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

2021 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 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) for all male patients with prostate cancer who receive interstitial prostate brachytherapy, external beam radiotherapy to the prostate, radical prostatectomy 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

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.
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 the National Comprehensive Cancer Network, 2018).

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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, 55875, 55880, 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.

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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, 2017). 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:

For symptomatic patients and/or those with a life expectancy of greater than 5 years, bone imaging is appropriate for patients with unfavorable intermediate-risk prostate cancer and T2 disease with PSA over 10 ng/mL, high- or very-high risk disease; or symptomatic disease (National Comprehensive Cancer Network, 2019) (Evidence Level: Category 2A).

Clinicians should not perform routine bone scans in the staging of asymptomatic very low- or low-risk localized prostate cancer patients (AUA, American Society for Radiation Oncology, & Society of Urologic Oncology, 2017) (Strong Recommendation; Evidence Level: Grade C).

A routine bone scan is unnecessary in men with low-risk prostate cancer. Low-risk patients are unlikely to have disease identified by bone scan. Accordingly, bone scans are generally unnecessary in patients with newly diagnosed prostate cancer who have a PSA <10.0 ng/mL and a Gleason score less than 7 unless the patient's history or clinical examination suggests bony involvement. Progression to the bone is much more common in advanced local disease or in high-grade disease that is characterized by fast and aggressive growth into surrounding areas such as bones or lymph nodes (AUA, 2017).

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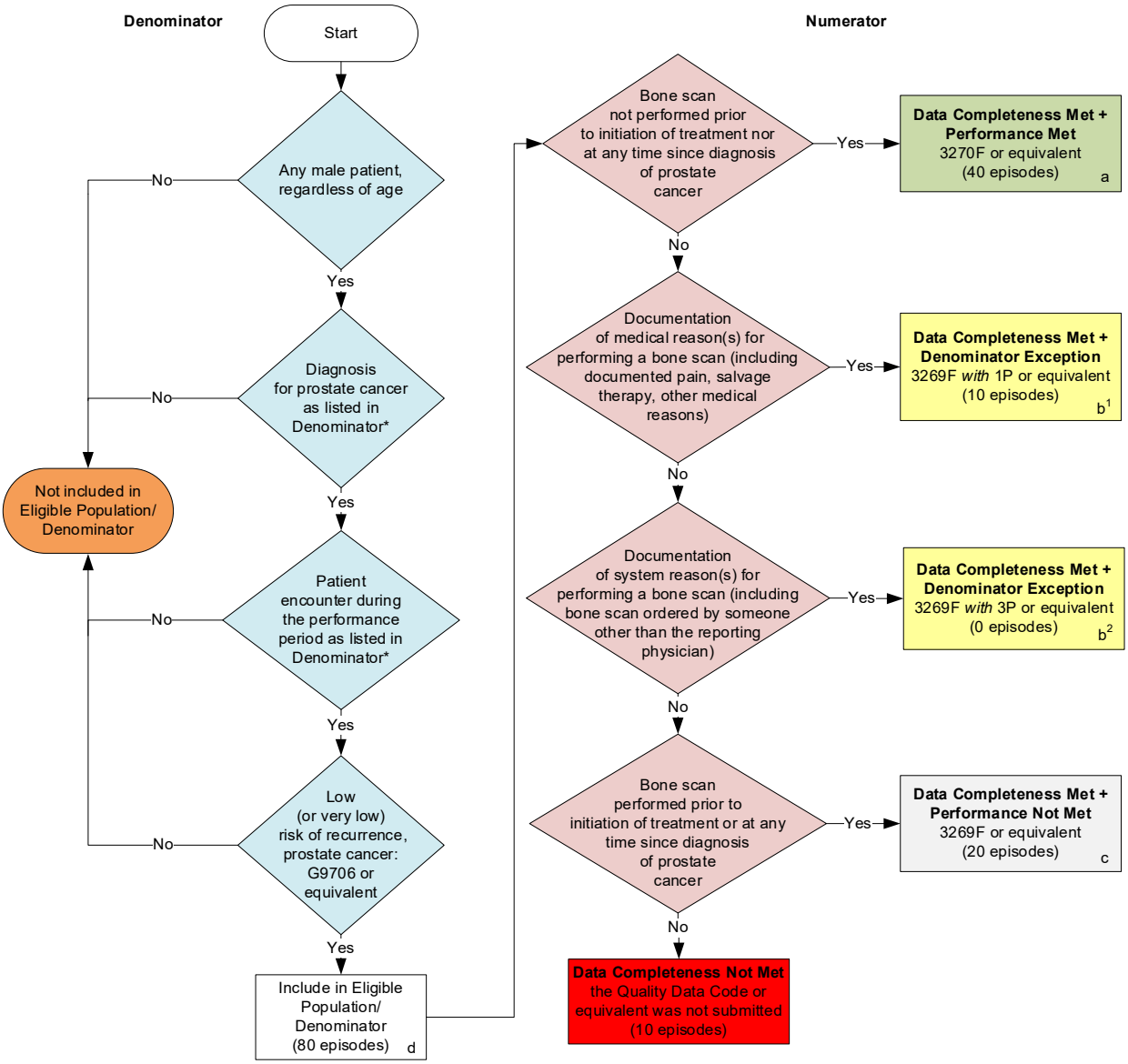
2021 Clinical Quality Measure Flow for Quality ID #102 (NQF 0389): Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients

