eCQM Title	**Depression Remission at Twelve Months**		
eCQM Identifier (Measure Authoring Tool)	159	**eCQM Version Number**	13.2.000
CBE Number	0710e	**GUID**	8455cd3e-dbb9-4e0c-8084-3ece4068fe94
Measurement Period	January 1, 20XX through December 31, 20XX		
Measure Steward	MN Community Measurement		
Measure Developer	MN Community Measurement		
Endorsed By	CMS Consensus Based Entity		
Description	The percentage of adolescent patients 12 to 17 years of age and adult patients 18 years of age or older with major depression or dysthymia who reached remission 12 months (+/- 60 days) after an index event		
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Measure Scoring	Proportion		
Measure Type	Outcome		
Stratification	Ages 12 to 17 at the time of the index assessment Ages 18 and older at the time of the index assessment		
Risk Adjustment	None		
Rate Aggregation	None		
Rationale	Adults: Depression is a common and treatable mental disorder. During 2013-2016, 8.1% of American adults age 20 and over had depression in a given 2 week period. Women (10.4%) were almost twice as likely as men (5.5%) to have had depression. The prevalence of depression among adults decreased as family income levels increased. About 80% of adults with depression reported at least some difficulty with work, home, or social activities because of their depression symptoms (Brody, Pratt, and Hughes, 2018). Depression is a risk factor for development of chronic illnesses such as diabetes and coronary heart disease and adversely affects the course, complications and management of chronic medical illness. Both maladaptive health risk behaviors and psychobiological factors associated with depression may explain depression's negative effect on outcomes of chronic illness (Katon, 2011). Adolescents and Adults: The Centers for Disease Control and Prevention states that during 2009-2012 an estimated 7.6% of the U.S. population aged 12 and over had depression, including 3% of Americans with severe depressive symptoms. Almost 43% of persons with severe depressive symptoms reported serious difficulties in work, home and social activities, yet only 35% reported having contact with a mental health professional in the past year (Pratt and Brody, 2014). Depression is associated with higher mortality rates in all age groups. Depression is also a leading cause of medical disability, and depressed people lose 5.6 hours of productive work every week when they are depressed, 50% of which is due to absenteeism and short-term disability (Stewart et al., 2003). Adolescents: In 2014, an estimated 2.8 million adolescents age 12 to 17 in the United States had at least one major depressive episode (MDE) in the past year (Center for Behavioral Health Statistics and Quality, 2015). The 2013 Youth Risk Behavior Survey of students grades 9 to 12 indicated that during the past 12 months 39.1% (F) and 20.8% (M) indicated feeling sad or hopeless almost every day for at least 2 weeks, planned suicide attempt 16.9% (F) and 10.3% (M), with attempted suicide 10.6% (F) and 5.4% (M) (Kann et al., 2014). Adolescent-onset depression is associated with chronic depression in adulthood. Many mental health conditions (anxiety, bipolar, depression, eating disorders, and substance abuse) are evident by age 14. The 12-month prevalence of MDEs increased from 8.7% in 2005 to 11.3% in 2014 in adolescents and from 8.8% to 9.6% in young adults (both $P < .001$). The increase was larger and statistically significant only in the age range of 12 to 20 years. The trends remained significant after adjustment for substance use disorders and sociodemographic factors (Mojtabai, Olfson, and Han 2016). Mental health care contacts overall did not change over time; however, the use of specialty mental health providers increased in adolescents and young adults, and the use of prescription medications and inpatient hospitalizations increased in adolescents (Mojtabai, Olfson, and Han 2016).		
	Adults: Recommendations and algorithm notations supporting depression outcomes and duration of treatment according to Institute for Clinical Systems Improvement Health Care Guideline (Trangle et al., 2016): Recommendation: Clinicians should establish and maintain follow-up with patients. Appropriate, reliable follow-up is highly correlated with improved response and remission scores. It is also correlated with the improved safety and efficacy of medications and helps prevent relapse (Trangle et al., 2016). Proactive follow-up contacts (in person, telephone) based on the collaborative care model have been shown to significantly lower depression severity (Unutzer et al., 2002). In the available clinical effectiveness trials conducted in real clinical practice settings, even the addition of a care manager leads to modest remission rates (Trivedi et al., 2006; Unutzer et al., 2002). Interventions are critical to educating the patient regarding the importance of preventing relapse, safety and efficacy of medications, and management of potential side effects. Establish and maintain initial follow-up contact intervals (office, phone, other) (Hunkeler et al., 2000; Simon et al., 2000). The Patient Health Questionnaire-9 (PHQ-9) is an effective monitoring and management tool, and should be used routinely for subsequent visits to monitor treatment outcomes and severity. It can also help the clinician decide if/how to modify the treatment plan (Duffy et al., 2008; Lowe et al., 2004). Using a measurement-based approach to depression care, PHQ-9 results and side effect evaluation should be combined with treatment algorithms to drive patients toward remission. A five-point drop in PHQ-9 score is considered the minimal clinically significant difference (Trivedi, 2009). The goals of treatment should be to achieve remission, reduce relapse and recurrence, and return to previous level of occupational and psychosocial function. If using a PHQ-9 tool, remission translates to PHQ-9 score of less than 5 (Kroenke, 2001). Results from the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) study showed that remission rates lowered with more treatment steps, but the overall cumulative rate was 67% (Rush et al., 2006). Response and remission take time. In the STAR*D study, longer times than expected were needed to reach response or remission. In fact, one-third of those who ultimately responded did so after six weeks. Of those who achieved remission by Quick Inventory of Depressive Symptomatology, 50% did so only at or after six weeks of treatment (Trivedi et al., 2006). If the primary care clinician is seeing some improvement, continue working with that patient to augment or increase dosage to reach remission. This can take up to three months.		

