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|---------------------------------------|-------------------------|--|----------------|-----------------------|---|-----|---|---|---|---|---|---|---|---|---|
| CT head without IV contrast           | Usually appropriate     |  | ☼☼☼ 1-10 mSv   | ☼☼☼ 0.3-3 mSv [ped]   | 9 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CTA head and neck 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 |
| MRI head without IV contrast          | Usually appropriate     |  | ○ 0 mSv        | ○ 0 mSv [ped]         | 8 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MRA head and neck without IV contrast | May be appropriate      |  | ○ 0 mSv        | ○ 0 mSv [ped]         | 5 | 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 |
| MRI head without and with IV contrast | May be appropriate      |  | ○ 0 mSv        | ○ 0 mSv [ped]         | 5 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arteriography cervicocerebral         | Usually not appropriate |  | ☼☼☼ 1-10 mSv   | ☼☼☼☼ 3-10 mSv [ped]   | 1 | 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 |
| X-ray skull                           | Usually not appropriate |  | ☼ <0.1 mSv     | ☼☼ 0.03-0.3 mSv [ped] | 1 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FDG-PET/CT brain                      | Usually not appropriate |  | ☼☼☼☼ 10-30 mSv | ☼☼☼☼ 3-10 mSv [ped]   | 1 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tc-99m HMPAO SPECT brain              | Usually not appropriate |  | ☼☼☼ 1-10 mSv   | ☼☼☼☼ 3-10 mSv [ped]   | 1 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MRI head without IV contrast with DTI | Usually not appropriate |  | ○ 0 mSv        | ○ 0 mSv [ped]         | 2 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Variant 6: Subacute or chronic traumatic brain injury with new cognitive and/or neurologic deficit(s).**













## **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).