NATIONAL QUALITY FORUM

Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the submitting standards web page.

NQF #: 0389 NQF Project: Cancer Project
(for Endorsement Maintenance Review) Original Endorsement Date: Jul 31, 2008 Most Recent Endorsement Date: Jul 31, 2008
BRIEF MEASURE INFORMATION
De.1 Measure Title: Prostate Cancer: Avoidance of Overuse Measure – Bone Scan for Staging Low-Risk Patients
Co.1.1 Measure Steward: American Medical Association - Physician Consortium for Performance Improvement
De.2 Brief Description of Measure: Percentage of patients, regardless of age, with a diagnosis of prostate cancer, at 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
2a1.1 Numerator Statement: Patients who did not have a bone scan performed at any time since diagnosis of prostate cancer
2a1.4 Denominator Statement: All patients, regardless of age, with a diagnosis of prostate cancer, at low risk* of recurrence, receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy
2a1.8 Denominator Exclusions: Documentation of medical reason(s) for having a bone scan performed (including documented pain, salvage therapy, other medical reasons) Documentation of system reason(s) for having a bone scan performed (including bone scan ordered by someone other than reporting physician)
1.1 Measure Type: Process 2a1. 25-26 Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Registry, Paper Records 2a1.33 Level of Analysis: Clinician : Group/Practice, Clinician : Individual, Clinician : Team 1.2-1.4 Is this measure paired with another measure? No De.3 If included in a composite, please identify the composite measure (*title and NQF number if endorsed*): This measure is not included in a composite.

STAFF NOTES (*issues or questions regarding any criteria*)
Comments on Conditions for Consideration:
Is the measure untested? Yes☐ No☐ If untested, explain how it meets criteria for consideration for time-limited endorsement:
1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (*check De.5*): 5. Similar/related endorsed or submitted measures (*check 5.1*): Other Criteria:
Staff Reviewer Name(s):

1. IMPACT, OPPORTUITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT

Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See guidance on evidence.
Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria)

1a. High Impact: H☐ M☐ L☐ I ☐
(*The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.*)

De.4 Subject/Topic Areas *(Check all the areas that apply)*: Cancer, Cancer : Prostate
De.5 Cross Cutting Areas (*Check all the areas that apply)*: Overuse

1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, High resource use

1a.2 If "Other," please describe:

1a.3 Summary of Evidence of High Impact *(Provide epidemiologic or resource use data)*:
The incidence of prostate cancer increased 2.0% annually from 1995 to 2001, and has since declined. An estimated 217,730 new cases were diagnosed in 2010, accounting for 28% of new cancer cases in men in 2010.(1)

Researchers estimated prostate cancer to account for 32,050 deaths in 2010.(1)

Prostate cancer is the most commonly diagnosed cancer and the second leading cause of cancer death in men over the age of 40 y in the United States. Despite effective therapy (radical prostatectomy or radiation) for localized prostate carcinoma, some patients have local recurrences or distant metastases after treatment.(2)

Recurrent or persistent disease after treatment by prostatectomy or radiation therapy is often first detected as the reappearance of a measurable level of prostate-specific antigen (PSA) or a rise in PSA. No imaging method reliably
detects disease in these patients with PSA recurrence, although CT and scintigraphy are sometimes used.(2)

Since 1995, approximately 2,600,000 men in the United States have been diagnosed with prostate cancer, and nearly 375,000 men have lost their lives to this disease.(3)

Although radical prostatectomy and radiation therapy are considered definitive therapies, 30%-50% of patients will have biochemical PSA relapse at 5 years.(4)

1a.4 Citations for Evidence of High Impact cited in 1a.3: 1. National Comprehensive Cancer Network (NCCN). Clinical Practice Guidelines in Oncology: Prostate Cancer. Version 4.2011. Available at www.nccn.org

2.Oyama N, Miller TR, Dehdashti F, Siegel BA, et al. C-Acetate PET Imaging of Prostate Cancer: Detection of Recurrent Disease at PSA Relapse.J Nucl Med April 1, 2003 vol. 44 no. 4 549-555

3. Thompson I, Thrasher JB, Aus G, et al. Guideline for the management of clinically localized prostate cancer: 2007 update. J Urol. 2007;177:2106-2131.

4. American College of Radiology. ACR appropriateness. Post-treatment Follow-up of Prostate Cancer. 2011. Available at: http://www.acr.org/SecondaryMainMenuCategories/quality_safety/app_criteria/pdf/ExpertPanelonUrologicImaging/PostTreatmentFollowUpofProstateCancerDoc10.aspx

1b. Opportunity for Improvement: H☐ M☐ L☐ I ☐
(*There is a demonstrated performance gap - variability or overall less than optimal performance*)

1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:
There is no indication for imaging studies in low risk prostate cancer patients, based on the low risk strata definition. This measure is aiming to reduce the use of bone scans that are clinically unnecessary and reduce economic burden to the patient and payer.

1b.2 Summary of Data Demonstrating Performance Gap *(Variation or overall less than optimal performance across providers)*: [*For Maintenance – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.*]

1. A 2002 study analyzing national practice variations in the use of imaging studies for men newly diagnosed with clinically localized prostate cancer found that patients undergoing radiation therapy undergo more bone, CT and MRI scans than do patients undergoing radical prostatectomy, regardless of comorbidity, age, or race. The study additionally found that there was considerable geographic variation in the use of these diagnostic tests. (Saigal et. al., 2002)

2. CMS Physician Quality Reporting Initiative
This measure was used in the 2008-2011 CMS Physician Quality Reporting Initiative Claims and Registry options and group reporting option available in 2011.

There is a gap in care as shown by this 2008 data, the only year for which distribution by quartile/decile is available.

84.31% of patients reported on did not meet the measure.

10th percentile: 0.00%
25th percentile: 0.00%
50th percentile: 1.36%
75th percentile: 35.00%
90th percentile: 77.63%

1b.3 Citations for Data on Performance Gap: [*For Maintenance – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]

1. Saigal CS, Pashos CL, Henning JM, Litwin MS. Variations in use of imaging in a national sample of men with early-stage prostate cancer. Urology. 2002 Mar;59(3):400-4.

