## Suspected New-Onset and Known Nonacute Heart Failure

**Variant 1:** Suspected new-onset nonacute heart failure, not previously diagnosed. Initial imaging.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL [ped]</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>US echocardiography transthoracic resting</td>
<td>Usually appropriate</td>
<td>Moderate</td>
<td>0 mSv</td>
<td>0 mSv [ped]</td>
<td>9</td>
<td>9</td>
<td>0 0 0 0 1 1 2 4 8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 (22713289)</td>
<td>4</td>
</tr>
<tr>
<td>40 (22104551)</td>
<td>3</td>
</tr>
<tr>
<td>41 (23500216)</td>
<td>4</td>
</tr>
<tr>
<td>42 (15808765)</td>
<td>3</td>
</tr>
<tr>
<td>43 (16510467)</td>
<td>2</td>
</tr>
<tr>
<td>44 (16115798)</td>
<td>2</td>
</tr>
<tr>
<td>45 (11263606)</td>
<td>3</td>
</tr>
<tr>
<td>46 (11348601)</td>
<td>2</td>
</tr>
<tr>
<td>47 (21722451)</td>
<td>4</td>
</tr>
<tr>
<td>48 (26910112)</td>
<td>Good</td>
</tr>
<tr>
<td>49 (24286578)</td>
<td>4</td>
</tr>
<tr>
<td>50 (25572643)</td>
<td>2</td>
</tr>
<tr>
<td>51 (25783858)</td>
<td>3</td>
</tr>
<tr>
<td>52 (24813438)</td>
<td>2</td>
</tr>
<tr>
<td>53 (21155032)</td>
<td>3</td>
</tr>
<tr>
<td>54 (21944161)</td>
<td>2</td>
</tr>
</tbody>
</table>
### Radiography chest

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness</th>
<th>Radiation Dose</th>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usually appropriate</td>
<td>Strong</td>
<td>☢ &lt;0.1 mSv</td>
<td>80045607</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☢&lt;0.03 mSv [ped]</td>
<td>81517671</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>822994440</td>
<td>822104551</td>
<td>3</td>
</tr>
<tr>
<td>CTA coronary arteries with IV contrast</td>
<td>May be appropriate (Disagreement)</td>
<td>Expert Opinion</td>
<td>☢☢☢ 1-10 mSv</td>
<td>5 5 0 3 6 3 0 2 1 0 0</td>
</tr>
<tr>
<td>MRI heart function and morphology without and with IV contrast</td>
<td>May be appropriate (Disagreement)</td>
<td>Expert Opinion</td>
<td>O 0 mSv O 0 mSv [ped]</td>
<td>5 5 1 2 6 2 0 3 0 1 0</td>
</tr>
<tr>
<td>MRI heart function and morphology without IV contrast</td>
<td>Usually not appropriate</td>
<td>Limited</td>
<td>O 0 mSv O 0 mSv [ped]</td>
<td>3 3 1 3 7 2 2 0 0 0 0</td>
</tr>
<tr>
<td>Nuclear medicine ventriculography</td>
<td>Usually not appropriate</td>
<td>Strong</td>
<td>☢☢☢ 1-10 mSv</td>
<td>3 3 5 2 4 2 2 0 0 0 0</td>
</tr>
<tr>
<td>US echocardiography transthoracic stress</td>
<td>Usually not appropriate</td>
<td>Moderate</td>
<td>O 0 mSv O 0 mSv [ped]</td>
<td>3 3 3 2 6 2 2 0 0 0 0</td>
</tr>
</tbody>
</table>

**References**

<table>
<thead>
<tr>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

**Study Quality**

<table>
<thead>
<tr>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

**Radiation Dose**

<table>
<thead>
<tr>
<th>Radiation Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>☢ &lt;0.1 mSv</td>
</tr>
<tr>
<td>☢&lt;0.03 mSv [ped]</td>
</tr>
<tr>
<td>0 mSv</td>
</tr>
<tr>
<td>1-10 mSv</td>
</tr>
<tr>
<td>Study (Reference)</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>40 (22104551)</td>
</tr>
<tr>
<td>41 (23500216)</td>
</tr>
<tr>
<td>42 (15808765)</td>
</tr>
<tr>
<td>43 (16510467)</td>
</tr>
<tr>
<td>44 (16115798)</td>
</tr>
<tr>
<td>45 (11263606)</td>
</tr>
<tr>
<td>46 (11348601)</td>
</tr>
<tr>
<td>47 (21722451)</td>
</tr>
<tr>
<td>48 (26910112)</td>
</tr>
<tr>
<td>49 (24286578)</td>
</tr>
<tr>
<td>50 (25572643)</td>
</tr>
<tr>
<td>51 (25783858)</td>
</tr>
<tr>
<td>52 (24813438)</td>
</tr>
<tr>
<td>53 (21155032)</td>
</tr>
<tr>
<td>54 (21944161)</td>
</tr>
</tbody>
</table>

| Study (Reference) | Study Quality | MRI heart with function and inotropic stress without and with IV contrast | Limited | O 0 mSv | O 0 mSv [ped] | 3 | 3 | 3 | 3 | 6 | 2 | 1 | 0 | 0 | 0 | 0 |
|------------------|---------------|--------------------------------------------------------------------------------|--------|--------|---------------|---|---|---|---|---|---|---|---|---|---|
| 40 (22104551)    | 3             | Good                                                                            |        |        |               |   |   |   |   |   |   |   |   |   |   |   |
| 41 (23500216)    | 4             | Good                                                                            |        |        |               |   |   |   |   |   |   |   |   |   |   |   |
| 58 (19755468)    | 2             | Good                                                                            |        |        |               |   |   |   |   |   |   |   |   |   |   |   |

