However, patients are likely to have their medications changed during a hospitalization. Estimates suggest that 46% of medication errors occur on admission or discharge from a hospital (Pronovost, 2003). Therefore, medication reconciliation is a critical piece of care coordination post-discharge for all individuals who use prescription medications. Prescription medication use is common among adults of all ages, particularly older adults and adults with chronic conditions. On average, 82% of adults in the U.S. are taking at least one medication (prescription or nonprescription, vitamin/mineral, herbal/natural supplement); 29% are taking five or more. Older adults are the biggest consumers of medications with 17-19% of people 65 and older taking at least ten medications in a given week (Slone Survey, 2006).

One observational study showed that 1.5 new medications were initiated per patient during hospitalization, and 28% of chronic medications were canceled by the time of hospital discharge. Another observational study showed that at one week post-discharge, 72% of elderly patients were taking incorrectly at least one medication started in the inpatient setting, and 32% of medications were not being taken at all. One survey study faulted the quality of discharge communication as contributing to early hospital readmission, although this study did not implicate medication discontinuity as the cause. (ACOVE)

Implementing routine medication reconciliation after discharge from an inpatient facility is an important step to ensure medication errors are addressed and patients understand their new medications. The process of resolving discrepancies in a patient’s medication list reduces the risk of these adverse drug interactions being overlooked and helps physicians minimize the duplication and complexity of the patient’s medication regimen (Wenger, 2004). This in turn may increase patient adherence to the medication regimen and reduce hospital readmission rates.

First, a medication list must be collected. It is important to know what medications the patient has been taking or receiving prior to the outpatient visit in order to provide quality care. This applies regardless of the setting from which the patient came home, long-term care, assisted living, etc. The medication list should include all medications (prescriptions, over-the-counter, herbals, supplements, etc.) with dose, frequency, route, and reason for taking it. It is also important to verify whether the patient is actually taking the medication as prescribed or instructed, as sometimes this is not the case.
At the end of the outpatient visit, a clinician needs to verify three questions:

1) Based on what occurred in the visit, should any medication that the patient was taking or receiving prior to the visit be discontinued or altered?
2) Based on what occurred in the visit, should any prior medication be suspended pending consultation with the prescriber?
3) Have any new prescriptions been added today?

These questions should be reviewed by the physician who completed the procedure, or the physician who evaluated and treated the patient.

- If the answer to all three questions is “no,” the process is complete.
- If the answer to any question is “yes,” the patient needs to receive clear instructions about what to do — all changes, holds, and discontinuations of medications should be specifically noted. Include any follow-up required, such as calling or making appointments with other practitioners and a timeframe for doing so.

Institute for Healthcare Improvement (IHI)

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2018 Registry Flow for Quality ID #46 NQF #0097: Medication Reconciliation Post-Discharge Submission Criteria One

Start

Denominator

Patient Age at Date of Service 18 through 64 years

Yes

Encounter Codes as Listed in Denominator * (1/1/2018 thru 12/31/2018)

No

Not Included in Eligible Population/Denominator

No

Patient Discharged from Inpatient Facility (e.g., hospital, skilled nursing facility, or rehabilitation facility) Within the last 30 days

Yes

Patient had Hospice Services Any Time During the Measurement Period G9691 or equivalent

No

Denominator Exclusion

Yes

Include in Eligible Population/Denominator (80 visits) c1

Numerator

Discharge Medications Reconciled With the Current Medication List in Outpatient Medical Record

Yes

Data Completeness Met + Performance Met 1111F or equivalent (40 visits)

No

Patient had Hospice Services Any Time During the Measurement Period G9691 or equivalent

Yes

Discharge Medications Not Reconciled with the Current Medication List in the Medical Record, Reason Not Specified

No

Data Completeness Met + Performance Not Met 1111F-8P or equivalent (30 visits) c1

* See the posted Measure Specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Visit

**It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate

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The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.
2018 Registry Flow for Quality ID #46 NQF #0097: Medication Reconciliation Post-Discharge Submission Criteria Two

Multiple Performance

Start

Denominator

Patient Age at Date of Service ≥ 65 years

Encounter Codes as Listed in Denominator * (1/1/2018 thru 12/31/2018)

Patient Discharged from Inpatient Facility (e.g. Hospital, Skilled Nursing Facility) Within the last 30 Days

Patient had Hospice Services Any Time During the Measurement Period G9691 or equivalent

Include in Eligible Population/Denominator (80 visits)

Data Completeness Met + Performance Met

1111F or equivalent (40 visits) c²

Discharge Medications Reconciled With the Current Medication List in Outpatient Medical Record

Discharge Medications Not Reconciled With the Current Medication List in the Medical Record, Reason Not Specified

Data Completeness Met + Performance Not Met

1111F-8P or equivalent (30 visits) c²

Numerator

Data Completeness Met

1111F or equivalent (10 visits)

Patient Discharged from Inpatient Facility (e.g. Hospital, Skilled Nursing Facility) Within the last 30 Days

Encounter Codes as Listed in Denominator * (1/1/2018 thru 12/31/2018)

Patient Age at Date of Service ≥ 65 years

* See the posted Measure Specification for specific coding and instructions to submit this measure.