2. Confidential CMS PQRI 2008 Performance Information by Measure. Jan-Sept TAP file.

1b.4 Summary of Data on Disparities by Population Group: [*For Maintenance –Descriptive statistics for performance results for this measure by population group*]

Between 2000 and 2003, the average annual prostate cancer rate was 60% higher in African American men compared to White men. In addition, African American men have the highest mortality rate compared to any other racial or ethnic group in the US, and 2.4 times higher than in White men. Although prostate cancer incidence and mortality rates have been declining in both African American and White men since 1991, possibly due to improved diagnostic techniques, better screening and improved surgical and radiologic treatments, the rates remain comparably higher among African American men.(1)

The death rate from cancer among African American males is 1.4 times higher than that among White males; for African American females it is 1.2 times higher.(2)

Little variation was seen in prostate cancer mortality between poorer and more affluent counties from 1975 to 1989. However, since 1990, there has been a widening of the area socioeconomic gradient, with men in poorer counties experiencing a 22% higher death rate from prostate cancer in 1999 compared with men in more affluent counties.(2)

1b.5 Citations for Data on Disparities Cited in 1b.4: [*For Maintenance – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]

1. Odedina F, Akinremi TO, Chinegwundoh F, et al. Prostate cancer disparities in Black men of African descent: a comparative literature review of prostate cancer burden among Black men in the United States, Caribbean, United Kingdom, and West Africa. Infectious Agents and Cancer 2009, 4(Suppl 1):S2

2. Ward E, Jemal A, Cokkinides V, Singh GK, et al. Cancer Disparities by Race/Ethnicity and Socioeconomic Status. CA Cancer J

Clin 2004;54:78–93

1c. Evidence (*Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.*)
Is the measure focus a health outcome? Yes☐ No☐ If not a health outcome, rate the body of evidence.

Quantity: H☐ M☐ L☐ I☐ Quality: H☐ M☐ L☐ I☐ Consistency: H☐ M☐ L☐ I☐

Quantity	Quality	Consistency	Does the measure pass subcriterion1c?
M-H	M-H	M-H	Yes☐
L	M-H	M	Yes☐ IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No☐
M-H	L	M-H	Yes☐ IF potential benefits to patients clearly outweigh potential harms: otherwise No☐
L-M-H	L-M-H	L	No ☐

Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service	Does the measure pass subcriterion1c? Yes☐ IF rationale supports relationship

1c.1 Structure-Process-Outcome Relationship *(Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process- health outcome; intermediate clinical outcome-health outcome)*:
The process of identifying the patient´s risk strata prior to ordering any imaging studies is related to improved outcomes, including cost reduction and reduction of radiation exposure.

1c.2-3 Type of Evidence *(Check all that apply)*:
Clinical Practice Guideline, Systematic review of body of evidence (other than within guideline development)

1c.4 Directness of Evidence to the Specified Measure *(State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population)*:
The evidence directly supports the specified measure. The measure specifically identifies the risk strata for whom bone scans are inappropriate. The guideline and best practice statement do not recommend bone scans for patients included in the low risk strata.

1c.5 Quantity of Studies in the Body of Evidence *(Total number of studies, not articles)*: The AUA best practice statement references a systematic review of 23 studies, examining the utility of bone scan.

Abuzallouf S, Dayes I, Lukka H. Baseline Stagin of Newly Diagnosed Prostate Cancer: A Summary of the Literature. Journal of Urology 2004;171:2122-2127.

The description of the evidence review in the NCCN guideline did not address the overall quantity of studies in the body of evidence. However, 223 articles are cited in NCCN´s proste cancer guideline´s reference section.

1c.6 Quality of Body of Evidence (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events*): The systematic review of the literature (cited within the AUA best practice statement) states the following:

Studies were eligible only if newly diagnosed PC cases with no previous management were included. Studies were excluded if details regarding the patient population or results were significantly lacking.

The findings of this study are based on data pooled primarily from retrospective series. It is possible that inherent biases occurred in reporting. For example although not always reported, it may have been that in some studies those cases with a positive CT did not proceed to surgery. Results from these cases may not have been reported, thereby lowering the apparent detection rate in the reported population.

As with all studies of this nature, there are limitations to the findings. Unfortunately, not all series reported results based on the pooled groupings of PSA, tumor stage and Gleason score used herein. In addition, not all studies graded disease using Gleason score. As a result, inclusion of data from all cases was not justified. Fortunately, large patient numbers were remaining to allow for small confidence intervals around estimates.

Because of the nature of this study, it is not possible to make recommendations based on combinations of prognostic factors. For example bone scanning detected metastases in 6.4% of patients with localized disease but it is not possible to tell what proportionwere at risk by virtue of increased PSA or Gleason score, for which scanning would have been indicated. Presumably, some of those patients with positive bone scans would have been at risk from either of these factors. Therefore, it could be argued that the true risk for patients with low PSA, low Gleason score and localized disease is less than those numbers reported here. ALso, most of these studies were published in the 1990s and contained results for patients seen before the widespread use of PSA screening. Therefore, no distinction can be made in patients with organ confined disease between those with palpable and nonpalpable tumors. Again, it could be argued that due to stage migration within this group, numbers reported here are higher than the true risk.

Abuzallouf S, Dayes I, Lukka H. Baseline Stagin of Newly Diagnosed Prostate Cancer: A Summary of the Literature. Journal of Urology 2004;171:2122-2127.

The quality of the body of evidence supporting the NCCN guideline recommendation is summarized according to the NCCN categories of evidence and consensus as being based on "lower-level evidence."

1c.7 Consistency of Results across Studies *(Summarize the consistency of the magnitude and direction of the effect):* The systematic review referenced by the AUA best practice statement does not contain information about consistency of results across studies.

Although there is no explicit statement regarding the overall consistency of results across studies in the NCCN guideline, the recommendation received uniform NCCN consensus that the recommendation is appropriate.