Clinical Recommendation Statement	This measure assesses achievement of remission, which is a desired outcome of effective depression treatment and monitoring. Adult Depression in Primary Care - Guideline Aims (Trangle et al., 2016): - Increase the percentage of patients with major depression or persistent depressive disorder who have improvement in outcomes from treatment for major depression or persistent depressive disorder. - Increase the percentage of patients with major depression or persistent depressive disorder who have follow-up to assess for outcomes from treatment. - Improve communication between the primary care physician and the mental health care clinician (if patient is co-managed). Adolescents: Recommendations supporting depression outcomes and duration of treatment according to American Academy of Child and Adolescent Psychiatry guideline (Birmaher et al., 2007): - Treatment of depressive disorders should always include an acute and continuation phase; some children may also require maintenance treatment. The main goal of the acute phase is to achieve response and ultimately full symptomatic remission (definitions below). - Each phase of treatment should include psychoeducation, supportive management, and family and school involvement. - Education, support, and case management appear to be sufficient treatment for the management of depressed children and adolescents with an uncomplicated or brief depression or with mild psychosocial impairment. - For children and adolescents who do not respond to supportive psychotherapy or who have more complicated depressions, a trial with specific types of psychotherapy and/or antidepressants is indicated. Recommendations supporting depression outcomes and duration of treatment according to Guidelines for Adolescent Depression in Primary Care (Zuckerbrot et al., 2018 (Part I), Zuckerbrot et al., 2018 (Part II)): - Mild depression: consider a period of active support and monitoring before starting other evidence-based treatment - Moderate or severe major clinical depression or complicating factors: -- consultation with mental health specialist with agreed upon roles -- evidence based treatment (cognitive behavioral therapy or interpersonal psychotherapy and/or antidepressant selective serotonin reuptake inhibitors) - Monitor for adverse effects during antidepressant therapy -- clinical worsening, suicidality, unusual changes in behavior - Systematic and regular tracking of goals and outcomes -- improvement in functioning status and resolution of depressive symptoms Regardless of the length of treatment, all patients should be monitored on a monthly basis for 6 to 12 months after the full resolution of symptoms.
Improvement Notation	Higher score indicates better quality
Reference	Reference Type: CITATION Reference Text: 'Birmaher, B., Brent, D., et al. (2007). Practice Parameter for the Assessment and Treatment of Children and Adolescents With Depressive Disorders J. Am. Acad. Child Adolesc. Psychiatry, 2007;46(11):1503Y1526.'
Reference	Reference Type: CITATION Reference Text: 'Brody, D. J., Pratt, L. A., and Hughes, J. P. (2018). Prevalence of depression among adults aged 20 and over: United States, 2013-2016. NCHS Data Brief, (303), 1–8.'
Reference	Reference Type: CITATION Reference Text: 'Duffy, F. F., Chung, H., Trivedi, M., et al. (2008, October). Systematic use of patient-rated depression severity monitoring: Is it helpful and feasible in clinical psychiatry? Psychiatric Services, 59(10), 1148-1154.'
Reference	Reference Type: CITATION Reference Text: 'Hunkeler, E. M., Meresman, J. F., Hargreaves, W. A., et al. (2000, August). Efficacy of nurse telehealth care and peer support in augmenting treatment of depression in primary care. Archives of Family Medicine, 9(8), 700-708.'
Reference	Reference Type: CITATION Reference Text: 'Kann, L., Kinchen, S., Shanklin, S.L., et al. (2014). Youth Risk Behavior Surveillance – United States, 2013. Morbidity and Mortality Weekly Report, 63(4), 1-168.'
Reference	Reference Type: CITATION Reference Text: 'Katon W. J. (2011). Epidemiology and treatment of depression in patients with chronic medical illness. Dialogues in Clinical Neuroscience, 13(1), 7–23.'
Reference	Reference Type: CITATION Reference Text: 'Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. Journal of General Internal Medicine, 16(9), 606-613. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1495268/'
Reference	Reference Type: CITATION Reference Text: 'Lowe, B., Unutzer, J., Callahan, C. M., et al. (2004). Monitoring depression treatment outcomes with the Patient Health Questionnaire-9. Medical Care, 42(12), 1194-1201.'
Reference	Reference Type: CITATION Reference Text: 'Pratt, L. A., and Brody, D. J. (2014). Depression in the U.S. household population, 2009-2012. NCHS Data Brief, (172), 1–8.'
Reference	Reference Type: CITATION Reference Text: 'Rush, A. J., Trivedi, M. H., Wisniewski, S. R., et al. (2006). Acute and longer-term outcomes in depressed outpatients requiring one or several treatment steps: A STAR*D report. American Journal of Psychiatry, 163, 1905-1917.'
Reference	Reference Type: CITATION Reference Text: 'Simon, G. E., Van Korff, M., Rutter, C., et al. (2000). Randomised trial of monitoring, feedback, and management of care by telephone to improve treatment of depression in primary care. BMJ, 320, 550-554.'
Reference	Reference Type: CITATION Reference Text: 'Stewart, W.F., Ricci, J.A., Chee, E., et al. (2003). Cost of lost productive work time among US workers with depression. Journal of the American Medical Association, 289(23), 3135-3144.'
Reference	Reference Type: CITATION Reference Text: 'Trangle, M., Gursky, J., Haight, R., et al. Depression, adults in primary care. (Updated 2016, March). Retrieved from https://www.icsi.org/guidelines__more/catalog_guidelines_and_more/catalog_guidelines/catalog_behavioral_health_guidelines/depression/'
Reference	Reference Type: CITATION Reference Text: 'Trivedi, M. H. (2009). Tools and strategies for ongoing assessment of depression: A measurement-based approach to remission. Journal of Clinical Psychiatry, 70, 26-31.'
Reference	Reference Type: CITATION Reference Text: 'Trivedi, M. H., Rush, A. J., Wisniewski, S. R., et al. (2006). Evaluation of outcomes with citalopram for depression using measurement-based care in STAR*D: Implications for clinical practice. American Journal of

