Clinical Quality Measures for CMS's 2014
EHR Incentive Program for Eligible Hospitals: Release Notes, December 19, 2012

12/21/12.

CLINICAL QUALITY MEASURES
FOR CMS'S 2014 EHR INCENTIVE PROGRAM
FOR ELIGIBLE HOSPITALS

RELEASE NOTES

In August 2012, the Centers for Medicare & Medicaid Services (CMS) finalized the electronic clinical quality measures (eCQMs) for the 2014 Medicare and Medicaid Electronic Health Record (EHR) Incentive Program for Eligible Hospitals, also known as Meaningful Use Stage 2 for Eligible Hospitals.[1] This list of eCQMs for 2014 have been updated based on advances in technology and tools for eMeasure development, comments from stakeholders, changes initiated by measure developers, and CMS's standards as defined in the agency's Measures Management System Blueprint, Version 9 (Blueprint).[2]

CMS recognizes the importance of providing support, training, and information to eCQM stakeholders, particularly as the EHR Incentive Programs transition to the 2014 measures. The purpose of this document is to inform eligible hospitals and the vendor community about updated program requirements related to the 2014 eCQMs. This update includes information about global changes incorporated across all measures as well as specific changes to select measures. Global changes are listed first and include structural modifications; updates to value sets; and data elements and standards revised in accordance with the Blueprint. Specific changes to measures include changes to measure components, such as initial patient populations, denominators, numerators, exclusions, and exceptions, as well as logic changes that affect how data elements interrelate during the measurement period.

This document is intended for readers who are familiar with eMeasure components and the current standards for construction of an eMeasure. For more information on eMeasures, please visit the CMS website (http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/ClinicalQualityMeasures.html). Please note that this document is to be used in conjunction with the newly published 2014 eCQMs for Eligible Hospitals, published on December 21, 2012 as an update to the eCQMs released on October 25, 2012.

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[1] CMS. "EHR Incentive Program —Stage 2." 2012.
Available at [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Stage_2.html]. Accessed December 17, 2012.
[2] CMS. "CMS Measure Management System Blueprint" Available at [http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/MeasuresManagementSystemBlueprint.html]. Accessed December 17, 2012.

Global Edits

- Updated eCQM Version ID Number to v2 for measures incorporating revisions.

- Updated the eCQM Header to reflect Blueprint requirements (such as using the initial patient population to define the denominator and including stratification variables in the header) and modified other fields, such as population criteria, to reflect these changes.

- Updated the measure logic to reflect the changes to the Quality Data Model (QDM), to reflect consistent use of relative timing across measures (including age calculation), occurrencing, and denominator exclusions.

- Removed redundant logic and Header statements to reduce confusion and enhance eCQM clarity.

- Assigned data elements based on version 2.1.1.1 of the QDM[3] to each clinical concept, adding attributes as needed to precisely define QDM elements.

- Updated existing select value sets to create harmonization between similar value set concepts across eCQMs.

- Provided additional guidance to help implementers interpret the calculation requirements for the measures as well as instructional and clarifying notes.

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[3] For more on the Quality Data Model, visit the NQF website at http://www.qualityforum.org/QualityDataModel.aspx

NQF 0147 PN-6 Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immunocompetent Patients

Header:

- Guidance Language Changes:
    - Header Guidance language to be removed upon steward approval. The header guidance update will occur during the measure maintenance period.
        - "Patients for whom there are missing or inaccurate data (e.g., arrival time, medication administration) are considered to have failed the measure; the total number of patients with missing or erroneous (e.g., a time of 03:69 or a date of 10/26/2035) data (i.e., measure failures) must be reported with the results of the measure."
    - Denominator exclusion language changed to mimic the language in the guidance about clinical trial participant:
        - The exclusion for patients who are clinical trial participants is limited to patients participating in a clinical trial for pneumonia, the same condition as covered by the measure. Other clinical trials are not valid reasons for exclusions.
        - The steward requested that "Clinical Trial Participant" remain in the eSpecifications. The guidance has been updated to clarify this intent.
    - In the 2014 version of this eMeasure, the reference to blood culture does not apply and therefore was removed.

- Initial Patient Population:
    - The measure steward requested the IPP and Denominator statements follow the written specifications therefore no changes will be made at this time. The IPP Guidance statement was updated to mimic the language of the Denominator statement with regard to diagnosis.

Denominator exclusions:

- "Laboratory Test, Result: Hospital Measures-Neutrophil count":
    - To provide continuity between the guidance and the logic Denominator Exclusion statement, this issue has been corrected as follows: OR: "Laboratory Test, Result: Hospital Measures-Neutrophil count (result <500).

