eCQM Title	**Oncology: Medical and Radiation - Pain Intensity Quantified**		
eCQM Identifier (Measure Authoring Tool)	157	**eCQM Version Number**	13.0.000
CBE Number	0384e	**GUID**	9a0330d0-3d9b-11e1-8634-00237d5bf174
Measurement Period	January 1, 20XX through December 31, 20XX		
Measure Steward	American Society of Clinical Oncology		
Measure Developer	American Society of Clinical Oncology		
Measure Developer	PCPI(R) Foundation (PCPI[R])		
Endorsed By	CMS Consensus Based Entity		
Description	Percentage of patient visits, regardless of patient age, with a diagnosis of cancer currently receiving chemotherapy or radiation therapy in which pain intensity is quantified		
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Measure Scoring	Proportion		
Measure Type	Process		
Stratification	None		
Risk Adjustment	None		
Rate Aggregation	This measure is intended to have one reporting rate, which aggregates the following populations into a single performance rate for reporting purposes: - Population 1: Visits for patients with a diagnosis of cancer who are currently receiving chemotherapy - Population 2: Visits for patients with a diagnosis of cancer who are currently receiving radiation therapy For the purposes of this measure, a single performance rate can be calculated as follows: Performance Rate = (Numerator 1 + Numerator 2)/ (Denominator 1 + Denominator 2)		
Rationale	Pain is a commonly occurring symptom for cancer patients as 30% to 50% (510,000 to 850,000 each year based on current statistics) will experience moderate to severe pain (Wiffen, Wee, Derry, Bell, & Moore, 2017). Initial and ongoing pain assessments are essential to determine the pathophysiology of pain and ensure proper pain management. According to the National Comprehensive Cancer Network (NCCN, 2023), undertreatment of pain remains a problem among a significant subset of cancer patients, survival is linked with symptom control and pain management, and pain management contributes to broad quality of life improvement. Furthermore, NCCN notes that formal pain reevaluation is required at each contact to ensure fulfilment of patient goals around comfort, function, and safety. Cancer patients have reported that pain interferes with their mood, work, relationships with other people, sleep and overall enjoyment of life (Moryl et al., 2018). To maximize patient outcomes, pain management is an essential part of oncologic management (NCCN, 2023). A recent analysis of registry data for chronic pain cancer patients found average pain intensity reported as mild (24.6% of patients), moderate (41.5%), and severe (33.9%). The study also indicated that patient report of pain relief is inversely related to the average pain intensity reported (Moryl et al., 2018). These data suggest that assessing and managing a cancer patient's pain is critical and there remains significant room for improvement in assessing and mitigating cancer-related pain. A prospective study of changes in pain severity of cancer patients found that, at initial assessment, 47% of patients reported pain. At follow-up, the patients with pain at initial assessment reported reduced pain (32.2%), stable pain (48.2%) and worse pain (19.6%). Of the 53% of patients reporting no pain at initial assessment, 82.6% reported stable pain and 17.4% reported worse pain at follow-up assessment (Zhao et al., 2014). This study highlights the importance of initial and ongoing assessments of pain to identify gaps and ensure proper pain management.		
Clinical Recommendation Statement	-Screen all patients for pain at each contact. -Routinely quantify and document pain intensity and quality as characterized by the patient (whenever possible). Include patient reporting of breakthrough pain, treatments used and their impact on pain, satisfaction with pain relief, pain interference, provider assessment of impact on function, and any special issues for the patient relevant to pain treatment. If necessary, get additional information from caregiver regarding pain and impact on function. -Perform comprehensive pain assessment if new or worsening pain is present and regularly for persisting pain. Various methods and tools exist to assess pain severity. Intensity of pain should be quantified using a numerical rating scale (i.e., 0-10), visual analog scale, categorical scale, or pictorial scale (e.g., The Faces Pain Rating Scale) (Category 2A) (National Comprehensive Cancer Network, 2023).		
Improvement Notation	Higher score indicates better quality		
Reference	Reference Type: CITATION Reference Text: 'Moryl, N., Dave, V., Glare, P., Bokhari, A., Malhotra, V. T., Gulati, A., … Inturrisi, C. E. (2018). Patient-Reported Outcomes and Opioid Use by Outpatient Cancer Patients. The Journal of Pain: official journal of the American Pain Society, 19(3), 278–290. doi:10.1016/j.jpain.2017.11.001'		
Reference	Reference Type: CITATION Reference Text: 'National Comprehensive Cancer Network (NCCN). (2023). NCCN Clinical Practice Guidelines in Oncology. Adult Cancer Pain Version 1.2023. Retrieved from http://www.nccn.org'		

