Quality ID #102: Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients

2024 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 performance period** for patients with a diagnosis of prostate cancer at low (or very low) risk of recurrence who receive interstitial prostate brachytherapy, external beam radiotherapy to the prostate, radical prostatectomy during the performance period. The quality data code or equivalent needs to be submitted only once during the performance period. 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).
External beam radiotherapy – **"**external beam radiotherapy" refers to 3D conformal radiation therapy, intensity modulated radiation therapy, stereotactic body radiotherapy, and proton beam therapy.

DENOMINATOR NOTE: *Most recent risk assessment of recurrence completed before the first prostate cancer treatment during the performance period will be used for denominator eligibility. In 2022, the American Urological Association published guidance recommending that clinicians not perform bone scan*

in asymptomatic patients with low- or intermediate-risk prostate cancer. However, this quality measure remains focused on patients with low (or very low) risk of recurrence.

Denominator Criteria (Eligible Cases):
Any 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
WITHOUT
Telehealth Modifier (including but not limited to): GQ, GT, 95, POS 02, POS 10
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

Definition:
Bone scan – **"**bone scan" refers to the conventional technetium-99m-MDP bone scan as well as 18F-NaF PET (or PET/CT) scan.

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 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 of bony involvement 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 Surveillance, Epidemiology and End Results Medicare

database diagnosed from 2004-2007 found that 43% of patients for whom a bone scan was not recommended received it [1]). 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 [2]. 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.

References:

1. Falchook, A. D., Hendrix, L. H., & Chen, R. C. (2015). Guideline-discordant use of imaging during work-up of newly diagnosed prostate cancer. *Journal of Oncology Practice*, 11(2), e239-e246. doi:10.1200/jop.2014.001818
2. American Urological Association. (2019). A routine bone scan is unnecessary in men with very low-risk or low-risk prostate cancer. Retrieved from http://www.choosingwisely.org/clinician-lists/american-urological-association-routine-bone-scans-with-low-risk-prostate-cancer/ (Original work published in 2013)

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, high-risk and very-high-risk prostate cancer [1] (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 [2] (Strong Recommendation; Evidence Level: Grade C).

Very low-risk or 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 [3].

References:

1. National Comprehensive Cancer Network. (2022). Clinical Practice Guidelines in Oncology: Prostate Cancer. Version 1.2023. Retrieved from https://www.nccn.org/professionals/physician_gls/pdf/prostate.pdf
2. American Urological Association, American Society for Radiation Oncology, & Society of Urologic Oncology. (2017). Clinically localized prostate cancer: AUA/ASTRO/SUO Guideline. Retrieved from https://www.astro.org/uploadedFiles/_MAIN_SITE/Patient_Care/Clinical_Practice_Statements/Content_Pieces/ClinicallyLocalizedProstateCancer.pdf
3. American Urological Association. (2019). A routine bone scan is unnecessary in men with very low-risk or low-risk prostate cancer. Retrieved from http://www.choosingwisely.org/clinician-lists/american-urological-association-routine-bone-scans-with-low-risk-prostate-cancer/ (Original work published in 2013)

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The Measure is not a clinical guideline, does not establish a standard of medical care, and has not been tested for all potential applications.

