

Ultrasound assessment of the
gravid cervix to assess for risk
of spontaneous preterm birth:

EVIDENCE TABLES



CONTENTS

This document provides evidence tables for each of the recommendations in the clinical guideline:

Evidence Table for Recommendation 1a	3
Level of evidence and Strength of recommendation for Recommendation 1b	3
Evidence Table for Recommendation 2a	4
Evidence Table for Recommendation 2b	5
Evidence Table for Recommendation 2c	6
Evidence Table for Recommendation 3a	7
Level of evidence and Strength of recommendation for Recommendation 3b	7
References	8

Evidence Table for Recommendation 1a.

Existing CPG	Recommendations in existing CPG relevant to Recommendation 1a	Evidence rating (as published in existing CPG)	Standardised evidence rating*
ACR Appropriateness Criteria® Assessment of Gravid Cervix. ⁽¹⁾ 2020	Assessment of gravid cervix. Nulliparous or no history of sPTB. Initial imaging		
	US cervix TVS: may be appropriate	Strong	●
	US cervix TPS: may be appropriate	Limited	○
	US cervix TAS: usually appropriate	Limited	○
ACOG 234: Prediction and prevention of preterm birth ⁽²⁾ 2021	The cervix should be visualized at 18weeks, 0 days-22 weeks, 6 days of gestation in individuals without a prior preterm birth, with either a transabdominal or endovaginal approach.	Level B (A-C)	○ ○
Measurement of cervical length for prediction of preterm birth (RANZCOG) 2022 ⁽³⁾	Acknowledging the challenges and continued debate surrounding universal cervical length screening, RANZCOG currently supports the use of initial transabdominal screening of low-risk women with singleton pregnancies at the mid-trimester scan, with additional transvaginal assessment for those with a short cervical length (< 35 mm) or full cervical length unable to be clearly viewed.	Consensus	○
Society for Maternal-Fetal Medicine Publications Committee. Progesterone and preterm birth prevention: translating clinical trials data into clinical practice. ⁽⁴⁾ 2012	TVS CL screening in singleton gestations without prior PTB cannot yet be universally mandated.	Level B (A-C)	○
Prevention of spontaneous preterm birth. French College of Gynaecologists and Obstetricians. ⁽⁵⁾ 2017	Although the implementation of TVS universal screening might be considered by physicians individually, this screening cannot be universally mandated	Professional consensus	○
ISUOG Practice Guidelines: Role of ultrasound in the prediction of spontaneous preterm birth ⁽⁶⁾ 2022	When feasible, TVS CL measurement should be performed at the second- trimester scan to screen for PTB	C (3/5)	○ ○
Overall Level of evidence [#]	Consistent support for recommendation		√√
Strength of Recommendation 1a (strong/weak) [^]	Strong		
<p>CL; cervical length, CPG; clinical practice guideline, PTB; preterm birth, TAS; transabdominal sonography, TPS; transperineal sonography, TVS; transvaginal sonography, *Refer to Table 4, Appendix 3 for explanations of standardised evidence ratings, # Refer to Table 5, Appendix 3 for explanations of level of evidence ratings, ^Refer to Appendix 3 for explanation of strength of recommendation ratings .</p>			

Level of evidence and Strength of recommendation for Recommendation 1b.

Overall Level of evidence [#]	Consensus decision
Strength of recommendation 1b (strong/weak)	Strong
<p># Refer to Table 5, Appendix 3 for explanations of level of evidence ratings, ^Refer to Appendix 3 for explanation of strength of recommendation ratings.</p>	

Evidence Table for Recommendation 2a.

