Imaging Utilization: The Radiology perspective

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Questions

• Does the experience of private payers mirror that of Medicare with respect to the utilization of and spending for imaging services

• What are the most effective methods to ensure more appropriate use and better quality of imaging services?

• How important is specialization in the performance and interpretation of medical imaging services. How can the health care system adapt to increasing subspecialization while maintaining appropriate access?

• How can Medicare be a prudent purchaser when medical technology, and imaging in particular, changes rapidly?
What is driving increasing utilization?

**Positive**
- Imaging replacing more invasive procedures
- Expanded role of imaging, e.g. acute stroke
- More effective screening e.g. breast cancer
- Aging, more informed beneficiary population

**Negative**
- Incentives for inappropriate self referral
- Knowledge gap
- Duplicative studies
- Additional tests
- Defensive medicine
- Patient demand
Decreased Unit Cost has not produced desired results

- DRA did not halt growth in imaging utilization and will not drive out inappropriate utilization
- Inappropriate utilization may in fact increase as non-radiologist providers generate more volume to meet their revenue goals
- Quality will inevitably decrease
How can utilization be managed most effectively?

- Removal of incentives for self referral
- Education and support of referring physicians
- Use of appropriateness guidelines
- Increased awareness of radiation risk
- Recognition of and payment for quality
- Medical liability reform
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How can utilization be managed most effectively?

- Radiology has taken a leadership role in:
  - Appropriateness guidelines
  - Accreditation
  - Physician education
  - Educating the public
  - Radiation dose reduction
ACR Appropriateness Criteria

Procedure List

Topic: Suspected Liver Metastases

Variant: Surveillance following treatment of primary tumor.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Rating</th>
<th>RRL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT abdomen with contrast</td>
<td>8</td>
<td>Med</td>
</tr>
<tr>
<td>MRI abdomen with contrast</td>
<td>7</td>
<td>None</td>
</tr>
<tr>
<td>FDG-PET whole body</td>
<td>6</td>
<td>High</td>
</tr>
<tr>
<td>MRI abdomen without contrast</td>
<td>4</td>
<td>None</td>
</tr>
<tr>
<td>CT abdomen without contrast</td>
<td>4</td>
<td>Med</td>
</tr>
<tr>
<td>NUC In-111 somatostatin receptor scintigraphy</td>
<td>4</td>
<td>High</td>
</tr>
<tr>
<td>US abdomen with or without Doppler</td>
<td>4</td>
<td>None</td>
</tr>
<tr>
<td>CT arterial portography liver</td>
<td>2</td>
<td>Med</td>
</tr>
<tr>
<td>CTA abdomen</td>
<td>2</td>
<td>Med</td>
</tr>
</tbody>
</table>

Appropriateness Criteria Scale

1  2  3  4  5  6  7  8  9

1=Least appropriate  9=Most appropriate
Real time decision support

- MGH real time decision supported order entry system
- Reduced “low utility” studies by 2/3 in Y1
- 20% of orders for “low utility” studies were cancelled
- Requires EMR
- Real time scheduling key to success
- Potential long term effect on quality
Accreditation / Quality Improvement

The Alliance for Radiation Safety in Pediatric Imaging
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Specialization versus Access

• Radiology training programs deliver excellence
• Younger and fellowship trained radiologists tend to specialize more
• Value of the onsite radiologist
• Accreditation programs measure training and expertise
• Challenge to support radiologists in small and rural practices
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Adapting to changing technology

- Understanding practice patterns
  - billing clarity and transparency
  - e.g. itemized billing of PC and TC

- CPT code development process
  - Collaborative efforts to develop robust evidence based proposals
    - Providers/CMS/Vendors

- RUC new technology review and 5 year review
  - Evaluates changing practices
How can utilization be managed most effectively?

• Unit cost reduction will encourage inappropriate utilization and drive down quality

• Beneficiaries deserve high quality and real time decisions on appropriate imaging

• Physician education is critical for long term benefits

• Continued efforts to weed out inadequate equipment and reduce radiation risk

• Imaging innovations are increasing quality of life for Medicare beneficiaries but must be used wisely