Quality ID #102 (NQF 0389): Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients
– National Quality Strategy Domain: Efficiency and Cost Reduction
– Meaningful Measure Area: Appropriate Use of Healthcare

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process – High Priority

DESCRIPTION:
Percentage of patients, regardless of age, with a diagnosis of prostate cancer at low (or very low) risk of recurrence receiving interstitial prostate brachytherapy, OR external beam radiotherapy 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 submitted **once per episode** of treatment (i.e., interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy) for all male patients with prostate cancer who receive interstitial prostate brachytherapy, external beam radiotherapy to the prostate, radical prostatectomy, or cryotherapy during the performance period. Each episode of radiation therapy in an eligible patient receiving external beam radiotherapy to the prostate occurring during the performance period will be counted when calculating the data completeness and performance rates. The quality-data code or equivalent needs to be submitted only once during the episode of radiation therapy (e.g., 8 weeks of therapy). It is anticipated that Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the listed procedures as specified in the denominator coding will submit this measure.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. . For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All patients, regardless of age, with a diagnosis of prostate cancer at low (or very low) risk of recurrence receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy

Definitions:
Risk Strata: Very Low, Low, Intermediate, High, or Very High
Very Low/Low Risk – PSA < 10 ng/mL; AND Gleason score 6 or less/Gleason grade group 1; AND clinical stage T1 to T2a.
Intermediate Risk – PSA 10 to 20 ng/mL; OR Gleason score 7/Gleason grade group 2-3; OR clinical stage T2b to T2c. *Note: Patients with multiple adverse factors may be shifted into the high/very high risk category.*
High/Very High Risk – PSA > 20 ng/mL; OR Gleason score 8 to 10/Gleason grade group 4-5; OR clinically localized stage T3 to T4. (adapted from NCCN, 2017)

External beam radiotherapy – external beam radiotherapy refers to 3D conformal radiation therapy (3D-CRT), intensity modulated radiation therapy (IMRT), stereotactic body radiotherapy (SBRT), and proton beam therapy.
Bone scan – bone scan refers to the conventional technetium-99m-MDP bone scan as well as 18F-NaF PET (or PET/CT) scan.

Denominator Criteria (Eligible Cases):
Any male patient, regardless of age
AND
Diagnosis for prostate cancer (ICD-10-CM): C61
AND
Patient encounter during the performance period (CPT): 55810, 55812, 55815, 55840, 55842, 55845, 55866, 55873, 55875, 77427, 77435, 77772, 77778, 77799
AND
Low (or very low) risk of recurrence, prostate cancer: G9706

NUMERATOR:
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 (or very low) risk of recurrence.

NUMERATOR NOTE: *Denominator Exception(s) are determined any time after diagnosis of Prostate Cancer.*

Numerator Options:

Performance Met:	Bone scan not performed prior to initiation of treatment nor at any time since diagnosis of prostate cancer **(3270F)**
OR	
Denominator Exception:	Documentation of medical reason(s) for performing a bone scan (including documented pain, salvage therapy, other medical reasons) **(3269F *with* 1P)**
OR	
Denominator Exception:	Documentation of system reason(s) for performing a bone scan (including bone scan ordered by someone other than the reporting physician) **(3269F *with* 3P)**
OR	
Performance Not Met:	Bone scan performed prior to initiation of treatment or at any time since diagnosis of prostate cancer **(3269F)**

RATIONALE:
Multiple studies have indicated that a bone scan is not clinically necessary for staging prostate cancer in men with a low (or very low) risk of recurrence and receiving primary therapy. For patients who are categorized as low-risk, bone scans are unlikely to identify their disease. Furthermore, bone scans are not necessary for low-risk patients who have no history or if the clinical examination suggests no bony involvement. Less than 1% of low-risk patients are at risk of metastatic disease.

While clinical practice guidelines do not recommend bone scans in low-risk prostate cancer patients, overuse is still common. An analysis of prostate cancer patients in the SEER-Medicare database diagnosed from 2004-2007 found that 43% of patients for whom a bone scan was not recommended received it (Falchook, Hendrix, & Chen, 2015).

The analysis also found that the use of bone scans in low-risk patients leads to an annual cost of $4 million dollars to Medicare. The overuse of bone scan imaging for low-risk prostate cancer patients is a concept included on the American Urological Association's (AUA) list in the Choosing Wisely Initiative as a means to promote adherence to evidence-based imaging practices and to reduce health care dollars wasted (AUA, 2013). This measure is intended to promote adherence to evidence-based imaging practices, lessen the financial burden of unnecessary imaging, and ultimately to improve the quality of care for prostate cancer patients in the United States.