** It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.

NOTE: Submission Frequency: Visit

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### SAMPLE CALCULATIONS: Data Completeness and Performance One

<table>
<thead>
<tr>
<th>Data Completeness</th>
<th>= Performance Met (a1=40 visits) + Performance Not Met (c1=30 visits) = 70 visits</th>
<th>= 87.50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Rate</td>
<td>Performance Met (a1=40 visits) = 40 visits</td>
<td>= 57.14%</td>
</tr>
<tr>
<td></td>
<td>Data Completeness Numerator (70 visits)</td>
<td>= 70 visits</td>
</tr>
</tbody>
</table>

### SAMPLE CALCULATIONS: Data Completeness and Performance Rate Two

<table>
<thead>
<tr>
<th>Data Completeness</th>
<th>= Performance Met (a2=4 visits) + Performance Not Met (c2=30 visits) = 70 visits</th>
<th>= 87.50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Rate</td>
<td>Performance Met (a2=4 visits) = 40 visits</td>
<td>= 57.14%</td>
</tr>
<tr>
<td></td>
<td>Data Completeness Numerator (70 visits)</td>
<td>= 70 visits</td>
</tr>
</tbody>
</table>

### SAMPLE CALCULATIONS: Data Completeness and Performance Rate Three

<table>
<thead>
<tr>
<th>Data Completeness</th>
<th>= Performance Met (a1+a2= 80 visits) + Performance Not Met (c1+c2=60 visits) = 140 visits</th>
<th>= 87.50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Rate</td>
<td>Performance Met (a1+a2=80 visits) = 80 visits</td>
<td>= 57.14%</td>
</tr>
<tr>
<td></td>
<td>Data Completeness Numerator (140 visits)</td>
<td>= 140 visits</td>
</tr>
</tbody>
</table>

* See the posted Measure Specification for specific coding and instructions to submit this measure.

**NOTE:** Submission Frequency: Visit

**It is anticipated for registry submission that for every performance rate, a data completeness will be submitted. CMS will determine or use the overall data completeness and performance rate.
2018 Registry Flow For Quality ID
#46 NQF #0097: Medication Reconciliation

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. This measure will be calculated with 2 Performance Rates. This flow is for registry data submission.

Submission Criteria 1

1. Start with Denominator
2. Check Patient Age:
   a. If the Age is 18 through 64 years of age on Date of Service and equals No during the performance period, do not include in Eligible Patient Population. Stop Processing.
   b. If the Age is 18 through 64 years of age on Date of Service and equals Yes during the performance period, proceed to check Encounter Performed.
3. Check Encounter Performed:
   a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Encounter as Listed in the Denominator equals Yes, include in the Eligible population, proceed to check Patient Discharged from Inpatient Facility (e.g. Hospital skilled nursing facility) Within the last 30 Days.
4. Check Patient Discharged from Inpatient Facility (e.g. Hospital skilled nursing facility) Within the last 30 Days:
   a. If Patient Discharged from Inpatient Facility (e.g. Hospital skilled nursing facility) Within the last 30 Days as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Patient Discharged from Inpatient Facility (e.g. Hospital skilled nursing facility) Within the Last 30 Days as Listed in the Denominator equals Yes, proceed to check Patient had Hospice Services Any Time During the Measurement Period.
5. Check Patient had Hospice Services Any Time During the Measurement Period:
   a. If Patient had Hospice Services Any Time During the Measurement Period equals No, include in the Eligible Population.
   b. If Patient had Hospice Services Any Time During the Measurement Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
6. Denominator Population
   a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d1 equals 80 visits in the Sample Calculation.
7. Start Numerator
8. Check Discharge Medication Reconciled With the Current Medication List in Outpatient Medical Record:
a. If Discharge Medications Reconciled With the Current Medication List in Outpatient Medical Record equals Yes, include in Data Completeness Met and Performance Met.

b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a' equals 40 visits in the Sample Calculation.

c. If Discharge Medications Reconciled With the Current Medication List in Outpatient Medical Record equals No, proceed to Discharge Medications Not Reconciled with Current Medication List in the Medical Record, Reason Not Specified.

9. Check Discharge Medications Not Reconciled with the Current Medication List in the Medical Record, Reason Not Specified:

a. If Discharge Medications Not Reconciled with the Current Medication List in the Medical Record, Reason Not Specified equals Yes, include in Data Completeness Met and Performance Not Met.

b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c' equals 30 visits in the Sample Calculation.

c. If Discharge Medications Not Reconciled with the Current Medication List in the Medical Record, Reason Not Specified equals No, proceed to Data Completeness Not Met.

