



Preterm Birth

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> Government of South Australia SA Health

Declarations - My different hats

- Medical lead of the SA Preterm Birth Prevention project
 - Funded through Federal Government, Women's and Infant's Research Foundation and SAHMRI
- Consultant Obstetrician & Gynaecologist
 - Women's and Children's Hospital
- Obstetrician and Gynaecologist
 - Belong O&G





AUSTRALIAN Preterm Birth Prevention ALLIANCE



Women's and Children's Hospital A D E L A I D E



To start

> A few questions...





What percentage of births are preterm in Australia?





What is a 'short cervix' at morphology ultrasound?



Preterm birth: what you need to know

Up to 10% of births in Australia are preterm.

This figure is significantly higher in developing countries.

The rate of preterm birth for Aboriginal mothers is almost OUBLE that of non-Aboriginal mothers.

Preterm birth is the

leading cause of death and disability

in children up to five years of age in the developed world.

Preterm birth

The annual cost of preterm birth to Australia is

\$1.4 billion

More than \$350 million is spent each year on those needing education assistance due to their early birth.

> is defined as birth before 37 and after 20 completed weeks of pregnancy.

Worldwide 13.4 million babies are born preterm each year.

· · ·

born preterm each year.

More than 26,000 Australian babies are

In 2020, preterm birth was responsible for nearly 1 million deaths worldwide - World Health Organization. TRIMESTER II TRIMESTER II BIRTH

Preterm birth risk factors



Preterm Labour & Birth

Prevention, Diagnosis & Management

Table 1: Risk Factors for Preterm Birth and Recommended Actions – Quick Reference

| Risk Factors | | Action |
|------------------------------|---|--|
| Maternal | | |
| Age | <20 | Continuity of Carer |
| | >35 | Postnatal LARC Consider aspirin (Appendix 1) |
| Ethnicity | ATSI Indian, African, Indo-Caribbean | Refer to AFBP Continuity of Carer |
| Cervical Surgery | Especially >10mm, repeated LLETZ or Cone Biopsy | Cervical length at morphology |
| Congenital Uterine Anomalies | | Cervical length at morphology |
| BMI | <18 and >30 | Optimise BMI pre-pregnancy Consider aspirin (Appendix 1) |
| Medical Comorbidities | Hypertension, DM, Renal Disease, SLE, APLS, Scleroderma | Optimise pre-pregnancy Consider aspirin (<u>Appendix 1</u>) Multi-disciplinary Team Care |
| Nutrition | Vegetarian/Non-Fish Diet Malabsorption/Inflammatory Bowel Disease/Gastric Banding Previous PTB/At risk woman | Omega 3 & Zinc Supplements Screen for Vitamin D deficiency |
| Smoking | | Screen at booking & every third visit as per SAPR Refer to Quitline |

Omega 3

- Now part of SAMSAS panel of bloods for women having cFTS
 - Recommended to screen for levels <20 weeks
 - Initial research phase for ongoing funding
- Cochrane review:
 - 11% reduction in PTB
 - 42% reduction in early preterm births
- ORIP RCT Omega-3 to Reduce the Incidence of Preterm Birth
- Avoid supplementation in women on clexane (safe for use with aspirin)



Omega-3 status test results: how to advise women

| Omega-3 status ^{4,5} | Guidance to incorporate into pregnancy care plan |
|-----------------------------------|---|
| Less than 3.7% (low status) | Take omega-3 fatty acid supplements until 37 weeks, to reduce the risk of early preterm birth. |
| | Suggested dose: 800 mg DHA and 100 mg EPA per day. |
| | Typical suitable supplements include Infantem (Pharmamark)* and Omega Brain (Blackmores). |
| Between 3.7 and 4.3% | No action required. |
| (moderate status) | If already taking omega-3 fatty acids as part of a multivitamin and mineral supplement or a standalone supplement, this may continue. |
| Above 4.3% (sufficient status) | Omega-3 supplements are not required and provide no benefit to risk of early preterm birth. |
| | If women are already taking omega-3 fatty acids as part of a multivitamin and mineral supplement and wish to continue, the dose of DHA+EPA should not exceed 250 mg per day. |

*Vegan algal oil supplement of DHA and EPA.