Disclaimer: *Refer to the measure specification for specific coding and instructions to submit this measure.*



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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2021 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

Disclaimer: *Refer to the measure specification for specific coding and instructions to submit this measure.*

1. Start with Denominator
2. Check *Any male patient, regardless of age*:
    a. If *Any male patient, regardless of age* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Any male patient, regardless of age* equals Yes, proceed to check *Diagnosis for prostate cancer as listed in Denominator**.
3. Check *Diagnosis for prostate cancer as listed in Denominator**:
    a. If *Diagnosis for prostate cancer as listed in Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Diagnosis for prostate cancer as listed in Denominator** equals Yes, proceed to check *Patient encounter during the performance period as listed in Denominator**.
4. Check *Patient encounter during the performance period as listed in Denominator**:
    a. If *Patient encounter during the performance period as listed in Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patient encounter during the performance period as listed in 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/Denominator*. Stop processing.
    b. If *Low (or very low) risk of recurrence, prostate cancer* equals Yes, include in *Eligible Population/Denominator*.
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*.
        - *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.

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b. 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 (including documenting pain, salvage therapy, other medical reasons)*.

9. Check *Documentation of medical reason(s) for performing a bone scan (including documenting pain, salvage therapy, other medical reasons)*:

   a. If *Documentation of medical reason(s) for performing a bone scan (including documenting pain, salvage therapy, other medical reasons)* equals Yes, include in *Data Completeness Met and Denominator Exception*.

      - *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.

   b. If *Documentation of medical reason(s) for performing a bone scan (including documenting pain, salvage therapy, other medical reasons)* equals No, proceed to check *Documentation of system reason(s) for performing a bone scan (including bone scan ordered by someone other than the reporting physician)*.

10. Check *Documentation of system reason(s) for performing a bone scan (including bone scan ordered by someone other than the reporting physician)*:

    a. If *Documentation of system reason(s) for performing a bone scan (including bone scan ordered by someone other than the reporting physician)* equals Yes, include in the *Data Completeness Met and Denominator Exception*.

       - *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.

    b. If *Documentation of system reason(s) for performing a bone scan (including bone scan ordered by someone other than the reporting physician)* 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*.

       - *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.

    b. 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*:

    - 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.

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Sample Calculations

Data Completeness equals Performance Met (a equals 40 episodes) plus Denominator Exception (b^1 plus b^2 equals 10 episodes) plus Performance Not Met (c equals 20 episodes) divided by Eligible Population/Denominator (d equals 80 episodes). All equals 70 episodes divided by 80 episodes. All equals 87.5 percent.

Performance Rate equals Performance Met (a equals 40 episodes) divided by Data Completeness Numerator (70 episodes) minus Denominator Exception (b^1 plus b^2 equals 10 episodes). All equals 40 episodes divided by 60 episodes. All equals 66.67 percent.

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

NOTE: Submission Frequency: Episode

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