1c.8 Net Benefit *(Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms)*:
Overuse of bone scans among prostate cancer patients is extremely costly and unnecessarily exposes patients to radiation. The use of bone scans for low risk prostate cancer patients is not supported by evidence.

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? Yes

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: NCCN Prostate Cancer Panel

Andrew J. Armstrong, MD, ScM
Robert R. Bahnson, MD
Barry Boston, MD
J. Erik Busby, MD
Anthony Victor D´Amico, MD, PhD
James A. Eastham, MD
Charles A. Enke, MD
Thomas A. Farrington
Lauren Gallagher, RPh, PhD
Kristina M. Gregory, RN, MSN, OCN
Celestia S. Higano, MD, FACP
Maria Ho, PhD
Eric Mark Horwitz, MD
Philip W. Kantoff, MD
Mark H. Kawachi, MD

Michael Kuettel, MD, MBA, PhD
Richard J. Lee, MD, PhD
Gary R. MacVicar, MD
Arnold W. Malcolm, MD, FACR
Joan S. McClure, MS
David Miller, MD, MPH
James L. Mohler, MD
Elizabeth R. Plimack, MD, MS
Julio M. Pow-Sang, MD
Mack Roach, MD
Eric Rohren, MD, PhD
Stan Rosenfeld
Dorothy Shead, MS
Sandy Srinivas, MD
Seth A. Strope, MD, MPH
Jonathan Tward, MD, PhD
Przemyslaw Twardowski, MD
Patrick C. Walsh, MD

The NCCN Guidelines are updated at least annually in an evidence-based process integrated with the expert judgment of multidisciplinary panels of expert physicians from NCCN Member Institutions. NCCN depends on the NCCN Guidelines Panel Members to reach decisions objectively, without being influenced or appearing to be influenced by conflicting interests.

All panel member disclosures are available at www.nccn.org.

1c.11 System Used for Grading the Body of Evidence: Other

1c.12 If other, identify and describe the grading scale with definitions: NCCN Categories of Evidence and Consensus

Category 1: The recommendation is based on high-level evidence (e.g. randomized controlled trials) and there is uniform NCCN consensus.

Category 2A: The recommendation is based on lower-level evidence and there is uniform NCCN consensus.

Category 2B: The recommendation is based on lower-level evidence and there is nonuniform NCCN consensus (but no major disagreement).

Category 3: The recommendation is based on any level of evidence but reflects major disagreement.

1c.13 Grade Assigned to the Body of Evidence: No grade for AUA best practice statement, NCCN grade 2A

1c.14 Summary of Controversy/Contradictory Evidence: No contradictory evidence has been identified.

1c.15 Citations for Evidence other than Guidelines*(Guidelines addressed below)*:
A radionuclide bone scan is traditionally the first examination obtained. If the bone scan is positive for metastatic disease, no further imaging studies are
necessary. If it is inconclusive, further imaging studies are performed, including conventional radiographs, MRI, or computed tomography (CT). However, the level of posttreatment PSA that should prompt a bone scan is uncertain. In a study of patients with biochemical failure following radical prostatectomy, the probability of a positive bone scan was less than 5% with PSA levels between 40-45 ng/ml. In another study, bone scan was limited until PSA rose above 30-40 ng/ml. Men with a PSADT of <6 months after radical prostatectomy were at increased risk of a positive bone scan (26% vs 3%) or
positive CT (24% vs 0%) compared to those with longer PSADT. Kane et al reported that most patients with a positive bone scan had a high PSA level (mean of 61.3 ng/ml) and a high PSA velocity (>0.5 ng/ml/month).

American College of Radiology. ACR Appropriateness Criteria. Post-treatment Follow-up of Prostate Cancer. 2011. Available at: http://www.acr.org/SecondaryMainMenuCategories/quality_safety/app_criteria/pdf/ExpertPanelonUrologicImaging/PostTreatmentFollowUpofProstateCancerDoc10.aspx

The results of a retrospective review demonstrate extensive overuse of bone scan imaging among VA patients with low-risk prostate cancer.Overall, the rate of bone scan imaging among men with low-risk features was 25% with no positive findings.

Palvolgyl R, Daskivich TJ, Chamie K, Kwan L, Litwin MS. Bone Scan Overuse in Staging of Prostate Cancer: An Analysis of a Veterans Affairs Cohort.

Citation for the systematic review of literature, referenced in sections 1c.5 and 1c.6 is below:

Abuzallouf S, Dayes I, Lukka H. Baseline Stagin of Newly Diagnosed Prostate Cancer: A Summary of the Literature. Journal of Urology 2004;171:2122-2127.

1c.16 Quote verbatim, the specific guideline recommendation *(Including guideline # and/or page #)*:
1. 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.

2. 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) a Gleason score of 8 or higher; 3) T3 to T4 tumors or symptomatic disease.

1c.17 Clinical Practice Guideline Citation: 1. Prostate-Specific Antigen Best Practice Statement: 2009 Update from American Urological Association, American Urological Association Education and Research, Inc. Available at:http://www.auanet.org/content/guidelines-and-qualitycare/clinical-guidelines/main-reports/psa09.pdf.

2. National Comprehensive Cancer Network (NCCN). Clinical Practice Guidelines in Oncology: Prostate Cancer. Version 4.2011. Available at www.nccn.org

1c.18 National Guideline Clearinghouse or other URL: http://www.auanet.org/content/media/psa09.pdf and www.nccn.org

1c.19 Grading of Strength of Guideline Recommendation. Has the recommendation been graded? Yes

1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: NCCN Prostate Cancer Panel is listed in section 1c.10

1c.21 System Used for Grading the Strength of Guideline Recommendation: Other

1c.22 If other, identify and describe the grading scale with definitions: NCCN Categories of Evidence and Consensus

Category 1: The recommendation is based on high-level evidence (e.g. randomized controlled trials) and there is uniform NCCN consensus.

Category 2A: The recommendation is based on lower-level evidence and there is uniform NCCN consensus.

Category 2B: The recommendation is based on lower-level evidence and there is nonuniform NCCN consensus (but no major disagreement).

Category 3: The recommendation is based on any level of evidence but reflects major disagreement.