<table>
<thead>
<tr>
<th>Study (Reference)</th>
<th>Study Quality</th>
<th>FDG-PET/CT heart</th>
<th>Limited</th>
<th>10-30 mSv</th>
<th>3-10 mSv [ped]</th>
<th>3</th>
<th>3</th>
<th>4</th>
<th>2</th>
<th>6</th>
<th>0</th>
<th>2</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 (24781009)</td>
<td>4</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 (19672592)</td>
<td>4</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Variant 2: Differentiating new-onset heart failure with reduced ejection fraction (HFrEF) from new-onset heart failure with preserved ejection fraction (HFpEF).

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>US echocardiography transthoracic resting</td>
<td>Usually appropriate</td>
<td>Moderate</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>9</td>
<td>9</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 (25783858)</td>
<td>3</td>
</tr>
<tr>
<td>61 (25119893)</td>
<td>3</td>
</tr>
<tr>
<td>62 (27118225)</td>
<td>4</td>
</tr>
<tr>
<td>63 (25355298)</td>
<td>4</td>
</tr>
<tr>
<td>64 (25187609)</td>
<td>2</td>
</tr>
</tbody>
</table>

---

### References

- Rb-82 PET/CT heart
- SPECT or SPECT/CT MPI rest and stress
- Arteriography coronary
- MRI heart with function and inotropic stress without IV contrast
<table>
<thead>
<tr>
<th>Studies</th>
<th>Study Quality</th>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 (23769272)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>66 (26805452)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67 (21778591)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>68 (24863953)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>69 (26058890)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70 (21602549)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>71 (26559428)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72 (24184245)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>73 (22874137)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>74 (22383372)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75 (21601421)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>76 (21458230)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>77 (23747067)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78 (21685198)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>79 (22291430)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80 (21788358)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81 (26811160)</td>
<td>Inadequate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>82 (24150723)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>83 (26082167)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>84 (26941415)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MRI heart function and morphology without and with IV contrast**

<table>
<thead>
<tr>
<th>Studies</th>
<th>Study Quality</th>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 (23769272)</td>
<td>Limited</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>66 (26805452)</td>
<td>O 0 mSv [ped]</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>67 (21778591)</td>
<td>7</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>68 (24863953)</td>
<td>May be appropriate</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Nuclear medicine ventriculography**

<table>
<thead>
<tr>
<th>Studies</th>
<th>Study Quality</th>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 (26005800)</td>
<td>Limited</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>86 (26005800)</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Procedure</td>
<td>Appropriateness</td>
<td>Expert Consensus</td>
<td>Radiation Exposure (mSv)</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------</td>
<td>------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>CTA coronary arteries with IV contrast</td>
<td>May be appropriate</td>
<td>1-10 mSv</td>
<td>4 4 1 0 2 5 5 2 0 0 0</td>
</tr>
<tr>
<td>Arteriography coronary</td>
<td>May be appropriate</td>
<td>1-10 mSv</td>
<td>4 4 1 2 2 6 3 1 0 0 0</td>
</tr>
<tr>
<td>US echocardiography transthoracic stress</td>
<td>Usually not appropriate</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped] 3 3 3 2 3 4 2 1 0 0 0</td>
</tr>
</tbody>
</table>

References (Study Quality):
- 51 (25783858)
- 61 (25119893)
- 62 (27118225)
- 63 (25355298)
- 64 (25187609)
- 65 (23769272)
- 66 (26805452)
- 67 (21778591)
- 68 (24863953)
- 69 (26058890)
- 70 (21602549)
- 71 (26559428)
- 72 (24184245)
- 73 (22874137)
- 74 (22383372)
- 75 (21601421)
- 76 (21458230)
- 77 (23747067)
- 78 (21685198)
<table>
<thead>
<tr>
<th>Study</th>
<th>Expert Consensus</th>
<th>Study Quality</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI heart with function and vasodilator stress perfusion without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Limited</td>
<td>O 0 mSv&lt;br&gt;[ped]</td>
</tr>
<tr>
<td>MRI heart with function and inotropic stress without IV contrast</td>
<td>Usually not appropriate</td>
<td>Limited</td>
<td>O 0 mSv&lt;br&gt;[ped]</td>
</tr>
<tr>
<td>MRI heart with function and inotropic stress without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Limited</td>
<td>O 0 mSv&lt;br&gt;[ped]</td>
</tr>
<tr>
<td>FDG-PET/CT heart</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>3-10 mSv&lt;br&gt;[ped]</td>
</tr>
<tr>
<td>SPECT or SPECT/CT MPI rest and stress</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>10-30 mSv&lt;br&gt;[ped]</td>
</tr>
<tr>
<td>Radiography chest</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>&lt;0.1 mSv&lt;br&gt;[ped]</td>
</tr>
<tr>
<td>Rb-82 PET/CT heart</td>
<td>Usually not appropriate</td>
<td>Expert Consensus</td>
<td>10-30 mSv&lt;br&gt;[ped]</td>
</tr>
</tbody>
</table>