CLINICAL RECOMMENDATION STATEMENTS:

Routine use of a bone scan is not required for staging asymptomatic men with clinically localized prostate cancer when their PSA level is equal to or less than 20.0 ng/mL. (AUA, 2013)

For symptomatic patients and/or those with a life expectancy of greater than 5 years, a bone scan is appropriate for patients with any of the following: 1) T1 disease with PSA over 20 ng/mL or T2 disease with PSA over 10 ng/mL; 2) Gleason score 8 or higher/Gleason grade group 4-5; 3) T3 to T4 disease; or 4) symptomatic disease. (NCCN, 2017) (Category 2A)

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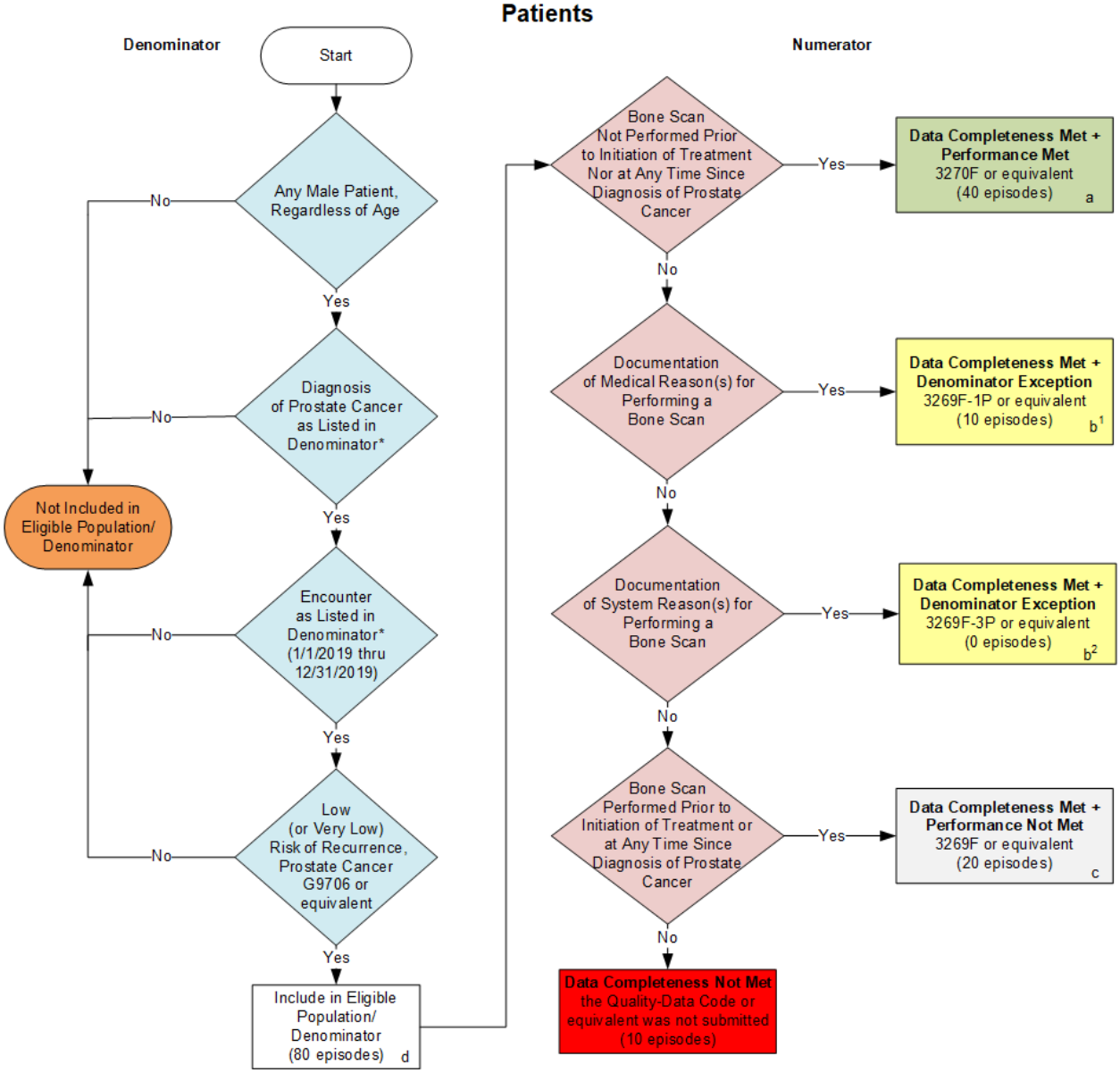
2019 Clinical Quality Measure Flow for Quality ID #102 NQF #0389: Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 episodes) + Denominator Exception (b^1+b^2=10 episodes) + Performance Not Met (c=20 episodes) = 70 episodes = **87.50%**