	Psychiatry, 163(1), 28-40.'
Reference	Reference Type: CITATION Reference Text: 'Unutzer, J., Katon, W., Callahan, C. M., et al. (2002). Collaborative care management of late-life depression in the primary care setting: A randomized controlled trial. JAMA, 288, 2836-2845.'
Reference	Reference Type: CITATION Reference Text: 'Zuckerbrot, R. A., Cheung, A., Jensen, P., Stein, R. E. K., Laraque, D., et al. (2018). Guidelines for Adolescent Depression in Primary Care (GLAD-PC): Part I. Practice Preparation, Identification, Assessment, and Initial Management. Pediatrics. 141 (3): e20174081. Retrieved from: https://doi.org/10.1542/peds.2017-4081'
Reference	Reference Type: CITATION Reference Text: 'Zuckerbrot, R. A., Cheung, A., Jensen, P., Stein, R. E. K., Laraque, D., et al. (2018). Guidelines for Adolescent Depression in Primary Care (GLAD-PC): Part II. Treatment and Ongoing Management. Pediatrics. 141 (3): e20174082. Retrieved from https://doi.org/10.1542/peds.2017-4082'
Definition	Denominator Identification Period: The period in which eligible patients can have an index event. The denominator identification period occurs prior to the measurement period and is defined as 14 months to two months prior to the start of the measurement period. For patients with an index event, there needs to be enough time following index for the patients to have the opportunity to reach remission twelve months +/- 60 days after the index event date. Index Event Date: The date in which the first instance of elevated PHQ-9 or PHQ-9M greater than nine and diagnosis of depression or dysthymia occurs during the denominator identification measurement period. Patients may be assessed using PHQ-9 or PHQ-9M on the same date or up to 7 days prior to the encounter (index event). Measure Assessment Period: The index event date marks the start of the measurement assessment period for each patient which is 14 months (12 months +/- 60 days) in length to allow for a follow-up PHQ-9 or PHQ-9M between 10 and 14 months following the index event. This assessment period is fixed and does not start over with a higher PHQ-9 or PHQ-9M that may occur after the index event date. Remission is defined as a PHQ-9 or PHQ-9M score of less than five. Twelve months is defined as the point in time from the index event date extending out twelve months and then allowing a grace period of sixty days prior to and sixty days after this date. The most recent PHQ-9 or PHQ-9M score less than five obtained during this four month period is deemed as remission at twelve months, values obtained prior to or after this period are not counted as numerator compliant (remission).
Guidance	When an index assessment is conducted with PHQ-9M, the follow-up assessment can use either a PHQ-9M or PHQ-9. This eCQM is a patient-based measure. This version of the eCQM uses QDM version 5.6. Please refer to the eCQI resource center (https://ecqi.healthit.gov/qdm) for more information on the QDM.
Transmission Format	TBD
Initial Population	Adolescent patients 12 to 17 years of age and adult patients 18 years of age and older with a diagnosis of major depression or dysthymia and an initial PHQ-9 or PHQ-9M score greater than nine during the index event. Patients may be assessed using PHQ-9 or PHQ-9M on the same date or up to 7 days prior to the encounter (index event).
Denominator	Equals Initial Population
Denominator Exclusions	- Patients who died any time prior to the end of the measure assessment period - Patients who received hospice or palliative care services between the start of the denominator period and the end of the measurement assessment period - Patients with a diagnosis of bipolar disorder any time prior to the end of the measure assessment period - Patients with a diagnosis of personality disorder emotionally labile any time prior to the end of the measure assessment period - Patients with a diagnosis of schizophrenia or psychotic disorder any time prior to the end of the measure assessment period - Patients with a diagnosis of pervasive developmental disorder any time prior to the end of the measure assessment period
Numerator	Adolescent patients 12 to 17 years of age and adult patients 18 years of age and older who achieved remission at twelve months as demonstrated by the most recent twelve month (+/- 60 days) PHQ-9 or PHQ-9M score of less than five
Numerator Exclusions	Not Applicable
Denominator Exceptions	None
Supplemental Data Elements	For every patient evaluated by this measure also identify payer, race, ethnicity and sex

