

# Cervical length surveillance, management and clinical outcomes for pregnancies with short mid-trimester cervical length

Yam C<sup>1</sup>, Poprzczyzny A<sup>1,2</sup>, Dodd JM<sup>1,2</sup>

1. Department of Obstetrics & Gynaecology, Women's & Children's Hospital, SA, Australia
  2. Robinson Research Institute, The University of Adelaide, SA, Australia
- For enquiries, please contact: [chantelle.yam@sa.gov.au](mailto:chantelle.yam@sa.gov.au)

## Background

There is clinical equipoise as to the appropriate surveillance and management of women at risk of preterm birth<sup>1,2</sup>, either based on clinical history or cervical length at routine mid-trimester ultrasound.

There is good data showing therapeutic interventions such as progesterone or cervical cerclage may reduce the incidence of preterm birth in women with short cervix.<sup>3-5</sup> However controversy still exists amongst international colleges and associations regarding recommended screening protocols and indications for initiating management in this obstetric population, as is evident by their differing guidelines.

## Objectives

To assess current practice with regards to surveillance in women with short cervix on routine mid-trimester ultrasound, describe the management initiated and document clinical outcomes

## Methods

A retrospective audit was conducted of women identified as having a short cervix (defined as <25mm on transvaginal ultrasound), delivering at a tertiary metropolitan hospital over 12 months (1/1/18-31/12/18). Data was collected by reviewing medical records, and ethics approval granted by the hospital's Human Research Ethics Committee.

## Results

60 eligible cases were identified.

On average, each case underwent 4.3 transvaginal cervical length ultrasounds for surveillance (range 0 - 13).

Table 1. Baseline characteristics

Maternal age [average (range)]	30.0 years (18-40)
Booking BMI [average (range)]	27.2 kg/m <sup>2</sup> (16-57)
Nulliparous [N (%)]	29 (48.3%)
Ethnicity [N (%)]	
- Caucasian	38 (63.3%)
- Aboriginal and/or Torres Strait Islander	6 (10%)
- Asian	12 (20%)
- African	3 (5%)
- Other	1 (1.7%)
IVF pregnancies [N (%)]	10 (16.7%)
Smoking in pregnancy [N (%)]	6 (10%)
Gestation at diagnosis of short cervix [average (range)]	21+0 (12+6 – 28+0)

Table 2. Risk Factors for Short Cervix

Previous preterm birth [N (%)]	29 (48.3%)
- PTB 34-37/40	5 (8.3%)
- PTB 28-34/40	4 (6.7%)
- PTB < 28/40	20 (33.3%)
Cervical trauma [N (%)]	28 (46.7%)
Uterine anomaly [N (%)]	8 (13.1%)
Multiple pregnancies [N (%)]	9 (15%)

