



## Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

### Brief Measure Information

**NQF #:** 3317

**Corresponding Measures:**

**Measure Title:** Medication Reconciliation on Admission

**Measure Steward:** Centers for Medicare & Medicaid Services

**sp.02. Brief Description of Measure:** Percentage of patients for whom a designated PTA medication list was generated by referencing one or more external sources of PTA medications and for which all PTA medications have a documented reconciliation action by the end of Day 2 of the hospitalization.

**1b.01. Developer Rationale:** The Institute for Healthcare Improvement defines medication reconciliation as “the process of creating the most accurate list possible of all medications a patient is taking...and comparing that list against the physician’s admission, transfer, and/or discharge orders, with the goal of providing correct medications to the patient at all transition points within the hospital.” (Institute for Healthcare Improvement, 2017). While medication reconciliation should occur at all transition points during the inpatient stay, this measure focuses on medication reconciliation on admission because information collected at this transition point is critical to inform treatment decisions during the inpatient stay and at discharge. By collecting adequate information about a patient’s PTA medications, recording the information in a single location in the medical record for easy reference, and reconciling this information in a timely manner, clinicians can avoid potentially harmful medication discrepancies. A thorough reconciliation process is important in the IPF setting because pharmacotherapy is a primary form of treatment for patients with severe psychiatric illnesses and the accuracy of self-reported PTA medications may be compromised by severe psychiatric symptoms.

Studies in both the psychiatric and non-psychiatric settings have found that medication discrepancies are present in more than half of medical records for inpatient stays. (Brownlie, 2014; Cornish, 2005). There is evidence to suggest that most medication discrepancies in inpatient medical records result from the failure to collect and reconcile PTA medications. The Multicenter Medication Reconciliation Quality Improvement Study (MARQUIS), which was conducted in six U.S. hospitals, reported an average of 3.35 unintentional medication discrepancies per patient with most medication discrepancies (2.12 per patient) resulting from failure to accurately identify the patient’s PTA medications (Salanitro, 2013). The Medications At Transitions and Clinical Handoff (MATCH) study evaluated 651 inpatient stays and found that as many as 85% of admissions with medication errors had errors that originated from incomplete collection of the medication history (Gleason, 2010).

To reduce discrepancies that result from inadequate collection and reconciliation of PTA medications, the Medication Reconciliation on Admission measure is constructed to align with the two elements of performance of The Joint Commission’s National Patient Safety Goal (NPSG.03.06.01) on medication safety that are relevant to the

admission process (The Joint Commission, 2016). These elements are:

- Obtain information on the medications the patient is currently taking when he or she is 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.
- Compare the medication information the patient brought to the hospital with the medications ordered for the patient by the hospital in order to identify and resolve discrepancies.

#### Citations

\* Brownlie, K., Schneider, C., Culliford, R., Fox, C., Boukouvalas, A., Willan, C., & Maidment, I. D. (2014). Medication reconciliation by a pharmacy technician in a mental health assessment unit. *Int J Clin Pharm*, 36(2), 303-309. doi:10.1007/s11096-013-9875-8

\*Cornish, P. L., Knowles, S. R., Marchesano, R., Tam, V., Shadowitz, S., Juurlink, D. N., & Etchells, E. E. (2005). Unintended medication discrepancies at the time of hospital admission. *Arch Intern Med*, 165(4), 424-429. doi:10.1001/archinte.165.4.424

\*Gleason, K. M., McDaniel, M. R., Feinglass, J., Baker, D. W., Lindquist, L., Liss, D., & Noskin, G. A. (2010). Results of the Medications at Transitions and Clinical Handoffs (MATCH) study: an analysis of medication reconciliation errors and risk factors at hospital admission. *J Gen Intern Med*, 25(5), 441-447. doi:10.1007/s11606-010-1256-6

\*Institute for Healthcare Improvement. (2017). Medication reconciliation to prevent adverse drug events. Retrieved from <http://www.ihc.org/Topics/ADEsMedicationReconciliation/Pages/default.aspx>

\*Salanitro, A. H., Kripalani, S., Resnic, J., Mueller, S. K., Wetterneck, T. B., Haynes, K. T., . . . Schnipper, J. L. (2013). Rationale and design of the Multi-center Medication Reconciliation Quality Improvement Study (MARQUIS). *BMC Health Serv Res*, 13, 230. doi:10.1186/1472-6963-13-230

\*The Joint Commission. (2016). National patient safety goals effective January 1, 2017: Hospital Accreditation Program. Retrieved from [https://www.jointcommission.org/assets/1/6/NPSG\\_Chapter\\_HAP\\_Jan2017.pdf](https://www.jointcommission.org/assets/1/6/NPSG_Chapter_HAP_Jan2017.pdf)

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**sp.12. Numerator Statement:** Number of patients for whom a designated Prior to Admission (PTA) medication list was generated by referencing one or more external sources of medications and for which all PTA medications have a documented reconciliation action by the end of Day 2 of the hospitalization when the admission date is Day 0.

**sp.14. Denominator Statement:** All patients admitted to an inpatient facility from home or a non-acute setting.

**sp.16. Denominator Exclusions:** The measure applies two exclusion criteria to ensure that it is feasible to complete the medication reconciliation process on admission to the IPF:

1. Patients transferred from an acute care setting
2. Patient admissions with a length of stay less than or equal to 2 days

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**Measure Type:** Process

**sp.28. Data Source:**

Electronic Health Records: Electronic Health Records

Paper Medical Records

**sp.07. Level of Analysis:**

Facility

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**IF Endorsement Maintenance – Original Endorsement Date:** 2018-05-16 03:46 PM

**Most Recent Endorsement Date:** 5/16/2018 3:46:16 PM

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**IF this measure is included in a composite, NQF Composite#/title:**

**IF this measure is paired/grouped, NQF#/title:**

**sp.03. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results?:**

## 1. Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria

**1ma.01. Indicate whether there is new evidence about the measure since the most recent maintenance evaluation. If yes, please briefly summarize the new evidence, and ensure you have updated entries in the Evidence section as needed.**

**[Response Begins]**

No

**[Response Ends]**

Please separate added or updated information from the most recent measure evaluation within each question response in the Importance to Measure and Report: Evidence section. For example:

**2021 Submission:**

Updated evidence information here.

**2018 Submission:**

Evidence from the previous submission here.

**1a.01. Provide a logic model.**

*Briefly describe the steps between the healthcare structures and processes (e.g., interventions, or services) and the patient's health outcome(s). The relationships in the diagram should be easily understood by general, non-technical audiences. Indicate the structure, process or outcome being measured.*

**[Response Begins]**

**[Response Ends]**

**1a.02. Select the type of source for the systematic review of the body of evidence that supports the performance measure.**

*A systematic review is a scientific investigation that focuses on a specific question and uses explicit, prespecified scientific methods to identify, select, assess, and summarize the findings of similar but separate studies. It may include a quantitative synthesis (meta-analysis), depending on the available data.*

**[Response Begins]**

**[Response Ends]**

If the evidence is not based on a systematic review, skip to the end of the section and do not complete the repeatable question group below. If you wish to include more than one systematic review, add additional tables by clicking "Add" after the final question in the group.

