Prostate Cancer
Physician Performance Measurement Set

June 2007

Prostate Cancer Work Group

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Physician Performance Measures (Measures) and related data specifications, developed by the Physician Consortium for Performance Improvement™ (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.

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Purpose of Measures:
These clinical performance measures, developed by the American Urological Association and the Physician Consortium for Performance Improvement® (Consortium), are designed for individual quality improvement. Unless otherwise indicated, the measures are also appropriate for accountability if appropriate methodological, statistical, and implementation rules are achieved.

Accountability Measures:
Measure #1: Initial Evaluation
Measure #2: Initial Evaluation, New Diagnoses
Measure #3: Overuse Measure – Bone Scan for Staging Low-Risk Patients
Measure #4: Treatment Options for Patients with Clinically Localized Disease
Measure #5: Adjuvant Hormonal Therapy for High-Risk Patients
Measure #6: Three-Dimensional Radiotherapy

Quality Improvement only:
Measure #2: Initial Evaluation, New Diagnoses

Intended Audience and Patient Population:
These measures are designed for use by physicians and for calculating reporting or performance measurement at the individual physician level. When existing hospital-level or plan-level measures are available for the same measurement topics, the Consortium attempts to harmonize the measures to the extent feasible.

These measures are designed for urologists and other physicians managing the ongoing care of male patients with a current diagnosis of prostate cancer. Male patients of all ages are included.

The Consortium also encourages the use of these measures by health care professionals in addition to physicians, where appropriate.

Measure Specifications
The Consortium seeks to specify measures for implementation using multiple data sources, including paper medical record, administrative (claims) data, and particular emphasis on Electronic Health Record Systems (EHRS). Draft specifications to report on these measures for Prostate Cancer using administrative (claims) data are included in this document. We have identified codes for these measures, including ICD-9 and CPT (Evaluation & Management Codes, Category I and where Category II codes would apply). Specifications for additional data sources, including EHRS, will be fully developed at a later date. We welcome comments on the draft specifications included in addition to the measure language.

Measure Exclusions:
For process measures, the Consortium provides three categories of reasons for which a patient may be excluded from the denominator of an individual measure:

- **Medical reasons**
  Includes:
  - not indicated (already received/ performed, other)
  - contraindicated (patient allergic history, potential adverse drug interaction, other)

- **Patient reasons**
  Includes:
  - patient declined
  - economic, social, or religious reasons
  - other patient reasons

- **System reasons**
  Includes:
  - resources to perform the services not available
  - insurance coverage/payor-related limitations
  - other reasons attributable to health care delivery system
These measure exclusion categories are not available uniformly across all measures; for each measure, there must be a clear rationale to permit an exclusion for a medical, patient, or system reason. The exclusion of a patient may be reported by appending the appropriate modifier to the CPT Category II code designated for the measure:

- **Medical reasons:** modifier 1P
- **Patient reasons:** modifier 2P
- **System reasons:** modifier 3P

Although this methodology does not require the external reporting of more detailed exclusion data, the Consortium recommends that physicians document the specific reasons for exclusion in patients’ medical records for purposes of optimal patient management and audit-readiness. The Consortium also advocates the systematic review and analysis of each physician’s exclusions 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 exclusion.

Please refer to documentation for each individual measure for information on the acceptable exclusion categories and the codes and modifiers to be used for reporting.

Measures #1-6 in the Prostate Cancer measurement set are process measures.

For **outcome measures**, the Consortium specifically identifies all acceptable reasons for which a patient may be excluded from the denominator. Each specified reason is reportable with a CPT Category II code designated for that purpose.

There are no outcome measures in the Prostate Cancer measurement set.

The Consortium continues to evaluate and likely will evolve its methodology for handling exclusions as it gains experience in the use of the measures. The Consortium welcomes comments on its exclusions methodology.

**Data Capture and Measure Calculation**

The Consortium intends for physicians to collect data on each patient eligible for a measure. Feedback on measures should be available to physicians by patient to facilitate patient management and in aggregate to identify opportunities for improvement across a physician’s patient population.

Measure calculations will differ depending on whether a rate is being calculated for **performance** or **reporting** purposes.

The method of calculation for performance follows these steps: first, identify the patients who meet the eligibility criteria for the denominator (PD); second, identify which of those patients meet the numerator criteria (A); and third, for those patients who do not meet the numerator criteria, determine whether an appropriate exclusion applies and subtract those patients from the denominator (C). (see examples below)

The methodology also enables implementers to calculate the rates of patient exclusions and to further analyze both low and high rates, as appropriate (see examples below).

The method of calculation for reporting differs. One program which currently focuses on reporting rates is the Centers for Medicare and Medicaid Services (CMS) Physician Quality Reporting Initiative (PQRI). Currently, under that program design, there will be a reporting denominator determined solely from claims data (CPT and ICD-9), which in some cases result in a reporting denominator that is much larger than the eligible population for the performance denominator. Additional components of the reporting denominator are explained below.

The components that make up the numerator for reporting include all patients from the eligible population for which the physician has reported, including: the number of patients who meet the numerator criteria (A), the number of patients for whom valid exclusions apply (C) and also the number of patients who do not meet the numerator criteria (D). These components, where applicable, are summed together to make up the inclusive reporting numerator. The calculation for reporting will be the reporting numerator divided by the reporting denominator. (see examples below).

Examples of calculations for reporting and performance are provided for each measure.
Calculation for Performance
For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.

