**American College of Radiology**  
**ACR Appropriateness Criteria**

**Imaging of Facial Trauma Following Primary Survey**

**Variant 1:** Tenderness to palpation or contusion or edema over frontal bone. Suspect frontal bone injury. Initial imaging following primary survey.

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| 31 (30007759)                                 | 4                       |        |                |                      |   |   |    |   |   |   |   |   |   |   |   |   |   |
| 41 (29922866)                                 | 4                       |        |                |                      |   |   |    |   |   |   |   |   |   |   |   |   |   |
| 43 (29903561)                                 | 4                       |        |                |                      |   |   |    |   |   |   |   |   |   |   |   |   |   |
| 39 (28941507)                                 | 4                       |        |                |                      |   |   |    |   |   |   |   |   |   |   |   |   |   |
| 13 (27348349)                                 | 4                       |        |                |                      |   |   |    |   |   |   |   |   |   |   |   |   |   |
| 48 (25639172)                                 | 4                       |        |                |                      |   |   |    |   |   |   |   |   |   |   |   |   |   |
| 15 (23498333)                                 | 4                       |        |                |                      |   |   |    |   |   |   |   |   |   |   |   |   |   |
| 45 (21617475)                                 | 4                       |        |                |                      |   |   |    |   |   |   |   |   |   |   |   |   |   |
| 46 (21111135)                                 | 4                       |        |                |                      |   |   |    |   |   |   |   |   |   |   |   |   |   |
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### Variant 2:

Pain with upper jaw manipulation or pain overlying zygoma or zygomatic deformity or facial elongation or malocclusion or infraorbital nerve paresthesia. Suspect midface injury. Initial imaging following primary survey.

### Final Tabulations

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| CT maxillofacial without and with IV contrast | Usually not appropriate | Limited | ☢☢☢ 1-10 mSv | 1 | 1 | 11 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 1 |
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| References                                    | Study Quality           |        |              |   |   |     |   |   |   |   |   |   |   |   |   |
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| 30 (30454777)                                 | 4                       |        |              |   |   |     |   |   |   |   |   |   |   |   |   |
| 47 (28941512)                                 | 4                       |        |              |   |   |     |   |   |   |   |   |   |   |   |   |
| 42 (27618328)                                 | 4                       |        |              |   |   |     |   |   |   |   |   |   |   |   |   |

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**CT cervical spine with IV contrast**

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**CT cervical spine without and with IV contrast**

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**Arteriography cervicocerebral**

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| MRI head without and with IV contrast | Usually not appropriate | Limited | 0.0 mSv | 0.0 mSv [ped] | 1 | 1 | 16 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
|---------------------------------------|-------------------------|--------|--------|-------------|---|---|-----|---|---|----|---|---|----|---|---|---|
| References                            | Study Quality           |        |        |             |   |   |     |   |   |    |   |   |    |   |   |   |
| 8 (32224001)                          |                         |        |        |             |   |   |     |   |   |    |   |   |    |   |   |   |
| 2 (31345487)                          |                         |        |        |             |   |   |     |   |   |    |   |   |    |   |   |   |
| 25 (33958108)                         |                         |        |        |             |   |   |     |   |   |    |   |   |    |   |   |   |

<p>| MRI maxillofacial without IV contrast | Usually not appropriate | Strong  | 0.0 mSv | 0.0 mSv [ped] | 1 | 1 | 13 | 2 | 1 | 2 | 1 | 0 | 0 | 0 | 0 |
|--------------------------------------|-------------------------|---------|--------|-------------|---|---|-----|---|---|----|---|---|----|---|---|---|
| References                           | Study Quality           |         |        |             |   |   |     |   |   |    |   |   |    |   |   |   |
| 31 (30007759)                        |                         |         |        |             |   |   |     |   |   |    |   |   |    |   |   |   |
| 50 (21371800)                        |                         |         |        |             |   |   |     |   |   |    |   |   |    |   |   |   |
| 2 (31345487)                         |                         |         |        |             |   |   |     |   |   |    |   |   |    |   |   |   |
| 104 (17223310)                       |                         |         |        |             |   |   |     |   |   |    |   |   |    |   |   |   |</p>
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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).