1c.23 Grade Assigned to the Recommendation: No grade for AUA best practice statement, NCCN grade 2A

1c.24 Rationale for Using this Guideline Over Others: It is the PCPI policy to use guidelines, which are evidence-based, applicable to physicians and other health-care providers, and developed by a national specialty organization or government agency. In addition, the PCPI has now expanded what is acceptable as the evidence base for measures to include documented quality improvement (QI) initiatives or implementation projects that have demonstrated improvement in quality of care.

Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?
1c.25 Quantity: Moderate 1c.26 Quality: Moderate1c.27 Consistency: Moderate

Was the threshold criterion, *Importance to Measure and Report*, met?
(*1a & 1b must be rated moderate or high and 1c yes*) Yes☐ No☐
Provide rationale based on specific subcriteria:

For a new measure if the Committee votes NO, then STOP.
For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.

2. RELIABILITY & VALIDITY - SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)
Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See guidance on measure testing.

S.1 Measure Web Page *(In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained*). Do you have a web page where current detailed specifications for this measure can be obtained? Yes

S.2 If yes, provide web page URL: www.physicianconsortium.org

2a. RELIABILITY. Precise Specifications and Reliability Testing: H☐ M☐ L☐ I☐

2a1. Precise Measure Specifications. (*The measure specifications precise and unambiguous.*)

2a1.1 Numerator Statement *(Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome)*:
Patients who did not have a bone scan performed at any time since diagnosis of prostate cancer

2a1.2 Numerator Time Window *(The time period in which the target process, condition, event, or outcome is eligible for inclusion)*:
Once for each procedure for treatment of prostate cancer (i.e., interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy)

2a1.3 Numerator Details *(All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, codes with descriptors, and/or specific data collection items/responses*:
For EHR:
See attached eMeasure

For Claims/Administrative Data:
To submit the numerator option for patients who did not have a bone scan performed at any time since diagnosis of prostate cancer, report the following CPT Category II code:

3270F – Bone scan not performed prior to initiation of treatment nor at any time since diagnosis of prostate cancer

2a1.4 Denominator Statement *(Brief, narrative description of the target population being measured)*:
All patients, regardless of age, with a diagnosis of prostate cancer, at low risk* of recurrence, receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy

2a1.5 Target Population Category *(Check all the populations for which the measure is specified and tested if any)*: Adult/Elderly Care

2a1.6 Denominator Time Window *(The time period in which cases are eligible for inclusion)*:
Each procedure for treatment of prostate cancer (i.e., interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy)

2a1.7 Denominator Details (*All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
Risk strata definitions:
- Low Risk: PSA =10 mg/dL; AND Gleason score 6 or less; AND clinical stage T1c or T2a2
- Intermediate Risk: PSA >10 to 20 mg/dL; OR Gleason score 7; OR clinical stage T2b, and not qualifying for high risk2
- High Risk: PSA > 20 mg/dL; OR Gleason score 8 to 10; OR clinical stage T2c or greater; and not qualifying for very high risk2

Note: Only patients with prostate cancer with low risk of recurrence will be counted in the denominator of this measure

For EHR:
See attached eMeasure

For Claims/Administrative Data:
All patients with a diagnosis of prostate cancer, at low risk of recurrence, receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy
ICD-9-CM diagnosis code: 185
ICD-10-CM diagnosis code: C61
AND
CPT codes: 55810, 55812, 55815 (perineal prostatectomies); 55840, 55842, 55845 (retropubic prostatectomies); 55866 (laparoscopic prostatectomy); 55873 (cryotherapy); 77427 (radiation treatment management); 77776, 77777, 77778, 77787 (brachytherapy)
AND
Report the following CPT Category II Code to identify the risk of recurrence:
- 3271F – Low risk of recurrence, prostate cancer

2a1.8 Denominator Exclusions *(Brief narrative description of exclusions from the target population)*:
Documentation of medical reason(s) for having a bone scan performed (including documented pain, salvage therapy, other medical reasons)

Documentation of system reason(s) for having a bone scan performed (including bone scan ordered by someone other than reporting physician)

2a1.9 Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
The PCPI methodology uses three categories of reasons for which a patient may be excluded from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For this measure, exceptions may include medical reason(s) for having a bone scan performed(eg documented pain, salvage therapy, other medical reasons) or system reason(s) for having a bone scan performed (eg, bone scan ordered by someone other than reporting physician). Where examples of exceptions are included in the measure language, these examples are coded and included in the eSpecifications. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement. For example, it is possible for implementers to calculate the percentage of patients that physicians have identified as meeting the criteria for exception. Additional details by

data source are as follows:

For EHR:
See attached eMeasure

For Claims/Administrative Data:
Documentation of medical reason(s) for having a bone scan performed (including documented pain, salvage therapy, other medical reasons)
Append modifier to CPT Category II code: 3269F-1P – Bone scan performed prior to initiation of treatment or at any time since diagnosis of prostate cancer (including documented pain, salvage therapy, other medical reasons)
Documentation of system reason(s) for having a bone scan performed (including bone scan ordered by someone other than reporting physician)
Append modifier to CPT Category II code: 3269F-3P – Bone scan performed prior to initiation of treatment or at any time since diagnosis of prostate cancer (including bone scan ordered by someone other than reporting physician)

2a1.10 Stratification Details/Variables *(All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses)*:
We encourage the results of this measure to be stratified by race, ethnicity, gender, and primary language, and have included these variables as recommended data elements to be collected.