Numerator (A) Includes:
Number of patients meeting numerator criteria

Performance Denominator (PD) Includes:
Number of patients meeting criteria for denominator inclusion

Denominator Exclusions (C) Include:
Number of patients with valid medical, patient or system exclusions (where applicable; will differ by measure)

Performance Calculation
\[
\frac{A \text{ (# of patients meeting numerator criteria)}}{PD \text{ (# patients in denominator)} - C \text{ (# patients with valid denominator exclusions)}}
\]

It is also possible to calculate the percentage of patients excluded overall, or excluded by medical, patient, or system reason where applicable:

Overall Exclusion Calculation
\[
\frac{C \text{ (# of patients with any valid exclusion)}}{PD \text{ (# patients in denominator)}}
\]

OR

Exclusion Calculation by Type
\[
\frac{C_1 \text{ (# patients with medical reason)}}{PD \text{ (# patients in denominator)}} \quad \frac{C_2 \text{ (# patients with patient reason)}}{PD \text{ (# patients in denominator)}} \quad \frac{C_3 \text{ (# patients with system reason)}}{PD \text{ (# patients in denominator)}}
\]

Calculation for Reporting
For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator

Reporting Numerator includes each of the following components, where applicable. (There may be instances where there are no patients to include in A, C, D, or E).

A. Number of patients meeting additional denominator criteria (for measures where true denominator cannot be determined through ICD-9 and CPT Category I coding alone) AND numerator criteria

C. Number of patients with valid medical, patient or system exclusions (where applicable; will differ by measure)

D. Number of patients not meeting numerator criteria and without a valid exclusion

E. All other patients not meeting additional denominator criteria (for measures where true denominator cannot be determined through ICD-9 and CPT Category I coding alone)

Reporting Denominator (RD) Includes:
RD. Denominator criteria (identifiable through ICD-9 and CPT Category I coding)
### Reporting Calculation

<table>
<thead>
<tr>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>( A ) (# of patients meeting additional denominator criteria AND numerator criteria) + ( C ) (# of patients with valid exclusions) + ( D ) (# of patients NOT meeting numerator criteria) + ( E ) (# of patients not meeting additional denominator criteria)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RD (# of patients in denominator)</th>
</tr>
</thead>
</table>
**Prostate Cancer**

**Measure #1: Initial Evaluation**

This measure may be used as an Accountability measure.

<table>
<thead>
<tr>
<th>Clinical Performance Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Numerator:</strong> Patients with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score prior to initiation of treatment</td>
</tr>
<tr>
<td><strong>Denominator:</strong> All patients with prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy</td>
</tr>
<tr>
<td><strong>Denominator Exclusions:</strong> Documentation of medical reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score prior to initiation of treatment</td>
</tr>
</tbody>
</table>

**Measure:** Percentage of patients with prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score prior to initiation of treatment

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

Tumor characteristics, including PSA level and changes such as velocity and doubling time, Gleason score, and tumor stage, are predictive of cancer outcomes. Using PSA, Gleason score, and tumor stage, risk strata have been defined that are significantly associated with PSA recurrence and cancer specific mortality. (AUA²)

The combination of Gleason score, PSA level, and stage can effectively stratify patients into categories associated with different probabilities of achieving a cure. In addition to considering the probability of cure, the choice of initial treatment is highly influenced by estimated life expectancy, comorbidities, potential therapy side effects, and patient preference. (NCCN¹) (Category 2A)

**Rationale for the measure:**

The initial assessment of all prostate cancer patients should include the three evaluations required in this measure. Data elements required for the measure can be captured and the measure is actionable by the physician.

**Data capture and calculations:**

**Calculation for Performance**

For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.

**Numerator (A) Includes:**

- Patients with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score prior to initiation of treatment

**Denominator (PD) Includes:**

- Patients with prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy

**Denominator Exclusions (C) Include:**

- Documentation of medical reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score prior to initiation of treatment

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### Performance Calculation

\[
\text{A} \ (# \ of \ patients \ meeting \ measure \ criteria) \\
\text{PD} \ (# \ of \ patients \ in \ denominator) \ - \ C \ (# \ of \ patients \ with \ valid \ denominator \ exclusions) \\
\]

Components for this measure are defined as:

<table>
<thead>
<tr>
<th>A</th>
<th># of patients with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score prior to initiation of treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD</td>
<td># of patients with prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy</td>
</tr>
<tr>
<td>C</td>
<td># of patients with documented medical reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score prior to initiation of treatment</td>
</tr>
</tbody>
</table>

### Calculation for Reporting

For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator.

**Reporting Numerator** includes each of the following instances:

A. Patients with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score prior to initiation of treatment

C. Patients who do not have documentation of evaluation of prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score prior to initiation of treatment but for whom there is a documented medical reason for not doing so

D. Patients who do not have documentation of evaluation of prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score prior to initiation of treatment and there is no documented medical reason for not doing so

**Reporting Denominator (RD) Includes:**

- Patients with prostate cancer AND
- Receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy

### Reporting Calculation

\[
\frac{A(# \ of \ patients \ meeting \ numerator \ criteria) + C(# \ of \ patients \ with \ valid \ exclusions) + D(# \ of \ patients \ NOT \ meeting \ numerator \ criteria)}{RD \ (# \ of \ patients \ in \ denominator)} \\
\]

Components for this measure are defined as:

<table>
<thead>
<tr>
<th>A</th>
<th># of patients with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score prior to initiation of treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td># of patients who do not have documentation of evaluation of prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score prior to initiation of treatment but for whom there is a documented medical reason for not doing so</td>
</tr>
<tr>
<td>D</td>
<td># of patients who do not have documentation of evaluation of prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score prior to initiation of treatment and there is no documented medical reason for not doing so</td>
</tr>
<tr>
<td>RD</td>
<td># of patients with prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy</td>
</tr>
</tbody>
</table>
Measure Specifications – Measure #1: Initial Evaluation
Measure specifications will be provided for multiple data sources.