Figure 3. Management of Short Cervix

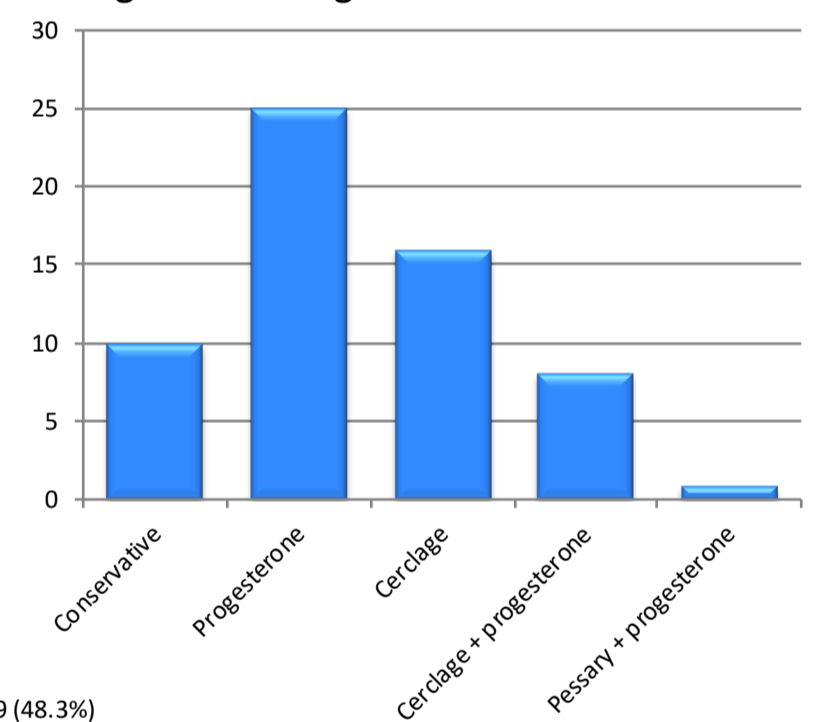
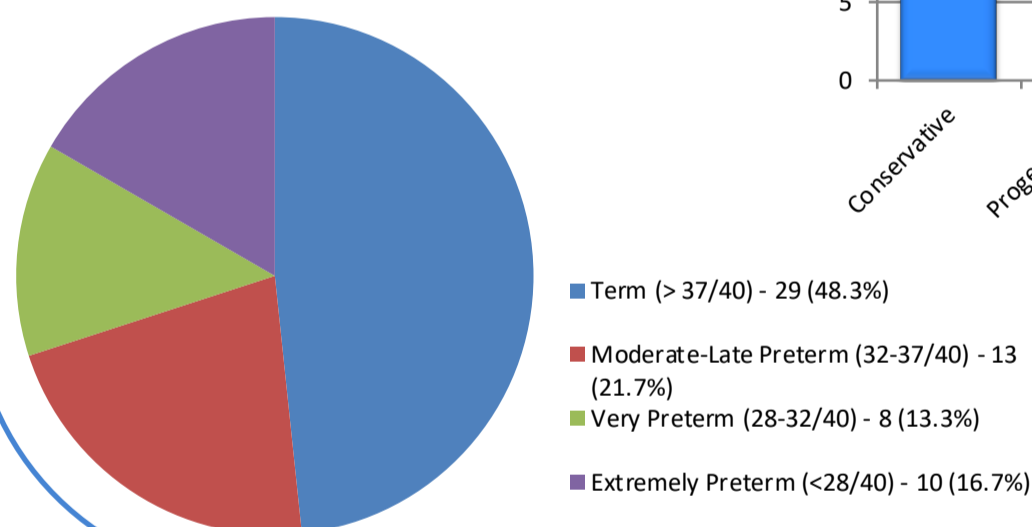


Figure 4. Gestational Age at Delivery



7/10 (70%) of extremely preterm births were pre-viable < 23+0

## Conclusion

Consistent with a recent publication<sup>2</sup>, there is heterogeneity amongst first line treatments for short cervix and surveillance protocols. The majority of our cohort were managed with vaginal progesterone, and over 50% delivered preterm, though over two-thirds delivered later than 32 weeks. This audit provides some initial data of our institution's practices, and offers a platform for improving our surveillance and management protocols to allow optimisation of perinatal outcomes.

## References

1. RANZCOG College Statement C-Obs 27: Measurement of cervical length for prediction of preterm birth. RANZCOG. 2017 July.
2. Care A, Ingleby L, Alfievic Z, Sharp A. The influence of the introduction of national guidelines on preterm birth prevention practice: UK experience. BJOG. 2018 Nov;126(6)
3. Norman J, Marlow N, Messow C, Shennan A, Bennett P, Thornton S et al. Vaginal progesterone prophylaxis for preterm birth (the OPPTIMUM study): a multicentre, randomised, double-blind trial. Lancet. 2016 May;287(10033):P2106-2116.
4. Romero R, Conde-Agudelo A, Fonseca E, O'Brien J, Cetingoz E, Creasy G et al. Vaginal progesterone for preventing preterm birth and adverse perinatal outcomes in singleton gestations with a short cervix: a meta-analysis of individual patient data. AJOG. 2018 Feb.
5. Drakeley AJ, Roberts D, Alfievic Z. Cervical stitch (cerclage) for preventing pregnancy loss in women. Cochrane Database of Systematic Reviews 2003