Existing CPG	Recommendations in existing CPG relevant to Recommendation 2a	Evidence rating (as published in CPG)	Standardised evidence rating*
Prevention of spontaneous preterm birth. French College of Gynaecologists and Obstetricians. ⁽⁵⁾ 2017	Within asymptomatic populations at high-risk, cervical length makes it possible to estimate the risk of preterm delivery.	2/4	○
	The shorter the cervix at an early stage, the greater the risk of preterm delivery.	3/4	○
ACR Appropriateness Criteria® Assessment of Gravid Cervix. ⁽¹⁾ 2020	Assessment of gravid cervix. History of prior preterm birth. Initial imaging.		
	TVS usually appropriate.	Strong	●
	TPS may be appropriate.	Limited	○
	TAS usually not appropriate.	Strong	●
Cervical assessment by ultrasound for preventing preterm delivery. Cochrane database of systematic reviews. ⁽⁷⁾ 2019	There are limited data on the effects of knowing the cervical length, measured by ultrasound, for preventing preterm births, which preclude us from drawing any conclusions.	Insufficient evidence	
ACOG 234: Prediction and prevention of preterm birth ⁽²⁾ 2021	Because of the relatively high detection rate and predictive value in individuals with prior preterm birth, and because treatment is available, serial endovaginal ultrasound measurement of cervical length beginning at 16 weeks, 0 days of gestation and repeated until 24 weeks, 0 days of gestation for individuals with a singleton pregnancy and a prior spontaneous preterm birth is recommended.	A (A-C)	●
Guideline No. 401: Sonographic cervical length in Singleton Pregnancies: techniques and clinical applications. Journal of Obstetrics and Gynaecology Canada. ⁽⁸⁾ 2020	TVS is the preferred approach for cervical assessment to identify women at increased risk of spontaneous preterm birth, and it can be offered to women at increased risk of preterm birth.	II-2B (3/5)	○
	TPS can be offered to women at increased risk of preterm birth if TVS is either unacceptable or unavailable.	II-2B (3/5)	○
Society for Maternal-Fetal Medicine. The role of routine cervical length screening in selected high-and low-risk women for preterm birth prevention. ⁽⁹⁾ 2016	We recommend routine TVS CL screening for women with a singleton pregnancy and history of prior spontaneous PTB.	A(A-C)	●
ISUOG Practice Guidelines: Role of ultrasound in the prediction of spontaneous preterm birth ⁽⁶⁾ 2022	CL ≤ 25 mm can be used as a cut-off for the initiation of measures to prevent PTB in asymptomatic singleton pregnancies, irrespective of risk factors (GOOD PRACTICE POINT).	Good practice point 1/5	⊙
Overall Level of evidence [#]	Consistent support for recommendation		√√
Strength of Recommendation 2a (strong/weak) [^]	Strong		
<p>CL; cervical length, CPG; clinical practice guideline, PTB; preterm birth, TAS; transabdominal sonography, TPS; transperineal sonography, TVS; transvaginal sonography, *Refer to Table 4, Appendix 3 for explanations of standardised evidence ratings, # Refer to Table 5, Appendix 3 for explanations of level of evidence ratings, ^Refer to Appendix 3 for explanation of strength of recommendation ratings.</p>			

Evidence Table for Recommendation 2b.

Existing CPG	Recommendations in existing CPG relevant to Recommendation 2b	Evidence rating (as published in existing CPG)	Standardised evidence rating*
ACOG 234: Prediction and prevention of preterm birth ⁽²⁾ 2021	Because of the relatively high detection rate and predictive value in individuals with prior preterm birth, and because treatment is available, serial TVS measurement of cervical length beginning at 16 weeks, 0 days of gestation and repeated until 24 weeks, 0 days of gestation for individuals with a singleton pregnancy and a prior spontaneous preterm birth is recommended.	A (A-C)	●
Prevention of spontaneous preterm birth. French College of Gynaecologists and Obstetricians. ⁽⁵⁾ 2017	Data in the literature are insufficient to justify recommending the routine or repeated measurement of cervical length by TVS excepting women with a history of preterm delivery.	Professional consensus	○
Guideline No. 401: Sonographic cervical length in Singleton Pregnancies: techniques and clinical applications. Journal of Obstetrics and Gynaecology Canada. ⁽⁶⁾ 2020	Cervical length surveillance is a safe option for patients with a prior sonography indicated cerclage, unclear history of cervical insufficiency and prior sPTB when compared with routine cerclage based on clinical assessment, it may reduce the need for subsequent cerclage.	II-2B	○
ISUOG Practice Guidelines: Role of ultrasound in the prediction of spontaneous preterm birth ⁽⁶⁾ 2022	In women with singleton gestation and prior spontaneous PTB, TVS CL screening every 2 weeks should be considered between 14–16 and 24 weeks if CL is ≥ 30 mm. If TVS CL is 26–29 mm, TVS CL could be repeated weekly.	Good practice point 1/5	○
	Follow-up CL measurements should be considered after initiation of progesterone, as women with shortening cervix despite progesterone treatment may benefit from cervical cerclage.	C (3/5)	○
	There is a lack of evidence regarding CL follow-up after cerclage placement, so this practice cannot be recommended at this time.	Good practice point 1/5	○
Overall Level of evidence [#]	Consistent support for recommendation		√
Strength of Recommendation 2b (strong/weak) [^]	Strong		
<p>CL; cervical length, CPG; clinical practice guideline, PTB; preterm birth, sPTB; spontaneous preterm birth, TVS; transvaginal sonography, *Refer to Table 4, Appendix 3 for explanations of standardised evidence ratings, # Refer to table 5, Appendix 3 for explanations of level of evidence ratings, ^Refer to Appendix 3 for explanation of strength of recommendation ratings.</p>			

Evidence Table for Recommendation 2c.

