

Pioneers in Quality Expert to Expert Webinar Series

ED-2- Median Admit Decision Time to ED Departure for Admitted Patients (CMS111v10)

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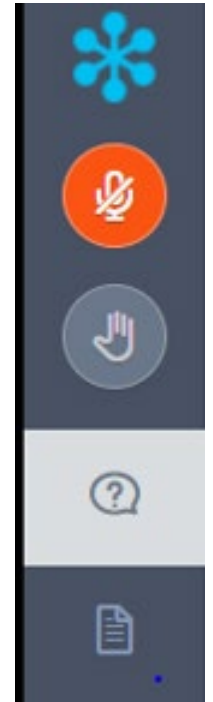
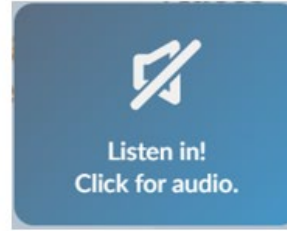
January 25, 2022

Lantana
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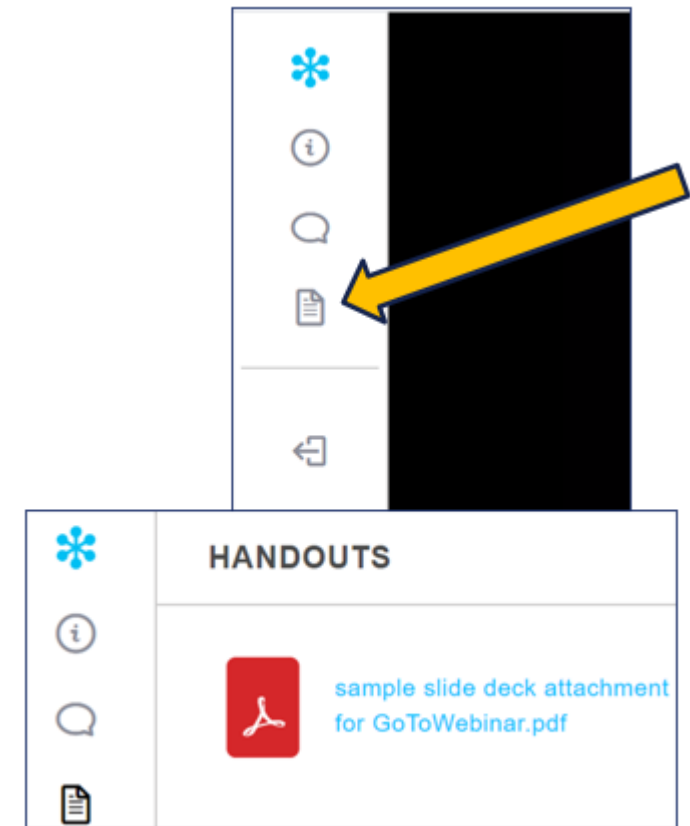
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Expert to Expert Webinar Series

Upcoming 2021-2022 eCQM Annual Updates Webinars will address:

- VTE Measures (Broadcast Dec 9)
- Stroke Measures (Broadcast Jan 18)
- PC-05 Exclusive Breast Milk Feeding (Broadcast Jan 18)
- ED-2 Median Admit Decision Time to ED Departure Time (Today)
- Safe Use of Opioids- Concurrent Prescribing
- Joint Commission-only ePC measures



2021-2022 New Measure Review Webinars will address:

- Hospital Harm - Severe Hypoglycemia (Feb 17)
- Hospital Harm - Severe Hyperglycemia (Feb 17)
- Joint Commission-only PC-07 Severe Obstetric Complications eCQM (Feb 2022)

Expert to Expert Series webpage: <https://www.jointcommission.org/measurement/pioneers-in-quality/pioneers-in-quality-expert-to-expert-series/>

eCQI Resource Center: <https://ecqi.healthit.gov/general-ecqm-and-ecqi-education>



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<https://www.jointcommission.org/performance-improvement/joint-commission/continuing-education-credit-information/>

At the end of this webinar, participants should be able to:

1. Apply concepts learned about the logic and intent for the ED-2 eCQM
2. Prepare to implement the ED-2 eCQM for the 2022 eCQM reporting period
3. Identify common issues and questions regarding the ED-2 eCQM