- Ambulatory Surgical Center was inadvertently duplicated.
    - The duplicate statement was removed and an additional logic statement added to encompass "Acute Care Hospital".

- HIV test
    - To provide continuity to the logic statement, the value set that is linked to this Denominator Exclusion will be modified during the measure maintenance phase. Currently, the LOINC value set relates to the test ordered and the SNOMED value set relates to the test result.

- Antimicrobial medications (start datetime: 'Hospital measures-Route IV, oral or IM')
    - This typographical error- "start datetime" has been removed. Route will remain as written.

Numerator:

- AND: FIRST:"Medication, Administered: Hospital Measures-IV or IM Beta lactams (route: 'Hospital measures-Route IV')"…"
    - An expert consensus determined the attribute "route" might not capture the intent to limit the medication use to IV. The original value set has been replaced with a value set specifically for IV medications and the attribute for route will remain as written.

NQF 0453 SCIP-INF-9 Urinary catheter removed on Postoperative Day 1 (POD1) or Postoperative Day 2 (POD2) with day of surgery being day zero

- The update to the denominator logic is designed to clearly capture that the urinary catheter was inserted during the inpatient encounter; the surgical procedure could have ended after the urinary catheter was inserted OR the surgical procedure could have ended up to six hours before the urinary catheter was inserted; a SCIP procedure was performed; and a SCIP procedure was performed before the end of the inpatient encounter, making the patient eligible for inclusion in the denominator population.

Logic in the denominator changed from the following:

- Denominator =
  - AND: "Initial Patient Population"
  - AND: "Occurrence A of Device, Applied: Hospital Measures-Indwelling urinary catheter (start datetime, anatomical structure: 'Hospital Measures-Urethra')" starts after end of ("Occurrence A of Procedure, Performed: Hospital Measures-Joint Commission Evidence of a surgical procedure requiring general or neuraxial anesthesia" ends during "Occurrence A of Encounter, Performed: Encounter Inpatient")
  - AND: "Occurrence A of Procedure, Performed: SCIP Major Surgical Procedure (ordinality: 'Hospital Measures - Principal')" = 0 day(s) ends after end of "Occurrence A of Procedure, Performed: Hospital Measures-Joint Commission Evidence of a surgical procedure requiring general or neuraxial anesthesia"

Logic changed to:

- Denominator =
  - AND: "Initial Patient Population"
  - AND: "Occurrence A of Device, Applied: Hospital Measures-Indwelling urinary catheter (start datetime, anatomical structure: 'Hospital Measures-Urethra')" >= 1 minute(s) starts after start of "Occurrence A of Encounter, Performed: Encounter Inpatient"
  - AND: "Occurrence A of Procedure, Performed: SCIP Major Surgical Procedure (ordinality: 'Hospital Measures - Principal')" = 0 day(s) ends after end of "Occurrence A of Procedure, Performed: Hospital Measures-Joint Commission Evidence of a surgical procedure requiring general or neuraxial anesthesia"
  - AND: "Occurrence A of Procedure, Performed: Hospital Measures-Joint Commission Evidence of a surgical procedure requiring general or neuraxial anesthesia" ends during "Occurrence A of Encounter, Performed: Encounter Inpatient"
  - AND:
    - OR: "Occurrence A of Procedure, Performed: Hospital Measures-Joint Commission Evidence of a surgical procedure requiring general or neuraxial anesthesia (stop datetime)" ends after start of "Occurrence A of Device, Applied: Hospital Measures-Indwelling urinary catheter (start datetime, anatomical structure: 'Hospital Measures-Urethra')"
    - OR: "Occurrence A of Procedure, Performed: Hospital Measures-Joint Commission Evidence of a surgical procedure requiring general or neuraxial anesthesia (stop datetime)" <= 6 hour(s) ends before start of "Occurrence A of Device, Applied: Hospital Measures-Indwelling urinary catheter (start datetime, anatomical structure: 'Hospital Measures-Urethra')"

NQF 0436 Stroke-3 Ischemic stroke – Anticoagulation Therapy for Atrial Fibrillation/Flutter

- In the Denominator, the following logic was removed:
  - o OR: "Diagnostic Study, Result: Atrial Fibrillation/Flutter" starts before or during "Occurrence A of Encounter, Performed: Inpatient"

As a result of the above logic removal from the Denominator, the following data element is removed from the Data Criteria (QDM Data Elements) list.

