Measure examples regarding timing

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# CMS90 – example

Assessment, Performed: Followup Heart Failure FSA

Assessed Initial and Followup PROMIS29

"Initial Encounter" Encounter

with "PROMIS29 Total Assessment Scores" InitialPROMIS29

such that InitialPROMIS29.authorDatetime 14 days or less on or before Encounter.relevantPeriod

with "PROMIS29 Total Assessment Scores" FollowupPROMIS29

such that FollowupPROMIS29.authorDatetime 30 days or more after day of

end of Encounter.relevantPeriod

and FollowupPROMIS29.authorDatetime 180 days or less after day of

end of Encounter.relevantPeriod

Consider: QDM 5.5 allows use of RelevantDatetime for Assessment, Performed

# CMS147v8

Communication, From Patient to Provider: Influenza Immunization declined – author dateTime is appropriate

**Patient Declined Influenza Vaccination**

["Communication: From Patient To Provider": "Influenza Vaccination Declined"] CommunicateFluVaccinationDeclined

where CommunicateFluVaccinationDeclined.authorDatetime during "Influenza Season Including August and September of the Prior Year"

Consider: QDM 5.5 uses Communication, Performed with sent and received times. The subject, however, references that the vaccination was declined – if Immunization, NOT Administered were used, the author dateTime would be appropriate. For Communication, Performed, however the sent/received represents the time of the communication.

**Patient Reported Previous Receipt of Influenza Vaccine**

["Communication: From Patient To Provider": "Previous Receipt of Influenza Vaccine"] CommunicatePreviousReceiptFluVaccine

where CommunicatePreviousReceiptFluVaccine.authorDatetime during "Influenza Season Including August and September of the Prior Year"

Consider: QDM 5.5 uses Communication, Performed with sent and received times. They may be more appropriate for indicating when the communication occurred Vs when the communication was documented/recorded.

Influenza vaccine administered

**Medical Patient or System Reason for Not Performing Influenza Vaccination**

["Procedure, Not Performed": "Influenza Vaccination"] NoFluVaccination

where NoFluVaccination.authorDatetime during "Influenza Season Including August and September of the Prior Year"

and ( NoFluVaccination.negationRationale in "Medical Reason"

or NoFluVaccination.negationRationale in "Patient Reason"

or NoFluVaccination.negationRationale in "System Reason"

**Consider – author dateTime appropriate for negation rationale**

**Influenza Immunization Administered**

["Immunization, Administered": "Influenza Vaccine"] AdministeredFluVaccine

where AdministeredFluVaccine.authorDatetime during "Influenza Season Including August and September of the Prior Year"

Consider – QDM 5.5 allows Relevant dateTime for actual administration time

# CMS142v7

Communication, From Provider to Provider: Level of Severity of Retinopathy Findings; and Macular Edema Findings Absent; and Macular Edema Findings Absent – all use author dateTime

**Communicate Level of Severity of Retinopathy Findings**

["Communication: From Provider To Provider": "Level of Severity of Retinopathy Findings"] CommunicationLevelOfSeverity

with "Diabetic Retinopathy Encounter" EncounterDiabeticRetinopathy

such that CommunicationLevelOfSeverity.authorDatetime after start of EncounterDiabeticRetinopathy.relevantPeriod

Consider: QDM 5.5 uses Communication, Performed with sent and received times. They may be more appropriate for indicating when the communication occurred Vs when the communication was documented/recorded.

# 

# CMS50v7

uses Intervention, Performed Relevant Period but sorts by author dateTime to determine FIRST

**Referring Provider Communicated Consultant Report to Close Referral Loop**

["Communication: From Provider To Provider": "Consultant Report"] ConsultantReportCommunicated

with "First Referral During Measurement Period" FirstReferral

such that FirstReferral.id in ConsultantReportCommunicated.relatedTo

and ConsultantReportCommunicated.authorDatetime after start of FirstReferral.relevantPeriod

Consider – QDM 5.4 and 5.5 allow sent and received times – previously only allowed author dateTime

# CMS52v7

Laboratory Test, Performed CD4 Count uses author dateTime instead of Relevant Period

**Denominator Exceptions**

exists ( ( ["Laboratory Test, Performed": "CD4+ Count"] FirstCD4Count

with ["Laboratory Test, Performed": "CD4+ Count"] SecondCD4Count

such that SecondCD4Count.authorDatetime occurs 3 months or less after day of FirstCD4Count.authorDatetime

and SecondCD4Count.result >= 500 '/mm3'

)

union ( ["Laboratory Test, Performed": "CD4+ Percentage"] FirstCD4Percent

with ["Laboratory Test, Performed": "CD4+ Percentage"] SecondCD4Percent

such that SecondCD4Percent.authorDatetime occurs 3 months or less after FirstCD4Percent.authorDatetime

and SecondCD4Percent.result >= 15 '%'

)

)

Consider – Consider use of FirstCD4Count.resultDatetime and Second CD4Count.resultDatetime

# CMS136v8

uses author time rather than relevant period to determine FIRST

**First ADHD Medication Dispensed**

First(["Medication, Dispensed": "ADHD Medications"] FirstADHDMedication

where FirstADHDMedication.authorDatetime 60 days or less after start "Measurement Period"

or FirstADHDMedication.authorDatetime 90 days or less on or before start "Measurement Period"

sort by authorDatetime

)

Consider – most likely discomfort with Relevant Period for a point in time – QDM 5.5 allows Relevant dateTime.

# CMS69v7

BMI ratio recorded (author time) rather than performance time

Uses Relevant Period for the physical exam but sorts by authorDatetime – likely because Relevant dateTime not available as with QDM 5.5

**Has High BMI with Follow Up**

Last(["Physical Exam, Performed": "Body mass index (BMI) [Ratio]"] LastBMI

with "High BMI Follow Up Encounters" HighBMIEncounter

such that LastBMI.relevantPeriod starts 12 months or less on or before end of HighBMIEncounter.relevantPeriod

sort by authorDatetime

).result >= 25 'kg/m2'

**Has Low BMI with Follow Up**

Last(["Physical Exam, Performed": "Body mass index (BMI) [Ratio]"] LastBMI

with "Low BMI Follow Up Encounters" LowBMIEncounter

such that LastBMI.relevantPeriod starts 12 months or less on or before end of LowBMIEncounter.relevantPeriod

sort by authorDatetime

).result < 18.5 'kg/m2'

# CMS165v7

Does sort by start of relevant period

* **Has Diastolic Blood Pressure Less Than 90**

Last("Diastolic Blood Pressure Exam" LastDiastolicBP

with "Most Recent Visit With Blood Pressure" HypertensionNumeratorEncounter

such that LastDiastolicBP.relevantPeriod during HypertensionNumeratorEncounter.relevantPeriod

sort by start of relevantPeriod

).result < 90 'mm[Hg]'

**Has Systolic Blood Pressure Less Than 140**

Last("Systolic Blood Pressure Exam" LastSystolicBP

with "Most Recent Visit With Blood Pressure" HypertensionNumeratorEncounter

such that LastSystolicBP.relevantPeriod during HypertensionNumeratorEncounter.relevantPeriod

sort by start of relevantPeriod

).result < 140 'mm[Hg]'