



Identifying Initial Populations and Sampling for OCM and EBRT

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Learning Objectives

Help participants to understand the:

- Concept and purpose of Initial Patient Population identification;
- Concept and purpose of sampling; and
- Application of Population and Sampling to Oncology Care Measures (OCM) and the External Beam Radiotherapy (EBRT) Measure.

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Identifying Initial Populations and Sampling for OCM & EBRT Measures

Initial Population and Sampling – Concept and Purpose

“Initial Patient Population”

- Refers to all patients (Medicare and non-Medicare)
- Includes patients who share a common set of specified, administratively derived data elements
 - Data elements may include ICD-9-CM diagnosis codes or other population characteristics such as age
 - Example, the data elements for the EBRT measure population include all patients with an *ICD-9-CM Diagnosis Code of bone metastases and a prescription for EBRT*
- Cases identified as being in the Initial Patient Population for the measure or measure set are eligible to be sampled.

Source: Specifications Manual for National Hospital Inpatient Quality Measures Discharges 01-01-15 (1Q15) through 09-30-15 (3Q15) page 4-1

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Initial Population and Sampling: Concept and Purpose

Sampling

- Sampling is the process of selecting a representative part of a population in order to estimate the hospital's performance without collecting data for its entire population.
- It is a useful technique for performance measures that require primary data collection from a source such as the medical record.

Why do sampling?

- By using a statistically valid sample, a hospital can measure its performance in an effective and efficient manner without collecting data for all the population.

Important Point

- Sampling should only be used when the hospital has a large number of cases in the Initial Patient Population because a fairly large number of sample cases are needed to achieve a representative sample of the population.

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Initial Population and Sampling: Concept and Purpose

Statistically valid sample data:

- Are randomly selected in such a way that the individual cases in the population have an equal chance of being selected;
- Represent the whole population with meaningful and useful performance measure data;
- Provide an unbiased picture of a hospital's performance; and
- Prevent "cherry picking," the picking and choosing of only cases that will "pass" the measure.

Note: Hospitals are NOT required to sample their data. If sampling offers minimal benefit (e.g., a hospital has 80 cases for the quarter and must select a sample of 76 cases) the hospital may choose to use all cases.

Source: Specifications Manual for National Hospital Inpatient Quality Measures Discharges 01-01-15 (IQ15) through 09-30-15 (3Q15) page 4 - 2

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Initial Population and Sampling: Concept and Purpose

Statistically valid sample data:

- Sampling method must ensure that the sampled data represent the Initial Patient Population by using either the simple random sampling or systematic random sampling methods and that the sampling techniques are applied consistently within a quarter.
 - **Simple random sampling** - selecting a sample size from a population of size N in such a way that every case has the same chance of being selected.
 - **Systematic random sampling** - selecting every k^{th} record from a population of size N in such a way that a sample size of n is obtained, where k is less than or equal to N/n . The first sample record (i.e., the starting point) must be randomly selected before taking every k^{th} record.

Source: Specifications Manual for National Hospital Inpatient Quality Measures Discharges 01-01-15 (IQ15) through 09-30-15 (3Q15) page 4-2

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Initial Population and Sampling: Concept and Purpose

Initial Population and Sampling:

- Allows for different numbers of cases reported based on each PCH's cancer patient population size.
- Accommodates PCH bed sizes from 20 to more than 250 beds.

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OCM

OCM include:

- **NQF 0382 Radiation:** Dose Limits to Normal Tissues
- **NQF 0383 Oncology:** Plan of Care for Pain
- **NQF 0384 Oncology:** Pain Intensity Quantified
- **NQF 0389 Prostate Cancer:** Avoidance of Overuse of Bone Scan For Staging Low Risk Prostate Cancer Patients
- **NQF 0390 Prostate Cancer:** Adjuvant Hormonal Therapy For High Risk Prostate Cancer Patients

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OCM Population and Sampling

Average Quarterly Initial Population Size "N"	Minimum Required Sample Size "N"
>125	25 cases
51-125	20 percent of the Initial Patient Population
10-50	10 cases
<10	No sampling; 100 percent of the Initial Patient Population

Source: FY 2015 IPPS/LTCH PPS Final Rule

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NQF 0382 Radiation: Dose Limits to Normal Tissues

- **Measure Name:**
NQF 0382 Radiation: Dose Limits to Normal Tissues
- **Description:**
Percentage of patients, regardless of age, with a diagnosis of pancreatic or lung cancer who receive 3D conformal radiation therapy with documentation in medical record that radiation dose limits to normal tissues were established prior to the initiation of a course of 3D conformal radiation for a minimum of two tissues.
- **Instructions:**
This measure is to be reported once per reporting period for patients with a diagnosis of pancreatic or lung cancer receiving 3D conformal radiation therapy seen during the reporting period.