Disclosure Statement

These staff and speakers have disclosed that they do not have any financial arrangements or affiliations with corporate organizations that either provide educational grants to this program or may be referenced in this activity:

- Susan Funk, MPH, LSSGB Associate Project Director, Measurement Coordination and Outreach, The Joint Commission
- Susan Yendro, RN, MSN, Associate Director, Measurement Coordination and Outreach, The Joint Commission
- Angela Flanagan, MSN, RN, CPHIMS, Senior Informatics Nurse Specialist, eCQM Lead, Lantana Consulting Group

Pioneers in Quality Expert to Expert Webinar Agenda: ED-2 eCQM

- Brief Introduction to ED-2
- Review changes made to ED-2
- Discuss frequently asked questions
- Facilitated Audience Q&A Segment

Technical Overview

ED-2- Median Admit Decision Time to ED
Departure for Admitted Patients (CMS111v10)

ED-2 Measure Description

Median time (in minutes) from admit decision time to time of departure from the emergency department for emergency department patients admitted to inpatient status

Logic Changes Specific to ED-2 version 10

- Shortened the names of definition statements to improve readability
AdmitDecisionUsingAssessmentDuringLastEDBeforeDeparture to
AdmitDecisionUsingAssessment
AdmitDecisionUsingEncounterOrderDuringLastEDandBeforeDeparture to
AdmitDecisionUsingEncounterOrder
- Added a “let” clause to AdmitAssessment to streamline logic:
“AdmitDecisionUsingAssessmentDuringLastEDBeforeDeparture”(EncounterInpatient
)
- Removed the word “from” and added parentheses to group logic in the ED Encounter
with Decision to Admit definition
- Updated Global.“Inpatient Encounter” definition by adding “day of”

Changes Specific to ED-2 version 10 (Continued)

- Added new NormalizeInterval function to timing attributes
- Relocated the “EDEvaluation.result” in “Admit Inpatient” clause in the logic
- Revised the approach for identifying the location period end date by adding the Global.“HasEnd” function

Value Set Changes Specific to ED-2 version 10

Based on expert review and public feedback, changes were made to the following value sets

- Decision to Admit to Hospital Inpatient (2.16.840.1.113883.3.117.1.7.1.295)
- Psychiatric/Mental Health Diagnosis (2.16.840.1.113883.3.117.1.7.1.299)
- Admit Inpatient (2.16.840.1.113762.1.4.1111.164)

ED-2 Continuous Variable Measure

1. Episodes of care are classified using the initial population (IP) criteria, and those satisfying the criteria are included in the IP.
2. The IP members are classified using the measure population criteria and those satisfying the criteria are included in the measure population.
3. Each member of the measure population is evaluated according to the measure observations criteria and these results are aggregated using the specified operator.



$$\frac{\text{ED Discharge datetime} - \text{ED Admission datetime}}{\text{duration in minutes}} \quad \boxed{\text{OBSERVATION}}$$

Aggregation Calculations

Calculate the ED encounter duration in minutes for each ED encounter in the measure population; report the median time for all calculations performed.

Departure time from ED minus Decision to Admit to Inpatient time

Encounter Minutes

Encounter 1: 60

Encounter 2: 120

Encounter 3: 240 (median time - duration in minutes)

Encounter 4: 300

Encounter 5: 360

Initial Population Logic

Initial Population

“ED Encounter with Decision to Admit”

Global."Inpatient Encounter" EncounterInpatient

let LastEDVisit: LastEDEncounter(EncounterInpatient),

AdmitAssessment: "AdmitDecisionUsingAssessment"(EncounterInpatient)

where (Global."NormalizeInterval" (AdmitAssessment.relevantDatetime,
AdmitAssessment.relevantPeriod) starts during LastEDVisit.relevantPeriod

or ("AdmitDecisionUsingEncounterOrder"(EncounterInpatient).authorDatetime during
LastEDVisit.relevantPeriod))

and exists (LastEDVisit.facilityLocations Location

where Location.code in "Emergency Department Visit"

and Global."HasEnd" (Location.locationPeriod))