10. Check Data Completeness Not Met:

a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not submitted. 10 visits have been subtracted from the Data Completeness Numerator in the Sample Calculation.

---

**SAMPLE CALCULATIONS: Data Completeness and Performance One**

\[
\text{Data Completeness} = \frac{\text{Performance Met (a' = 40 visits)} + \text{Performance Not Met (c' = 30 visits)}}{\text{Eligible Population / Denominator (d' = 80 visits)}} = \frac{70 \text{ visits}}{80 \text{ visits}} = 87.50\% \\
\text{Performance Rate (Performance Met (a' = 40 visits))} = \frac{40 \text{ visits}}{80 \text{ visits}} = 50\% \\
\text{Data Completeness Numerator (70 visits)} = 70 \text{ visits}
\]
2018 Registry Flow For Quality ID
PQRS #46 NQF #0097: Medication Reconciliation

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. This measure will be calculated with 2 Performance Rates. This flow is for registry data submission.

Submission Criteria 2

1. Start with Denominator

2. Check Patient Age:
   a. If Patient Age at Date of Encounter is equal to or greater than 65 years equals No during the performance period, do not include in Eligible Patient Population. Stop Processing.
   b. If Patient Age at Date of Encounter is equal to or greater than 65 years equals Yes during the performance period, proceed to check Encounter Performed.

3. Check Encounter Performed:
   a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Encounter as Listed in the Denominator equals Yes, include in the Eligible population, proceed to Check Patient Discharged from Inpatient Facility (eg Hospital skilled nursing facility) Within the last 30 Days.

4. Check Patient Discharged from Inpatient Facility (eg Hospital skilled nursing facility) Within the last 30 Days:
   a. If Patient Discharged from Inpatient Facility (eg Hospital skilled nursing facility) Within the last 30 Days as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Patient Discharged from Inpatient Facility (eg Hospital skilled nursing facility) Within the Last 30 Days as Listed in the Denominator equals Yes, proceed to check Patient had Hospice Services Start Any Time During the Measurement Period.

5. Check Patient had Hospice Services Start Any Time During the Measurement Period:
   a. If Patient had Hospice Services Start Any Time During the Measurement Period equals No, include in the Eligible Population.
   b. If Patient had Hospice Services Start Any Time During the Measurement Period equals Yes, do not include in Eligible Patient Population. Stop Processing.

6. Denominator Population:
   a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d2 equals 80 visits in the Sample Calculation.

7. Start Numerator

8. Check Discharge Medications Reconciled With Current Medication List in Outpatient Medical Record:
a. If Discharge Medications Reconciled With Current Medication List in Outpatient Medical Record equals Yes, include in Data Completeness Met and Performance Met.

b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a2 equals 40 visits in the Sample Calculation.

c. If Discharge Medications Reconciled With Current Medication List in Outpatient Medical Record equals No, proceed to Discharge Medications Not Reconciled with Current Medication List in the Medical Record, Reason Not Specified.

9. Check Discharge Medications Not Reconciled with Current Medication List in the Medical Record, Reason Not Otherwise Specified:

a. If Discharge Medications Not Reconciled with Current Medication List in the Medical Record, Reason Not Otherwise Specified equals Yes, include in Data Completeness Met and Performance Not Met.

b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c2 equals 30 visits in the Sample Calculation.

c. If Discharge Medications Not Reconciled with Current Medication List in the Medical Record, Reason Not Otherwise Specified equals No, proceed to Data Completeness Not Met.

10. Check Data Completeness Not Met:

a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not submitted. 10 visits have been subtracted from the Data Completeness Numerator in the Sample Calculation.

---

**SAMPLE CALCULATIONS: Data Completeness and Performance Rate Two**

Data Completeness=

\[
\text{Performance Met (a^2=4 visits) + Performance Not Met (c^2=30 visits)} = 34 \text{ visits} = 87.50%
\]

Eligible Population / Denominator (d^2=80 visits) = 80 visits

Performance Rate=

\[
\text{Performance Met (a^2=40 visits) = 40 visits} = 57.14%
\]

Data Completeness Numerator (70 visits) = 70 visits

**SAMPLE CALCULATIONS: Data Completeness and Performance Rate Three**

Data Completeness=

\[
\text{Performance Met (a^2+a^3=80 visits) + Performance Not Met (c^1+c^2=60 visits)} = 140 \text{ visits} = 87.50%
\]

Eligible Population / Denominator (d^1+d^2=160 visits) = 160 visits

Performance Rate=

\[
\text{Performance Met (a^1+a^3=80 visits) = 80 visits} = 57.14%
\]

Data Completeness Numerator (140 visits) = 140 visits