**Evidence - Systematic Reviews Table (Repeatable)**

Group 1 - Evidence - Systematic Reviews Table

**1a.03. Provide the title, author, date, citation (including page number) and URL for the systematic review.**

**[Response Begins]**

**[Response Ends]**

**1a.04. Quote the guideline or recommendation verbatim about the process, structure or intermediate outcome being measured. If not a guideline, summarize the conclusions from the systematic review.**

**[Response Begins]**

**[Response Ends]**

**1a.05. Provide the grade assigned to the evidence associated with the recommendation, and include the definition of the grade.**

**[Response Begins]**

**[Response Ends]**

**1a.06. Provide all other grades and definitions from the evidence grading system.**

**[Response Begins]**

**[Response Ends]**

**1a.07. Provide the grade assigned to the recommendation, with definition of the grade.**

**[Response Begins]**

**[Response Ends]**

**1a.08. Provide all other grades and definitions from the recommendation grading system.**

**[Response Begins]**

**[Response Ends]**

**1a.09. Detail the quantity (how many studies) and quality (the type of studies) of the evidence.**

**[Response Begins]**

**[Response Ends]**

**1a.10. Provide the estimates of benefit, and consistency across studies.**

**[Response Begins]**

**[Response Ends]**

**1a.11. Indicate what, if any, harms were identified in the study.**

**[Response Begins]**

**[Response Ends]**

**1a.12. Identify any new studies conducted since the systematic review, and indicate whether the new studies change the conclusions from the systematic review.**

**[Response Begins]**

**[Response Ends]**

**1a.13. If source of evidence is NOT from a clinical practice guideline, USPSTF, or systematic review, describe the evidence on which you are basing the performance measure.**

**[Response Begins]**

**[Response Ends]**

**1a.14. Briefly synthesize the evidence that supports the measure.**

**[Response Begins]**

**[Response Ends]**

**1a.15. Detail the process used to identify the evidence.**

**[Response Begins]**

**[Response Ends]**

**1a.16. Provide the citation(s) for the evidence.**

**[Response Begins]**

**[Response Ends]**

**1b.01. Briefly explain the rationale for this measure.**

*Explain how the measure will improve the quality of care, and list the benefits or improvements in quality envisioned by use of this measure.*

**[Response Begins]**

The Institute for Healthcare Improvement defines medication reconciliation as “the process of creating the most accurate list possible of all medications a patient is taking...and comparing that list against the physician’s admission, transfer, and/or discharge orders, with the goal of providing correct medications to the patient at all transition points within the hospital.” (Institute for Healthcare Improvement, 2017). While medication reconciliation should occur at all transition points during the inpatient stay, this measure focuses on medication reconciliation on admission because information collected at this transition point is critical to inform treatment decisions during the inpatient stay and at discharge. By collecting adequate information about a patient’s PTA medications, recording the information in a single location in the medical record for easy reference, and reconciling this information in a timely manner, clinicians can avoid potentially harmful medication discrepancies. A thorough reconciliation process is important in the IPF setting because pharmacotherapy is a primary form of treatment for patients with severe psychiatric illnesses and the accuracy of self-reported PTA medications may be compromised by severe psychiatric symptoms.

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- Obtain information on the medications the patient is currently taking when he or she is 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.
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\*Cornish, P. L., Knowles, S. R., Marchesano, R., Tam, V., Shadowitz, S., Juurlink, D. N., & Etchells, E. E. (2005). Unintended medication discrepancies at the time of hospital admission. *Arch Intern Med*, 165(4), 424-429. doi:10.1001/archinte.165.4.424

\*Gleason, K. M., McDaniel, M. R., Feinglass, J., Baker, D. W., Lindquist, L., Liss, D., & Noskin, G. A. (2010). Results of the Medications at Transitions and Clinical Handoffs (MATCH) study: an analysis of medication reconciliation errors and risk factors at hospital admission. *J Gen Intern Med*, 25(5), 441-447. doi:10.1007/s11606-010-1256-6

\*Institute for Healthcare Improvement. (2017). Medication reconciliation to prevent adverse drug events. Retrieved from <http://www.ihc.org/Topics/ADEsMedicationReconciliation/Pages/default.aspx>

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\*The Joint Commission. (2016). National patient safety goals effective January 1, 2017: Hospital Accreditation Program. Retrieved from [https://www.jointcommission.org/assets/1/6/NPSG\\_Chapter\\_HAP\\_Jan2017.pdf](https://www.jointcommission.org/assets/1/6/NPSG_Chapter_HAP_Jan2017.pdf)

#### [Response Ends]

#### **1b.02. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis.**

*Include mean, std dev, min, max, interquartile range, and scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include. This information also will be used to address the sub-criterion on improvement (4b) under Usability and Use.*

#### [Response Begins]

A sample of nine IPFs from eight states was used to perform the field testing of the measure. Overall measure score results are presented in Table 1b.2a. The average measure score was 50% with a standard deviation of 32% and ranged from 7% to 98% across the nine facilities. Please refer to the NQF Measure Testing Form for all measure testing results.

Table 1b.2a Overall Measure Performance Score

IPF ID // Measure Score (%) // 95% Confidence Interval

IPF 1 // 68 // 59, 77

IPF 2 // 18 // 10, 26

IPF 3 // 77 // 69, 85  
IPF 4 // 88 // 82, 94  
IPF 5 // 30 // 21, 39  
IPF 6 // 7 // 2, 12  
IPF 7 // 43 // 33, 53  
IPF 8 // 98 // 95, 100  
IPF 9 // 18 // 10, 26  
Average // 50 // N/A  
Range // 7–98 // N/A

**[Response Ends]**

**1b.03. If no or limited performance data on the measure as specified is reported above, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement. Include citations.**

**[Response Begins]**

Not applicable, performance data on the measure are available.

**[Response Ends]**

**1b.04. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability.**

*Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included. Include mean, std dev, min, max, interquartile range, and scores by decile. For measures that show high levels of performance, i.e., “topped out”, disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b) under Usability and Use.*

**[Response Begins]**

Please refer to Tables 1.6-A (Age and Gender) and 1.6-B (Race and Ethnicity) in the NQF Measure Testing Form for the demographic information of the testing population. Because this is a process completed during the admission, we do not anticipate disparities based on sociodemographic status. However, we will monitor for disparities if the measure is implemented.

**[Response Ends]**

**1b.05. If no or limited data on disparities from the measure as specified is reported above, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in above.**

**[Response Begins]**

Not applicable because this is a process measure.

**[Response Ends]**



## 2. Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.

**spma.01. Indicate whether there are changes to the specifications since the last updates/submission. If yes, update the specifications in the Measure Specifications section of the Measure Submission Form, and explain your reasoning for the changes below.**

**[Response Begins]**

No

**[Response Ends]**

**spma.02. Briefly describe any important changes to the measure specifications since the last measure update and provide a rationale.**

**For annual updates, please explain how the change in specifications affects the measure results. If a material change in specification is identified, data from re-testing of the measure with the new specifications is required for early maintenance review.**

*For example, specifications may have been updated based on suggestions from a previous NQF CDP review.*

**[Response Begins]**

Not applicable because this is not a maintenance measure

**[Response Ends]**

**sp.01. Provide the measure title.**

*Measure titles should be concise yet convey who and what is being measured (see [What Good Looks Like](#)).*

**[Response Begins]**

Medication Reconciliation on Admission

**[Response Ends]**

**sp.02. Provide a brief description of the measure.**

*Including type of score, measure focus, target population, timeframe, (e.g., Percentage of adult patients aged 18-75 years receiving one or more HbA1c tests per year).*

**[Response Begins]**

Percentage of patients for whom a designated PTA medication list was generated by referencing one or more external sources of PTA medications and for which all PTA medications have a documented reconciliation action by the end of Day 2 of the hospitalization.

