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	O 0 mSv	O 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

Procedure	Appropriateness Category	SOE	Adults RRL	Peds RRL	Rating	Median	Final Tabulations								
							1	2	3	4	5	6	7	8	9
US pregnant uterus transvaginal	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	6	6	0	0	0	1	2	5	1	2	0

References	Study Quality
29 (7640926)	3
28 (12389656)	4

		30 (15572480)		4												
		5 (1392745)		4												
		65 (18558475)		3												
US duplex Doppler pregnant uterus	Usually not appropriate	Moderate	O 0 mSv	O 0 mSv [ped]	1	1	7	2	0	1	0	0	0	0	1	
		References		Study Quality												
		19 (-3112890)		4												
		2 (27101120)		4												
		17 (28295158)		Good												
US echocardiography fetal	Usually not appropriate	Limited	O 0 mSv	O 0 mSv [ped]	1	1	9	1	1	0	0	0	0	0	0	
		References		Study Quality												
		20 (23716531)		4												

Variant 2: Increased nuchal translucency measurement at 11 to 14 weeks of gestation for single 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	Moderate	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	1	0	2	8
		References		Study Quality											
		19 (-3112890)		4											
		20 (23716531)		4											
		45 (27875472)		4											
		46 (28133835)		4											
		47 (28569377)		4											
		49 (18512854)		4											
		2 (27101120)		4											
		17 (28295158)		Good											
		48 (25900824)		4											

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	O 0 mSv	O 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	O 0 mSv	O 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

		31 (20638573)		4												
US pregnant uterus transvaginal	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	6	6	0	0	0	1	2	5	1	1	1
		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											

US duplex Doppler pregnant uterus	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	6	6	0	0	0	1	2	4	0	2	2

References	Study Quality
52 (12798478)	3
51 (20571255)	4

US pregnant uterus transvaginal	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	6	6	0	0	0	0	2	5	2	1	1

References	Study Quality
29 (7640926)	3

Variant 4: Increased nuchal translucency in monochorionic 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	Strong	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	0	1	2	8

References	Study Quality
69 (17444560)	3
11 (8863698)	4
66 (10967005)	3
45 (27875472)	4
58 (18771984)	4
70 (29101986)	4
67 (18539256)	3
71 (29763608)	Good
53 (15644291)	4
54 (24916689)	Inadequate
64 (23200164)	4
68 (27270878)	Good

US echocardiography fetal	Usually appropriate	Limited	O 0 mSv	O 0 mSv [ped]	9	9	0	0	0	0	0	1	1	3	6

References	Study Quality
63 (18377515)	4
20 (23716531)	4
59 (24176159)	4
64 (23200164)	4

US duplex Doppler pregnant uterus	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	6	6	0	0	0	1	1	4	1	2	2

References	Study Quality
45 (27875472)	4
62 (20069677)	4
61 (19305331)	4

US pregnant uterus transvaginal	May be appropriate	Limited	O 0 mSv	O 0 mSv [ped]	6	6	0	0	0	0	2	4	3	1	1

References	Study Quality
29 (7640926)	3

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.**