“ED Encounter with Decision to Admit” Inpatient Define and Function Expressions

Global.Inpatient Encounter

["Encounter, Performed": "Encounter Inpatient"] EncounterInpatient

where "LengthInDays"(EncounterInpatient.relevantPeriod)<= 120

and EncounterInpatient.relevantPeriod ends during day of "Measurement Period“

Global.LengthInDays(Value Interval<DateTime>)

difference in days between start of Value and end of Value

“ED Encounter with Decision to Admit” ED Functions

LastEDEncounter(EncounterInpatient "Encounter, Performed")

Last(**Global."ED Encounter"** EDVisit

where EDVisit.relevantPeriod ends 1 hour or less before or on start of
EncounterInpatient.relevantPeriod

sort by end of relevantPeriod ascending)

Global.ED Encounter

["Encounter, Performed": "Emergency Department Visit"]

“ED Encounter with Decision to Admit” Admit Assessment Definition & Functions

AdmitDecisionUsingAssessment(EncounterInpatient "Encounter, Performed")

Last(["Assessment, Performed": "Emergency Department Evaluation"]) EDEvaluation

let LastEDVisit: "LastEDEncounter"(EncounterInpatient)

where EDEvaluation.result in "Admit Inpatient"

and Global."NormalizeInterval"(EDEvaluation.relevantDatetime,
EDEvaluation.relevantPeriod) starts during LastEDVisit.relevantPeriod

and Global."NormalizeInterval"(EDEvaluation.relevantDatetime,
EDEvaluation.relevantPeriod) starts before or on "EDDepartureTime"(LastEDVisit)

sort by start of Global."NormalizeInterval"(relevantDatetime, relevantPeriod))

“ED Encounter with Decision to Admit” Assessment Functions

LastEDEncounter("Encounter, Performed")

Last(**Global."ED Encounter"** EDVisit

where EDVisit.relevantPeriod ends 1 hour or less before or on start of
EncounterInpatient.relevantPeriod

sort by end of relevantPeriod ascending)

Global.ED Encounter

["Encounter, Performed": "Emergency Department Visit"]

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

if pointInTime is not null then Interval[pointInTime, pointInTime]

else if period is not null then period

else null as Interval<DateTime>

“ED Encounter with Decision to Admit” Admit Order Definition & Functions

**AdmitDecisionUsingEncounterOrder(EncounterInpatient "Encounter,
Performed")**

Last(["Encounter, Order": "Decision to Admit to Hospital Inpatient"] AdmitOrder

let LastEDVisit: **"LastEDEncounter"(EncounterInpatient)**

where AdmitOrder.authorDatetime during LastEDVisit.relevantPeriod

and AdmitOrder.authorDatetime before or on

"EDDepartureTime"(LastEDVisit)

sort by authorDatetime)

“ED Encounter with Decision to Admit” Admit Order Function

"LastEDEncounter"(EncounterInpatient)

EDDepartureTime(Encounter "Encounter, Performed")

Last(Encounter.facilityLocations Location

where Location.code in "Emergency Department Visit"

and **Global."HasEnd"(Location.locationPeriod)**

return

end of Location.locationPeriod

sort ascending

“ED Encounter with Decision to Admit” Admit Order Function

Global.HasEnd(period Interval<DateTime>)

not (end of period is null

or end of period = maximum DateTime)

2021 Version

end of Location.locationPeriod

!= maximum DateTime

Measure Population Narrative

Initial Population

Measure Population Logic

Measure Population
“Initial Population”

Measure Population Exclusions Narrative

Emergency department encounters with an admission source in "Hospital Setting" (any different facility-by location or CCN) resulting in an inpatient stay

Measure Population Exclusions Logic

Measure Population Exclusion

“Global."Inpatient Encounter” EncounterInpatient where
“LastEDEncounter”(EncounterInpatient).admissionSource
in "Hospital Settings”

“Global."Inpatient Encounter” EncounterInpatient where
“LastEDEncounter”(EncounterInpatient).admissionSource
in "Hospital Settings”

Measure Observation Narrative

Median time (in minutes) from the Decision to Admit to inpatient to the time the patient physically departs the ED to inpatient hospitalization