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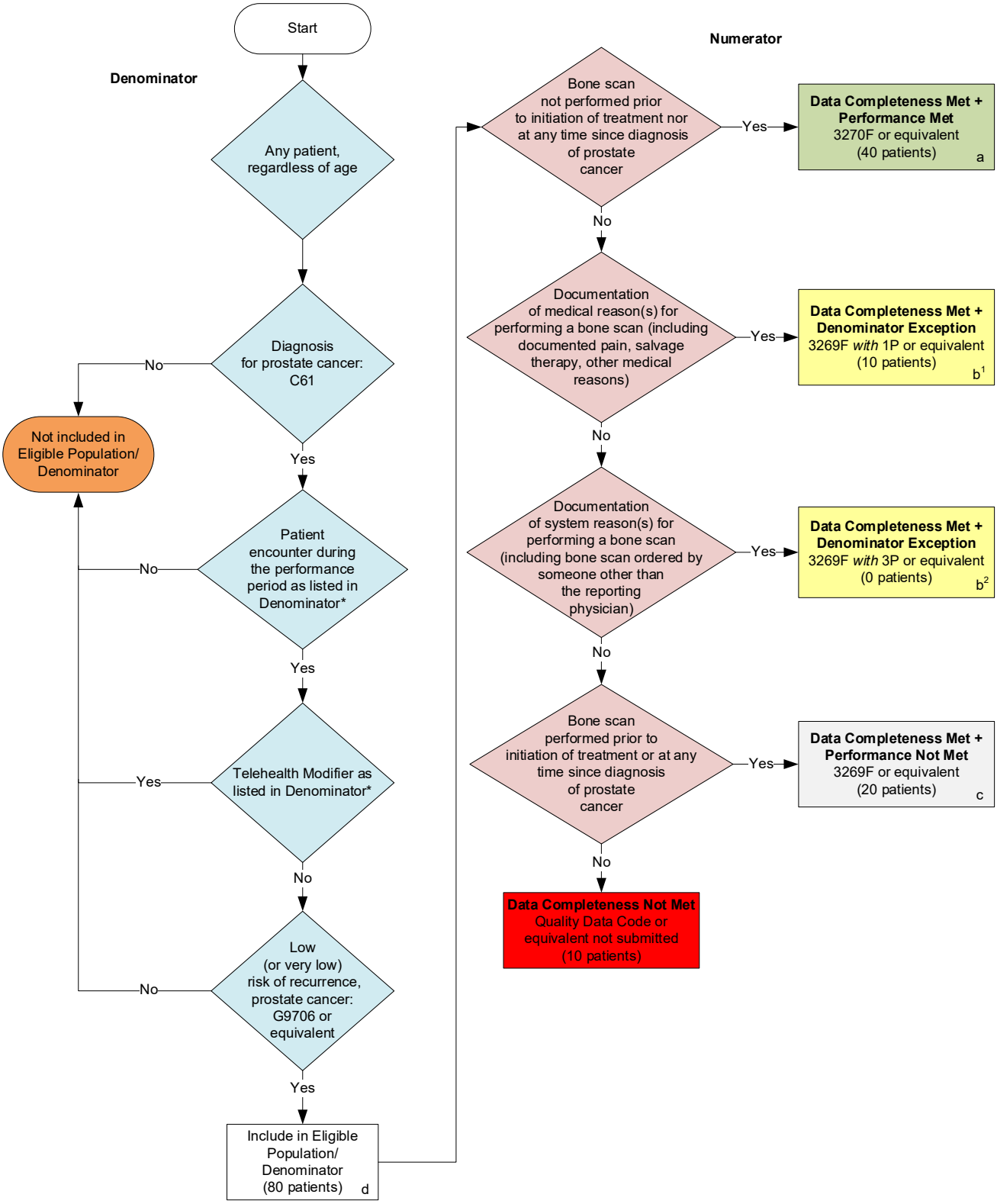
Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets.

The PCPI's and American Medical Association's (AMA) significant past efforts and contributions to the development and updating of the Measure is acknowledged.

2024 Clinical Quality Measure Flow for Quality ID #102: 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 patients) + Denominator Exceptions (b^1+b^2=10 patients) + Performance Not Met (c=20 patients) = 70 patients = **87.50%**

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

Performance Rate=

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

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

*See the posted measure specification for specific coding and instructions to submit this measure.
NOTE: Submission Frequency: Patient-Periodic

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2024 Clinical Quality Measure Flow Narrative for Quality ID #102: 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 patient, regardless of age*
3. Check *Diagnosis for prostate cancer*:
    a. If *Diagnosis for prostate cancer* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Diagnosis for prostate cancer* 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 *Telehealth Modifier as listed in Denominator**.
5. Check *Telehealth Modifier as listed in Denominator**:
    a. If *Telehealth Modifier as listed in Denominator** equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Telehealth Modifier as listed in Denominator** equals No, proceed to check *Low (or very low) risk of recurrence, prostate cancer*.
6. 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*.
7. Denominator Population:
    - 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 patients in the Sample Calculation.
8. Start Numerator
9. 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 patients in the Sample Calculation.

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 documented pain, salvage therapy, other medical reasons)*.

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

a. If *Documentation of medical reason(s) for performing a bone scan (including documented 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 patients in the Sample Calculation.

b. If *Documentation of medical reason(s) for performing a bone scan (including documented 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)*.

11. 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 *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 patients 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*.

12. 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 *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 patients 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*.

13. Check *Data Completeness Not Met*:

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

Sample Calculations

Data Completeness equals Performance Met (a equals 40 patients) plus Denominator Exceptions (b^1 plus b^2 equals 10 patients) plus Performance Not Met (c equals 20 patients) divided by Eligible Population/Denominator (d equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

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

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

NOTE: Submission Frequency: Patient-Periodic

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.