Preterm birth risk factors

| | 1 | Nelei to Quitille |
|---------------------------------------|---------------------------------|---|
| Obstetric History | | |
| Previous preterm birth/PPROM/ | | Refer to Obstetrician/MFM |
| cerclage/shortened cervix | | |
| Previous fully dilated CS, STOP, GTOP | | Cervical length at morphology |
| Pregnancy Features | | |
| Shortened Cervix | <25mm on TVUS, especially | Urgent referral to Obstetrician/ |
| | <10mm or funnelling | MFM |
| Short Interpregnancy Interval | Especially <6 but up to 18 | Continuity of Carer |
| | months | Optimise nutrition & medical |
| | | comorbidities |
| | | Postnatal LARC |
| ART/IVF | | Single Embryo Transfer |
| Line new itel lefe etimes | All Women | Consider aspirin (Appendix 1) |
| Urogenital Infections | Symptomatic Women | Screen, culture & treat UTI Culture & treat urogenital |
| | Symptomatic Women | infections |
| | History of infection associated | Refer to Obstetrician/MFM |
| | losses and PTB | Noter to Obstetriciari/mi m |
| | e.g. chorioamnionitis | |
| Multiple pregnancy | | Refer to Obstetrician, Refer to |
| | | MFM if MCDA, DCDA complexity |
| | | or higher multiple |
| | | Consider aspirin (Appendix 1) |
| Social Factors | | |
| Low SES/Intimate Partner Violence | | Continuity of Carer |
| | | Any available enhanced antenatal |
| | | care programs |
| | | Refer to Social Work if indicated |
| ATSI | | Refer to AFBP |
| Substance abuse | | Continuity of Carer |
| | | Refer to Quitline/DASSA |

^J Health

Preterm birth – the problems

For the mother

- Increased risk of obstetric intervention
- Separation from baby

For the baby

Increased risk of death, cerebral haemorrhage, respiratory support, bowel necrosis and sepsis

For the children

 Increased risk of cerebral palsy, chronic lung disease, deafness, blindness, learning difficulties and behavioural problems

For the adults

 Increased risk of metabolic syndrome, diabetes, heart disease, loss of employment and social issues

National Preterm Birth Prevention Collaborative

- Grew from the WA Preterm Birth initiative which commenced in 2014
- AJOG 2017 Reducing preterm birth by a statewide multifaceted program: an implementation study
- Became national in June 2018
- The world's first national PTB prevention program
- 50+ maternity hospitals Australia wide participating
- NHMRC Partnership grant supported by the Commonwealth Government
- Led by the Australian Preterm Prevention Alliance, in partnership with Women's Healthcare Australasia, the Institute of Healthcare Improvement (IHI) and Safer Care Victoria
- Aimed to strategically reduce the rate of preterm and early term births across Australia

SA Health

AUSTRALIAN Preterm Birth Prevention ALLIANCE



National Preterm Birth Prevention Collaborative

Aim to reduce the rate of preterm and early term birth (37+0 to 38+6) by 20% by March 2024



AUSTRALIAN Preterm Birth Prevention ALLIANCE



National Preterm Birth Prevention COLLABORATIVE SA Health

Hospital sites participating in the Every Week Counts National Preterm Birth Prevention Collaborative

Northern Territory

Royal Darwin and Palmerston Hospital

Western Australia

Albany Health Campus Armadale Health Service Broome Health Campus Bunbury Hospital Fiona Stanley Hospital King Edward Memorial Hospital Osborne Park Hospital

South Australia

Flinders Medical Centre Lyell McEwin Hospital Riverland Mallee Coorong Local Health Network Women's and Children's Hospital

Victoria

Angliss Hospital Box Hill Hospital Ballarat Base Hospital Frances Perry House Frankston Hospital Joan Kirner Women's & Children's Hospital Latrobe Regional Hospital Mercy Hospital for Women Monash Medical Centre Portland District Health





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maternity hospitals working together to prevent preterm birth

Queensland

Bundaberg Hospital Darling Downs Health Gold Coast University Hospital Ipswich Hospital Mater Mothers Hospital Sunshine Coast University Hospital The Royal Brisbane and Women's Hospital Thursday Island Hospital Townsville University Hospital

New South Wales

Campbelltown Hospital Fairfield Hospital Griffith Base Hospital John Hunter Hospital Royal Hospital for Women Royal Prince Alfred Hospital Southern NSW Local Health District St George Hospital Wagga Wagga Base Hospital Westmead Hospital Wollongong Hospital

Australian Capital Territory

Centenary Hospital for Women and Children

Tasmania

Launceston General Hospital Royal Hobart Hospital







WOMEN'S HEALTHCARE Institute for Healthcare Improvement







The key strategies to prevent preterm birth

More than 26,000 Australian babies are born too soon each year.

New research discoveries have led to the development of key strategies to safely lower the rate of preterm birth and are continuing to make pregnancies safer for women and their babies.





No pregnancy to be ended until at least 39 weeks unless there is obstetric or medical justification.

Measurement of the length of the cervix at all mid-

pregnancy scans.



Use of natural vaginal progesterone (200mg each evening) if the length of cervix is less than 25mm.



If the length of the cervix continues to shorten despite progesterone treatment, consider surgical cerclage.



Use of vaginal progesterone if you have a prior history of spontaneous preterm birth.



Women who smoke should be identified and offered Quitline support.



To access continuity of care from a known midwife during pregnancy where possible.