Existing CPG	Recommendations in existing CPG relevant to Recommendation 2c	Evidence rating (as published in existing CPG)	Standardised evidence rating*
Twin pregnancies: Guidelines for clinical practice from the French College of Gynaecologists and Obstetricians ⁽¹¹⁾ 2011	No study has shown that the identification by TVS in a group at risk of preterm delivery makes it possible to reduce the frequency of such deliveries in asymptomatic patients carrying twins. If TVS is performed, information about a long cervix (>30 mm) is more pertinent than that of a shortened cervix (<25 mm).	Professional Consensus	
ACR appropriateness criteria @ multiple gestations. Journal of the American College of Radiology. ⁽¹²⁾ 2017	At the time of the routine anatomic survey, a cervical length assessment may be performed via TVS to determine whether the patient should be triaged into a higher-risk group for preterm delivery (usually appropriate).	None provided	
ISUOG Practice Guidelines: Role of ultrasound in twin pregnancy. ⁽¹³⁾ 2017	Cervical length measurement is the preferred method of screening for preterm birth in twins; 25 mm is the cut-off most commonly used in the second trimester.	B	
No. 260-ultrasound in twin pregnancies. Journal of Obstetrics and Gynaecology Canada. ⁽¹⁴⁾ 2017	When ultrasound is used to screen for preterm birth in a twin gestation, TVS measurement of the cervical length should be performed.	II-2	
Society for Maternal-Fetal Medicine. The role of routine cervical length screening in selected high-and low-risk women for preterm birth prevention. ⁽⁹⁾ 2016	At this time available data does not indicate adequate clinical benefit to justify routine screening of all women with multiple gestations.	2B	
ISUOG Practice Guidelines: Role of ultrasound in the prediction of spontaneous preterm birth ⁽⁶⁾ 2022	CL measurement is the preferred method for screening for PTB in twins; 25 mm is a pragmatic cut-off between 18 and 24 gestational weeks.	Good practice point (1/5)	
Overall Level of evidence#	Consistent support for recommendation		
Strength of Recommendation 2c (strong/weak)^	Strong		
<p>CL; cervical length, CPG; clinical practice guideline, PTB; preterm birth, TVS; transvaginal sonography, *Refer to Table 4, Appendix 3 for explanations of standardised evidence ratings, # Refer to Table 5, Appendix 3 for explanations of level of evidence ratings, ^Refer to Appendix 3 for explanation of strength of recommendation ratings.</p>			

Evidence Table for Recommendation 3a

Existing CPG	Recommendations in existing CPG relevant to Recommendation 3a	Evidence rating (as published in existing CPG)	Standardised evidence rating*
ACR Appropriateness Criteria® Assessment of Gravid Cervix. ⁽¹⁾ 2020	Assessment of gravid cervix. Suspected preterm labour		
	US cervix TVS: usually appropriate	Limited	○
	US cervix TPS: may be appropriate	Strong	●
	US cervix TAS: may be appropriate	Expert consensus	⊙
National Institute for Health and Care Excellence. Preterm labour. (New guideline 25.) ⁽¹⁵⁾ 2015	If the clinical assessment suggests that the woman is in suspected preterm labour and she is 30 weeks, 0 days pregnant or more, consider transvaginal ultrasound measurement of cervical length as a diagnostic test to determine likelihood of birth within 48 hours	'consider'	⊙
Guideline No. 401: Sonographic cervical length in Singleton Pregnancies: techniques and clinical applications. Journal of Obstetrics and Gynaecology Canada. ⁽⁸⁾ 2020	In women presenting with suspected preterm labour and intact membranes, TVS assessment of cervical length may be used to help stratify the risk of preterm delivery and prevent unnecessary intervention without harm. This information may result in a reduction in late preterm birth, but it is unclear whether it makes a significant clinical difference	II-2B	○
Prevention of spontaneous preterm birth. French College of Gynaecologists and Obstetricians. ⁽⁵⁾ 2017	Among symptomatic patients, routine ultrasound measurement of cervical length at admission is not associated with a significant reduction in the preterm delivery rate	LE3	○
	Because of the excellent negative predictive value of ultrasound cervical measurement and its lower interobserver variability, it is useful to measure cervical length by ultrasound before deciding to transfer the mother to a more specialised hospital	Professional consensus	⊙
ISUOG Practice Guidelines: Role of ultrasound in the prediction of spontaneous preterm birth ⁽⁶⁾ 2022	In women with singleton gestation and threatened PTL between 22weeks, 0 days and 33 weeks, 6 days, TVS CL measurement is recommended to assess the risk of PTB	C (3/5)	○
	There is insufficient evidence to support the benefit of CL measurement in symptomatic women with twin pregnancy and PTL, or to suggest optimal cut-offs to guide clinical management	Good practice point	⊙
Overall Level of evidence [#]	Consistent support for recommendation		√
Strength of Recommendation 3a (strong/weak) [^]	Strong		

CL; cervical length, CPG; clinical practice guideline, PTB; preterm birth, PTL; preterm labour, TAS; transabdominal sonography, TPS; transperineal sonography, TVS; transvaginal sonography, *Refer to Table 4, Appendix 3 for explanations of standardised evidence ratings, # Refer to Table 5, Appendix 3 for explanations of level of evidence ratings, ^Refer to Appendix 3 for explanation of strength of recommendation ratings.

Level of evidence and Strength of recommendation for Recommendation 3b

Overall Level of evidence [#]	Consensus decision
Strength of Recommendation 3 (strong/weak)	Strong
# Refer to Table 5, Appendix 3 for explanations of level of evidence ratings, ^Refer to Appendix 3 for explanation of strength of recommendation ratings.	

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