Measure Observation Logic Changes

2022 Measure Observation

Median (duration in minutes of
Interval[Coalesce(start of
Global."NormalizeInterval"("AdmitDecisionUsingAssessment"(EncounterInpatient).relevantDate
time,
"AdmitDecisionUsingAssessment"(EncounterInpatient).relevantPeriod),
"AdmitDecisionUsingEncounterOrder"(EncounterInpatient).authorDatetime),
"EDDepartureTime"("LastEDEncounter"(EncounterInpatient))])])

2021 Measure Observation

Median (duration in minutes of
Interval[Coalesce("AdmitDecisionUsingAssessmentDuringLastEDBeforeDeparture"(EncounterI
npatient).relevantDatetime,
"AdmitDecisionUsingEncounterOrderDuringLastEDandBeforeDeparture"(EncounterInpatient).
authorDatetime),
"EDDepartureTime"("LastEDEncounter"(EncounterInpatient))])])

Measure Observation Logic

Median (duration in minutes of

Interval[Coalesce(start of

Global."NormalizeInterval"("AdmitDecisionUsingAssessment"(EncounterInpatient).relevantDatetime,

"AdmitDecisionUsingAssessment"(EncounterInpatient).relevantPeriod),

"AdmitDecisionUsingEncounterOrder"(EncounterInpatient).authorDatetime),

"EDDepartureTime"("LastEDEncounter"(EncounterInpatient))])

Measure Observation Functions

AdmitDecisionUsingAssessment(EncounterInpatient "Encounter, Performed")

Last(["Assessment, Performed": "Emergency Department Evaluation"] EDEvaluation
let LastEDVisit: "LastEDEncounter"(EncounterInpatient)
where EDEvaluation.result in "Admit Inpatient"
and Global."NormalizeInterval"(EDEvaluation.relevantDatetime,
EDEvaluation.relevantPeriod)starts during
LastEDVisit.relevantPeriod
and Global."NormalizeInterval"(EDEvaluation.relevantDatetime,
EDEvaluation.relevantPeriod)starts before or on
"EDDepartureTime"(LastEDVisit)
sort by start of Global."NormalizeInterval"(relevantDatetime,
relevantPeriod))

LastEDEncounter(EncounterInpatient "Encounter, Performed")

Last(Global."ED Encounter" EDVisit
where EDVisit.relevantPeriod ends 1 hour or less before or on
start of EncounterInpatient.relevantPeriod
sort by end of relevantPeriod ascending)

AdmitDecisionUsingEncounterOrder(EncounterInpatient "Encounter, Performed")

Last(["Encounter, Order": "Decision to Admit to Hospital Inpatient"] AdmitOrder
let LastEDVisit
"LastEDEncounter"(EncounterInpatient)
where AdmitOrder.authorDatetime during
LastEDVisit.relevantPeriod
and AdmitOrder.authorDatetime before or on
"EDDepartureTime"(LastEDVisit)
sort by authorDatetime)

EDDepartureTime(Encounter "Encounter, Performed")

Last(Encounter.facilityLocations Location
where Location.code in "Emergency Department Visit"
and Global."HasEnd"(Location.locationPeriod)
return end of Location.locationPeriod
sort ascending)

ED – 2 Stratification Narrative

Stratification describes the strata for which the measure is to be evaluated the total score and strata are reported

Stratification 1

Stratification 1—all patients seen in the ED and admitted as an inpatient who do not have an inpatient encounter principal diagnosis (rank=1) consistent with psychiatric/mental health disorders

Global."Inpatient Encounter" EncounterInpatient

where not exists (EncounterInpatient.diagnoses Diagnosis

where Diagnosis.code in "Psychiatric/Mental Health
Diagnosis"

and Diagnosis.rank = 1)

Stratification 2

Stratification—all patients seen in the ED and admitted as an inpatient who have an inpatient encounter principal diagnosis (rank=1) consistent with psychiatric/mental health disorders

Global."Inpatient Encounter" EncounterInpatient

where exists (EncounterInpatient.diagnoses Diagnosis

where Diagnosis.code in "Psychiatric/Mental Health
Diagnosis"

and Diagnosis.rank = 1)

FAQ Segment

Question 1

If a patient comes to the ED and a decision to admit to Observation is ordered, but then at the 23rd hour is transferred to an inpatient unit, is the patient included in the IP?