A. Administrative claims data
Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

(Note: The specifications listed below are those needed for performance calculation. CPT II codes required for reporting are not included here.)

Denominator (Eligible Population): All patients with prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy

ICD-9 diagnosis codes: 185

AND

CPT service codes: 77776, 77777, 77778, 77784 (brachytherapy); 77411, 77412, 77413, 77414, 77416, 77418, (external beam radiotherapy); 55810, 55812, 55815 (perineal prostatectomies); 55840, 55842, 55845 (retropubic prostatectomies); 55866 (laparoscopic prostatectomy); 55873 (cryotherapy)

Denominator Exclusion: Documentation of medical reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score prior to initiation of treatment
  - Append modifier to CPT Category II code: 3268F -1P

Numerator: Patients with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score documented prior to initiation of treatment
  - Report the CPT Category II code 3268F: Prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score documented prior to initiation of treatment

B. Electronic Health Record System (in development)

C. Paper Medical Record (in development)
Prostate Cancer
Measure #2: Initial Evaluation, New Diagnoses

This measure may be used as a Quality Improvement measure only.

Clinical Performance Measure

| Numerator: Patients with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score |
| Denominator: All patients with a new diagnosis of prostate cancer |
| Denominator Exclusions: Documentation of medical reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score |
| Denominator Exclusions: Documentation of patient reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score |
| Measure: Percentage of patients with a new diagnosis of prostate cancer with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score |

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

Tumor characteristics, including PSA level and changes such as velocity and doubling time, Gleason score, and tumor stage, are predictive of cancer outcomes. Using PSA, Gleason score, and tumor stage, risk strata have been defined that are significantly associated with PSA recurrence and cancer specific mortality. (AUA²)

The combination of Gleason score, PSA level, and stage can effectively stratify patients into categories associated with different probabilities of achieving a cure. In addition to considering the probability of cure, the choice of initial treatment is highly influenced by estimated life expectancy, comorbidities, potential therapy side effects, and patient preference. (NCCN¹)

(Category 2A)

Rationale for the measure:
The initial assessment of all prostate cancer patients should include the three evaluations required in this measure. This measure differs from Measure #1 in that the denominator population is limited to patients with a new diagnosis of prostate cancer. This information is not currently available from physician billing codes and presents a documentation and data collection burden; the measure is therefore designated for only quality improvement use at this time.

Data elements required for the measure can be captured and the measure is actionable by the physician.

Data capture and calculations:

Calculation for Performance
For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.

Numerator (A) Includes:
- Patients with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score

Denominator (PD) Includes:
- Patients with a new diagnosis of prostate cancer

Denominator Exclusions (C) Include:
- Documentation of medical reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score

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• Documentation of patient reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score

**Performance Calculation**

\[
\frac{A \text{ (# of patients meeting measure criteria)}}{PD \text{ (# of patients in denominator)} - C \text{ (# of patients with valid denominator exclusions)}}
\]

Components for this measure are defined as:

<table>
<thead>
<tr>
<th>A</th>
<th># of patients with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD</td>
<td># of patients with a new diagnosis of prostate cancer</td>
</tr>
<tr>
<td>C</td>
<td># of patients with documented medical reason(s) or documented patient reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score</td>
</tr>
</tbody>
</table>

Note: Because this measure is designated for Quality Improvement only, no reporting calculation is provided.
Measure Specifications – Measure #2: Initial Evaluation, New Diagnoses

Measure specifications will be provided for multiple data sources.

A. Administrative claims data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

(Note: The specifications listed below are those needed for performance calculation.)

**Denominator (Eligible Population):** All patients with a new diagnosis of prostate cancer

**ICD-9 diagnosis codes:** 185 (new diagnosis)

**AND**

**CPT service codes:** 99201-99205, 99211-99215, 99241-99245

**Denominator Exclusion:** Documentation of medical reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score
  - **Append modifier to CPT Category II code** (in development): XXXXF-1P

Documentation of patient reason(s) for not evaluating prostate-specific antigen (PSA), OR primary tumor (T) stage, OR Gleason score
  - **Append modifier to CPT Category II code** (in development): XXXXF-2P

**Numerator:** Patients with documented evaluation of prostate-specific antigen (PSA), AND primary tumor (T) stage, AND Gleason score
  - **Report the CPT Category II code** (in development) designated for this numerator: XXXXF

B. Electronic Health Record System *(in development)*

C. Paper Medical Record *(in development)*
Prostate Cancer
Measure #3: Avoidance of Overuse Measure – Bone Scan for Staging Low-Risk Patients

This measure may be used as an Accountability measure.

