How Guidelines and Appropriate Use Criteria Can Support Oncologic Imaging and Pathology Test Ordering / Decision Making

James Brink, MD
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Disclosure

- I have no personal financial interests to disclose
- I serve as Chair of the Board of Chancellors for the American College of Radiology (ACR)
- National Decision Support Company is the exclusive distributor for ACR’s Appropriateness Criteria through its Decision Support Mechanism, ACR Select
Inappropriate Imaging Examinations

Pressure for rapid throughput:
Sometimes, imaging exams are requested before anyone has seen the patient!
THE ACR APPROPRIATENESS CRITERIA

- 25 years of continuous work
- 176 Clinical conditions
- 1570 Ordering scenarios
- >6,000 literature references
- Hundreds of clinical experts
- Multi-specialty based
- Rigorous SOE methodology
- AHRQ NGC transparency
- Continuous updates
- Widely referenced
# AUC Methodology

## Diagnostic Procedures

<table>
<thead>
<tr>
<th>Rating</th>
<th>Category Name</th>
<th>Category Definition</th>
<th>Disagreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>7, 8, or 9</td>
<td>Usually appropriate</td>
<td>The study or procedure is indicated in certain clinical settings at a favorable risk-benefit ratio for patients, as supported by published peer-reviewed scientific studies, supplemented by expert opinion.</td>
<td>The dispersion of the individual ratings from the panel median rating is assessed to determine if there is no disagreement.</td>
</tr>
<tr>
<td>4, 5, or 6</td>
<td>May be appropriate</td>
<td>The study or procedure may be indicated in certain clinical settings, or the risk-benefit ratio for patients may be equivocal as shown in published peer-reviewed, scientific studies, supplemented by expert opinion.</td>
<td>When the individual ratings are too dispersed from the panel median (disagreement), “May be appropriate” is the rating with a note that there was disagreement.</td>
</tr>
<tr>
<td>1, 2, or 3</td>
<td>Usually not appropriate</td>
<td>Under most circumstances, the study or procedure is unlikely to be indicated in these specific clinical settings, or the risk-benefit ratio for patients is likely to be unfavorable, as shown in published peer-reviewed, scientific studies supplemented by expert opinion.</td>
<td></td>
</tr>
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</table>

The RAND/UCLA Appropriateness Method
THE ACR APPROPRIATENESS CRITERIA

Chest CT

Alternate procedures to consider:

Additional Information:

SIGNs / SYMPTOMS

Known diagnoses (not ruled out)

- Acute dissection
- Broncholithosis
- Congenital heart disease
- Injury to trank
NDSC solutions have been adopted by over 500 health systems covering 2,000 facilities which process over 5 million decision support transactions monthly.
Oncologic AUC: ACR vs. NCCN

• ACR Oncologic AUC
  – 319 Scored Indications, 22 Cancer Types
  – 143 Unscored Indications (in deference to NCCN)
  – Purpose: Staging + <Screening, Diagnosis in full AC>
    • Some Follow-up/Surveillance for Breast and Genitourinary Cancers

• NCCN Imaging AUC
  – 1001 Indications, 51 Cancer Types
  – Purpose: Screening, Diagnostic, Staging, Treatment Response Assessment, Follow-up/Surveillance
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<th>Clinical Setting</th>
<th>Guideline Page</th>
<th>Category of Evidence</th>
<th>ICD-10 Codes</th>
<th>Stage</th>
<th>Additional Description of Stage</th>
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<th>N</th>
<th>Indication</th>
<th>Imaging Recommendation</th>
<th>Purpose</th>
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<tr>
<td>Cervical Cancer</td>
<td>CERV-10</td>
<td>2A</td>
<td>C53.0, C53.1, C53.8, C53.9, Z80.49, Z85.40, Z85.41, Z85.44</td>
<td>I1A, I1A2, I1B1, I1B2</td>
<td>Fertility sparing</td>
<td></td>
<td></td>
<td></td>
<td>Consider pelvic MRI with contrast</td>
<td>Follow-up/Surveillance</td>
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**M: Histology:**

**Frequency:** MRI:
- 6 mo after surgery
- Annually thereafter for 2-3 yrs

**Imaging Notes:**
Additional imaging as indicated based on symptomatology and clinical concern for recurrent/metastatic disease (Factors may include abnormal physical exam finding or new pelvic, abdominal, or pulmonary symptoms). CT and MRI with contrast unless contraindicated.

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<td>I1A1, I1A2, I1B1, I1B2, I1A, I1B, I1A2</td>
<td>Whole body PET/CT (preferred) or Chest/Abdomen/Pelvic CT with contrast</td>
<td></td>
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<td>Follow-up/Surveillance</td>
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**M: Histology:**

**Frequency:** PET/CT, CT or MRI
- Within 3-6 mo after completion of therapy

**Imaging Notes:**
Additional imaging as indicated based on symptomatology and clinical concern for recurrent/metastatic disease (Factors may include abnormal physical exam findings such as palpable mass or adenopathy, new pelvic, abdominal, or pulmonary symptoms). CT and MRI with contrast unless contraindicated.