American College of Radiology  
ACR Appropriateness Criteria®

Chronic Cough

Variant 1:  Chronic cough lasting more than 8 weeks. No known risk factors for lung cancer. Initial imaging.

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Study Quality

- 3: Higher quality of evidence
- 4: Lower quality of evidence
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- 1: Lower quality of evidence
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| CT chest without IV contrast | May be appropriate | Strong | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 4 | 4 | 1 | 1 | 0 | 8 | 3 | 1 | 0 | 0 | 0 |
|-----------------------------|-------------------|--------|---------------|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| References                  | Study Quality     |        |               |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
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| 10 (26165783)               | 4                 |        |               |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3 (29960277)                | 2                 |        |               |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 16 (26937758)               | 4                 |        |               |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 40 (22795504)               | 4                 |        |               |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 36 (21461855)               | 2                 |        |               |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| CT chest without and with IV contrast | Usually not appropriate | Strong | 1-10 mSv | 3-10 mSv [ped] | 1 | 1 | 7 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 0 |
|--------------------------------------|------------------------|-------|-----------|---------------|---|---|---|---|---|---|---|---|---|---|---|---|
| References                           | Study Quality          |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 39 (19926869)                         | 3                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 32 (25968285)                         | 4                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 29 (20694945)                         | 4                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 10 (26165783)                         | 4                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
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| 40 (22795504)                         | 4                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 36 (21461855)                         | 2                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 15 (31757237)                         | 4                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 4 (21127394)                          | 2                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 37 (28298729)                         | 4                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 42 (25731735)                         | 2                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 41 (24922562)                         | 2                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
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| 6 (12461244)                          | 2                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |
| 1 (29080708)                          | 4                      |       |           |               |   |   |   |   |   |   |   |   |   |   |   |   |

References:

- **Strong** indicates a high level of confidence in the findings.
- **1-10 mSv** and **3-10 mSv [ped]** refer to the estimated radiation exposure levels.
- **Studies** are rated from 1 to 4 for their quality, with 1 being the highest.

Radiation exposure levels are typically measured in millisieverts (mSv) and can vary widely depending on the specific procedures and settings involved.
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Study Quality
Variant 2: Chronic cough lasting more than 8 weeks. Increased risk for lung cancer. Initial imaging.

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CT chest without IV contrast

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### CT chest with IV contrast

| May be appropriate | Strong | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 5 | 5 | 0 | 0 | 0 | 4 | 8 | 0 | 0 | 2 | 0 |
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| 17 (23347748) | 2 |
| 49 (28142680) | 2 |
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### CT chest without and with IV contrast

<p>| Usually not appropriate | Strong | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 1 | 1 | 12 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
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Variant 3: Chronic cough lasting more than 8 weeks. Persistent symptoms despite initial clinical evaluation and empiric treatment. Initial imaging.

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CT chest without IV contrast

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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).