2a1.11 Risk Adjustment Type *(Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13)*: No risk adjustment or risk stratification 2a1.12 If "Other," please describe:

2a1.13 Statistical Risk Model and Variables *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.)*:
Not applicable

2a1.14-16 Detailed Risk Model Available at Web page URL (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL. Please supply login/password if needed:

2a1.17-18. Type of Score: Rate/proportion

2a1.19 Interpretation of Score *(Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)*: Better quality = Higher score

2a1.20 Calculation Algorithm/Measure Logic*(Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)*:
For measures with exceptions:
To calculate performance rates:
1) Find the patients who meet the initial patient population (ie, the general group of patients that the performance measure is designed to address).
2) From the patients within the initial patient population criteria, find the patients who qualify for the denominator (ie, the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial patient population and denominator are identical.
3) From the patients within the denominator, find the patients who qualify for the Numerator (ie, the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator
4) From the patients who did not meet the numerator criteria, determine if the physician has documented that the patient

meets any criteria for denominator exception when exceptions have been specified [for this measure: medical reason(s) (eg, documented pain, salvage therapy, other medical reasons)or system reason(s) (eg, bone scan ordered by someone other than reporting physician)]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the number of patients with valid exceptions should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:
Attachment
Measure Calculation_0389.pdf

2a1.24 Sampling (Survey) Methodology. If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):
Not applicable. This measure does not require sampling or a survey.

2a1.25 Data Source *(Check all the sources for which the measure is specified and tested*). If other, please describe:
Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Registry, Paper Records

2a1.26 Data Source/Data Collection Instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*): Not applicable.

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment:

2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:

2a1.33 Level of Analysis (*Check the levels of analysis for which the measure is specified and tested)*: Clinician : Group/Practice, Clinician : Individual, Clinician : Team

2a1.34-35 Care Setting *(Check all the settings for which the measure is specified and tested)*: Ambulatory Care : Ambulatory Surgery Center (ASC), Ambulatory Care : Clinician Office, Other:Radiation Oncology Clinic/Department

2a2. Reliability Testing. (*Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability*.)

2a2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
PCPI Testing Project
Five practice sites representing various types, locations and sizes were identified to participate in testing the 3 PCPI/ASTRO/AUA-developed prostate cancer performance measures.
- Site A: hospital, multi-practice sites in urban, rural and suburban settings; 21 physicians; average 9600 oncology/prostate cancer patient visits per month for MD/NP assessment, chemo; submitted PQRS claims for one measure and utilized a full-fledged EHR.
- Site B: physician owned private practice, suburban setting; 4 physicians; average 48 oncology/prostate cancer patients seen per day; submitted PQRS claims for one measure and utilized paper medical records.
- Site C: physician owned private practice, urban setting; 41 physicians; average 2500 oncology/prostate cancer patients seen per month; submitted PQRS claims for two measures and utilized a full-fledged EHR.
- Site D: academic, suburban setting; 9 physicians; average 240 oncology/prostate cancer patients seen per month;

submitted PQRS claims for one measure and utilized paper and EHR.
o Site E: academic, urban setting; 14 physicians; average 250 oncology/prostate cancer patients seen per month; collected PQRS data on 3 measures and utilized a full-fledged EHR.
- The measurement period (data collected from patients seen) was 1/1/2010 through 12/31/2010.
- Chart abstraction was performed between 8/8/2011 and 11/3/2011.

2a2.2 Analytic Method *(Describe method of reliability testing & rationale)*:
PCPI Testing Project
Data abstracted from patient records were used to calculate inter-rater reliability for the measure.
94 patient records were reviewed.

Data analysis included:
- Percent agreement; and
- Kappa statistic to adjust for chance agreement.

2a2.3 Testing Results *(Reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
PCPI Testing Project
N, % Agreement, Kappa (95% Confidence Interval)
Overall Reliability: 94, 100%, Kappa is noncalculable*
Denominator Reliability: 94, 100%, Kappa is noncalculable*
Numerator Reliability: 94, 100%, Kappa is noncalculable*
Exceptions Reliability: 94, 100%, Kappa is noncalculable*

This measure demonstrates perfect reliability, as shown in results from the above analysis.

*Kappa Statistics cannot be calculated because of complete agreement. Confidence intervals cannot be calculated because to do so would involve dividing by zero which cannot be done.

2b. VALIDITY. Validity, Testing, including all Threats to Validity: H☐ M☐ L☐ I ☐

2b1.1 Describe how the measure specifications *(measure focus, target population, and exclusions)* are consistent with the evidence cited in support of the measure focus (*criterion 1c)* and identify any differences from the evidence:
The evidence directly supports the specified measure. The measure specifically identifies the risk strata for whom bone scans are inappropriate. The guideline and best practice statement do not recommend bone scans for patients included in the low risk strata.

2b2. Validity Testing. (*Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.)*

2b2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
The expert panel consists of 19 members, whose specialties include urology, methodology, clinical oncology, radiation oncology, pathology, family medicine, and consumer and health plan representatives.

The panel members are as follows:

Ian Thompson, MD (Co-Chair, urology)
Steven Clauser, PhD (Co-Chair, methodology)
Peter Albertsen, MD (urology)
Colleen Lawton, MD (radiation oncology)
Charles Bennett, MD, PhD, MPP (clinical oncology)
W. Robert Lee, MD, MS, Med (radiation oncology)
Michael Cookson, MD (urology)
Peter A. S. Johnstone, MD, FACR (radiation oncology)
Gregory W. Cotter, MD (radiation oncology)
David F. Penson, MD, MPH (urology)
Theodore L. DeWeese, MD (radiation oncology)

Stephen Permut, MD (family medicine)
Mario Gonzalez, MD (pathology)
Howard Sandler, MD (radiation oncology)
Louis Kavoussi, MD (urology)
Bill Steirman, MA (consumer representative)
Eric A. Klein, MD (urology)
John T. Wei, MD (urology)
Carol Wilhoit, MD (health plan representative)

2b2.2 Analytic Method *(Describe method of validity testing and rationale; if face validity, describe systematic assessment)*:
All PCPI performance measures are assessed for content validity by expert Work Group members during the development process. Additional input on the content validity of draft measures is obtained through a 30-day public comment period and by also soliciting comments from a panel of consumer, purchaser, and patient representatives convened by the PCPI specifically for this purpose. All comments received are reviewed by the expert Work Group and the measures adjusted as needed. Other external review groups (i.e. focus groups) may be convened if there are any remaining concerns related to the content validity of the measures.

Face validity has been quantitatively assessed for this measure. Specifically, the Prostate Cancer Work Group members were asked to empirically assess face validity of the measure. The expert panel consists of 19 members, whose specialties include urology, methodology, clinical oncology, radiation oncology, pathology, family medicine, and consumer and health plan representatives.