AUSTRALIAN Preterm Birth Prevention ALLIANCE

These strategies have been approved and endorsed by the Australian Preterm Birth Prevention Alliance.

How can we reduce PTB....? The Seven Strategies

- 1. No pregnancy to be ended until 39 weeks gestation unless there is obstetric or medical justification
- 2. Measurement of the length of the cervix at all mid-pregnancy scans
- Vaginal progesterone 200mg each evening if the cervix is <25mm (TV)
- 4. If cervix continues to shorten, consider cerclage
- **Vaginal progesterone if prior history of spontaneous preterm birth (or PPROM) **
- 6. Women who smoke should be identified and offered QUITline support
- 7. Promotion of continuity of care models



Strategy #1

No pregnancy to be ended until 39 weeks gestation unless there is obstetric or medical justification

- Aim for 'PPG indicated' inductions
- Change in standard elective CS booking timeframes
- Educate women regarding 'Every Week Counts'



#letstalktiming www.everyweekcounts.com.au www.womenandbabiesresearch.com







<u>Measurement of the length of the cervix at</u> <u>all mid-pregnancy scans</u>





What cervical length is acceptable on a TA scan at morphology?





Ultrasound assessment of the cervix

Measurement of CL included at all morph scans or any scans performed between 16-24 weeks

- A TA scan of CL >35mm adequate
- In all other cases TV scanning required
- Short = <25mm on TV ultrasound assessment

A TV cervical length <25mm in mid-trimester is associated with a 2.8x increased risk of delivering less than 34 weeks gestation





Ultrasound assessment of the cervix

- Practice statement first endorsed November 2008
 - Recommendations November 2021
 - RANZCOG currently supports the use of initial TA screening of low risk women with singleton pregnancies at the mid-trimester scan, with additional transvaginal assessment for those with a short cervical length (TA CL <35mm)



CATEGORY: BEST PRACTICE STATEMENT Measurement of cervical length for prediction of preterm birth

This statement has been developed and reviewed by the Women's Health Committee and approved by the RANZCOG Board and Council.

A list of Women's Health Committee Members can be found in Appendix A. Disclosure statements have been received from all members of this committee.

Disclaimer This information is intended to provide general advice to practitioners. This information should not be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of any patient. This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The document has been prepared having regard to general circumstances.

First endorsed by RANZCOG: November 200 Current: November 2021 Review due: November 2026

Values: The evidence was reviewed by the Women's Health Committee (RANZCOG), and applied to local factors relating to Australia and New Zealand.

Background: This statement was first developed by Women's Health Committee in November 2006 and most recently reviewed in November 2021.

Funding: The development and review of this statement was funded by RANZCOG.



Strategy #3, #4 and #5

3. Vaginal progesterone 200mg each evening if the

cervix is <25mm (TV)

4. If cervix continues to shorten, consider cerclage

5. **Vaginal progesterone if prior history of

spontaneous preterm birth (or PPROM) **

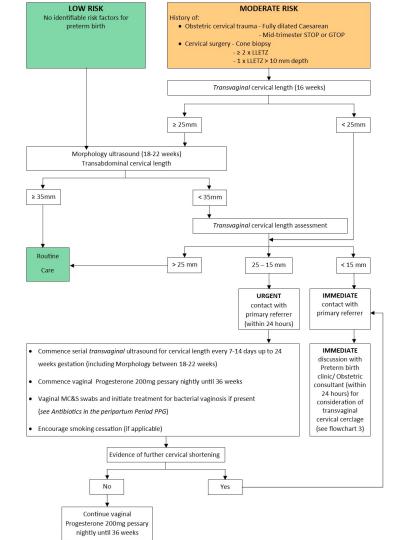


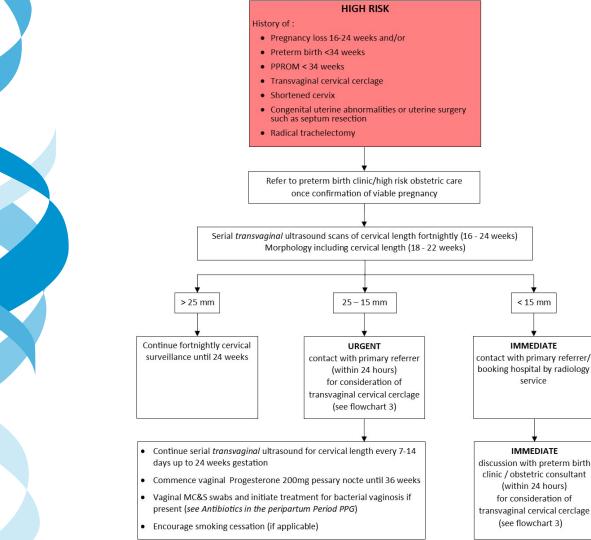


PPG – Short Cervical Length and Cerclage

- > Draft updated flowcharts
- > Currently out for final consultation







Vaginal progesterone

- The exact mechanism of action of progesterone in preventing PTB is unknown
- Two main mechanisms;
 - Anti-inflammatory effect
 - Local increase in progesterone in gestational tissues
- Good safety profile



