

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

Nuchal Translucency Evaluation at 11 to 14 Weeks Gestational Age

Variant 1: Routine nuchal translucency measurement at 11 to 14 weeks of gestation for single or twin gestations. Initial imaging.

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|-----------------------------------|--------------------------|---------------|---------------|---------------|--------|--------|-------------------|---|---|---|---|---|---|---|----|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| US pregnant uterus transabdominal | Usually appropriate | Strong | 0 0 mSv | 0 0 mSv [ped] | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 10 |
| | | References | Study Quality | | | | | | | | | | | | |
| | | 2 (27101120) | 4 | | | | | | | | | | | | |
| | | 17 (28295158) | Good | | | | | | | | | | | | |
| | | 27 (14634564) | Good | | | | | | | | | | | | |
| | | 22 (16055577) | 4 | | | | | | | | | | | | |
| | | 24 (16282175) | 3 | | | | | | | | | | | | |
| | | 12 (21210475) | 4 | | | | | | | | | | | | |
| | | 5 (1392745) | 4 | | | | | | | | | | | | |
| | | 23 (11981911) | 4 | | | | | | | | | | | | |
| | | 26 (24201688) | Inadequate | | | | | | | | | | | | |
| | | 21 (28108156) | 4 | | | | | | | | | | | | |
| | | 18 (25813012) | 4 | | | | | | | | | | | | |
| | | 25 (25689240) | 4 | | | | | | | | | | | | |
| US pregnant uterus transvaginal | May be appropriate | Limited | 0 0 mSv | 0 0 mSv [ped] | 6 | 6 | 0 | 0 | 0 | 1 | 2 | 5 | 1 | 2 | 0 |
| | | References | Study Quality | | | | | | | | | | | | |
| | | 29 (7640926) | 3 | | | | | | | | | | | | |
| | | 28 (12389656) | 4 | | | | | | | | | | | | |

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|---------------|------------|
| 22 (16055577) | 4 |
| 24 (16282175) | 3 |
| 23 (11981911) | 4 |
| 26 (24201688) | Inadequate |
| 21 (28108156) | 4 |
| 31 (20638573) | 4 |
| 50 (19155913) | 4 |

| | | | | | | | | | | | | | | | |
|---------------------------|---------------------|----------|---------|---------------|---|---|---|---|---|---|---|---|---|---|---|
| US echocardiography fetal | Usually appropriate | Moderate | 0 0 mSv | 0 0 mSv [ped] | 9 | 9 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 6 |
|---------------------------|---------------------|----------|---------|---------------|---|---|---|---|---|---|---|---|---|---|---|

| References | Study Quality |
|---------------|---------------|
| 20 (23716531) | 4 |
| 2 (27101120) | 4 |
| 42 (25052917) | 4 |
| 40 (12636327) | 4 |
| 41 (23751926) | 4 |
| 44 (25258423) | Good |
| 38 (28385862) | 4 |
| 26 (24201688) | Inadequate |
| 43 (17267839) | 4 |
| 39 (21210483) | 4 |

| | | | | | | | | | | | | | | | |
|-----------------------------------|--------------------|--------|---------|---------------|---|---|---|---|---|---|---|---|---|---|---|
| US duplex Doppler pregnant uterus | May be appropriate | Strong | 0 0 mSv | 0 0 mSv [ped] | 6 | 6 | 0 | 0 | 0 | 0 | 2 | 6 | 0 | 1 | 2 |
|-----------------------------------|--------------------|--------|---------|---------------|---|---|---|---|---|---|---|---|---|---|---|

| References | Study Quality |
|---------------|---------------|
| 19 (-3112890) | 4 |
| 37 (21606749) | 4 |
| 32 (19031473) | 4 |
| 36 (18307193) | 4 |
| 17 (28295158) | Good |
| 35 (11339183) | 4 |
| 34 (19338027) | 4 |
| 33 (28482343) | Good |

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|---------------------------------|--------------------|---------------|---------------|---------------|--------------|---|---|---|---|---|---|---|---|---|---|
| US pregnant uterus transvaginal | May be appropriate | 31 (20638573) | | 4 | | 0 | 0 | 0 | 1 | 2 | 5 | 1 | 1 | 1 | |
| | | Limited | O 0 mSv | O 0 mSv [ped] | 6 | | | | | | | | | | 6 |
| | | References | Study Quality | | 29 (7640926) | | | | | | | | | | 3 |

Variant 3: Increased nuchal translucency in dichorionic twins at 11 to 14 weeks of gestation.

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|-----------------------------------|--------------------------|---------------|---------------|---------------|--------|--------|-------------------|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| US pregnant uterus transabdominal | Usually appropriate | Limited | O 0 mSv | O 0 mSv [ped] | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 8 |
| | | References | Study Quality | | | | | | | | | | | | |
| | | 59 (24176159) | 4 | | | | | | | | | | | | |
| | | 45 (27875472) | 4 | | | | | | | | | | | | |
| | | 58 (18771984) | 4 | | | | | | | | | | | | |
| | | 2 (27101120) | 4 | | | | | | | | | | | | |
| | | 57 (27101119) | 4 | | | | | | | | | | | | |
| | | 60 (27661652) | 4 | | | | | | | | | | | | |
| | | 56 (20033999) | 3 | | | | | | | | | | | | |
| | | 53 (15644291) | 4 | | | | | | | | | | | | |
| | | 55 (24339187) | 4 | | | | | | | | | | | | |
| | | 54 (24916689) | Inadequate | | | | | | | | | | | | |
| US echocardiography fetal | Usually appropriate | Moderate | O 0 mSv | O 0 mSv [ped] | 9 | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 6 |
| | | References | Study Quality | | | | | | | | | | | | |
| | | 20 (23716531) | 4 | | | | | | | | | | | | |
| | | 44 (25258423) | Good | | | | | | | | | | | | |
| | | 26 (24201688) | Inadequate | | | | | | | | | | | | |

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.