Table of Contents

- Population Criteria
- Definitions
- Functions
- Terminology
- Data Criteria (QDM Data Elements)
- Supplemental Data Elements
- Risk Adjustment Variables

Population Criteria

Initial Population

```
AgeInYearsAt(start of Global."NormalizeInterval"("Index Depression Assessment".relevantDatetime, "Index Depression Assessment".relevantPeriod)) >= 12
```

Denominator

```
"Initial Population"
```

Denominator Exclusions

```
"Has Hospice Services in the Measure Assessment Period"
  or "Has Palliative Care in the Measure Assessment Period"
  or "Patient Expired"
  or "Has Mental Health Disorder Diagnoses"
```

Numerator

```
Last(["Assessment, Performed": "PHQ 9 and PHQ 9M Tools"] DepressionAssessment
    where ToDate(start of Global."NormalizeInterval"(DepressionAssessment.relevantDatetime, DepressionAssessment.relevantPeriod)) during "Measure Assessment
```

```
Period"
    sort by start of Global."NormalizeInterval"(relevantDatetime, relevantPeriod)
).result < 5
```

Numerator Exclusions

None

Denominator Exceptions

None

Stratification 1

```
exists ( ["Patient Characteristic Birthdate": "Birth date"] BirthDate
    with "Index Depression Assessment" IndexAssessment
      such that AgeInYearsAt(date from start of Global."NormalizeInterval"(IndexAssessment.relevantDatetime, IndexAssessment.relevantPeriod)) in Interval[12, 17]
)
```

Stratification 2

```
exists ( ["Patient Characteristic Birthdate": "Birth date"] BirthDate
    with "Index Depression Assessment" IndexAssessment
      such that AgeInYearsAt(date from start of Global."NormalizeInterval"(IndexAssessment.relevantDatetime, IndexAssessment.relevantPeriod)) >= 18
)
```

Definitions

Denominator

```
"Initial Population"
```

Denominator Exclusions

```
"Has Hospice Services in the Measure Assessment Period"
  or "Has Palliative Care in the Measure Assessment Period"
  or "Patient Expired"
  or "Has Mental Health Disorder Diagnoses"
```

Denominator Identification Period

```
Interval[start of "Measurement Period" - 14 months, start of "Measurement Period" - 2 months )
```

Depression Assessments Greater than 9

```
["Assessment, Performed": "PHQ 9 and PHQ 9M Tools"] DepressionAssessment
  where DepressionAssessment.result > 9
```

Depression Diagnoses

```
["Diagnosis": "Major Depression Including Remission"]
  union ["Diagnosis": "Dysthymia"]
```

Depression Encounter

```
["Encounter, Performed": "Contact or Office Visit"] ValidEncounter
  with "Depression Diagnoses" Depression
    such that ValidEncounter.relevantPeriod overlaps Depression.prevalencePeriod
      and ValidEncounter.relevantPeriod ends during "Denominator Identification Period"
```

Has Hospice Services in the Measure Assessment Period

```
exists ( ["Encounter, Performed": "Encounter Inpatient"] InpatientEncounter
    where ( InpatientEncounter.dischargeDisposition ~ "Discharge to home for hospice care (procedure)"
        or InpatientEncounter.dischargeDisposition ~ "Discharge to healthcare facility for hospice care (procedure)"
    )
      and InpatientEncounter.relevantPeriod ends during day of Interval[start of "Denominator Identification Period", end of "Measure Assessment Period"]
)
  or exists ( ["Encounter, Performed": "Hospice Encounter"] HospiceEncounter
      where HospiceEncounter.relevantPeriod overlaps day of Interval[start of "Denominator Identification Period", end of "Measure Assessment Period"]
  )
  or exists ( ["Assessment, Performed": "Hospice care [Minimum Data Set]"] HospiceAssessment
      where HospiceAssessment.result ~ "Yes (qualifier value)"
        and Global."NormalizeInterval" ( HospiceAssessment.relevantDatetime, HospiceAssessment.relevantPeriod ) overlaps day of Interval[start of "Denominator
Identification Period", end of "Measure Assessment Period"]
  )
  or exists ( ["Intervention, Order": "Hospice Care Ambulatory"] HospiceOrder
      where HospiceOrder.authorDatetime during day of Interval[start of "Denominator Identification Period", end of "Measure Assessment Period"]
  )
  or exists ( ["Intervention, Performed": "Hospice Care Ambulatory"] HospicePerformed
      where Global."NormalizeInterval" ( HospicePerformed.relevantDatetime, HospicePerformed.relevantPeriod ) overlaps day of Interval[start of "Denominator
Identification Period", end of "Measure Assessment Period"]
  )
  or exists ( ["Diagnosis": "Hospice Diagnosis"] HospiceCareDiagnosis
      where HospiceCareDiagnosis.prevalencePeriod overlaps day of Interval[start of "Denominator Identification Period", end of "Measure Assessment Period"]
  )
```