<table>
<thead>
<tr>
<th>Clinical Performance Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Numerator:</strong> Patients who did not have a bone scan performed at any time since diagnosis of prostate cancer</td>
</tr>
<tr>
<td><strong>Denominator:</strong> 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</td>
</tr>
<tr>
<td><strong>Denominator Exclusions:</strong></td>
</tr>
<tr>
<td>Documentation of medical reason(s) for having a bone scan performed (including documented pain, salvage therapy, other medical reasons)</td>
</tr>
<tr>
<td>Documentation of system reason(s) for having a bone scan performed (including bone scan ordered by someone other than reporting physician)</td>
</tr>
<tr>
<td><strong>Measure:</strong> Percentage of 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 who did not have a bone scan performed at any time since diagnosis of prostate cancer</td>
</tr>
</tbody>
</table>

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

Routine use of a bone scan is not required for staging asymptomatic men with clinically localized prostate cancer when their PSA is equal to or less than 20.0 ng/mL. (AUA²)

Patients with a life expectancy > 5 years or symptomatic:
- A bone scan is appropriate for T1 to T2 disease in the presence of a PSA greater than 20 ng/mL, Gleason score of 8 or higher, clinical stage of T3 to T4, or symptomatic disease.
- Patients at higher risk of metastatic disease may undergo pelvic computed tomography (CT) or magnetic resonance imaging (MRI) scanning with possible fine-needle aspiration of enlarged lymph nodes or staging lymph node dissection. Nomograms or risk tables may be used to identify patients with a higher likelihood of having metastatic disease. If the nomogram indicates a probability of lymph node involvement greater than 20% or if the patient is stage T3 or T4, this is recommended as a threshold for doing a staging CT scan or MRI evaluation. For all other patients, no additional imaging is required for staging. (NCCN¹) (Category 2A)

Rationale for the measure:
A bone scan is generally not required for staging prostate cancer in men with a low risk of recurrence. This measure is written as a negative measure so that the performance goal is 100%, consistent with the other measures for this condition. Data elements required for the measure can be captured and the measure is actionable by the physician.

Data capture and calculations:
**Calculation for Performance**
For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.

**Numerator (A) Includes:**
- Patients who did not have a bone scan performed at any time since diagnosis of prostate cancer

**Denominator (PD) Includes:**
- 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

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Denominator Exclusions (C) Include:
- 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)

Performance Calculation

\[
\frac{A \text{ (# of patients meeting measure criteria)}}{PD \text{ (# of patients in denominator)} - C \text{ (# of patients with valid denominator exclusions)}}
\]

Components for this measure are defined as:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td># of patients who did not have a bone scan performed at any time since diagnosis of prostate cancer</td>
</tr>
<tr>
<td>PD</td>
<td># of 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</td>
</tr>
<tr>
<td>C</td>
<td># of patients with documented medical reason(s) for having a bone scan performed (including documented pain, salvage therapy, other medical reasons) or documented system reason(s) for having a bone scan performed (including bone scan ordered by someone other than reporting physician)</td>
</tr>
</tbody>
</table>

Calculation for Reporting
For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator.

Reporting Numerator includes each of the following instances:
A. Patients with low risk of recurrence AND who did not have a bone scan performed at any time since diagnosis of prostate cancer

C. Documentation of medical reason(s) for having a bone scan performed (including documented pain, salvage therapy, other medical reasons) or documented system reason(s) for having a bone scan performed (including bone scan ordered by someone other than reporting physician)

D. Patients who had a bone scan performed, and there is no documented medical reason or system reason for doing so

E. Patients with prostate cancer with intermediate risk of recurrence or with high risk of recurrence

Reporting Denominator (RD) Includes:
- Patients with a diagnosis of prostate cancer, at low risk of recurrence AND
- Receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy

Reporting Calculation

\[
\frac{\text{A(# of patients meeting additional denominator criteria AND meeting numerator criteria) + C(# of patients with valid exclusions) + D(# of patients NOT meeting numerator criteria) + E(# of patients not meeting additional denominator criteria)}}{RD \text{ (# of patients in denominator)}}
\]
Components for this measure are defined as:

<table>
<thead>
<tr>
<th>A</th>
<th># of patients with low risk of recurrence AND who did not have a bone scan performed at any time since diagnosis of prostate cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td># of patients who had a bone scan performed and there is a documented medical reason for having a bone scan performed (including documented pain, salvage therapy, other medical reason) or a documented system reason for having a bone scan performed (including bone scan ordered by someone other than reporting physician)</td>
</tr>
<tr>
<td>D</td>
<td># of patients who had a bone scan performed, and there is no documented medical reason or system reason for doing so</td>
</tr>
<tr>
<td>E</td>
<td># of patients with prostate cancer with intermediate risk of recurrence or with high risk of recurrence</td>
</tr>
<tr>
<td>RD</td>
<td># of patients with a diagnosis of prostate cancer, at low risk of recurrence AND who are receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy</td>
</tr>
</tbody>
</table>
Measure Specifications – Measure #3: Overuse Measure – Bone Scan for Staging Low-Risk Patients

Measure specifications will be provided for multiple data sources.

A. Administrative claims data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

(Note: The specifications listed below are those needed for performance calculation; CPT II codes required for reporting are not included here.)

