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

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

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 eligible clinicians who perform the listed procedures as specified in the denominator coding will submit this measure.

Measure Submission:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

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 Risk - PSA < 10 ng/mL; AND Gleason score 6 or less; AND clinical stage T1c; AND presence of disease in fewer than 3 biopsy cores; AND <= 50% prostate cancer involvement in any core; AND PSA density < 0.15 ng/mL/g.
Low Risk - PSA < 10 ng/mL; AND Gleason score 6; AND clinical stage T1 to T2a.
Intermediate Risk - PSA 10 to 20 ng/mL; OR Gleason score 7; OR clinical stage T2b to T2c.
Note: Patients with multiple adverse factors may be shifted into the high risk category.
High Risk - PSA > 20 ng/mL; OR Gleason score 8 to 10; OR clinically localized stage T3a.
Note: Patients with multiple adverse factors may be shifted into the very high risk category.
Very High Risk - Clinical stage T3b to T4; OR primary Gleason pattern 5; OR more than 4 cores with Gleason score 8 to 10. (NCCN, 2016)
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.

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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 NOTE: *Denominator Exception(s) are determined any time after 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 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.

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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; 3) T3 to T4 disease; or 4) symptomatic disease. (NCCN, 2016) (Category 2A)

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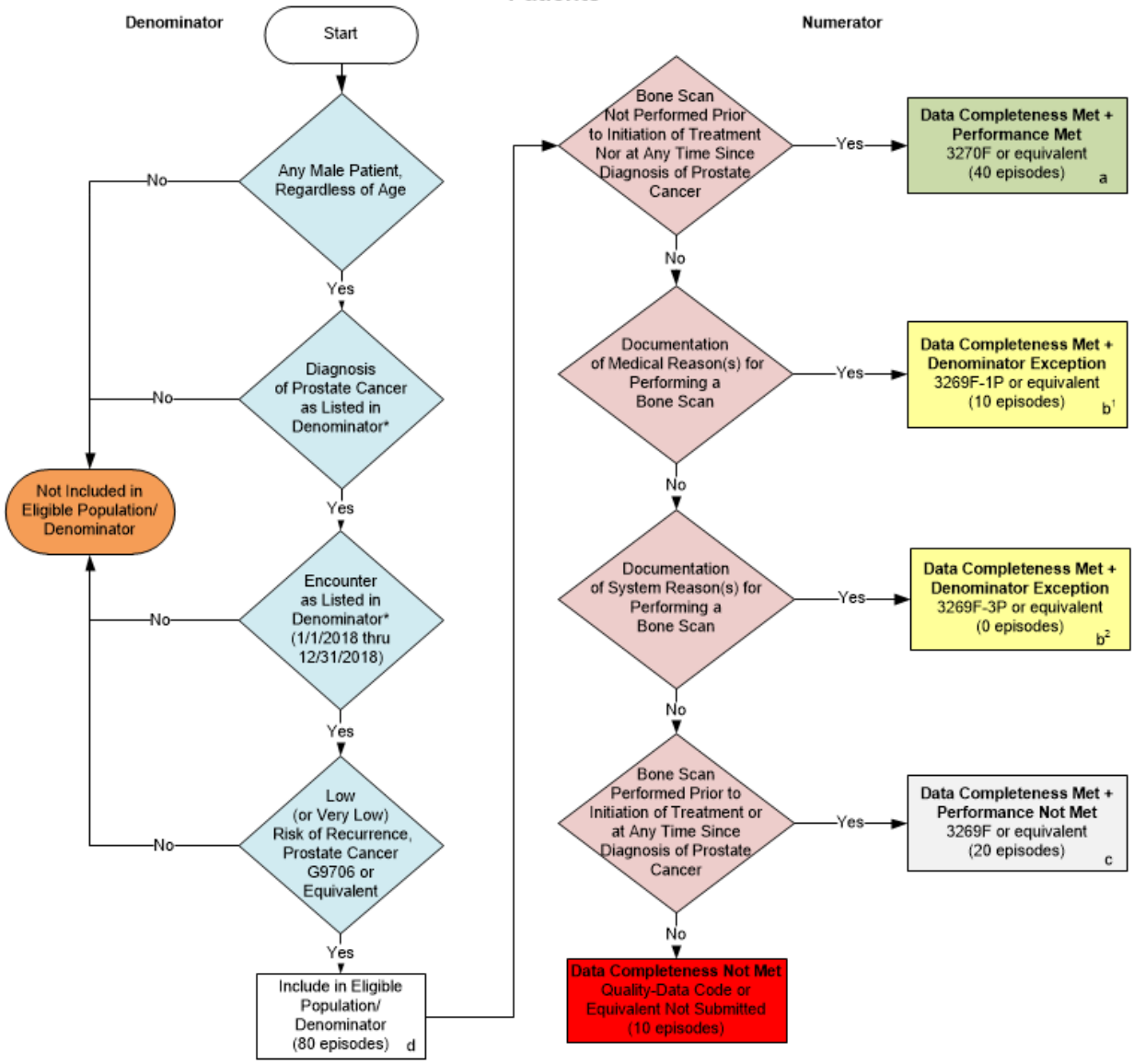
2018 Registry Flow for Quality ID #102 NQF #0389: Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients



SAMPLE CALCULATIONS:

Data Completeness=

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

Performance Rate=

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

*See the posted Measure Specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Episode

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2018 Registry Flow 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. This flow is for registry data submission.

1. Start with Denominator
2. Check Patient Gender:
    a. If Male Gender equals No, do not include in Eligible Patient Population. Stop Processing.
    b. If Male Gender 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 Patient 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 Patient 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 Performed.
5. Check Low (or Very Low) Risk of Recurrence, Prostate Cancer Performed:
    a. If Low (or Very Low) Risk of Recurrence, Prostate Cancer as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
    b. If Low (or Very Low) Risk of Recurrence, Prostate Cancer as Listed in the Denominator equals Yes, include in the Eligible Population.
6. Denominator Population:
    a. Denominator Population is all Eligible Patients 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.

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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 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 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 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 Data Completeness Not Met.

12. Check Data Completeness Not Met:

    a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not submitted. 10 episodes have been subtracted from the Data Completeness in the Sample Calculation.

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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

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