Transvaginal ultrasound assessment of cervical length

Healthcare Provider Information

- 1. Confirm patient identity and clinical details, including assessment of any contraindication to transvaginal ultrasound.
- 2. Obtain informed consent, offer presence of chaperone and support person.
- 3. Ensure bladder is empty.
- 4. Provide the wahine/person privacy to undress and provide a blanket/sheet to cover themselves.
- Ask the wahine/person to position themselves supine with their head slightly elevated, lower limbs abducted at the hips and flexed at the knees with heels together, and hips elevated with use of a wedge or equivalent e.g. folded mattress.
- 6. Prepare transducer with ultrasound gel, probe cover and lubricating jelly.
- 7. Place the ultrasound probe into the anterior fornix with longitudinal axis orientation to obtain a sagittal view. Confirm and identify to wahine/person fetal heartbeat and/or fetal movements.
- 8. Identify landmark structures: the inferior bladder tip, reflection of posterior vaginal wall, external os, endocervical canal and internal os.
- 9. Minimise probe pressure so that both cervical lips have the same width, keeping all landmark structures in the image.
- 10. Take a less magnified image to provide a broad overview of the cervix in relation to the vagina and gestational sac/fetus.
- 11. Decrease the ultrasound depth so that the cervix is magnified to occupy 50-75% of the image.
- 12. Take at least three measurements of cervical length over three to five minutes. Place the calipers at the internal and external os to obtain a straight line measurement.
- 13. Apply fundal and suprapubic pressure. If cervical length shortens, measure and record the cervical length with and without pressure.
- 14. Assess for the presence of cervical funnelling and/or intra-amniotic debris.
- Assess for liquor volume, placental position and confirm the presence of the fetal heartbeat (this may require transabdominal scan at more advanced gestations).
- 16. Gently remove ultrasound probe; allow wahine/person to get dressed privately.
- 17. Complete a written report.

For more information including access to Taonga Tuku Iho (national best practice guide), you can access the Carosika Collaborative website **www.carosikacollaborative.co.nz** or by using the QR code.

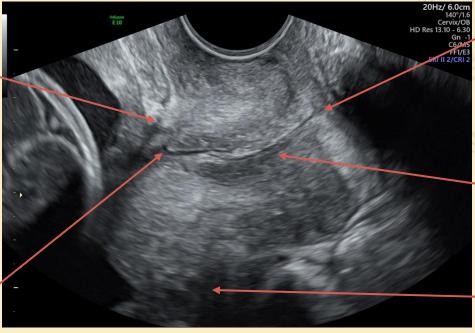




Identifying the cervix: the landmarks

Inferior tip of empty bladder

Internal os



External os

Cervical canal thin hypo or hyper echoic line connecting internal and external os

Posterior vaginal wall reflection

A line between bladder tip and posterior vaginal wall reflection will help to identify (and exclude any lower segment)



Overview



Appropriate magnification



Caliper placement



Suprapubic and fundal pressure



Liquor volume and placental position



Fetal heartbeat

In asymptomatic wāhine/people <24 weeks

≤25 mm is considered a short cervix and preventative therapy (cervical cerclage or progesterone) should be discussed.

In symptomatic wāhine/people ≥23-24 weeks

≤15 mm is considered a short cervix associated with an elevated risk of imminent birth and treatments to prepare for preterm birth should be discussed.

Schematic representation of transvaginal cervical length assessment, including in the presence of $\boldsymbol{\alpha}$ cervical cerclage. Reference: ISUOG 2022.