Has Mental Health Disorder Diagnoses

```
exists ( ( ["Diagnosis": "Bipolar Disorder"]
    union ["Diagnosis": "Personality Disorder Emotionally Labile"]
    union ["Diagnosis": "Schizophrenia or Psychotic Disorder"]
    union ["Diagnosis": "Pervasive Developmental Disorder"] ) MentalHealthDisorderDiagnoses
    where ToDate(start of MentalHealthDisorderDiagnoses.prevalencePeriod) on or before end of "Measure Assessment Period"
)
```

Has Palliative Care in the Measure Assessment Period

```
exists ( ["Assessment, Performed": "Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pal)"] PalliativeAssessment
```

```
    where Global."NormalizeInterval" ( PalliativeAssessment.relevantDatetime, PalliativeAssessment.relevantPeriod ) overlaps Interval[start of "Denominator Identification Period", end of "Measure Assessment Period"]
  )
   or exists ( ["Diagnosis": "Palliative Care Diagnosis"] PalliativeDiagnosis
      where PalliativeDiagnosis.prevalencePeriod overlaps Interval[start of "Denominator Identification Period", end of "Measure Assessment Period"]
   )
   or exists ( ["Encounter, Performed": "Palliative Care Encounter"] PalliativeEncounter
      where PalliativeEncounter.relevantPeriod overlaps Interval[start of "Denominator Identification Period", end of "Measure Assessment Period"]
   )
   or exists ( ["Intervention, Performed": "Palliative Care Intervention"] PalliativeIntervention
      where Global."NormalizeInterval" ( PalliativeIntervention.relevantDatetime, PalliativeIntervention.relevantPeriod ) overlaps Interval[start of "Denominator Identification Period", end of "Measure Assessment Period"]
   )
```

Index Depression Assessment

```
First("Depression Assessments Greater than 9" DepressionAssessment
    with "Depression Encounter" DepressionEncounter
      such that Global."NormalizeInterval"(DepressionAssessment.relevantDatetime, DepressionAssessment.relevantPeriod) is not null
        and Global."NormalizeInterval"(DepressionAssessment.relevantDatetime, DepressionAssessment.relevantPeriod) during day of Interval[ToDate((start of DepressionEncounter.relevantPeriod) - 7 days),
        end of DepressionEncounter.relevantPeriod]
    sort by start of Global."NormalizeInterval"(relevantDatetime, relevantPeriod)
)
```

Initial Population

```
AgeInYearsAt(start of Global."NormalizeInterval"("Index Depression Assessment".relevantDatetime, "Index Depression Assessment".relevantPeriod)) >= 12
```

Measure Assessment Period

```
"Index Depression Assessment" FirstIndexAssessment
  let YearAfterIndexAssessment: date from start of Global."NormalizeInterval" ( FirstIndexAssessment.relevantDatetime, FirstIndexAssessment.relevantPeriod ) + 12 months
  return Interval[YearAfterIndexAssessment - 60 days, YearAfterIndexAssessment + 60 days]
```

