Multisite Implementation of Integrated Clinical Decision Support at the Simulated Point-of-Order Entry

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None
Radiology-TEACHES Portal

Education Project Partners

- Content Updates
- New Releases
- Aggregate User Experience
- Market Feedback

ACR

ACRselect

NATIONAL DECISION SUPPORT COMPANY

Baylor College of Medicine
1. A 4-year-old female presents to urgent care clinic with a 2-day history of abdominal pain initially periumbilical later localized to the right lower quadrant, associated with low-grade fever, nausea, and decreased appetite. Physical exam: Tender right lower quadrant with possible positive Blumberg sign. WBC: 12k.

What would be most appropriate regarding imaging procedures for this patient?

- CT of abdomen and pelvis without and with IV contrast
- Ultrasound of abdomen, right lower quadrant
- MRI of abdomen and pelvis with IV contrast
- CT of abdomen and pelvis with IV contrast
- CT of abdomen and pelvis with oral contrast only
## Radiology-TEACHES Simulation Education Portal

### Welcome mwillis

#### Body Areas
- Abdomen
- Breast
- Cardiac

#### Clinical Indications
- Known condition
  - Abscess, abdomen, soft tissue
  - Abscess, intestine
  - Abscess, kidney

#### Clinical Scenarios
- Right Lower Quadrant Pain: Suspected Appendicitis
  - Ped < 14 y, rlq pain, possible appendicitis, atypical
  - RLQ pain, appendicitis suspect, fever, elev WBC, pregnant

### Appropriateness rankings for a 4 year old female

<table>
<thead>
<tr>
<th>Appropriateness</th>
<th>Procedure</th>
<th>Cost</th>
<th>RRL</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>US, abdomen, [peds]</td>
<td>$</td>
<td>select this exam</td>
</tr>
<tr>
<td>7</td>
<td>CT, abdomen-pelvis, w iv contrast, [peds]</td>
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<tr>
<td>6</td>
<td>XRAY, abdomen, [peds]</td>
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<td>5</td>
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<tr>
<td>5</td>
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<tr>
<td>5</td>
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<td>$$</td>
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</tr>
</tbody>
</table>
Multi-site Study: Launched based upon single institution pilot program.
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199 Students
3rd and 4th year

108 Simulation group
91 Control group
Survey Results

82% Yes: “More likely to use clinical decision support”

73% Yes: “Recommend the education portal”

Multi-site Study: Launched based upon single institution pilot program.
Survey Comments

“Ordering the correct imaging is an important part of medicine and improving health care costs, I think this would be a smart addition to medical and allied health education.”

“Learning to use and reference ACR criteria is likely the most valuable thing I can take away from a week course in radiology.”
### Module Group student average change from pre- to posttest by topic area

<table>
<thead>
<tr>
<th>Topic Area</th>
<th># of questions</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Back Pain</td>
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<td>14.50</td>
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<tr>
<td>Adnexal Cyst</td>
<td>3</td>
<td>20.33</td>
</tr>
<tr>
<td>Pulmonary Embolism</td>
<td>3</td>
<td>0.33</td>
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<tr>
<td>Rhinosinusitis</td>
<td>3</td>
<td>12.33</td>
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<tr>
<td>Pediatric Head Injury</td>
<td>3</td>
<td>11.33</td>
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<tr>
<td>Uncomplicated Headache</td>
<td>3</td>
<td>16.67</td>
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<tr>
<td>Chest X-Ray</td>
<td>3</td>
<td>22.00</td>
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