

THE SHORT OF IT:

A RETROSPECTIVE AUDIT OF COMPLIANCE WITH RANZCOG TRANSVAGINAL ULTRASOUND RECOMMENDATIONS FOR THE PREVENTION OF PRETERM BIRTH

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Introduction

- Preterm birth (PTB) remains a preventable cause of mortality in infants.
- Shortened cervical length is a risk factor for PTB which is amenable to effective intervention, such as progesterone or cervical cerclage^(1,2).
- RANZCOG supports transabdominal screening of low-risk women with singleton pregnancies at the midtrimester scan, with additional transvaginal assessment for those with a short cervical length (<35mm)⁽³⁾.
- Townsville University Hospital (TUH) is a tertiary centre that services a unique and complex population with maternal-fetal medicine and neonatal intensive care departments.

Aims

- **Primary:** Determine compliance with RANZCOG recommendations for transvaginal scanning.
- **Secondary:** Compare mean cervical length at midtrimester scan for preterm gestation categories.

Methods

- Data was extracted from the integrated electronic medical record. Cervix length was retrospectively documented for the spontaneous singleton preterm cohort of 2021.

Results

- 18 percent of mothers who experienced a spontaneous singleton preterm birth had a midtrimester transabdominal ultrasound showing cervical length <35mm, but did not receive a transvaginal ultrasound; this group comprised both public and private, regional and metropolitan imaging providers.
- The average cervical length on transvaginal ultrasound at morphology was similar for births at extremely, very and moderately preterm gestations.

	Extremely PTB (22+6 – 27+6)	Very PTB (28 – 31+6)	Moderately PTB (32 – 33+6)	Late PTB (34 – 36+6)
Transvaginal	15.2 mm	19.0 mm	15.0 mm	30.4 mm
Transabdominal	45.6 mm	36.2 mm	37.9 mm	40.8 mm

Table 1: Average cervical length at midtrimester scan by preterm birth gestation.

Conclusions

- We identified missed opportunity for accurate transvaginal recognition and intervention in women who had a shortened cervix via transabdominal imaging at the midtrimester scan.
- Barriers to transvaginal ultrasound include accessibility for rural and remote women (potentially limited by availability of equipment), time restrictions of sonographers, and limited awareness on when transvaginal scanning is indicated.
- Strategies to increase compliance with RANZCOG recommendations include education sessions for both radiology and obstetric departments.

References

1. Norman JE, Marlow N, Messow CM, et al. Vaginal progesterone prophylaxis for preterm birth (the OPPTIMUM study): a multicenter, randomized, double-blind trial. *Lancet* 2016;387:2106-16
2. Berghella V, Odibo AO, To MS, Rust OA, Althuisius SM. Cerclage for short cervix on ultrasonography: meta-analysis of trials using individual patient-level data. *Obstet Gynecol* 2005; 106 (1): 181-9.
3. Women's Health Committee. Measurement of cervical length for prediction of preterm birth. Australia: RANZCOG; 2021.