Numerator

```
Last(["Assessment, Performed": "PHQ 9 and PHQ 9M Tools"] DepressionAssessment
    where ToDate(start of Global."NormalizeInterval"(DepressionAssessment.relevantDatetime, DepressionAssessment.relevantPeriod)) during "Measure Assessment Period"
    sort by start of Global."NormalizeInterval"(relevantDatetime, relevantPeriod)
).result < 5
```

Patient Expired

```
exists ( ["Patient Characteristic Expired": "Dead (finding)"] Deceased
    where ToDate(Deceased.expiredDatetime) occurs on or before end of "Measure Assessment Period"
)
```

SDE Ethnicity

```
["Patient Characteristic Ethnicity": "Ethnicity"]
```

SDE Payer

```
["Patient Characteristic Payer": "Payer Type"]
```

SDE Race

```
["Patient Characteristic Race": "Race"]
```

SDE Sex

```
["Patient Characteristic Sex": "ONC Administrative Sex"]
```

Stratification 1

```
exists ( ["Patient Characteristic Birthdate": "Birth date"] BirthDate
    with "Index Depression Assessment" IndexAssessment
      such that AgeInYearsAt(date from start of Global."NormalizeInterval"(IndexAssessment.relevantDatetime, IndexAssessment.relevantPeriod)) in Interval[12, 17]
)
```

Stratification 2

```
exists ( ["Patient Characteristic Birthdate": "Birth date"] BirthDate
    with "Index Depression Assessment" IndexAssessment
      such that AgeInYearsAt(date from start of Global."NormalizeInterval"(IndexAssessment.relevantDatetime, IndexAssessment.relevantPeriod)) >= 18
)
```