Face validity of the measure score as an indicator of quality was systematically assessed as follows:

After the measure was fully specified, the expert panel was asked to rate their agreement with the following statement:

The scores obtained from the measure as specified will provide an accurate reflection of quality and can be used to distinguish good and poor quality.

Scale 1-5, where 1=Disagree; 3=Neither Disagree nor Agree; 5=Agree

2b2.3 Testing Results *(Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment)*:
The results of the expert panel rating of the validity statement were as follows: N = 13; Mean rating = 4.6

Percentage in the top two categories (4 and 5): 92.31%

Frequency Distribution of Ratings

1 – 0
2 – 1
3 – 0
4 – 2
5 – 10

POTENTIAL THREATS TO VALIDITY. (*All potential threats to validity were appropriately tested with adequate results.*)

2b3. Measure Exclusions. (*Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.*)

2b3.1 Data/Sample for analysis of exclusions *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
PCPI Testing Project

- 94 patient records were reviewed for this measure.
- The measurement period (data collected from patients seen) was 1/1/2010 through 12/31/2010.
- Chart abstraction was performed between 8/8/2011 and 11/3/2011.

2b3.2 Analytic Method (*Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference)*:
Exceptions were analyzed for frequency and variability across providers.

2b3.3 Results *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):*
PCPI Testing Project
N, % Agreement, Kappa (95% Confidence Interval)
Exceptions Reliability: 94, 100%, Kappa is noncalculable*

This measure demonstrates almost reliability, as shown in results from the above analysis.

The exception rate for this measure is 6.4%

*Kappa Statistics cannot be calculated because of complete agreement. Confidence intervals cannot be calculated because to do so would involve dividing by zero which cannot be done.

2b4. Risk Adjustment Strategy. (*For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.*)

2b4.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
This measure is not risk adjusted.

2b4.2 Analytic Method (*Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables)*:
This measure is not risk adjusted.

2b4.3 Testing Results *(Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata)*:
Not applicable

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: As a process measure, no risk adjustment is necessary.

2b5. Identification of Meaningful Differences in Performance. (*The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.*)

2b5.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
PCPI Testing Project
- 94 patient records were reviewed for this measure.
- The measurement period (data collected from patients seen) was 1/1/2010 through 12/31/2010.
- Chart abstraction was performed between 8/8/2011 and 11/3/2011.

CMS Physician Quality Reporting Initiative:
Clinical Condition and Measure: #102
14,484 patients were reported on for the 2008 program, the most recent year for which data are available

In 2009 the following was reported for this measure:
Eligible Professionals: 8,138
Professionals Reporting >=1 Valid QDC: 471
% Professionals Reporting >=1 Valid QDC: 5.79%
# Professionals Satisfactorily Reporting: 163

% Professionals Satisfactorily Reporting: 34.61%

2b5.2 Analytic Method *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance)*:
PCPI Testing Project
Data analysis performed on the measure included:
Average measure performance rate overall and by site, performance rate range by site and overall standard deviation for the measure.

CMS Physician Quality Reporting Initiative:
The inter-quartile range (IQR) was calculated, which provides a measure of the dispersion of performance.

2b5.3 Results *(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:
PCPI Testing Project
Measure rate without exceptions: N= 94 Mean = 47.9% Standard Deviation= 0.5022
The performance rate by site is as follows, where n is the number of performance events by site:

A	0.1670	n=30
B	0.5710	n=7
C	0.5000	n=30
D	0.7780	n=27

The performance rate range is .6110. Although this study captured performance on 94 events, the data were not captured at the physician level, restricting reporting of variation in performance to the organization level only. Additionally, we are unable to present a meaningful calculation of variation in performance across organizations due to the small sample size of sites (n=4) in this study.

CMS Physician Quality Reporting Initiative
This measure was used in the 2008-2011 CMS Physician Quality Reporting Initiative Claims and Registry options and group reporting option available in 2011.

There is a gap in care as shown by this 2008 data, the only year for which distribution by quartile/decile is available.

84.31% of patients reported on did not meet the measure.

10th percentile: 0.00%
25th percentile: 0.00%
50th percentile: 1.36%
75th percentile: 35.00%
90th percentile: 77.63%

The inter-quartile range (IQR) provides a measure of the dispersion of performance. The IQR is 35.00 and indicates that 50% of physicians have performance on this measure ranging from 0.00% and 35.00%. A quarter of reporting physicians have performance on this measure greater than 35.00%, while a quarter have performance on this measure at 0.00%.

2b6. Comparability of Multiple Data Sources/Methods. (*If specified for more than one data source, the various approaches result in comparable scores.*)

2b6.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
PCPI Testing Project
- 41 Medicare patient records of the 94 patient records were reviewed.
- The measurement period (data collected from patients seen) was 1/1/2010 through 12/31/2010.
- Chart abstraction was performed between 8/8/2011 and 11/3/2011.

2b6.2 Analytic Method *(Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure)*:
PCPI Testing Project
Parallel forms reliability testing was performed. PQRS claims were reviewed and compared to a manual review of claims information.

Data analysis included:
- Percent agreement

2b6.3 Testing Results *(Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted)*:
PCPI Testing Project
N, % Agreement
41, 100%

2c. Disparities in Care: H☐ M☐ L☐ I ☐ NA☐ (*If applicable, the measure specifications allow identification of disparities.*)

2c.1 If measure is stratified for disparities, provide stratified results *(Scores by stratified categories/cohorts)*: We encourage the results of this measure to be stratified by race, ethnicity, gender, and primary language, and have included these variables as recommended data elements to be collected.

