## Variant 1: New-onset seizure. Unrelated to trauma. Initial imaging.

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**Variant 2**: New-onset seizure. Unrelated to trauma. Initial imaging.

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## Variant 4: Known seizure disorder. Unchanged seizure semiology.

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31 (25341150) | 4
32 (28670168) | 3
33 (23538269) | 3

References

20 (25424870) | 4

FDG-PET/CT brain

Usually not appropriate

Limited ☢☢☢ 10-30 mSv ☢☢☢ 3-10 mSv [ped]

1 1 15 2 0 0 0 0 0 0

References

20 (25424870) | 4

HMPAO SPECT or SPECT/CT brain ictal and interictal

Usually not appropriate

Expert Consensus ☢☢☢ 1-10 mSv

1 1 16 1 0 0 0 0 0 0
| FDG-PET/CT brain | May be appropriate (Disagreement) | Expert Opinion | ☢☢☢☢ 10-30 mSv | ☢☢☢☢ 3-10 mSv | 5 | 6 | 2 | 0 | 3 | 1 | 2 | 6 | 2 | 0 | 0 |
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| 31 (25341150)    | 4                                |                |                   |                 |   |   |   |   |   |   |   |   |   |   |   |   |
| 32 (28670168)    | 3                                |                |                   |                 |   |   |   |   |   |   |   |   |   |   |   |   |
| 33 (23538269)    | 3                                |                |                   |                 |   |   |   |   |   |   |   |   |   |   |   |   |

| CT head with IV contrast | Usually not appropriate | Limited | ☢☢☢ 1-10 mSv | ☢☢☢ 0.3-3 mSv [ped] | 2 | 2 | 8 | 1 | 1 | 3 | 2 | 2 | 0 | 0 | 0 |
|--------------------------|-------------------------|---------|---------------|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|
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| 23 (19513318)            | 4                       |         |               |                     |   |   |   |   |   |   |   |   |   |   |   |   |

| CT head without and with IV contrast | Usually not appropriate | Limited | ☢☢☢ 1-10 mSv | ☢☢☢ 3-10 mSv [ped] | 2 | 2 | 8 | 2 | 1 | 1 | 3 | 2 | 0 | 0 | 0 |
|--------------------------------------|-------------------------|---------|---------------|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|
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| 23 (19513318)                        | 4                       |         |               |                     |   |   |   |   |   |   |   |   |   |   |   |   |

| MEG                                  | Usually not appropriate | Expert Consensus | O 0 mSv | 1 | 1 | 13 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

| MRI functional (fMRI) head without IV contrast | Usually not appropriate | Expert Consensus | O 0 mSv | O 0 mSv [ped] | 1 | 1 | 13 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
### Variant 5:  Known seizure disorder. Change in seizure semiology or new neurologic deficit or no return to previous neurologic baseline.

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### Variant 6: Known seizure disorder. History of tumor.
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**Variant 7:** Known seizure disorder. Surgical candidate or surgical planning.

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| MRI head without and with IV contrast          | Usually appropriate  | Limited    | 0 0 mSv    | 0 0 mSv [ped] | 8 8 | 0 0 0 0 1 1 3 4 8 |

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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).