Functions

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>
```

Terminology

- code "Birth date" ("LOINC Code (21112-8)")
- code "Dead (finding)" ("SNOMEDCT Code (419099009)")
- code "Discharge to healthcare facility for hospice care (procedure)" ("SNOMEDCT Code (428371000124100)")
- code "Discharge to home for hospice care (procedure)" ("SNOMEDCT Code (428361000124107)")
- code "Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pal)" ("LOINC Code (71007-9)")
- code "Hospice care [Minimum Data Set]" ("LOINC Code (45755-6)")
- code "Yes (qualifier value)" ("SNOMEDCT Code (373066001)")
- valueset "Bipolar Disorder" (2.16.840.1.113883.3.67.1.101.1.128)
- valueset "Contact or Office Visit" (2.16.840.1.113762.1.4.1080.5)
- valueset "Dysthymia" (2.16.840.1.113883.3.67.1.101.1.254)
- valueset "Encounter Inpatient" (2.16.840.1.113883.3.666.5.307)

- valueset "Ethnicity" (2.16.840.1.114222.4.11.837)
- valueset "Hospice Care Ambulatory" (2.16.840.1.113883.3.526.3.1584)
- valueset "Hospice Diagnosis" (2.16.840.1.113883.3.464.1003.1165)
- valueset "Hospice Encounter" (2.16.840.1.113883.3.464.1003.1003)
- valueset "Major Depression Including Remission" (2.16.840.113883.3.67.1.101.3.2444)
- valueset "ONC Administrative Sex" (2.16.840.1.113762.1.4.1)
- valueset "Palliative Care Diagnosis" (2.16.840.1.113883.3.464.1003.1167)
- valueset "Palliative Care Encounter" (2.16.840.1.113883.3.464.1003.101.12.1090)
- valueset "Palliative Care Intervention" (2.16.840.1.113883.3.464.1003.198.12.1135)
- valueset "Payer Type" (2.16.840.1.114222.4.11.3591)
- valueset "Personality Disorder Emotionally Labile" (2.16.840.1.113883.3.67.1.101.1.246)
- valueset "Pervasive Developmental Disorder" (2.16.840.1.113883.3.464.1003.105.12.1152)
- valueset "PHQ 9 and PHQ 9M Tools" (2.16.840.1.113883.3.67.1.101.1.263)
- valueset "Race" (2.16.840.1.114222.4.11.836)
- valueset "Schizophrenia or Psychotic Disorder" (2.16.840.1.113883.3.464.1003.105.12.1104)

Data Criteria (QDM Data Elements)

- "Assessment, Performed: Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pal)" using "Functional Assessment of Chronic Illness Therapy - Palliative Care Questionnaire (FACIT-Pal) (LOINC Code 71007-9)"
- "Assessment, Performed: Hospice care [Minimum Data Set]" using "Hospice care [Minimum Data Set] (LOINC Code 45755-6)"
- "Assessment, Performed: PHQ 9 and PHQ 9M Tools" using "PHQ 9 and PHQ 9M Tools (2.16.840.1.113883.3.67.1.101.1.263)"
- "Diagnosis: Bipolar Disorder" using "Bipolar Disorder (2.16.840.1.113883.3.67.1.101.1.128)"