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:
The PCPI advocates that performance measure data should, where possible, be stratified by race, ethnicity, and primary language to assess disparities and initiate subsequent quality improvement activities addressing identified disparities, consistent with recent national efforts to standardize the collection of race and ethnicity data. A 2008 NQF report endorsed 45 practices including stratification by the aforementioned variables.(1) A 2009 IOM report "recommends collection of the existing Office of Management and Budget (OMB) race and Hispanic ethnicity categories as well as more fine-grained categories of ethnicity(referred to as granular ethnicity and based on one's ancestry) and language need (a rating of spoken English language proficiency of less than very well and one's preferred language for health-related encounters)."(2)

References:
(1)National Quality Forum Issue Brief (No.10). Closing the Disparities Gap in Healthcare Quality with Performance Measurement and Public Reporting. Washington, DC: NQF, August 2008.

(2)Race, Ethnicity, and Language Data: Standardization for Health Care Quality Improvement. March 2010. AHRQ Publication No. 10-0058-EF. Agency for Healthcare Research and Quality, Rockville, MD. Available at: http://www.ahrq.gov/research/iomracereport. Accessed May 25, 2010.

2.1-2.3 Supplemental Testing Methodology Information:

Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met?
(*Reliability and Validity must be rated moderate or high*) Yes☐ No☐
Provide rationale based on specific subcriteria:

If the Committee votes No, STOP

3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)

C.1 Intended Purpose/ Use *(Check all the purposes and/or uses for which the measure is intended)*: Public Reporting, Quality

Improvement (Internal to the specific organization)

3.1 Current Use *(Check all that apply; for any that are checked, provide the specific program information in the following questions)*: Public Reporting, Quality Improvement (Internal to the specific organization)

3a. Usefulness for Public Reporting: H☐ M☐ L☐ I ☐
(*The measure is meaningful, understandable and useful for public reporting.*)

3a.1. Use in Public Reporting - disclosure of performance results to the public at large *(If used in a public reporting program, provide name of program(s), locations, Web page URL(s)).* If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: [*For Maintenance – If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.*]
This measure has been included in the CMS Physician Quality Reporting System from 2008 through 2011. The measure is also included in PQRS 2012.

http://www.cms.gov/pqrs

The PCPI believes that the reporting of participation information is a beneficial first step on a trajectory toward the public reporting of performance results, which is appropriate since the measure has been tested and the reliability of the performance data has been validated. Continued NQF endorsement will facilitate our ongoing progress toward this public reporting objective.

3a.2.Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting. If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: The PCPI believes that the reporting of participation information is a beneficial first step on a trajectory toward the public reporting of performance results, which is appropriate since the measure has been tested and the reliability of the performance data has been validated. Continued NQF endorsement will facilitate our ongoing progress toward this public reporting objective.

3.2 Use for other Accountability Functions (payment, certification, accreditation). If used in a public accountability program, provide name of program(s), locations, Web page URL(s): This measure may be used in a Maintenance of Certification program.

3b. Usefulness for Quality Improvement: H☐ M☐ L☐ I ☐
(*The measure is meaningful, understandable and useful for quality improvement.*)

3b.1. Use in QI. If used in quality improvement program, provide name of program(s), locations, Web page URL(s):
[*For Maintenance – If not used for QI, indicate the reasons and describe progress toward using performance results for improvement*].
All PCPI measures are suitable for use in quality improvement initiatives and are made freely available on the PCPI website and through the implementation efforts of medical specialty societies and other PCPI members. The PCPI strongly encourages the use of its measures in QI initiatives and seeks to provide information on such initiatives to PCPI members.

3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated *(e.g., QI initiative),* describe the data, method and results:
The PCPI believes that the use of PCPI measures in quality improvement initiatives is a beneficial way to gather scientific data with which to improve physician performance. This is appropriate since the measure has been tested and the reliability of the performance data has been validated. NQF endorsement will facilitate our ongoing progress toward this quality improvement objective.

Overall, to what extent was the criterion, *Usability*, met? H☐ M☐ L☐ I ☐
Provide rationale based on specific subcriteria:

4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)

4a. Data Generated as a Byproduct of Care Processes: H☐ M☐ L☐ I ☐

4a.1-2 How are the data elements needed to compute measure scores generated? *(Check all that apply).*
Data used in the measure are:
generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition

4b. Electronic Sources: H☐ M☐ L☐ I ☐

4b.1 Are the data elements needed for the measure as specified available electronically *(Elements that are needed to compute measure scores are in defined, computer-readable fields)*: ALL data elements in electronic health records (EHRs)

4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources:

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H☐ M☐ L☐ I ☐

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:
We are not aware of any unintended consequences related to this measurement.

4d. Data Collection Strategy/Implementation: H☐ M☐ L☐ I ☐

A.2 Please check if either of the following apply (*regarding proprietary measures*):
4d.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues *(e.g., fees for use of proprietary measures)*:
This measure was found to be reliable and feasible for implementation.

Overall, to what extent was the criterion, *Feasibility*, met? H☐ M☐ L☐ I ☐
Provide rationale based on specific subcriteria:

OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? Yes☐ No☐
Rationale:

If the Committee votes No, STOP.
If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.

5. COMPARISON TO RELATED AND COMPETING MEASURES

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure before a final recommendation is made.

5.1 If there are related measures *(either same measure focus or target population)* or competing measures *(both the same measure focus and same target population*), list the NQF # and title of all related and/or competing measures:

5a. Harmonization

5a.1 If this measure has EITHER the same measure focus OR the same target population as NQF-endorsed measure(s): Are the measure specifications completely harmonized?