**Denominator (Eligible Population):** 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 diagnosis codes:** 185

**AND**

**CPT service codes:** 77776, 77777, 77778, 77784 (brachytherapy); 77411, 77412, 77413, 77414, 77416, 77418, (external beam radiotherapy); 55810, 55812, 55815 (perineal prostatectomies); 55840, 55842, 55845 (retropubic prostatectomies); 55866 (laparoscopic prostatectomy); 55873 (cryotherapy)

**AND**

- Report the following CPT Category II to identify the risk of recurrence:
  - 3271F - Low risk of recurrence, prostate cancer

  **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

**Denominator Exclusion:** 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 (with valid medical reason)

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 (in development): 3269F-3P Bone scan performed prior to initiation of treatment or at any time since diagnosis of prostate cancer (with valid system reason)

**Numerator:** Patients who did not have a bone scan performed at any time since diagnosis of prostate cancer

- Report the CPT Category II code 3270F-Bone scan not performed prior to initiation of treatment nor at any time since diagnosis of prostate cancer

B. Electronic Health Record System *(in development)*

C. Paper Medical Record *(in development)*

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Prostate Cancer

Measure #4: Treatment Options for Patients with Clinically Localized Disease

This measure may be used as an Accountability measure.

<table>
<thead>
<tr>
<th>Clinical Performance Measure</th>
</tr>
</thead>
</table>

**Numerator:** Patients who received counseling on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy

**Denominator:** All patients with clinically localized prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy

**Denominator Exclusions:**
Documentation of medical reason for not counseling patient on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy (ie, salvage therapy)

**Measure:** Percentage of patients with clinically localized prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy who received counseling on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

A patient with clinically localized prostate cancer should be informed about the commonly accepted initial interventions including, at a minimum, active surveillance, radiotherapy (external beam and interstitial), and radical prostatectomy. A discussion of the estimates for benefits and harms of each intervention should be offered to the patient. (AUA2) (Standard)

**Rationale for the measure:**
To enable each prostate cancer patient with clinically localized disease to make an informed choice among treatment options, he should receive counseling on at least the four interventions listed in this measure. Additional treatment options may be offered, but fewer data are available to support their effectiveness. Data elements required for the measure can be captured and the measure is actionable by the physician.

**Data capture and calculations:**
**Calculation for Performance**
For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, and Denominator. There are no allowable denominator exclusions for this measure.

**Numerator (A) Includes:**
- Patients who received counseling on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy

**Denominator (PD) Includes:**
- All patients with clinically localized prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy

**Denominator Exclusions (C) Include:**
- Documentation of medical reason for not counseling patient on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy (ie, salvage therapy)
Performance Calculation

| A (# of patients meeting measure criteria) | PD (# patients in denominator) – C (# of patients with valid denominator exclusions) |

Components for this measure are defined as:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td># of patients who received counseling on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy</td>
</tr>
<tr>
<td>PD</td>
<td># of patients with clinically localized prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy</td>
</tr>
<tr>
<td>C</td>
<td># of patients with documented medical reason for not counseling patient on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy (ie, salvage therapy)</td>
</tr>
</tbody>
</table>

Calculation for Reporting

For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator.

**Reporting Numerator includes each of the following instances:**

A. Patients who received counseling on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy

C. Documentation of medical reason for not counseling patient on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy (ie, salvage therapy)

D. Patients who did not receive counseling on the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy; and there is no documented reason for not doing so

**Reporting Denominator (RD) Includes:**

- Patients with clinically localized prostate cancer AND
- Receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy

**Reporting Calculation**

\[
\frac{A\text{(# of patients meeting numerator criteria)} + C\text{(# of patients with valid exclusions)} + D\text{(# of patients NOT meeting numerator criteria)}}{RD\text{(# of patients in denominator)}}
\]

Components for this measure are defined as:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td># of patients who received counseling on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td># of patients with documented medical reason for not counseling patient on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy (ie, salvage therapy)</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td># of patients who did not receive counseling on the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy; and there is no documented reason for not doing so</td>
</tr>
<tr>
<td><strong>RD</strong></td>
<td># of patients with clinically localized prostate cancer AND who are receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy</td>
</tr>
</tbody>
</table>
**Measure Specifications** – Measure #4: Treatment Options for Patients with Clinically Localized Disease

Measure specifications will be provided for multiple data sources.

### A. Administrative claims data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

(Note: The specifications listed below are those needed for performance calculation. CPT II codes required for reporting are not included here.)

**Denominator (Eligible Population):** All patients with clinically localized prostate cancer receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy

ICD-9 diagnosis codes: 185

**Not ICD-9 diagnosis codes:** 197.0, 197.1, 197.2, 197.3, 197.4, 197.5, 197.6, 197.7, 197.8 198.0, 198.1, 198.2, 198.3, 198.4, 198.5, 198.6, 198.7, 198.8

**AND**

CPT service codes: 77261, 77262, 77263 (brachytherapy and external beam radiotherapy treatment planning); 55810, 55812, 55815 (perineal prostatectomies); 55840, 55842, 55845 (retropubic prostatectomies); 55866 (laparoscopic prostatectomy); 55873 (cryotherapy)

**Denominator Exclusion:** Documentation of medical reason for not counseling patient on, at a minimum, the following treatment options for clinically localized disease: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy (ie, salvage therapy)

- Append modifier to CPT Category II code: 4163F-1P

**Numerator:** Patients who received counseling on, at a minimum, the following treatment options for clinically localized disease prior to initiation of treatment: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy

- Report the CPT Category II code designated for this numerator: 4163F-Patient counseling at a minimum on all of the following treatment options for clinically localized prostate cancer: active surveillance, AND interstitial prostate brachytherapy, AND external beam radiotherapy, AND radical prostatectomy, provided prior to initiation of treatment

### B. Electronic Health Record System *(in development)*

### C. Paper Medical Record *(in development)*
Prostate Cancer
Measure #5: Adjuvant Hormonal Therapy for High-Risk Patients

This measure may be used as an Accountability measure.