**[Response Ends]**

**sp.04. Check all the clinical condition/topic areas that apply to your measure, below.**

*Please refrain from selecting the following answer option(s). We are in the process of phasing out these answer options and request that you instead select one of the other answer options as they apply to your measure.*

*Please do not select:*

- *Surgery: General*

**[Response Begins]**

**[Response Ends]**

**sp.05. Check all the non-condition specific measure domain areas that apply to your measure, below.**

**[Response Begins]**

**[Response Ends]**

**sp.06. Select one or more target population categories.**

*Select only those target populations which can be stratified in the reporting of the measure's result.*

*Please refrain from selecting the following answer option(s). We are in the process of phasing out these answer options and request that you instead select one of the other answer options as they apply to your measure.*

*Please do not select:*

- *Populations at Risk: Populations at Risk*

**[Response Begins]**

**[Response Ends]**

**sp.07. Select the levels of analysis that apply to your measure.**

*Check ONLY the levels of analysis for which the measure is SPECIFIED and TESTED.*

*Please refrain from selecting the following answer option(s). We are in the process of phasing out these answer options and request that you instead select one of the other answer options as they apply to your measure.*

*Please do not select:*

- *Clinician: Clinician*
- *Population: Population*

**[Response Begins]**

Facility

**[Response Ends]**

**sp.08. Indicate the care settings that apply to your measure.**

*Check ONLY the settings for which the measure is SPECIFIED and TESTED.*

**[Response Begins]**

Inpatient/Hospital

**[Response Ends]**

**sp.09. Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials.**

*Do not enter a URL linking to a home page or to general information. If no URL is available, indicate "none available".*

**[Response Begins]**

Not available

**[Response Ends]**

**sp.11. Attach the data dictionary, code table, or value sets (and risk model codes and coefficients when applicable). Excel formats (.xlsx or .csv) are preferred.**

*Attach an excel or csv file; if this poses an issue, [contact staff](#). Provide descriptors for any codes. Use one file with multiple worksheets, if needed.*

**[Response Begins]**

No data dictionary/code table – all information provided in the submission form

**[Response Ends]**

**sp.12. State the numerator.**

*Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome).*

*DO NOT include the rationale for the measure.*

**[Response Begins]**

Number of patients for whom a designated Prior to Admission (PTA) medication list was generated by referencing one or more external sources of medications and for which all PTA medications have a documented reconciliation action by the end of Day 2 of the hospitalization when the admission date is Day 0.

**[Response Ends]**

**sp.13. Provide details needed to calculate the numerator.**

*All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, time period for data collection, specific data collection items/responses, code/value sets.*

*Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at sp.11.*

**[Response Begins]**

The numerator is operationalized into three key criteria of the medication reconciliation process that must be met:

1. Medications taken by the patient prior to admission are documented on a designated PTA medication list.
2. The PTA medication list is generated using at least one external source to identify the medications taken by the patient prior to admission.

3. All medications listed on the PTA medication list have a reconciliation action to continue, discontinue, or modify by the end of Day 2 of the hospitalization, or if there are no medications on the PTA medication list, the prescriber has signed the document by the end of Day 2 of the hospitalization to indicate his/her review of the PTA medication list.

The first criterion requires that the medical record contain a designated PTA Medication List to document medications that the patient is taking prior to admission. Documenting PTA medications in a designated location eliminates the potential for duplicative or inconsistent documentation of medication histories, avoids the potential for omitted medications, and provides a master source of PTA medication for easy reference by providers. PTA medications may include prescriptions, over-the-counter medications, herbals, vitamin/mineral/dietary (nutritional) supplements, and/or medical marijuana. This criterion aligns with one of the five elements of The Joint Commission's National Patient Safety Goal (NPSG.03.06.01) on medication reconciliation (The Joint Commission, 2016).

The second criterion requires that facilities consult at least one source external to the facility's records to increase comprehensive capture of all active medications on the PTA medication list. Incomplete or inaccurate PTA medication lists may result in inadequate medication reconciliation actions by the prescriber, which may lead to medication errors and ADEs. Given the absence of a single, accurate source of information on PTA medications (gold standard), the measure establishes a minimum standard for compiling PTA medication information rather than being prescriptive regarding which sources should be referenced. This requirement also aligns with other existing NQF-endorsed measures that focus on medication reconciliation. The measure allows for a wide-range of external sources to account for situations where the routinely consulted source fails to generate the information needed. For example, the patient may not be able or willing to provide information on PTA medications or a retail pharmacy may be closed or not willing to disclose PTA medications without obtaining prior patient consent. Therefore, to meet the External Source requirement, the facility can reference one or more of the following sources to compile the PTA medication list:

- Interview of the patient or patient proxy such as a caregiver
- Medication container brought in by patient or patient proxy
- Medication list brought by patient or patient proxy
- Patient support network, such as a group home
- Nursing home
- Outpatient prescriber or emergency department
- Retail pharmacy
- Prescription Drug Monitoring Program (PDMP)
- Electronic prescribing network system (e.g., Allscripts®, Surescripts®) or aggregate pharmacy billing records (such as, claims data using state/federal healthcare plans)

The third and final criterion requires that a licensed prescriber reconciles each medication on the PTA Medication List by the end of Day 2 of the hospitalization and documents whether the medication should be continued, discontinued, or modified. The date of admission is considered Day 0 and subsequent days are considered Day 1 and Day 2 for this measure. If there are no medications on the PTA medication list, the prescriber must sign the document by the end of Day 2 of the hospitalization to indicate his or her review of the PTA medication list for consideration in future treatment decisions. For example, information that indicates the patient is not taking any medications may be important to communicate to the treatment team because there may be a need to initiate treatment of indications that are discovered during admission. Signing the PTA medication list by the end of Day 2 of the hospitalization for patient admissions with no PTA medications also helps to improve communication between members of the care team and other providers during care transitions. To simplify chart abstraction and prevent abstractors from having to distinguish between medications, herbal supplements, and other remedies a patient might take, all entries on the PTA medication list must be reconciled to meet the requirements of the third criterion.

For additional details on each of the data elements included in the measure construct, refer to Appendix A.1, which includes the Data Dictionary and Data Collection Tool.

Citations

\*The Joint Commission. (2016). National patient safety goals effective January 1, 2017: Hospital Accreditation Program. Retrieved from [https://www.jointcommission.org/assets/1/6/NPSG\\_Chapter\\_HAP\\_Jan2017.pdf](https://www.jointcommission.org/assets/1/6/NPSG_Chapter_HAP_Jan2017.pdf)

**[Response Ends]**

**sp.14. State the denominator.**

*Brief, narrative description of the target population being measured.*

**[Response Begins]**

All patients admitted to an inpatient facility from home or a non-acute setting.

**[Response Ends]**

**sp.15. Provide details needed to calculate the denominator.**

*All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets.*

*Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at sp.11.*

**[Response Begins]**

All adult and pediatric patients admitted to an IPF are eligible to be sampled, regardless of insurance types.