Eligible Population / Denominator (d=80 episodes) = 80 episodes

Performance Rate=

Performance Met (a=40 episodes) = 40 episodes = **66.67%**

Data Completeness Numerator (70 episodes) – Denominator Exception (b^1+b^2=10 episodes) = 60 episodes

*See the posted Measure Specification for specific coding and instructions to submit this measure.
NOTE: Submission Frequency: Episode

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The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification

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2019 Clinical Quality Measure Flow Narrative for Quality ID#102 NQF #0389: Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification.

1. Start with Denominator
2. Check Patient Gender:
    a. If Male Gender, Regardless of Age equals No, do not include in Eligible Population. Stop Processing.
    b. If Male Gender, Regardless of Age equals Yes, proceed to check Patient Diagnosis.
3. Check Patient Diagnosis:
    a. If Diagnosis of Prostate Cancer as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Diagnosis of Prostate Cancer as Listed in the Denominator equals Yes, proceed to check Encounter Performed.
4. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, proceed to check Low (or Very Low) Risk of Recurrence, Prostate Cancer.
5. Check Low (or Very Low) Risk of Recurrence, Prostate Cancer:
    a. If Low (or Very Low) Risk of Recurrence, Prostate Cancer equals No, do not include in Eligible Population. Stop Processing.
    b. If Low (or Very Low) Risk of Recurrence, Prostate Cancer equals Yes, include in Eligible Population.
6. Denominator Population:
    a. Denominator Population is all Eligible Episodes in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 episodes in the Sample Calculation.
7. Start Numerator
8. Check Bone Scan Not Performed Prior to Initiation of Treatment Nor at Any Time Since Diagnosis of Prostate Cancer:
    a. If Bone Scan Not Performed Prior to Initiation of Treatment Nor at Any Time Since Diagnosis of Prostate Cancer equals Yes, include in Data Completeness Met and Performance Met.
    b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 episodes in the Sample Calculation.

c. If Bone Scan Not Performed Prior to Initiation of Treatment Nor at Any Time Since Diagnosis of Prostate Cancer equals No, proceed to check Documentation of Medical Reason(s) for Performing a Bone Scan.

9. Check Documentation of Medical Reason(s) for Performing a Bone Scan:

   a. If Documentation of Medical Reason(s) for Performing a Bone Scan equals Yes, include in Data Completeness Met and Denominator Exception.

   b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b^1 equals 10 episodes in the Sample Calculation.

   c. If Documentation of Medical Reason(s) for Performing a Bone Scan equals No, proceed to check Documentation of System Reason(s) for Performing a Bone Scan.

10. Check Documentation of System Reason(s) for Performing a Bone Scan:

    a. If Documentation of System Reason(s) for Performing a Bone Scan equals Yes, include in the Data Completeness Met and Denominator Exception.

    b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b^2 equals 0 episodes in the Sample Calculation.

    c. If Documentation of System Reason(s) for Performing a Bone Scan equals No, proceed to check Bone Scan Performed Prior to Initiation of Treatment or at Any Time Since Diagnosis of Prostate Cancer.

11. Check Bone Scan Performed Prior to Initiation of Treatment or at Any Time Since Diagnosis of Prostate Cancer:

    a. If Bone Scan Performed Prior to Initiation of Treatment or at Any Time Since Diagnosis of Prostate Cancer equals Yes, include in the Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 20 episodes in the Sample Calculation.

    c. If Bone Scan Performed Prior to Initiation of Treatment or at Any Time Since Diagnosis of Prostate Cancer equals No, proceed to check Data Completeness Not Met.

12. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 episodes have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=40 episodes) + Denominator Exception } (b^1+b^2=10 \text{ episodes}) + \text{Performance Not Met (c=20 episodes)}}{\text{Eligible Population / Denominator (d=80 episodes)}} = \frac{70 \text{ episodes}}{80 \text{ episodes}} = \mathbf{87.50\%}$$

Performance Rate=

$$\frac{\text{Performance Met (a=40 episodes)}}{\text{Data Completeness Numerator (70 episodes) – Denominator Exception } (b^1+b^2=10 \text{ episodes})} = \frac{40 \text{ episodes}}{60 \text{ episodes}} = \mathbf{66.67\%}$$