Variant 3:  Confirmed new-onset heart failure with reduced ejection fraction of uncertain etiology: ischemic versus nonischemic.
<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTA coronary arteries with IV contrast</td>
<td>Usually appropriate</td>
<td>Strong</td>
<td>☢☢☢ 1-10 mSv</td>
<td>☢☢☢ 1-10 mSv [ped]</td>
<td>8</td>
<td>8</td>
<td>1 0 0 1 0 1 4 5 4</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101 (23759285)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102 (21257010)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103 (28041705)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>104 (25281557)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRI heart function and morphology without and with IV contrast</td>
<td>Usually appropriate</td>
<td>Moderate</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>8</td>
<td>8</td>
<td>0 0 0 1 0 1 3 7 4</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98 (26251006)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99 (21900085)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 (21789747)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRI heart with function and vasodilator stress perfusion without and with IV contrast</td>
<td>Usually appropriate</td>
<td>Moderate</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>8</td>
<td>8</td>
<td>0 0 0 2 1 1 3 5 4</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98 (26251006)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99 (21900085)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 (21789747)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECT or SPECT/CT MPI rest and stress</td>
<td>Usually appropriate</td>
<td>Limited</td>
<td>☢☢☢ 10-30 mSv</td>
<td>☢☢☢ 10-30 mSv [ped]</td>
<td>8</td>
<td>8</td>
<td>1 0 0 0 2 1 4 3 5</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93 (23990345)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94 (24948152)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>95 (27331209)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedure</td>
<td>Appropriateness</td>
<td>Limited Dose</td>
<td>References</td>
<td>Study Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------------------</td>
<td>-----------------</td>
<td>------------</td>
<td>---------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arteriography coronary</td>
<td>Usually appropriate</td>
<td>1-10 mSv</td>
<td>7 7 0 0 0 0 2 1 8 3 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US echocardiography transthoracic stress</td>
<td>Usually appropriate</td>
<td>Moderate 0 mSv</td>
<td>7 7 0 0 1 1 0 0 8 2 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rb-82 PET/CT heart</td>
<td>Usually appropriate</td>
<td>Limited 10-30 mSv</td>
<td>7 7 1 0 0 0 2 1 6 2 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRI heart with function and inotropic stress without IV contrast</td>
<td>May be appropriate</td>
<td>Moderate 0 mSv</td>
<td>6 6 0 0 1 4 3 4 2 1 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRI heart with function and inotropic stress without and with IV contrast</td>
<td>May be appropriate</td>
<td>Moderate 0 mSv</td>
<td>6 6 0 0 0 0 6 3 6 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedure</td>
<td>Applicability</td>
<td>Expert Opinion</td>
<td>References</td>
<td>Study Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------------------------</td>
<td>----------------</td>
<td>------------</td>
<td>--------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDG-PET/CT heart</td>
<td>May be appropriate</td>
<td>Expert</td>
<td>References</td>
<td>Study Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5.0-10 mSv</strong></td>
<td><strong>5.0-10 mSv</strong></td>
<td>5</td>
<td>41</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>96</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>97</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MRI heart function and morphology without IV contrast**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Applicability</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>May be appropriate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>0.0 mSv</strong></td>
<td><strong>0.0 mSv</strong></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

**Nuclear medicine ventriculography**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Applicability</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Usually not appropriate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1.0-10 mSv</strong></td>
<td><strong>1.0-10 mSv</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**US echocardiography transthoracic resting**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Applicability</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Usually not appropriate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>0.0 mSv</strong></td>
<td><strong>0.0 mSv</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Radiography chest**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Applicability</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Usually not appropriate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>&lt;0.1 mSv</strong></td>
<td><strong>&lt;0.03 mSv</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
Appendix Key
A more complete discussion of the items presented below can be found by accessing the supporting documents at the designated hyperlinks.

Appropriateness Category: The panel's recommendation for a procedure based on the assessment of the risks and benefits of performing the procedure for the specified clinical scenario.

SOE: Strength of Evidence. The assessment of the amount and quality of evidence found in the peer reviewed medical literature for an appropriateness recommendation.

- **References**: The citation number and PMID for the reference(s) associated with the recommendation.
- **Study Quality**: The assessment of the quality of an individual reference based on the number of study quality elements described in the reference.

RRL: Relative Radiation Level. A population based assessment of the amount of radiation a typical patient may be exposed to during the specified procedure.

**Rating**: The final rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

**Median**: The median rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

**Final tabulations**: A histogram showing the number of panel members who rated the procedure as noted in the column heading (ie, 1, 2, 3, etc.).

Additional supporting documents about the AC methodology and processes can be found at [www.acr.org/ac](http://www.acr.org/ac).