Reference	Reference Type: CITATION Reference Text: 'Wiffen, P. J., Wee, B., Derry, S., Bell, R. F., & Moore, R. A. (2017). Opioids for cancer pain - an overview of Cochrane reviews. The Cochrane database of systematic reviews, 7(7), CD012592. doi:10.1002/14651858.CD012592.pub2'
Reference	Reference Type: CITATION Reference Text: 'Zhao, F., Chang, V. T., Cleeland, C., Cleary, J. F., Mitchell, E. P., Wagner, L. I., & Fisch, M. J. (2014). Determinants of pain severity changes in ambulatory patients with cancer: an analysis from Eastern Cooperative Oncology Group trial E2Z02. Journal of clinical oncology: official journal of the American Society of Clinical Oncology, 32(4), 312–319. doi:10.1200/JCO.2013.50.6071'
Definition	None
Guidance	This eCQM is an episode-based measure. An episode is defined as each eligible encounter for patients with a diagnosis of cancer who are also currently receiving chemotherapy or radiation therapy during the measurement period. For patients receiving radiation therapy, pain intensity should be quantified at each radiation treatment management encounter where the patient and physician have a face-to-face or telehealth interaction. Due to the nature of some applicable coding related to radiation therapy (e.g., delivered in multiple fractions), the billing date for certain codes may or may not be the same as the face-to-face or telehealth encounter date. In this instance, for the reporting purposes of this measure, the billing date should be used to pull the appropriate patients into the initial population. It is expected, though, that the numerator criteria would be performed at the time of the actual face-to-face or telehealth encounter during the series of treatments. A lookback (retrospective) period of 7 days, including the billing date, may be used to identify the actual face-to-face or telehealth encounter, which is required to assess the numerator. Therefore, pain intensity should be quantified during the face-to-face or telehealth encounter occurring on the actual billing date or within the 6 days prior to the billing date. For patients receiving chemotherapy, pain intensity should be quantified at each face-to-face or telehealth encounter with the physician while the patient is currently receiving chemotherapy. For purposes of identifying eligible encounters, patients "currently receiving chemotherapy" refers to patients administered chemotherapy on the same day as the encounter or during the 30 days before the date of the encounter AND during the 30 days after the date of the encounter. Pain intensity should be quantified using a standard instrument, such as a 0-10 numerical rating scale, visual analog scale, a categorical scale, or pictorial scale. Examples include the Faces Pain Rating Scale and the Brief Pain Inventory (BPI). 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	Population 1: All patient visits, regardless of patient age, with a diagnosis of cancer currently receiving chemotherapy Population 2: All patient visits, regardless of patient age, with a diagnosis of cancer currently receiving radiation therapy
Denominator	Equals Initial Population
Denominator Exclusions	None
Numerator	Patient visits in which pain intensity is quantified
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

Population Criteria 1

Initial Population

"Face to Face or Telehealth Encounter with Ongoing Chemotherapy"

Denominator

"Initial Population 1"

Denominator Exclusions

None

Numerator

"Face to Face or Telehealth Encounter with Ongoing Chemotherapy" FaceToFaceOrTelehealthEncounterWithChemo
with "Standard Pain Assessment with Result" PainAssessed
such that Global."NormalizeInterval" (PainAssessed.relevantDatetime, PainAssessed.relevantPeriod) during FaceToFaceOrTelehealthEncounterWithChemo.relevantPeriod

Numerator Exclusions

None

Denominator Exceptions

None

Stratification

None

Population Criteria 2

Initial Population

"Radiation Treatment Management During Measurement Period with Cancer Diagnosis"

Denominator

"Initial Population 2"

Denominator Exclusions

None

Numerator

```
( "Radiation Treatment Management During Measurement Period with Cancer Diagnosis" RadiationTherapy
    with "Standard Pain Assessment with Result" PainAssessed
      such that Global."NormalizeInterval" ( PainAssessed.relevantDatetime, PainAssessed.relevantPeriod ) during day of RadiationTherapy.relevantPeriod
)
  union ( ["Encounter, Performed": "Radiation treatment management, 5 treatments"] RadiationTreatment
      with "Standard Pain Assessment with Result" PainAssessed
        such that Global."NormalizeInterval" ( PainAssessed.relevantDatetime, PainAssessed.relevantPeriod ) 6 days or less on or before day of start of
RadiationTreatment.relevantPeriod
      where RadiationTreatment.relevantPeriod during "Measurement Period"
  )
```

Numerator Exclusions

None

Denominator Exceptions

None

Stratification

None

Definitions

Chemotherapy Within 31 Days Prior and During Measurement Period

```
["Procedure, Performed": "Chemotherapy Administration"] ChemoAdministration
  where Global."NormalizeInterval" ( ChemoAdministration.relevantDatetime, ChemoAdministration.relevantPeriod ) during Interval[start of "Measurement Period" - 31
days, end of "Measurement Period"]
```

Denominator 1

"Initial Population 1"

Denominator 2

"Initial Population 2"