5a.2 If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden:

5b. Competing Measure(s)

5b.1 If this measure has both the same measure focus and the same target population as NQF-endorsed measure(s): Describe why this measure is superior to competing measures *(e.g., a more valid or efficient way to measure quality);* OR provide a rationale for the additive value of endorsing an additional measure. *(Provide analyses when possible)*:

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): American Medical Association - Physician Consortium for Performance Improvement, 515 N. State St., Chicago, Illinois, 60654

Co.2 Point of Contact: Mark S., Antman, DDS, MBA, mark.antman@ama-assn.org, 312-464-5056-

Co.3 Measure Developer if different from Measure Steward: American Medical Association - Physician Consortium for Performance Improvement, Chicago, Illinois, 60654

Co.4 Point of Contact: Diedra, Joseph, MPH, diedra.joseph@ama-assn.org, 312-464-4904-

Co.5 Submitter: Diedra, Joseph, MPH, diedra.joseph@ama-assn.org, 312-464-4904-

Co.6 Additional organizations that sponsored/participated in measure development:
American Urological Association and American Society for Therapeutic Radiology & Oncology

Co.7 Public Contact: Diedra, Joseph, MPH, diedra.joseph@ama-assn.org, 312-464-4904-, American Medical Association - Physician Consortium for Performance Improvement

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development

Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

Ian Thompson, MD (Co-Chair, urology)
Steven Clauser, PhD (Co-Chair, methodology)
Peter Albertsen, MD (urology)
Colleen Lawton, MD (radiation oncology)
Charles Bennett, MD, PhD, MPP (clinical oncology)
W. Robert Lee, MD, MS, Med (radiation oncology)
Michael Cookson, MD (urology)
Peter A. S. Johnstone, MD, FACR (radiation oncology)
Gregory W. Cotter, MD (radiation oncology)
David F. Penson, MD, MPH (urology)
Theodore L. DeWeese, MD (radiation oncology)
Stephen Permut, MD (family medicine)
Mario Gonzalez, MD (pathology)
Howard Sandler, MD (radiation oncology)
Louis Kavoussi, MD (urology)
Bill Steirman, MA (consumer representative)
Eric A. Klein, MD (urology)
John T. Wei, MD (urology)
Carol Wilhoit, MD (health plan representative)

PCPI measures are developed through cross-specialty, multi-disciplinary work groups. All medical specialties and other health care professional disciplines participating in patient care for the clinical condition or topic under study must be equal contributors to the measure development process. In addition, the PCPI strives to include on its work groups individuals representing the perspectives of patients, consumers, private health plans, and employers. This broad-based approach to measure development ensures buy-in on the measures from all stakeholders and minimizes bias toward any individual specialty or stakeholder group. All work groups

have at least two co-chairs who have relevant clinical and/or measure development expertise and who are responsible for ensuring that consensus is achieved and that all perspectives are voiced.

Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward:

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.3 Year the measure was first released: 2007
Ad.4 Month and Year of most recent revision: 09, 2010
Ad.5 What is your frequency for review/update of this measure? Please see Additional Information/Comments
Ad.6 When is the next scheduled review/update for this measure? 09, 2012

Ad.7 Copyright statement: Physician Performance Measures (Measures) and related data specifications, developed by the Physician Consortium for Performance ImprovementTM (the Consortium), are intended to facilitate quality improvement activities by physicians.
These Measures are intended to assist physicians in enhancing quality of care. Measures are designed for use by any physician who manages the care of a patient for a specific condition or for prevention. These performance Measures are not clinical guidelines and do not establish a standard of medical care. The Consortium has not tested its Measures for all potential applications. The Consortium encourages the testing and evaluation of its Measures.
Measures are subject to review and may be revised or rescinded at any time by the Consortium. The Measures may not be altered without the prior written approval of the Consortium. Measures developed by the Consortium, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measures require a license agreement between the user and American Medical Association, on behalf of the Consortium. Neither the Consortium nor its members shall be responsible for any use of these Measures.
THE MEASURES ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND

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 AMA, the Consortium and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.
THE SPECIFICATIONS ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND.

Ad.8 Disclaimers:

Ad.9 Additional Information/Comments: Coding/Specifications updates occur annually. The PCPI has a formal measurement review process that stipulates regular (usually on a three-year cycle, when feasible) review of the measures. The process can also be activated if there is a major change in scientific evidence, results from testing or other issues are noted that materially affect the integrity of the measure.

Date of Submission (*MM/DD/YY*): 10/03/2011

Basic Measure Calculation:

$$\frac{(N)}{(D) - (E)} = \%$$

The PCPI strongly recommends that exception rates also be computed and reported alongside performance rates as follows:

Exception Calculation:

$$\frac{(E)}{(D)} = \%$$

Exception Types:
E= E1 (Medical Exceptions) + E2 (Patient Exceptions) + E3 (System Exceptions)
For patients who have more than one valid exception, only one exception should be be counted when calculating the exception rate

Initial Patient Population (IPP)	Denominator (D)	Numerator (N)	Denominator Exceptions (E)
Definition: The initial patient population identifies the general group of patients that the performance measureis designed to address; usually focused on a specific clinical condition (e.g., coronary artery disease, asthma). For example, a patient aged 18 years and older with a diagnosis of CADwho has at least 2 Visits during the measurement period.	**Definition:** The denominator defines the specific group of patients for inclusion in a specific performance measure based on specific criteria (e.g., patient's age, diagnosis, prior MI). In some cases, the denominator may be I dentical to the initial patient population.	**Definition:** The numerator defines the group of patients in the denominator for whom a process or outcome of care occurs (e.g., flu vaccine received).	**Definition:** Denominator exceptions are the valid reasons why patients who are included in the denominator population did not receive a process or outcome of care (described in the numerator). Patients may have Denominator Exceptions for medical reasons (e.g., patient has an egg allergy so they did not receive flu vaccine); patient reasons (e.g., patient declined flu vaccine); or system reasons (e.g., patient did not receive flu Vaccine due to vaccine shortage). These cases are removed from the denominator population for the performance calculation, however the number of patients with valid exceptions should be calculated and reported. This group of patients constitutes the Denominator Exception reporting population – patients for whom the numerator was not achieved and a there is a valid Denominator Exception.
Find the patients who meet the Initial Patient Population criteria (IPP)	Find the patients who qualify for the denominator (D): o From the patients within the Patient Population criteria (IPP) select those people who meet Denominator selection criteria. (In some cases the IPP and D are identical).	Find the patients who qualify for the Numerator (N): o From the patients within the Denominator (D) criteria, select those people who meet Numerator selection criteria. o Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator	From the patients who did not meet the Numerator criteria, determine if the patient meets any criteria for the Denominator Exception (E1 + E2+E3). If they meet any criteria, they should be removed from the Denominator for performance calculation. As a point of reference, these cases are removed from the denominator population for the performance calculation, however the number of patients with valid exceptions should be calculated and reported.