Answer 1

The data for this measure are assessed after the inpatient hospitalization ends for encounters equal to or less than 120 days. The logic assesses for an inpatient encounter that occurred within an hour of an ED Visit.

Question 2

If there are multiple times for decision to admit, what time should be used in the calculation for the ED-2 measure?

Answer 2

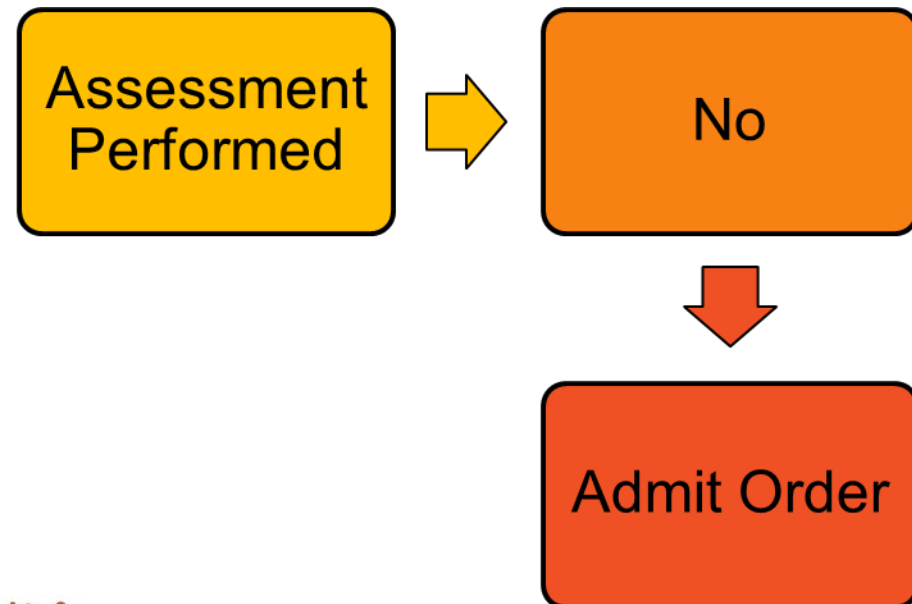
If there are multiple times for the decision to admit assessment, use the last (most recent) time that occurred during the ED encounter that preceded the inpatient admission.

Question 3

Is there a source hierarchy when multiple times are listed on different sources?

Answer 3

The intent is for the measure to first evaluate for a relevant date/time of an ED assessment performed that resulted in a decision to admit inpatient. If an assessment does not exist, then the measure assesses for an author date time of an order to admit to inpatient.



Question 4

In response to the COVID -19 pandemic, we opened an inpatient COVID unit in our ED. Should we include this ED area in our ED2 metric? Decision to admit is valid but the patients may stay in the ED for weeks.

Answer 4

The data for this measure are assessed after the inpatient hospitalization ends for encounters equal to or less than 120 days. The logic assesses for an inpatient encounter that occurred within an hour of an ED Visit. If the COVID-19 unit is considered inpatient and the ED visit was within an hour and the decision to admit was made in the ED and prior to the patient departing the ED, the measure observation will be calculated.

Resources

eCQI Resource Center – EH Measures:

<https://ecqi.healthit.gov/eligible-hospital/critical-access-hospital-ecqms>

Pioneers In Quality

<https://www.jointcommission.org/measurement/pioneers-in-quality/>

ONC Issue Tracking System

<https://oncprojecttracking.healthit.gov/>

Previous Webinars

<https://www.jointcommission.org/measurement/pioneers-in-quality/pioneers-in-quality-expert-to-expert-series/>

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Measurement webinars



Coming Soon – Expert to Expert Webinars

- Webinar series began Dec 9 that incorporates expertise from The Joint Commission, Centers for Medicare & Medicaid Services, Mathematica, and Lantana to address the 2022 eCQM Annual Updates for: VTE, STK, PC, ED, and Safe Opioid Use measures.
- A new measure review webinar is also planned in February for new Hypoglycemia and Hyperglycemia eCQMs.
- Additional information will be available at this link as each webinar is offered:

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