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NQF 0382 Radiation: Dose Limits to Normal Tissues

- **Improvement Noted As:**
An increase in the rate.
- **Numerator Statement:**
Patient who had documentation in medical record that radiation dose limits to normal tissues were established prior to the initiation of a course of 3D conformal radiation for a minimum of two tissues.
- **Denominator Statement:**
All patients, regardless of age, with a diagnosis of pancreatic or lung cancer who receive 3D conformal radiation therapy.

Review of Algorithm - NQF 0382 Radiation Dose Limits to Normal Tissues

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NQF 0384 Oncology: Pain Intensity Quantified

- **Measure Name:**
Oncology: Pain Intensity Quantified – Medical Oncology and Radiation Oncology (report along with 0383 if pain is present)
- **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.
- **Instructions:**
This measure is to be reported at each visit occurring during the measurement period for patients with a diagnosis of cancer who are seen during the measurement period. If pain is present, also report NQF 0383, Plan of Care for Pain.

For patients receiving radiation therapy, pain intensity should be quantified at each radiation treatment management visit. For patients receiving chemotherapy, pain intensity should be quantified while the patient is receiving treatment. For example, at every visit for patients with a diagnosis of cancer who are also receiving chemotherapy or radiation therapy, the patient should have pain intensity quantified.

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NQF 0384 Oncology: Pain Intensity Quantified

- **Improvement Noted As:**
Higher score indicates better quality.
- **Numerator Statement:**
Patient visits in which pain intensity is quantified.
- **Numerator Instructions:**
Pain intensity should be quantified using a standard instrument, such as a 0-10 numerical rating scale, a categorical scale, or the pictorial scale.
- **Numerator Options:**
Pain severity quantified; pain present;
OR
Pain severity quantified; no pain present.
- **Denominator Statement:**
All patient visits, regardless of patient age, with a diagnosis of cancer currently receiving chemotherapy or radiation therapy.

Review of Algorithm – NQF 0384 Oncology: Pain Intensity Quantified

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NQF 0383 Oncology: Plan of Care for Pain

This is a two-part measure. This measure should be reported if patient reports pain for NQF 0384.

- **Measure Name:**
NQF 0383 Oncology: Plan of Care for Pain
- **Description:**
Percentage of visits for patients, regardless of age, with a diagnosis of cancer currently receiving chemotherapy or radiation therapy who report having pain with a documented plan of care to address pain.
- **Instructions:**
This measure is to be reported at each visit occurring during the reporting period for patients with a diagnosis of cancer and in which pain is present who are seen during the reporting period.

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NQF 0383 Oncology: Plan of Care for Pain

- **Improvement Noted As:**
Higher score indicates better quality.
- **Numerator Statement:**
Patient visits that included a documented plan of care to address pain.
- **Numerator Instructions:**
A documented plan of care may include: use of opioids, non-opioid analgesics, psychological support, patient and/or family education, referral to a pain clinic, or reassessment of pain at an appropriate time interval.
- **Denominator Statement:**
All visits for patients, regardless of age, with a diagnosis of cancer currently receiving chemotherapy or radiation therapy who report having pain.

Review of Algorithm – NQF 0383 Oncology: Plan of Care for Pain

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**NQF 0389 Prostate Cancer:
Avoidance of Overuse of Bone Scan for
Staging Low Risk Prostate Cancer Patients**

- **Measure Name:**
Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Patients
 - **Description:**
Percentage of patients, regardless of age, with a diagnosis of prostate cancer, at low risk of recurrence, receiving interstitial prostate brachytherapy, OR EBRT to the prostate, OR radical prostatectomy, OR cryotherapy who did not have a bone scan performed at any time since diagnosis of prostate cancer.
 - **Instructions:**
This measure is to be reported once per episode of treatment (i.e., interstitial prostate brachytherapy, OR EBRT to the prostate, OR radical prostatectomy, OR cryotherapy) for all male patients with prostate cancer who receive treatment during the reporting period. Eligible patients receiving EBRT to the prostate occurring during the reporting period will be counted when calculating the performance rates.
- Note:** This measure is written as a negative measure so that the performance goal is 100%, higher is better, consistent with the other measures.

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**NQF 0389 Prostate Cancer:
Avoidance of Overuse of Bone Scan For
Staging Low Risk Prostate Cancer Patients**

- **Improvement Noted As:**
Higher score indicates better quality.
 - **Numerator Statement:**
Patients who did not have a bone scan performed at any time since diagnosis of prostate cancer.
 - **Numerator Instructions:**
A higher score indicates appropriate treatment of patients with prostate cancer at low risk of recurrence.
 - **Denominator Statement:**
All patients, regardless of age, with a diagnosis of prostate cancer, at low risk of recurrence, receiving interstitial prostate brachytherapy, OR EBRT to the prostate, OR radical prostatectomy, OR cryotherapy.
- Review of Algorithm** – NQF 0389 Prostate Cancer: Avoidance of Overuse of Bone Scan For Staging Low Risk Prostate Cancer Patients

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**NQF 0390 Prostate Cancer: Adjuvant Hormonal
Therapy For High Risk Prostate Cancer
Patients**

- **Measure Name:**
NQF 0390 Prostate Cancer: Adjuvant Hormonal Therapy For High Risk Prostate Cancer Patients
- **Description:**
Percentage of patients, regardless of age, with a diagnosis of prostate cancer, at high risk of recurrence, receiving EBRT to the prostate that were prescribed adjuvant hormonal therapy (gonadotropin-releasing hormone [GnRH] agonist or antagonist).
- **Instructions:**
This measure is to be reported once per episode of radiation therapy for all male patients with prostate cancer who receive EBRT to the prostate during the reporting period. An eligible patient receiving EBRT to the prostate occurring during the reporting period will be counted when calculating the performance rate.