<table>
<thead>
<tr>
<th>Clinical Performance Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Numerator:</strong> Patients who were prescribed adjuvant hormonal therapy (GnRH [gonadotropin-releasing hormone] agonist or antagonist)</td>
</tr>
<tr>
<td><strong>Denominator:</strong> All patients with a diagnosis of prostate cancer, at high risk of recurrence, receiving external beam radiotherapy to the prostate</td>
</tr>
</tbody>
</table>
| **Denominator Exclusions:**
  - Documentation of medical reason(s) for not prescribing adjuvant hormonal therapy (GnRH agonist or antagonist)
  - Documentation of patient reason(s) for not prescribing adjuvant hormonal therapy (GnRH agonist or antagonist)
| **Measure:** Percentage of patients with a diagnosis of prostate cancer, at high risk of recurrence, receiving external beam radiotherapy to the prostate who were prescribed adjuvant hormonal therapy (GnRH agonist or antagonist) |

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

High risk patients who are considering specific treatment options should be informed of findings of recent high quality clinical trials, including that: for those considering external beam radiotherapy, use of hormonal therapy combined with conventional radiotherapy may prolong survival. (AUA²) (Standard)

Men with prostate cancer that is clinically localized stage T3a, with Gleason score of 8 to 10, or PSA level greater than 20 ng/mL are categorized by the NCCN panel to be at high risk of recurrence after definitive therapy. Note that patients with multiple adverse factors may be shifted into the very high-risk category. Hormonal therapy (eg, androgen ablation) plus external-beam RT is recommended. (NCCN¹) (Category 1)

**Rationale for the measure:**
If receiving external beam radiotherapy, prostate cancer patients with a high risk of recurrence should also be prescribed hormonal therapy, which has been shown to increase the effectiveness of the radiotherapy. Data elements required for the measure can be captured and the measure is actionable by the physician.

**Data capture and calculations:**

**Calculation for Performance**
For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.

**Numerator (A) Includes:**
- Patients who were prescribed adjuvant hormonal therapy (GnRH agonist or antagonist)

**Denominator (PD) Includes:**
- All r patients with a diagnosis of prostate cancer, at high risk of recurrence, receiving external beam radiotherapy to the prostate

**Denominator Exclusions (C) Include:**
- Documentation of medical reason(s) for not prescribing adjuvant hormonal therapy (GnRH agonist or antagonist)
- Documentation of patient reason(s) for not prescribing adjuvant hormonal therapy (GnRH agonist or antagonist)
**Performance Calculation**

\[
\frac{A \text{ (# of patients meeting measure criteria)}}{PD \text{ (# of patients in denominator)} - C \text{ (# of patients with valid denominator exclusions)}}
\]

**Components for this measure are defined as:**

<table>
<thead>
<tr>
<th>A</th>
<th># of patients who were prescribed adjuvant hormonal therapy (GnRH agonist or antagonist)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD</td>
<td># patients with a diagnosis of prostate cancer, at high risk of recurrence, receiving external beam radiotherapy to the prostate</td>
</tr>
<tr>
<td>C</td>
<td># of patients with documented medical reason(s) or documented patient reason(s) for not prescribing adjuvant hormonal therapy (GnRH agonist or antagonist)</td>
</tr>
</tbody>
</table>

**Calculation for Reporting**

For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator.

**Reporting Numerator includes each of the following instances:**

A. Patients with high risk of recurrence AND who were prescribed adjuvant hormonal therapy (GnRH agonist or antagonist)

C. Patients who were not prescribed adjuvant hormonal therapy (GnRH agonist or antagonist) but there is documentation of a medical reason(s) for not prescribing adjuvant hormonal therapy OR there is documentation of a patient reason(s) for not prescribing adjuvant hormonal therapy

D. Patients who were not prescribed adjuvant hormonal therapy (GnRH agonist or antagonist) and there is no documented reason for not doing so

E. Patients with prostate cancer with low risk or intermediate risk of recurrence

**Reporting Denominator (RD) Includes:**

- Patients with a diagnosis of prostate cancer, at high risk of recurrence AND
- Receiving external beam radiotherapy to the prostate

**Reporting Calculation**

\[
\frac{A\text{(# of patients meeting additional denominator criteria AND meeting numerator criteria)} + C\text{(# of patients with valid exclusions)} + D\text{(# of patients NOT meeting numerator criteria)} + E\text{(# of patients not meeting additional denominator criteria)}}{RD \text{ (# of patients in denominator)}}
\]

**Components for this measure are defined as:**

<table>
<thead>
<tr>
<th>A</th>
<th># of patients with high risk of recurrence AND who were prescribed adjuvant hormonal therapy (GnRH agonist or antagonist)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td># of patients who were not prescribed adjuvant hormonal therapy (GnRH agonist or antagonist) but there is either a documented medical reason or a documented patient reason for not prescribing adjuvant hormonal therapy</td>
</tr>
<tr>
<td>D</td>
<td># of patients who were not prescribed adjuvant hormonal therapy (GnRH agonist or antagonist) and there is no documented medical reason or documented patient reason for not doing so</td>
</tr>
<tr>
<td>E</td>
<td># of patients with prostate cancer with low risk of recurrence or with intermediate risk of recurrence</td>
</tr>
<tr>
<td>RD</td>
<td># of patients with a diagnosis of prostate cancer, at high risk of recurrence AND who are receiving external beam radiotherapy to the prostate</td>
</tr>
</tbody>
</table>
Measure Specifications – Measure #5: Adjuvant Hormonal Therapy for High-Risk Patients
Measure specifications will be provided for multiple data sources.