  - o "Diagnostic Study, Result: Atrial Fibrillation/Flutter" using "Atrial Fibrillation/Flutter SNOMED-CT Value Set (2.16.840.1.113883.3.117.1.7.1.249)"

NQF 0437 Stroke-4 Ischemic stroke – Thrombolytic Therapy

- In the Denominator Exclusion, the following logic:
  - o OR: "Medication, Administered: Thrombolytic (t-PA) Therapy" <= 2 day(s) starts before start of "Occurrence A of Encounter, Performed: Inpatient Encounter"

is changed to:

  - o OR: "Medication, Administered: Thrombolytic (t-PA) Therapy" <= 2 day(s) starts before start of "Occurrence A of Encounter, Performed: Emergency Department Visit (facility location arrival datetime)"

NQF 0527 SCIP-INF-1 Prophylactic Antibiotic Received within 1 Hour Prior to Surgical Incision

- Logic in all 8 numerators changed from the following:

Numerator 1 =

  - o AND:
    - AND: "Medication, Administered: Hospital measures-SCIP IV quinolones (route: 'Hospital measures-Route IV')" <= 120 minute(s) starts before start of "Occurrence A of Procedure, Performed: Hospital measures-CABG (incision datetime)"
    - AND: "Medication, Administered: Hospital measures-IV Vancomycin (route: 'Hospital measures-Route IV')" <= 120 minute(s) starts before start of "Occurrence A of Procedure, Performed: Hospital measures-CABG (incision datetime)"
    - AND: "Medication, Administered: Hospital measures-IV Antimicrobial medication (route: 'Hospital measures-Route IV')" <= 60 minute(s) starts before start of "Occurrence A of Procedure, Performed: Hospital measures-CABG (incision datetime)"

Logic changed to:

Numerator 1 =

  - o AND:
    - OR: "Medication, Administered: Hospital measures-SCIP IV quinolones (route: 'Hospital measures-Route IV')" <= 120 minute(s) starts before start of "Occurrence A of Procedure, Performed: Hospital measures-CABG (incision datetime)"
    - OR: "Medication, Administered: Hospital measures-IV Vancomycin (route: 'Hospital measures-Route IV')" <= 120 minute(s) starts before start of "Occurrence A of Procedure, Performed: Hospital measures-CABG (incision datetime)"
    - OR: "Medication, Administered: Hospital measures-IV Antimicrobial medication (route: 'Hospital measures-Route IV')" <= 60 minute(s) starts before start of

"Occurrence A of Procedure, Performed: Hospital measures-CABG (incision datetime)"

- In Numerator 8, the following logic changed to reflect IV Administration of Antimicrobial medication:
    - OR: "Medication, Administered: Hospital measures-IV, IM, PO Antimicrobial medication (route: 'Hospital measures-Route IV, IM, PO')" <= 60 minute(s) starts before start of "Occurrence A of Procedure, Performed: Hospital measures-Vascular surgery (incision datetime)"

    Logic changed to:

    - OR: "Medication, Administered: Hospital measures-IV Antimicrobial medication (route: 'Hospital measures-Route IV')" <= 60 minute(s) starts before start of "Occurrence A of Procedure, Performed: Hospital measures-Vascular surgery (incision datetime)"

- Header guidance language removed:

    "Patients for whom there are missing or inaccurate data (e.g., arrival time, medication administration) are considered to have failed the measure; the total number of patients with missing or erroneous (e.g., a time of 03:69 or a date of 10/26/2035) data (i.e., measure failures) must be reported with the results of the measure".

- Denominator exclusion language changed to read the same as the language in the guidance about clinical trial participant:

    "Patients enrolled in clinical trials-this exclusion is limited to patients participating in a clinical trial for the same conditions as covered by the measure. Other clinical trials are not valid reasons for exclusion."

- Denominator exclusion language removed:

    "Patients whose ICD-9-CM Hospital Measures-Principal procedure occurred prior to the date of admission."

NQF O528 SCIP-INF-2-Prophylactic Antibiotic Selection for Surgical Patients

- Header guidance language removed:
    - "Patients for whom there are missing or inaccurate data (e.g., arrival time, medication administration) are considered to have failed the measure; the total number of patients with missing or erroneous (e.g., a time of 03:69 or a date of 10/26/2035) data (i.e., measure failures) must be reported with the results of the measure."

- Denominator exclusion language changed to mimic the language in the guidance about clinical trial participant:
    - "Patients enrolled in clinical trials-this exclusion is limited to patients participating in a clinical trial for the same conditions as covered by the measure. Other clinical trials are not valid reasons for exclusion."

- Denominator exclusion language removed:
    - "Patients whose ICD-9-CM Hospital Measures-Principal procedure occurred prior to the date of admission."

NQF 0639 AMI-10 Statin Prescribed at Discharge

- Laboratory Test, Result: LDL-c uses LDL-c LOINC Value Set (2.16.840.1.113883.3.117.1.7.1.215), replacing the prior SNOMED-CT value set (2.16.840.1.113883.3.117.1.7.1.799).