**[Response Ends]**

**sp.16. Describe the denominator exclusions.**

*Brief narrative description of exclusions from the target population.*

**[Response Begins]**

The measure applies two exclusion criteria to ensure that it is feasible to complete the medication reconciliation process on admission to the IPF:

1. Patients transferred from an acute care setting
2. Patient admissions with a length of stay less than or equal to 2 days

**[Response Ends]**

**sp.17. Provide details needed to calculate the denominator exclusions.**

*All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at sp.11.*

**[Response Begins]**

Transfer from an Acute Care Setting:

The first exclusion criterion applies to patient admissions that result from a transfer from an acute care setting, such as another inpatient facility or inpatient unit. This exclusion is applied because medication reconciliation with

outpatient medications may have been done at the transferring facility and different medication reconciliation processes are required at the receiving IPF for those admissions to focus on the regimen that was used in the transferring facility. Patient admissions from long-term care facilities and emergency departments are not considered transfers and are included in the denominator for the measure.

Length of Stay Less than or Equal to 2 Days:

The second exclusion criterion applies to patient admissions with lengths of stay shorter than the time needed to adequately complete the medication reconciliation process. The timeframe from admission needed to complete the medication reconciliation process was discussed with the TEP, which recommended a requirement to complete reconciliation by the end of Day 2 if the day of admission is Day 0. They cited instances where patients are admitted on weekends and outpatient providers are not available to ascertain PTA medications or where patients are not stable enough to provide information immediately upon admission. The measure developer also evaluated this timeframe empirically using the field testing data to determine when most facilities could complete the medication reconciliation process. Table 2b2.2 in the NQF Measure Testing Form contains all records with complete medication reconciliation for all medications on the PTA medication list and shows the percentage of those records that had completed the medication reconciliation in one day increments of time from admission. This analysis confirmed the appropriateness of the 2-day timeframe for completing the medication reconciliation process.

**[Response Ends]**

**sp.18. Provide all information required to stratify the measure results, if necessary.**

*Include the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate. Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format in the Data Dictionary field.*

**[Response Begins]**

Not applicable because this measure is not stratified.

**[Response Ends]**

**sp.19. Select the risk adjustment type.**

*Select type. Provide specifications for risk stratification and/or risk models in the Scientific Acceptability section.*

**[Response Begins]**

No risk adjustment or risk stratification

**[Response Ends]**

**sp.20. Select the most relevant type of score.**

*Attachment: If available, please provide a sample report.*

**[Response Begins]**

Rate/proportion

**[Response Ends]**

**sp.21. Select the appropriate interpretation of the measure score.**

*Classifies interpretation of score according to whether better quality or resource use is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score*

**[Response Begins]**

Better quality = Higher score

**[Response Ends]**

**sp.22. Diagram or describe the calculation of the measure score as an ordered sequence of steps.**

*Identify the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period of data, aggregating data; risk adjustment; etc.*

**[Response Begins]**

To calculate the performance score:

1. Start processing. Run cases that are included in the Initial Patient Population as follows:
  - a. Find the patients that the performance measure is designed to address (all adult and pediatric patients admitted to the inpatient facility from home or a non-acute setting with a length of stay greater than two days).
2. Check Length of Stay (calculated as the Discharge Date minus the Admission Date).
  - a. If the Length of Stay is greater 2 days, continue processing and proceed to Transfer From an Acute Care Setting.
  - b. If the Length of Stay is less than or equal to 2 days, the record will proceed to Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
3. Check Transfer From an Acute Care Setting.
  - a. If the Transfer From an Acute Care Setting is equal to 1 (Yes), the case was admitted from a transfer from an acute care setting and the record will proceed to Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
  - b. If the Transfer From an Acute Care Setting is equal to 2 (No), the case was admitted from an admission source other than an acute case setting. Continue processing and proceed to Designated PTA Medication List.
4. Check Designated PTA Medication List.
  - a. If the Designated PTA Medication List is equal to 1 (Yes), continue processing and proceed to External Source.
  - b. If the Designated PTA Medication List is equal to 2 (No), the record will proceed to Measure Category Assignment of D and will be in the Measure Population. Stop processing.
5. Check External Source.
  - a. If External Source is equal to 1 (Yes), continue processing and proceed to Reconciliation Action.
  - b. If External Source is equal to 2 (No), the record will proceed to Measure Category Assignment of D and will be in the Measure Population. Stop processing.
6. Check Reconciliation Action.
  - a. If Reconciliation Action is equal to 1 (Yes) or 3 (N/A), continue processing and proceed to Reconciliation Action by End of Day 2.
  - b. If Reconciliation Action is equal to 2 (No), the record will proceed to Measure Category Assignment of D and will be in the Measure Population. Stop processing.
7. Check Reconciliation Action by the end of Day 2 when the Admission date is Day 0.
  - a. If Reconciliation Action by End of Day 2 is equal to 1 (Yes), the record will proceed to Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
  - b. If Reconciliation Action by End of Day 2 is equal to 2 (No), the record will proceed to Measure Category Assignment of D and will be in the Measure Population. Stop processing.

**[Response Ends]**

**sp.25. If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.**

**[Response Begins]**

The measure can use a sample of 100 records or greater. The measure developer will work with CMS to determine the least burdensome sampling approach if the measure is implemented in a program.

**[Response Ends]**

**sp.28. Select only the data sources for which the measure is specified.**

**[Response Begins]**

Paper Medical Records

**[Response Ends]**

**sp.29. Identify the specific data source or data collection instrument.**

*For example, provide the name of the database, clinical registry, collection instrument, etc., and describe how data are collected.*

**[Response Begins]**

The data dictionary and measure information form that provide instructions for abstracting the data for the measure are included with this application as an attachment. A structured chart abstraction tool with operational data definitions was developed in Microsoft Access for field testing. Prior to implementation, the measure developer will provide a finalized abstraction tool.

**[Response Ends]**

**sp.30. Provide the data collection instrument.**

**[Response Begins]**

**[Response Ends]**

**2ma.01. Indicate whether additional empirical reliability testing at the accountable entity level has been conducted. If yes, please provide results in the following section, Scientific Acceptability: Reliability - Testing. Include information on all testing conducted (prior testing as well as any new testing).**

*Please separate added or updated information from the most recent measure evaluation within each question response in the Scientific Acceptability sections. For example:*

**Current Submission:**

*Updated testing information here.*

**Previous Submission:**

*Testing from the previous submission here.*

**[Response Begins]**

**[Response Ends]**

**2ma.02. Indicate whether additional empirical validity testing at the accountable entity level has been conducted. If yes, please provide results in the following section, Scientific Acceptability: Validity - Testing. Include information on all testing conducted (prior testing as well as any new testing).**

*Please separate added or updated information from the most recent measure evaluation within each question response in the Scientific Acceptability sections. For example:*

**Current Submission:**

*Updated testing information here.*



**Previous Submission:**

*Testing from the previous submission here.*

**[Response Begins]**

**[Response Ends]**

**2ma.03. For outcome, patient-reported outcome, resource use, cost, and some process measures, risk adjustment/stratification may be conducted. Did you perform a risk adjustment or stratification analysis?**

**[Response Begins]**

**[Response Ends]**

**2ma.04. For maintenance measures in which risk adjustment/stratification has been performed, indicate whether additional risk adjustment testing has been conducted since the most recent maintenance evaluation. This may include updates to the risk adjustment analysis with additional clinical, demographic, and social risk factors.**

**Please update the Scientific Acceptability: Validity - Other Threats to Validity section.**

**Note: This section must be updated even if social risk factors are not included in the risk adjustment strategy.**

**[Response Begins]**

**[Response Ends]**

Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate fields in the Scientific Acceptability sections of the Measure Submission Form.