A. Administrative claims data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

(Note: The specifications listed below are those needed for performance calculation. CPT II codes required for reporting are not included here.)

Denominator (Eligible Population): All patients with a diagnosis of prostate cancer, at high risk of recurrence receiving external beam radiotherapy to the prostate

ICD-9 diagnosis codes: 185

AND

CPT service codes: 77407, 77408, 77409, 77411, 77412, 77413, 77414, 77416, 77418 (external beam radiotherapy)

AND

➢ Report one of the following CPT Category II codes to identify the risk of recurrence:

3273F - High risk of recurrence, prostate cancer

Risk strata definitions:
- Low Risk: PSA ≤10 mg/dL; AND Gleason score 6 or less; AND clinical stage T1c or T2a
- Intermediate Risk: PSA >10 to 20 mg/dL; OR Gleason score 7; OR clinical stage T2b, and not qualifying for high risk
- High Risk: PSA > 20 mg/dL; OR Gleason score 8 to 10; OR clinical stage T2c or greater; and not qualifying for very high risk

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

Denominator Exclusion: Documentation of medical reason(s) for not prescribing adjuvant hormonal therapy (GnRH agonist or antagonist)

➢ Append modifier to CPT Category II code: 4164F-1P

Documentation of patient reason(s) for not prescribing adjuvant hormonal therapy (GnRH agonist or antagonist)

➢ Append modifier to CPT Category II code: 4164F-2P

Numerator: Patients who were prescribed adjuvant hormonal therapy (GnRH agonist or antagonist)

➢ Report the CPT Category II code designated for this numerator: 4164F - Adjuvant (ie, in combination with external beam radiotherapy to the prostate for prostate cancer) hormonal therapy (GnRH [gonadotropin-releasing hormone] agonist or antagonist) prescribed/administered

B. Electronic Health Record System (in development)

C. Paper Medical Record (in development)
Prostate Cancer
Measure #6: Three-Dimensional Radiotherapy

This measure may be used as an Accountability measure.

Clinical Performance Measure

| Numerator: | Patients who receive three-dimensional conformal radiotherapy (3D-CRT) or intensity modulated radiation therapy (IMRT) |
| Denominator: | All patients with prostate cancer receiving external beam radiotherapy to the prostate only (no metastases) |
| Denominator Exclusions: | (None) |
| Measure: | Percentage of patients with prostate cancer receiving external beam radiotherapy to the prostate only who receive 3D-CRT or IMRT |

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:
Three-dimensional CRT or intensity-modulated radiation therapy (IMRT) techniques should be employed over conventional techniques. These techniques use computer software to integrate CT images of the patients' internal anatomy in the treatment position, which allows the volume receiving the high radiation dose to "conform" more exactly to the shape of the tumor. Three-dimensional CRT has reduced both acute and late normal tissue toxicity in patients with prostate cancer and allows higher cumulative doses to be delivered with a lower risk of late effects. (NCCN¹) (Category 2A)

Rationale for the measure:
Current, computer-aided radiotherapy techniques improve the precision of the irradiation of cancerous tissue and should be employed for all patients receiving external beam radiotherapy to the prostate. Data elements required for the measure can be captured and the measure is actionable by the physician.

Data capture and calculations:
Calculation for Performance
For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, and Denominator. There are no allowable denominator exclusions for this measure.

Numerator (A) Includes:
- Patients who receive three-dimensional conformal radiotherapy (3D-CRT) or intensity modulated radiation therapy (IMRT)

Denominator (PD) Includes:
- All patients with prostate cancer receiving external beam radiotherapy to the prostate only (no metastases)

Performance Calculation

\[
\frac{A \text{ (# of patients meeting measure criteria)}}{PD \text{ (# patients in denominator)}}
\]
Components for this measure are defined as:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td># of patients who receive three-dimensional conformal radiotherapy (3D-CRT) or intensity modulated radiation therapy (IMRT)</td>
</tr>
<tr>
<td>PD</td>
<td># patients with prostate cancer receiving external beam radiotherapy to the prostate only (no metastases)</td>
</tr>
</tbody>
</table>

**Calculation for Reporting**

For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator.

**Reporting Numerator** includes each of the following instances:
- A. Patients who receive three-dimensional conformal radiotherapy (3D-CRT) or intensity modulated radiation therapy (IMRT)
- D. Patients who did not receive three-dimensional conformal radiotherapy (3D-CRT) or intensity modulated radiation therapy (IMRT)

**Reporting Denominator (RD) Includes:**
- Patients with prostate cancer AND
- Receiving external beam radiotherapy to the prostate only (no metastases)

**Reporting Calculation**

\[
\frac{\text{A}(\text{# of patients meeting numerator criteria}) + \text{D}(\text{# of patients NOT meeting numerator criteria})}{\text{RD}(\text{# of patients in denominator})}
\]

Components for this measure are defined as:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td># of patients who receive three-dimensional conformal radiotherapy (3D-CRT) or intensity modulated radiation therapy (IMRT)</td>
</tr>
<tr>
<td>D</td>
<td># of patients who did not receive three-dimensional conformal radiotherapy (3D-CRT) or intensity modulated radiation therapy (IMRT)</td>
</tr>
<tr>
<td>RD</td>
<td># of patients with prostate cancer receiving external beam radiotherapy to the prostate only (no metastases)</td>
</tr>
</tbody>
</table>
Measure Specifications – Measure #6: Three-Dimensional Radiotherapy

Measure specifications will be provided for multiple data sources.