Face to Face or Telehealth Encounter with Ongoing Chemotherapy

```
from
  ["Encounter, Performed": "Office Visit"] FaceToFaceOrTelehealthEncounter,
  "Chemotherapy Within 31 Days Prior and During Measurement Period" ChemoBeforeEncounter,
  "Chemotherapy Within 31 Days Prior and During Measurement Period" ChemoAfterEncounter,
  ["Diagnosis": "Cancer"] Cancer
  where Global."NormalizeInterval" ( ChemoBeforeEncounter.relevantDatetime, ChemoBeforeEncounter.relevantPeriod ) starts 30 days or less on or before day of end of
FaceToFaceOrTelehealthEncounter.relevantPeriod
    and Global."NormalizeInterval" ( ChemoAfterEncounter.relevantDatetime, ChemoAfterEncounter.relevantPeriod ) starts 30 days or less on or after day of end of
FaceToFaceOrTelehealthEncounter.relevantPeriod
    and not ( Global."NormalizeInterval" ( ChemoAfterEncounter.relevantDatetime, ChemoAfterEncounter.relevantPeriod ) same day as Global."NormalizeInterval" (
ChemoBeforeEncounter.relevantDatetime, ChemoBeforeEncounter.relevantPeriod ) )
    and Cancer.prevalencePeriod overlaps FaceToFaceOrTelehealthEncounter.relevantPeriod
    and FaceToFaceOrTelehealthEncounter.relevantPeriod during "Measurement Period"
  return FaceToFaceOrTelehealthEncounter
```

Initial Population 1

"Face to Face or Telehealth Encounter with Ongoing Chemotherapy"

Initial Population 2

"Radiation Treatment Management During Measurement Period with Cancer Diagnosis"

Numerator 1

```
"Face to Face or Telehealth Encounter with Ongoing Chemotherapy" FaceToFaceOrTelehealthEncounterWithChemo
  with "Standard Pain Assessment with Result" PainAssessed
    such that Global."NormalizeInterval" ( PainAssessed.relevantDatetime, PainAssessed.relevantPeriod ) during
FaceToFaceOrTelehealthEncounterWithChemo.relevantPeriod
```

Numerator 2

```
( "Radiation Treatment Management During Measurement Period with Cancer Diagnosis" RadiationTherapy
    with "Standard Pain Assessment with Result" PainAssessed
      such that Global."NormalizeInterval" ( PainAssessed.relevantDatetime, PainAssessed.relevantPeriod ) during day of RadiationTherapy.relevantPeriod
)
  union ( ["Encounter, Performed": "Radiation treatment management, 5 treatments"] RadiationTreatment
      with "Standard Pain Assessment with Result" PainAssessed
        such that Global."NormalizeInterval" ( PainAssessed.relevantDatetime, PainAssessed.relevantPeriod ) 6 days or less on or before day of start of
RadiationTreatment.relevantPeriod
      where RadiationTreatment.relevantPeriod during "Measurement Period"
  )
```

Radiation Treatment Management During Measurement Period with Cancer Diagnosis

```
["Encounter, Performed": "Radiation Treatment Management"] RadiationTreatmentManagement
  with ["Diagnosis": "Cancer"] Cancer
    such that Cancer.prevalencePeriod overlaps RadiationTreatmentManagement.relevantPeriod
  where RadiationTreatmentManagement.relevantPeriod during "Measurement 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"]

Standard Pain Assessment with Result

["Assessment, Performed": "Standardized Pain Assessment Tool"] AssessedPain
where AssessedPain.result is not null

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 "Radiation treatment management, 5 treatments" ("CPT Code (77427)")
- valueset "Cancer" (2.16.840.1.113883.3.526.3.1010)
- valueset "Chemotherapy Administration" (2.16.840.1.113883.3.526.3.1027)
- valueset "Ethnicity" (2.16.840.1.114222.4.11.837)
- valueset "Office Visit" (2.16.840.1.113883.3.464.1003.101.12.1001)
- valueset "ONC Administrative Sex" (2.16.840.1.113762.1.4.1)
- valueset "Payer Type" (2.16.840.1.114222.4.11.3591)
- valueset "Race" (2.16.840.1.114222.4.11.836)
- valueset "Radiation Treatment Management" (2.16.840.1.113883.3.526.3.1026)
- valueset "Standardized Pain Assessment Tool" (2.16.840.1.113883.3.526.3.1028)

Data Criteria (QDM Data Elements)

- "Assessment, Performed: Standardized Pain Assessment Tool" using "Standardized Pain Assessment Tool (2.16.840.1.113883.3.526.3.1028)"
- "Diagnosis: Cancer" using "Cancer (2.16.840.1.113883.3.526.3.1010)"
- "Encounter, Performed: Office Visit" using "Office Visit (2.16.840.1.113883.3.464.1003.101.12.1001)"
- "Encounter, Performed: Radiation Treatment Management" using "Radiation Treatment Management (2.16.840.1.113883.3.526.3.1026)"
- "Encounter, Performed: Radiation treatment management, 5 treatments" using "Radiation treatment management, 5 treatments (CPT Code 77427)"
- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity (2.16.840.1.114222.4.11.837)"
- "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)"
- "Procedure, Performed: Chemotherapy Administration" using "Chemotherapy Administration (2.16.840.1.113883.3.526.3.1027)"

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