- Measures must be tested for all the data sources and levels of analyses that are specified. If there is more than one set of data specifications or more than one level of analysis, contact NQF staff about how to present all the testing information in one form.
- All required sections must be completed.
- For composites with outcome and resource use measures, Questions 2b.23-2b.37 (Risk Adjustment) also must be completed.
- If specified for multiple data sources/sets of specifications (e.g., claims and EHRs), Questions 2b.11-2b.13 also must be completed.
- An appendix for supplemental materials may be submitted (see Question 1 in the Additional section), but there is no guarantee it will be reviewed.
- Contact NQF staff with any questions. Check for resources at the [Submitting Standards webpage](#).
- For information on the most updated guidance on how to address social risk factors variables and testing in this form refer to the release notes for the [2021 Measure Evaluation Criteria and Guidance](#).

Note: The information provided in this form is intended to aid the Standing Committee and other stakeholders in understanding to what degree the testing results for this measure meet NQF's evaluation criteria for testing.

2a. Reliability testing demonstrates the measure data elements are repeatable, producing the same results a high proportion of the time when assessed in the same population in the same time period and/or that the measure score is precise. For instrument-based measures (including PRO-PMs) and composite performance measures, reliability should be demonstrated for the computed performance score.

2b1. Validity testing demonstrates that the measure data elements are correct and/or the measure score correctly reflects the quality of care provided, adequately identifying differences in quality. For instrument based measures (including PRO-PMs) and composite performance measures, validity should be demonstrated for the computed performance score.

2b2. Exclusions are supported by the clinical evidence and are of sufficient frequency to warrant inclusion in the specifications of the measure;

AND

If patient preference (e.g., informed decision-making) is a basis for exclusion, there must be evidence that the exclusion impacts performance on the measure; in such cases, the measure must be specified so that the information about patient preference and the effect on the measure is transparent (e.g., numerator category computed separately, denominator exclusion category computed separately).

2b3. For outcome measures and other measures when indicated (e.g., resource use):

- an evidence-based risk-adjustment strategy (e.g., risk models, risk stratification) is specified; is based on patient factors (including clinical and social risk factors) that influence the measured outcome and are present at start of care; 14,15 and has demonstrated adequate discrimination and calibration

OR

- rationale/data support no risk adjustment/ stratification.

2b4. Data analysis of computed measure scores demonstrates that methods for scoring and analysis of the specified measure allow for identification of statistically significant and practically/clinically meaningful 16 differences in performance;

OR

there is evidence of overall less-than-optimal performance.

2b5. If multiple data sources/methods are specified, there is demonstration they produce comparable results.

2b6. Analyses identify the extent and distribution of missing data (or nonresponse) and demonstrate that performance results are not biased due to systematic missing data (or differences between responders and non-responders) and how the specified handling of missing data minimizes bias.

2c. For composite performance measures, empirical analyses support the composite construction approach and demonstrate that:

2c1. the component measures fit the quality construct and add value to the overall composite while achieving the related objective of parsimony to the extent possible; and

2c2. the aggregation and weighting rules are consistent with the quality construct and rationale while achieving the related objective of simplicity to the extent possible.

(if not conducted or results not adequate, justification must be submitted and accepted)

## Definitions

Reliability testing applies to both the data elements and computed measure score. Examples of reliability testing for data elements include, but are not limited to: inter-rater/abstractor or intra-rater/abstractor studies; internal consistency for multi-item scales; test-retest for survey items. Reliability testing of the measure score addresses precision of measurement (e.g., signal-to-noise).

Validity testing applies to both the data elements and computed measure score. Validity testing of data elements typically analyzes agreement with another authoritative source of the same information. Examples of validity testing of the measure score include, but are not limited to: testing hypotheses that the measures scores indicate

quality of care, e.g., measure scores are different for groups known to have differences in quality assessed by another valid quality measure or method; correlation of measure scores with another valid indicator of quality for the specific topic; or relationship to conceptually related measures (e.g., scores on process measures to scores on outcome measures). Face validity of the measure score as a quality indicator may be adequate if accomplished through a systematic and transparent process, by identified experts, and explicitly addresses whether performance scores resulting from the measure as specified can be used to distinguish good from poor quality. The degree of consensus and any areas of disagreement must be provided/discussed.

Examples of evidence that an exclusion distorts measure results include, but are not limited to: frequency of occurrence, variability of exclusions across providers, and sensitivity analyses with and without the exclusion.

Patient preference is not a clinical exception to eligibility and can be influenced by provider interventions.

Risk factors that influence outcomes should not be specified as exclusions.

With large enough sample sizes, small differences that are statistically significant may or may not be practically or clinically meaningful. The substantive question may be, for example, whether a statistically significant difference of one percentage point in the percentage of patients who received smoking cessation counseling (e.g., 74 percent v. 75 percent) is clinically meaningful; or whether a statistically significant difference of \$25 in cost for an episode of care (e.g., \$5,000 v. \$5,025) is practically meaningful. Measures with overall less-than-optimal performance may not demonstrate much variability across providers.

Please separate added or updated information from the most recent measure evaluation within each question response in the Importance to Scientific Acceptability sections. For example:

**2021 Submission:**

Updated testing information here.

**2018 Submission:**

Testing from the previous submission here.

**2a.01. Select only the data sources for which the measure is tested.**

[Response Begins]

[Response Ends]

**2a.02. If an existing dataset was used, identify the specific dataset.**

*The dataset used for testing must be consistent with the measure specifications for target population and healthcare entities being measured; e.g., Medicare Part A claims, Medicaid claims, other commercial insurance, nursing home MDS, home health OASIS, clinical registry).*

[Response Begins]

[Response Ends]

**2a.03. Provide the dates of the data used in testing.**

*Use the following format: "MM-DD-YYYY - MM-DD-YYYY"*

[Response Begins]

[Response Ends]

**2a.04. Select the levels of analysis for which the measure is tested.**

*Testing must be provided for all the levels specified and intended for measure implementation, e.g., individual clinician, hospital, health plan.*

*Please refrain from selecting the following answer option(s). We are in the process of phasing out these answer options and request that you instead select one of the other answer options as they apply to your measure.*

*Please do not select:*

- *Clinician: Clinician*
- *Population: Population*

**[Response Begins]**

**[Response Ends]**

**2a.05. List the measured entities included in the testing and analysis (by level of analysis and data source).**

*Identify the number and descriptive characteristics of measured entities included in the analysis (e.g., size, location, type); if a sample was used, describe how entities were selected for inclusion in the sample.*

**[Response Begins]**

**[Response Ends]**

**2a.06. Identify the number and descriptive characteristics of patients included in the analysis (e.g., age, sex, race, diagnosis), separated by level of analysis and data source; if a sample was used, describe how patients were selected for inclusion in the sample.**

*If there is a minimum case count used for testing, that minimum must be reflected in the specifications.*

**[Response Begins]**

**[Response Ends]**

**2a.07. If there are differences in the data or sample used for different aspects of testing (e.g., reliability, validity, exclusions, risk adjustment), identify how the data or sample are different for each aspect of testing.**

**[Response Begins]**

**[Response Ends]**

**2a.08. List the social risk factors that were available and analyzed.**

*For example, patient-reported data (e.g., income, education, language), proxy variables when social risk data are not collected from each patient (e.g. census tract), or patient community characteristics (e.g. percent vacant housing, crime rate) which do not have to be a proxy for patient-level data.*

**[Response Begins]**

**[Response Ends]**

Note: If accuracy/correctness (validity) of data elements was empirically tested, separate reliability testing of data elements is not required – in 2a.07 check patient or encounter-level data; in 2a.08 enter “see validity testing section of data elements”; and enter “N/A” for 2a.09 and 2a.10.