- "Diagnosis: Dysthymia" using "Dysthymia (2.16.840.1.113883.3.67.1.101.1.254)"
- "Diagnosis: Hospice Diagnosis" using "Hospice Diagnosis (2.16.840.1.113883.3.464.1003.1165)"
- "Diagnosis: Major Depression Including Remission" using "Major Depression Including Remission (2.16.840.113883.3.67.1.101.3.2444)"
- "Diagnosis: Palliative Care Diagnosis" using "Palliative Care Diagnosis (2.16.840.1.113883.3.464.1003.1167)"
- "Diagnosis: Personality Disorder Emotionally Labile" using "Personality Disorder Emotionally Labile (2.16.840.1.113883.3.67.1.101.1.246)"
- "Diagnosis: Pervasive Developmental Disorder" using "Pervasive Developmental Disorder (2.16.840.1.113883.3.464.1003.105.12.1152)"
- "Diagnosis: Schizophrenia or Psychotic Disorder" using "Schizophrenia or Psychotic Disorder (2.16.840.1.113883.3.464.1003.105.12.1104)"
- "Encounter, Performed: Contact or Office Visit" using "Contact or Office Visit (2.16.840.1.113762.1.4.1080.5)"
- "Encounter, Performed: Encounter Inpatient" using "Encounter Inpatient (2.16.840.1.113883.3.666.5.307)"
- "Encounter, Performed: Hospice Encounter" using "Hospice Encounter (2.16.840.1.113883.3.464.1003.1003)"
- "Encounter, Performed: Palliative Care Encounter" using "Palliative Care Encounter (2.16.840.1.113883.3.464.1003.101.12.1090)"
- "Intervention, Order: Hospice Care Ambulatory" using "Hospice Care Ambulatory (2.16.840.1.113883.3.526.3.1584)"
- "Intervention, Performed: Hospice Care Ambulatory" using "Hospice Care Ambulatory (2.16.840.1.113883.3.526.3.1584)"
- "Intervention, Performed: Palliative Care Intervention" using "Palliative Care Intervention (2.16.840.1.113883.3.464.1003.198.12.1135)"
- "Patient Characteristic Birthdate: Birth date" using "Birth date (LOINC Code 21112-8)"
- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity (2.16.840.1.114222.4.11.837)"
- "Patient Characteristic Expired: Dead (finding)" using "Dead (finding) (SNOMEDCT Code 419099009)"
- "Patient Characteristic Payer: Payer Type" using "Payer Type (2.16.840.1.114222.4.11.3591)"
- "Patient Characteristic Race: Race" using "Race (2.16.840.1.114222.4.11.836)"
- "Patient Characteristic Sex: ONC Administrative Sex" using "ONC Administrative Sex (2.16.840.1.113762.1.4.1)"

Supplemental Data Elements

SDE Ethnicity

["Patient Characteristic Ethnicity": "Ethnicity"]

SDE Payer

["Patient Characteristic Payer": "Payer Type"]

SDE Race

["Patient Characteristic Race": "Race"]

SDE Sex

["Patient Characteristic Sex": "ONC Administrative Sex"]

Risk Adjustment Variables

None

Measure Set	None