A. **Administrative claims data**

   Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

   (Note: The specifications listed below are those needed for performance calculation. CPT II codes required for reporting are not included here.)

   **Denominator (Eligible Population):** All patients with prostate cancer receiving external beam radiotherapy to the prostate only (no metastases)

   - **ICD-9 diagnosis codes:** 185
   - **And**
   - **Not ICD-9 diagnosis codes:** 197.0, 197.1, 197.2, 197.3, 197.4, 197.5, 197.6, 197.7, 197.8, 198.0, 198.1, 198.2, 198.3, 198.4, 198.5, 198.6, 198.7, 198.8
   - **And**
   - **CPT service codes:** 77401, 77402, 77403, 77404, 77406, 77407, 77408, 77409, 77411, 77412, 77413, 77414, 77416, 77418 (external beam radiotherapy)
   - **And**
   - **CPT II Code** for patient receiving external beam radiotherapy to the prostate only: 4200F

   **Denominator Exclusion:** None

   **Numerator:** Patients who receive three-dimensional conformal radiotherapy (3D-CRT) or intensity modulated radiation therapy (IMRT)

   - Report the CPT Category II code designated for this numerator: 4165F

B. **Electronic Health Record System (in development)**

C. **Paper Medical Record (in development)**
EVIDENCE CLASSIFICATION/RATING SCHEME

AUA Grades of Recommendations
(Guidelines for the management of clinically localized prostate cancer)

1. **Standard**: A guideline statement is a standard if (1) the health outcomes of the alternative interventions are sufficiently well-known to permit meaningful decisions, and (2) there is virtual unanimity about which intervention is preferred.

2. **Recommendation**: A guideline statement is a recommendation if 1) the health outcomes of the alternative intervention are sufficiently well-known to permit meaningful decisions and (2) an appreciable, but not unanimous majority agrees on which intervention is preferred.

3. **Option**: A guideline statement is an option if (1) the health outcomes of the interventions are not sufficiently well-known to permit meaningful decisions or (2) preferences are unknown or equivocal.

National Comprehensive Cancer Network (NCCN) Recommendation Rating Scale
(Clinical practice guidelines in oncology: Prostate cancer)

<table>
<thead>
<tr>
<th>Category of Consensus</th>
<th>Quality of Evidence</th>
<th>Level of Consensus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High</td>
<td>Uniform</td>
</tr>
<tr>
<td>2A</td>
<td>Lower</td>
<td>Uniform</td>
</tr>
<tr>
<td>2B</td>
<td>Lower</td>
<td>Non-uniform</td>
</tr>
<tr>
<td>3</td>
<td>Any</td>
<td>Major disagreement</td>
</tr>
</tbody>
</table>

**Category 1**: The recommendation is based on high-level evidence (ie, high-powered randomized clinical trials or meta-analyses), and the panel has reached uniform consensus that the recommendation is indicated. In this context, uniform means near unanimous positive support with some possible neutral positions.

**Category 2A**: The recommendation is based on lower level evidence, but despite the absence of higher level studies, there is uniform consensus that the recommendation is appropriate. Lower level evidence is interpreted broadly, and runs the gamut from phase II or large cohort studies to individual practitioner experience. Importantly, in many instances, the retrospective studies are derived from clinical experience of treating large numbers of patients at a member institution, so panel members have first-hand knowledge of the data. Inevitably, some recommendations must address clinical situations for which limited or no data exist. In these instances the congruence of experience-based opinions provide an informed if not confirmed direction for optimizing patient care. These recommendations carry the implicit recognition that they may be superseded as higher level evidence becomes available or as outcomes-based information becomes more prevalent.

**Category 2B**: The recommendation is based on lower level evidence, and there is nonuniform consensus that the recommendation should be made. In these instances, because the evidence is not conclusive, institutions take different approaches to the management of a particular clinical scenario. This nonuniform consensus does not represent a major disagreement, rather it recognizes that given imperfect information, institutions may adopt different approaches. A Category 2B designation should signal to the user that more than one approach can be inferred from the existing data.

**Category 3**: Including the recommendation has engendered a major disagreement among the panel members. The level of evidence is not pertinent in this category, because experts can disagree about the significance of high level trials (McNeil, 2001). Several circumstances can cause major disagreements. For example, if substantial data exist about two interventions but they have never been directly compared in a randomized trial, adherents to one set of data may not accept the interpretation of the other side’s results. Another situation resulting in a Category 3 designation is when experts disagree about how trial data can be generalized. An example of this is the recommendation for internal mammary node radiation in postmastectomy radiation therapy. One side believed that because the randomized studies included this modality, it must be included in the recommendation. The other side believed, based on the documented additional morbidity and the role of internal mammary radiation therapy in other studies, that this was not necessary. A Category 3 designation alerts users to a major interpretation issue in the data and directs them to the manuscript for an explanation of the controversy.

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References