**2a.09. Select the level of reliability testing conducted.**

*Choose one or both levels.*

**[Response Begins]**

**[Response Ends]**

**2a.10. For each level of reliability testing checked above, describe the method of reliability testing and what it tests.**

*Describe the steps—do not just name a method; what type of error does it test; what statistical analysis was used.*

**[Response Begins]**

**[Response Ends]**

**2a.11. For each level of reliability testing checked above, what were the statistical results from reliability testing?**

*For example, provide the percent agreement and kappa for the critical data elements, or distribution of reliability statistics from a signal-to-noise analysis. For score-level reliability testing, when using a signal-to-noise analysis, more than just one overall statistic should be reported (i.e., to demonstrate variation in reliability across providers). If a particular method yields only one statistic, this should be explained. In addition, reporting of results stratified by sample size is preferred (pg. 18, [NQF Measure Evaluation Criteria](#)).*

**[Response Begins]**

**[Response Ends]**

**2a.12. Interpret the results, in terms of how they demonstrate reliability.**

*(In other words, what do the results mean and what are the norms for the test conducted?)*

**[Response Begins]**

**[Response Ends]**

**2b.01. Select the level of validity testing that was conducted.**

**[Response Begins]**

**[Response Ends]**

**2b.02. For each level of testing checked above, describe the method of validity testing and what it tests.**

*Describe the steps—do not just name a method; what was tested, e.g., accuracy of data elements compared to authoritative source, relationship to another measure as expected; what statistical analysis was used.*

**[Response Begins]**

[Response Ends]

**2b.03. Provide the statistical results from validity testing.**

*Examples may include correlations or t-test results.*

[Response Begins]

[Response Ends]

**2b.04. Provide your interpretation of the results in terms of demonstrating validity. (i.e., what do the results mean and what are the norms for the test conducted?)**

[Response Begins]

[Response Ends]

**2b.05. Describe the method for determining if statistically significant and clinically/practically meaningful differences in performance measure scores among the measured entities can be identified.**

*Describe the steps—do not just name a method; what statistical analysis was used? Do not just repeat the information provided in Importance to Measure and Report: Gap in Care/Disparities.*

[Response Begins]

[Response Ends]

**2b.06. Describe the statistical results from testing the ability to identify statistically significant and/or clinically/practically meaningful differences in performance measure scores across measured entities.**

*Examples may include number and percentage of entities with scores that were statistically significantly different from mean or some benchmark, different from expected; how was meaningful difference defined.*

[Response Begins]

[Response Ends]

**2b.07. Provide your interpretation of the results in terms of demonstrating the ability to identify statistically significant and/or clinically/practically meaningful differences in performance across measured entities.**

*In other words, what do the results mean in terms of statistical and meaningful differences?*

[Response Begins]

[Response Ends]

**2b.08. Describe the method of testing conducted to identify the extent and distribution of missing data (or non-response) and demonstrate that performance results are not biased due to systematic missing data (or differences between responders and non-responders). Include how the specified handling of missing data minimizes bias.**

*Describe the steps—do not just name a method; what statistical analysis was used.*

[Response Begins]

[Response Ends]

**2b.09. Provide the overall frequency of missing data, the distribution of missing data across providers, and the results from testing related to missing data.**

*For example, provide results of sensitivity analysis of the effect of various rules for missing data/non-response. If no empirical sensitivity analysis was conducted, identify the approaches for handling missing data that were considered and benefits and drawbacks of each).*

[Response Begins]

[Response Ends]

**2b.10. Provide your interpretation of the results, in terms of demonstrating that performance results are not biased due to systematic missing data (or differences between responders and non-responders), and how the specified handling of missing data minimizes bias.**

*In other words, what do the results mean in terms of supporting the selected approach for missing data and what are the norms for the test conducted; if no empirical analysis was conducted, justify the selected approach for missing data.*

[Response Begins]

[Response Ends]

Note: This item is directed to measures that are risk-adjusted (with or without social risk factors) OR to measures with more than one set of specifications/instructions (e.g., one set of specifications for how to identify and compute the measure from medical record abstraction and a different set of specifications for claims or eQMs). It does not apply to measures that use more than one source of data in one set of specifications/instructions (e.g., claims data to identify the denominator and medical record abstraction for the numerator). Comparability is not required when comparing performance scores with and without social risk factors in the risk adjustment model. However, if comparability is not demonstrated for measures with more than one set of specifications/instructions, the different specifications (e.g., for medical records vs. claims) should be submitted as separate measures.

**2b.11. Indicate whether there is more than one set of specifications for this measure.**

[Response Begins]

[Response Ends]

**2b.12. Describe the method of testing conducted to compare performance scores for the same entities across the different data sources/specifications.**

*Describe the steps—do not just name a method. Indicate what statistical analysis was used.*

[Response Begins]

[Response Ends]

**2b.13. Provide the statistical results from testing comparability of performance scores for the same entities when using different data sources/specifications.**

*Examples may include correlation, and/or rank order.*

[Response Begins]

[Response Ends]

**2b.14. Provide your interpretation of the results in terms of the differences in performance measure scores for the same entities across the different data sources/specifications.**

*In other words, what do the results mean and what are the norms for the test conducted.*

[Response Begins]

[Response Ends]

**2b.15. Indicate whether the measure uses exclusions.**

[Response Begins]

[Response Ends]

**2b.16. Describe the method of testing exclusions and what was tested.**

*Describe the steps—do not just name a method; what was tested, e.g., whether exclusions affect overall performance scores; what statistical analysis was used?*

[Response Begins]

[Response Ends]

**2b.17. Provide the statistical results from testing exclusions.**

*Include overall number and percentage of individuals excluded, frequency distribution of exclusions across measured entities, and impact on performance measure scores.*

[Response Begins]

[Response Ends]

**2b.18. Provide your interpretation of the results, in terms of demonstrating that exclusions are needed to prevent unfair distortion of performance results.**

*In other words, the value outweighs the burden of increased data collection and analysis. Note: If patient preference is an exclusion, the measure must be specified so that the effect on the performance score is transparent, e.g., scores with and without exclusion.*

[Response Begins]

[Response Ends]



**2b.19. Check all methods used to address risk factors.**

[Response Begins]

[Response Ends]

**2b.20. If using statistical risk models, provide detailed risk model specifications, including the risk model method, risk factors, risk factor data sources, coefficients, equations, codes with descriptors, and definitions.**

[Response Begins]

[Response Ends]

**2b.21. If an outcome or resource use measure is not risk-adjusted or stratified, provide rationale and analyses to demonstrate that controlling for differences in patient characteristics (i.e., case mix) is not needed to achieve fair comparisons across measured entities.**

[Response Begins]

[Response Ends]

**2b.22. Select all applicable resources and methods used to develop the conceptual model of how social risk impacts this outcome.**

[Response Begins]

[Response Ends]

**2b.23. Describe the conceptual and statistical methods and criteria used to test and select patient-level risk factors (e.g., clinical factors, social risk factors) used in the statistical risk model or for stratification by risk.**

