





**Variant 3: Suspected frontotemporal dementia.**

| Procedure                                      | Appropriateness Category | SOE | Adults RRL     | Peds RRL            | Rating | Median | Final Tabulations |   |   |   |   |   |   |   |   |
|--|--------------------------|-----|----------------|---------------------|--------|--------|-------------------|---|---|---|---|---|---|---|---|
|  |                          |     |                |                     |        |        | 1                 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| MRI head without IV contrast                   | Usually appropriate      |     | ○ 0 mSv        | ○ 0 mSv [ped]       | 8      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MRI head without and with IV contrast          | Usually appropriate      |     | ○ 0 mSv        | ○ 0 mSv [ped]       | 7      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT head without IV contrast                    | May be appropriate       |     | ⊗⊗⊗ 1-10 mSv   | ⊗⊗⊗ 0.3-3 mSv [ped] | 6      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FDG-PET/CT head                                | May be appropriate       |     | ⊗⊗⊗⊗ 10-30 mSv | ⊗⊗⊗⊗ 3-10 mSv [ped] | 6      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT head without and with IV contrast           | May be appropriate       |     | ⊗⊗⊗ 1-10 mSv   | ⊗⊗⊗⊗ 3-10 mSv [ped] | 4      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT head with IV contrast                       | May be appropriate       |     | ⊗⊗⊗ 1-10 mSv   | ⊗⊗⊗ 0.3-3 mSv [ped] | 4      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MR spectroscopy head without IV contrast       | Usually not appropriate  |     | ○ 0 mSv        | ○ 0 mSv [ped]       | 3      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MRI functional (fMRI) head without IV contrast | Usually not appropriate  |     | ○ 0 mSv        | ○ 0 mSv [ped]       | 2      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tc-99m HMPAO SPECT head                        | Usually not appropriate  |     | ⊗⊗⊗⊗ 10-30 mSv | ⊗⊗⊗⊗ 3-10 mSv [ped] | 2      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Amyloid PET/CT head                            | Usually not appropriate  |     | ⊗⊗⊗ 1-10 mSv   |                     | 2      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Variant 4: Suspected dementia with Lewy bodies.**







|  |                         |  |              |                     |   |     |   |   |   |   |   |   |   |   |   |
|--|-------------------------|--|--------------|---------------------|---|-----|---|---|---|---|---|---|---|---|---|
| CT head with IV contrast                       | May be appropriate      |  | ☼☼☼ 1-10 mSv | ☼☼☼ 0.3-3 mSv [ped] | 5 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| I-123 IMP SPECT head                           | Usually not appropriate |  | ☼☼☼ 1-10 mSv |                     | 3 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MRI functional (fMRI) head without IV contrast | Usually not appropriate |  | ○ 0 mSv      | ○ 0 mSv [ped]       | 2 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Variant 7: Suspected normal pressure hydrocephalus.**

| Procedure                                | Appropriateness Category | SOE | Adults RRL   | Peds RRL            | Rating | Median | Final Tabulations |   |   |   |   |   |   |   |   |
|--|--------------------------|-----|--------------|---------------------|--------|--------|-------------------|---|---|---|---|---|---|---|---|
|  |                          |     |              |                     |        |        | 1                 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| MRI head without IV contrast             | Usually appropriate      |     | ○ 0 mSv      | ○ 0 mSv [ped]       | 8      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MRI head without and with IV contrast    | Usually appropriate      |     | ○ 0 mSv      | ○ 0 mSv [ped]       | 7      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT head without IV contrast              | May be appropriate       |     | ☼☼☼ 1-10 mSv | ☼☼☼ 0.3-3 mSv [ped] | 6      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT head without and with IV contrast     | May be appropriate       |     | ☼☼☼ 1-10 mSv | ☼☼☼☼ 3-10 mSv [ped] | 5      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT head with IV contrast                 | May be appropriate       |     | ☼☼☼ 1-10 mSv | ☼☼☼ 0.3-3 mSv [ped] | 5      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cisternography                           | May be appropriate       |     | ☼☼☼ 1-10 mSv |                     | 4      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MR spectroscopy head without IV contrast | Usually not appropriate  |     | ○ 0 mSv      | ○ 0 mSv [ped]       | 3      | n/a    | 0                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Variant 8: Suspected Huntington disease.**













## **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).