

# Implementation of Transvaginal Ultrasound Screening during routine foetal anatomy scans between 18-24 weeks and the detection of decreased cervical length

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## Introduction

RANZCOG guidelines advise cervical length (CL) is most accurately measured with a transvaginal ultrasound (TVUS). There is a growing body of evidence suggesting decreased CL  $\leq$  25mm during mid pregnancy is associated with increased risk of pre-term birth (PTB) and may benefit from interventions such as vaginal progesterone or cervical cerclage.<sup>1</sup>

Since August 2017, TVUS screening is offered during routine foetal anatomy scans between 18-24 weeks at Nepean Hospital.

## Method

An audit of CL and associated management was conducted with data from the Foetal Ultrasound Department between August 2017 - March 2020. Obstetrix & eMaternity databases were used for data collection regarding delivery gestations at Nepean Hospital between January 2015- June 2020.

## Results

Between August 2017 – March 2020, the detection rate of CL  $\leq$  25mm during routine anatomy scans was 30/3768 (0.8%). 93.33% (28/30) were treated with either progesterone pessaries or cervical cerclage and 83.33% (25/30) delivered at  $\geq$  37 weeks.

Cervical cerclage was performed for 8/30 (27%) and was associated with 7/8 (88%) term deliveries. Progesterone pessaries + Surveillance was used for 20/30 (66.66%) and was associated with 18/20 (90%) term deliveries.

PTB rate between January 2015 – July 2017 was 13.09% (1131/8644) and between August 2017 – June 2020 was 13.44% (1416/10538) compared to a national average of 8.7% and state average of 7.4%.

## Discussion

Introduction of TVUS screening during foetal anatomy scans at Nepean Hospital and subsequent treatment of decreased CL is associated with term deliveries, however this remains dependant on patient preference. A significantly higher PTB rate was detected compared to national and state average. A review will be now be conducted to assess the relevant causes including decreased CL, to identify the potential impact of routine TVUS screening on PTB.



Findings relevant to patients with decreased cervical length $\leq$ 25mm (n=30)	
Average Age	30.9 years old
Average BMI	26
Smoker	30%
Previous History of Miscarriage <15 weeks	50%
Previous History of Miscarriage >15 weeks	20%
History of previous pre-term birth	20%
Shortest Cervical length detected	11.3mm
Intervention used (either progesterone or cervical cerclage)	93%
Term deliveries $\geq$ 37 weeks	83%
Elective Caesarean Section	23%
Emergency Caesarean Section	10%
Normal Vaginal Birth	53%
Instrumental assisted delivery	10%
Average birth weight	2879.3g
Neonates > 2500g	80%

## References

1. RANZCOG Statement Guideline – Measurement of cervical length for prediction of Pre-term Birth