*Please be sure to address the following: potential factors identified in the literature and/or expert panel; regression analysis; statistical significance of  $p < 0.10$  or other statistical tests; correlation of  $x$  or higher. Patient factors should be present at the start of care, if applicable. Also discuss any "ordering" of risk factor inclusion; note whether social risk factors are added after all clinical factors. Discuss any considerations regarding data sources (e.g., availability, specificity).*

[Response Begins]

[Response Ends]

**2b.24. Detail the statistical results of the analyses used to test and select risk factors for inclusion in or exclusion from the risk model/stratification.**

[Response Begins]

[Response Ends]

**2b.25. Describe the analyses and interpretation resulting in the decision to select or not select social risk factors.**

*Examples may include prevalence of the factor across measured entities, availability of the data source, empirical association with the outcome, contribution of unique variation in the outcome, or assessment of between-unit effects and within-unit effects. Also describe the impact of adjusting for risk (or making no adjustment) on providers at high or low extremes of risk.*

[Response Begins]

[Response Ends]

**2b.26. Describe the method of testing/analysis used to develop and validate the adequacy of the statistical model or stratification approach (describe the steps—do not just name a method; what statistical analysis was used). Provide the statistical results from testing the approach to control for differences in patient characteristics (i.e., case mix) below. If stratified ONLY, enter “N/A” for questions about the statistical risk model discrimination and calibration statistics.**

*Validation testing should be conducted in a data set that is separate from the one used to develop the model.*

[Response Begins]

[Response Ends]

**2b.27. Provide risk model discrimination statistics.**

*For example, provide c-statistics or R-squared values.*

[Response Begins]

[Response Ends]

**2b.28. Provide the statistical risk model calibration statistics (e.g., Hosmer-Lemeshow statistic).**

[Response Begins]

[Response Ends]

**2b.29. Provide the risk decile plots or calibration curves used in calibrating the statistical risk model.**

*The preferred file format is .png, but most image formats are acceptable.*

[Response Begins]

[Response Ends]

**2b.30. Provide the results of the risk stratification analysis.**

[Response Begins]

[Response Ends]

**2b.31. Provide your interpretation of the results, in terms of demonstrating adequacy of controlling for differences in patient characteristics (i.e., case mix).**

*In other words, what do the results mean and what are the norms for the test conducted?*

[Response Begins]

[Response Ends]

**2b.32. Describe any additional testing conducted to justify the risk adjustment approach used in specifying the measure.**

*Not required but would provide additional support of adequacy of the risk model, e.g., testing of risk model in another data set; sensitivity analysis for missing data; other methods that were assessed.*

**[Response Begins]**

**[Response Ends]**

### 3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

---

#### **3.01. Check all methods below that are used to generate the data elements needed to compute the measure score.**

##### **[Response Begins]**

Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)

##### **[Response Ends]**

#### **3.02. Detail to what extent the specified data elements are available electronically in defined fields.**

*In other words, indicate whether data elements that are needed to compute the performance measure score are in defined, computer-readable fields.*

##### **[Response Begins]**

Some data elements are in defined fields in electronic sources

##### **[Response Ends]**

#### **3.03. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using data elements not from electronic sources.**

##### **[Response Begins]**

The measure was specified to use manually chart-abstracted data from medical records. This approach was selected for two reasons. First, the setting in which this measure was tested (inpatient psychiatric facilities) primarily used paper records at the time of development. Among IPFs that participate in the IPFQR Program, only about 36% attested to using an EHR system for fiscal year 2016 (CMS, 2016).

This approach was also selected because many of the data elements are not currently collected in structured, computer-readable fields. We anticipate that if this measure were to be implemented, some of the data elements could be collected in structured fields.

Citation:

\* Centers for Medicare & Medicaid Services. Inpatient Psychiatric Facility Quality Measure Data – by Facility. 2016. <https://data.medicare.gov/Hospital-Compare/Inpatient-Psychiatric-Facility-Quality-Measure-Dat/q9vs-r7wp>. Accessed September 13, 2016.

##### **[Response Ends]**

#### **3.04. Describe any efforts to develop an eCQM.**

##### **[Response Begins]**

##### **[Response Ends]**

#### **3.06. Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.**

**[Response Begins]**

**[Response Ends]**

Consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.

**3.07. Detail any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm),**

**Attach the fee schedule here, if applicable.**

**[Response Begins]**

There are no fees or other requirements to use this measure as specified.

**[Response Ends]**

## 4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

---

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making.

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement, in addition to demonstrating performance improvement.

### 4a.01. Check all current uses. For each current use checked, please provide:

Name of program and sponsor

URL

Purpose

Geographic area and number and percentage of accountable entities and patients included

Level of measurement and setting

[Response Begins]

[Response Ends]

### 4a.02. Check all planned uses.

[Response Begins]

Public reporting

[Response Ends]

### 4a.03. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing), explain why the measure is not in use.

*For example, do policies or actions of the developer/steward or accountable entities restrict access to performance results or block implementation?*

[Response Begins]

The measure is currently not publicly reported or in use because this is a new measure.

[Response Ends]

### 4a.04. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes: used in any accountability application within 3 years, and publicly reported within 6 years of initial endorsement.

*A credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.*

[Response Begins]

The measure is currently not publicly reported or in use because this is a new measure.

**[Response Ends]**

**4a.05. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.**

*Detail how many and which types of measured entities and/or others were included. If only a sample of measured entities were included, describe the full population and how the sample was selected.*

**[Response Begins]**

Not applicable, this measure is not currently in use.

**[Response Ends]**

**4a.06. Describe the process for providing measure results, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.**

**[Response Begins]**

Not applicable, this measure is not currently in use.

**[Response Ends]**

**4a.07. Summarize the feedback on measure performance and implementation from the measured entities and others. Describe how feedback was obtained.**

**[Response Begins]**

Not applicable, this measure is not currently in use.

**[Response Ends]**

**4a.08. Summarize the feedback obtained from those being measured.**

**[Response Begins]**

Not applicable, this measure is not currently in use.

**[Response Ends]**

**4a.09. Summarize the feedback obtained from other users.**

**[Response Begins]**

Not applicable, this measure is not currently in use.

**[Response Ends]**

**4a.10. Describe how the feedback described has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.**

**[Response Begins]**

Not applicable, this measure is not currently in use. However, the measure has been revised based on feedback from stakeholders during public comment periods to simplify the measure logic and align data element definitions with similar data elements used by other measures.

**[Response Ends]**

**4b.01. You may refer to data provided in Importance to Measure and Report: Gap in Care/Disparities, but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included). If no improvement was demonstrated, provide an explanation. If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.**

**[Response Begins]**

The measure is currently not publicly reported or in use because this is a new measure. However, we anticipate that the implementation of this measure will lead to more standardization in the documentation of medication reconciliation at facilities, which will improve communication across providers and may lead to fewer adverse drug events and better patient outcomes. For example, a facility may learn that they are failing the measure frequently at the “one or more external sources of PTA medication” step. They can evaluate whether this is because they are not routinely referencing external sources or they are just not documenting which sources were referenced. If the issue is with the former, they can improve their process for obtaining PTA medications, which may lead to more comprehensive medication lists to inform treatment decisions. If the issue is with the documentation, they can update their medication reconciliation forms to more easily capture the source information, which may reduce re-work in referencing sources that had previously been consulted or lead to more thorough information gathering if members of the team see that sources had not been consulted that they otherwise would have assumed had been referenced.