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NQF 0390 Prostate Cancer: Adjuvant Hormonal Therapy For High Risk Prostate Cancer Patients

- **Improvement Noted As:**
Higher score indicates better quality.
 - **Numerator Statement:**
Patients who were prescribed adjuvant hormonal therapy (GnRH agonist or antagonist).
 - **Denominator Statement:**
All patients, regardless of age, with a diagnosis of prostate cancer, at high risk of recurrence, receiving EBRT to the prostate.
Note: Only patients with prostate cancer with high risk of recurrence will be counted in the denominator of this measure.
 - **Denominator Exclusions:**
Adjuvant Hormonal Therapy not Prescribed/Administered for Medical or Patient reasons.
- Review of Algorithm** – NQF 0390 Prostate Cancer: Adjuvant Hormonal Therapy For High Risk Prostate Cancer Patients

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OCM Population and Sampling Tools

Tools found on the QualityNet website:

- Abstraction Tools
- Algorithms
- Measure Information Forms (MIFs)
- Definition Documents

www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FFPage%2FQnetTier2&cid=1228774479863

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OCM Measures – Data Submission

Reporting Period	Oncology Care Measures Data Submission	
	Data Submission	
	FY2016 PCHQR Program Year	
Q1 2015	July 1, 2015 - August 15, 2015	
	FY2017 PCHQR Program Year	
Q2 2015	July 1, 2016 - August 15, 2016	
Q3 2015		
Q4 2015		
	FY2018 PCHQR Program Year	
Q1 2016	July 1, 2017 - August 15, 2017	
Q2 2016		
Q3 2016		
Q4 2016		

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OCM Measures – Key Points

- Medicare and non-Medicare patients – “all-patient” data
- Eventually, all four quarters (Q1, Q2, Q3, and Q4) of calendar year 2015
- Submit aggregate data for the required quarters during the data submission period
- Initial Data submission period = 1Q 2015 due July 1 through August 15, 2015
- External Data File via QualityNet Secure Portal by vendor or Web-Based Tool via QualityNet Secure Portal by PCH

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External Beam Radiotherapy for Bone Metastases (EBRT) – Population and Sampling

Description: Measure reports the percentage of patients, regardless of age, with a diagnosis of painful bone metastases and no history of previous radiation who receive EBRT with an acceptable fractionation scheme as defined by the guideline.

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EBRT – Population and Sampling

Average Quarterly Initial Population Size “N”	Minimum Required Sample Size “N”
>125	25 cases
51–125	20 percent of the Initial Patient Population
10–50	10 cases
<10	No sampling; 100 percent of the Initial Patient Population

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Source: FY 2015 IPPS/LTCH PPS Final Rule

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EBRT – Population and Sampling

- **Numerator Statement:** All patients, regardless of age, with painful bone metastases, and no previous radiation to the same anatomic site who receive EBRT with any of the following recommended fractionation schemes: 30Gy/10fxns; 24Gy/6fxns; 20Gy/5fxns; or 8Gy/1fxn.
- **Denominator Statement:** All patients with painful bone metastases and no previous radiation to the same anatomic site who receive EBRT.

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EBRT – Population and Sampling

Denominator Exclusions:

The **medical reasons** for denominator exclusions are:

- Previous radiation treatment to the same anatomic site;
- Patients with femoral axis cortical involvement greater than 3 cm in length;
- Patients who have undergone a surgical stabilization procedure; and
- Patients with spinal cord compression, cauda equina compression, or radicular pain.

The **patient reasons** for denominator exclusions are:

- Patient declines treatment;
- Economic, social, or religious reasons; and
- Other documented patient reasons.

Review of Algorithm – NQF 1822 External Beam Radiotherapy for Bone Metastases

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EBRT – Population and Sampling Tools

Tools found on the QualityNet website:

- Abstraction Tools
- Algorithms
- Measure Information Forms (MIFs)
- Definition Documents

www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPa ge%2FQnetTier2&cid=1228774479863

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CE Credit Process

- Complete the WebEx survey you will receive by email within the next 48 hours or the one that will pop up after the webinar.
- The survey will ask you to log in or register to access your personal account in the Learning Management Center.
 - A one-time registration process is required.
- Additional details are available at: <http://www.qualityreportingcenter.com/resources/education/continuing-education/>

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Questions?

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