**[Response Ends]**

**4b.02. Explain any unexpected findings (positive or negative) during implementation of this measure, including unintended impacts on patients.**

**[Response Begins]**

Not applicable, this measure has not been implemented yet.

**[Response Ends]**

**4b.03. Explain any unexpected benefits realized from implementation of this measure.**

**[Response Begins]**

Not applicable, this measure has not been implemented yet.

**[Response Ends]**



## 5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

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If you are updating a maintenance measure submission for the first time in MIMS, please note that the previous related and competing data appearing in question 5.03 may need to be entered in to 5.01 and 5.02, if the measures are NQF endorsed. Please review and update questions 5.01, 5.02, and 5.03 accordingly.

### 5.01. Search and select all NQF-endorsed related measures (conceptually, either same measure focus or target population).

*(Can search and select measures.)*

[Response Begins]

[Response Ends]

### 5.02. Search and select all NQF-endorsed competing measures (conceptually, the measures have both the same measure focus or target population).

*(Can search and select measures.)*

[Response Begins]

[Response Ends]

### 5.03. If there are related or competing measures to this measure, but they are not NQF-endorsed, please indicate the measure title and steward.

[Response Begins]

[Response Ends]

### 5.04. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s), indicate whether the measure specifications are harmonized to the extent possible.

[Response Begins]

Yes

[Response Ends]

### 5.05. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

[Response Begins]

The Measure Developer evaluated existing measures in the NQF portfolio to determine whether the Medication Reconciliation on Admission measure would compete with existing measures. Among the five NQF-endorsed measures that evaluate the medication reconciliation process, three (NQF #0097, #0553, #2988) are specified for the outpatient setting and the two (NQF #0293 and #0646) that are specified for the inpatient setting focus on communication of information at discharge. Therefore, the Medication Reconciliation on Admission measure is the only measure that evaluates medication reconciliation on admission to an inpatient facility. To align definitions with other measures that establish a designated timeframe by which a given process must be completed from admission, the Measure Developer harmonized the Medication Reconciliation on Admission measure timeframes with the timeframe specifications of SUB-1 Alcohol Use Screening (NQF 1661) and TOB-1 Tobacco Use Screening (NQF 1651), developed by The Joint Commission. Both measures define the length of stay in calendar days.

Standardizing definitions for calculating length of stay using the admission and discharge dates without factoring-in the admission and discharge times will not only help reduce confusion across measures but also help to improve the reliability of the measure scores by eliminating the need to capture times, which were found to be unreliable during field testing. To develop the three data elements associated with the medication reconciliation process, the Measure Developer compared the conceptual descriptions and definitions of five NQF-endorsed measures (NQF 0553, NQF 2988, NQF 0293, NQF 0646, and NQF 0097) that evaluate the medication reconciliation process. Four of the five measures explicitly require a designated medication list. For this measure, the Measure Developer operationalized that requirement with the Designated PTA Medication List data element. Of the three measures that required collection of medications, two had requirements for the types of sources that should be referenced to compile the list. For the Medication Reconciliation on Admission measure, the Measure Developer set to establish a minimum standard and aligned with the approach to require “one or more external sources.” While several measures required the type of information to be collected on each medication, the Measure Developer decided not to include those data elements in this measure given the high performance and low variation for those data elements in testing. Each of the measures defines the process of reconciling the medications on the list differently. The Measure Developer incorporated aspects of each definition that are most applicable to the IPF setting. For example, the Measure Developer aligned with measures that require that the reconciliation be completed by a prescriber and that there be documentation of whether each medication be continued, modified, or discontinued. Finally, the Measure Developer considered different approaches to scoring the measure. Four of the five NQF-endorsed measures require that all aspects of the medication reconciliation process be completed for a patient to pass the measure. The fifth measure evaluates the number of patient months for which the medication reconciliations were completed, however, this is only applicable in the outpatient setting. Therefore, the Measure Developer aligned the scoring approach to produce measure scores that represent the percentage of patient admissions that meet all the medication reconciliation criteria.

**[Response Ends]**

**5.06. Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality). Alternatively, justify endorsing an additional measure.**

*Provide analyses when possible.*

**[Response Begins]**

This measure complements other existing measures because it focuses on the completion of the medication reconciliation process by the end of Day 2 of the hospitalization to the facility, which is not addressed by any existing measure. Medication reconciliation on admission is important to inform accurate medication reconciliation at discharge, which is evaluated by two of the existing measures. Medication reconciliation on admission also ensures that efforts to reconcile medications in the outpatient setting are continued at the transition to the inpatient setting.

**[Response Ends]**

## Appendix

Supplemental materials may be provided in an appendix.:

## Contact Information

**Measure Steward (Intellectual Property Owner):** Centers for Medicare & Medicaid Services

**Measure Steward Point of Contact:** Dollar-Maples, Helen, [helen.dollar-maples@cms.hhs.gov](mailto:helen.dollar-maples@cms.hhs.gov)

Edelberg, Rebecca, redelberg@mathematica-mpr.com

**Measure Developer if different from Measure Steward:** Mathematica Policy Research

**Measure Developer Point(s) of Contact:** Rosenstein, Deborah, drosenstein@mathematica-mpr.com

Edelberg, Rebecca, redelberg@mathematica-mpr.com

## Additional Information

**1. Provide any supplemental materials, if needed, as an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be collated one file with a table of contents or bookmarks. If material pertains to a specific criterion, that should be indicated.**

**[Response Begins]**

**[Response Ends]**

**2. List the workgroup/panel members' names and organizations.**

*Describe the members' role in measure development.*

**[Response Begins]**

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- Jonathan Delman, PhD, JD, MPH
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- Elvira Ryan, MBA, BSN, RN
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**[Response Ends]**

**3. Indicate the year the measure was first released.**

**[Response Begins]**

**[Response Ends]**

**4. Indicate the month and year of the most recent revision.**

**[Response Begins]**

**[Response Ends]**

**5. Indicate the frequency of review, or an update schedule, for this measure.**

**[Response Begins]**

Not applicable, this is a new measure.

**[Response Ends]**

**6. Indicate the next scheduled update or review of this measure.**

**[Response Begins]**

**[Response Ends]**

**7. Provide a copyright statement, if applicable. Otherwise, indicate "N/A".**

**[Response Begins]**

Not applicable; the measure is in the public domain.

**[Response Ends]**

**8. State any disclaimers, if applicable. Otherwise, indicate "N/A".**

**[Response Begins]**

None

**[Response Ends]**

**9. Provide any additional information or comments, if applicable. Otherwise, indicate "N/A".**

**[Response Begins]**

The original version of the Medication Reconciliation on Admission measure (NQF #3207) was constructed as a composite measure. The measure was reviewed by the NQF Behavioral Health Standing Committee (BHSC) in February 2017. The composite measure was not recommended for endorsement by the NQF BHSC because the committee vote indicated that the measure did not pass the evidence criterion, which is required for further evaluation.

The measure was subsequently re-specified from a composite measure into a process of care measure. Additionally, the evidence supporting the measure was enhanced and the measure algorithm was simplified to address the concerns raised by the NQF BHSC committee. This revised version of the Medication Reconciliation on Admission measure is being submitted to NQF as a new measure for endorsement consideration.

**[Response Ends]**