Vaginal Progesterone



100

-lealth

PROGESTERONE

| Source | General Schedule | Scan the QR code to view and can save the link to your browser! |
|---|---|---|
| Body System | GENITO URINARY SYSTEM AND SEX HORMONES > SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM > PROGESTOGENS | |
| Note | | VRIPRO* is indicated for [1] Applied Reproductive Technology (ART) transmot of Information with progestorare deficiency, regaining progestorare to applementation or replacement to applied reproductive metation initial programs, (p). Near-like of protein table is angulate programs at risk class it; shortwell counts profitments reproductive constructive and and an antibio of programs are preterior table. |
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| Clinical criteria: | | proprior fails they usery paperson apprecise system is supported by a province of the start of approach (apprecise) and apprecise apprec |
| Patient mus | st have a singleton pregnancy, | Control (Letter), supplied and a control is a first the supplied and the s |
| AND | | |

· Patient must have at least one of: (i) short cervix (mid-trimester sonographic cervix no greater than 25 mm), (ii) a history of spontaneous preterm birth,

AND

· The treatment must be administered no earlier than at 16 weeks gestation.

| Code & Prescriber | Medicinal Product Pack (Name, form & strength and pack size) | Max qty packs | Max qty units | No. of repeats | DPMQ | Max Safety Net | General Patient Charge |
|----------------------|---|------------------|------------------|-------------------|----------|-------------------|------------------------------|
| 12465C | PROGESTERONE progesterone 200 mg pessary, 15 (PI, CMI) | 3 | 45 | 3 | \$127.89 | \$30.00 | \$30.00 |
| | Available brands | | | | | | |
| | Oripro | _ | | | | | |

Vaginal progesterone

- EPPPIC Study Lancet 2021
- Systematic review of RCT comparing vaginal progesterone, IM 17-hydroxyprogesterone caproate, oral progesterone vs control or with each other in asymptomatic women at risk of PTB
- Primary outcomes gestation at delivery, neonatal (composite of serious neonatal outcomes), maternal outcomes (HTN, PET, GDM, infection)
- >11, 000 participants



EPPPIC Study

Vaginal progesterone reduced risk of PTB <34 weeks in singleton pregnancy compared with control

- RR 0.78, CI 0.68-0.90
- If baseline risk of 20%, RR of 0.78 equates to an absolute risk reduction of 4.4%

| | Women (n) | | Relative risk (95% Cl |
|--------------------------------|-----------|--------------------------------|-----------------------|
| Vaginal progesterone | | | |
| Preterm (<37 weeks) | 3769 | -=- | 0.92 (0.84–1.00) |
| Preterm (<34 weeks) | 3769 | _ — — | 0.78 (0.68-0.90) |
| Preterm (<28 weeks) | 3769 | | 0.81 (0.62-1.06) |
| Maternal complications | 2551 | + | 1.14 (0.93-1.40) |
| Perinatal death | 3769 | - | 0.74 (0.52-1.07) |
| Serious neonatal complications | 3535 | - _ | 0.82 (0.65-1.04) |
| 17-OHPC | | | |
| Preterm (<37 weeks) | 3053 | _ | 0.94 (0.78–1.13) |
| Preterm (<34 weeks) | 3053 | | 0.83 (0.68-1.01) |
| Preterm (<28 weeks) | 3053 | | 0.73 (0.53-1.02) |
| Maternal complications | 2946 | ⊢ ∎— | 1.18 (0.97-1.43) |
| Perinatal death | 3043 | | 0.88 (0.59-1.31) |
| Serious neonatal complications | 3036 | - _ | 0.81 (0.60-1.09) |
| | 0.25 | 0.50 1.00 | 2.00 |
| | 0.25 | | 2.00 |
| | | Favours progestogen Favours co | ontrol |

Figure 2: Main outcomes in singleton pregnancies for vaginal progesterone and 17-OHPC trials

17-OHPC=17-hydroxyprogesterone caproate. For vaginal progesterone: preterm birth <37 weeks number of events (n)=661, control n=705; preterm birth <34 weeks n=276, control n=343; preterm birth <28 weeks n=92, control n=111; mate mal complications n=186, control n=171; perinatal death n=49, control n=64; serious neonatal complications n=119, control n=140. For 17-OHPC: preterm birth <37 weeks n=510, control n=330; preterm birth <34 weeks n=206, control n=158; preterm birth <28 weeks n=77, control n= 66; maternal complications n=285, control n=178; perinatal death n=57, control n=40; serious neonatal complications n=25.

Short cervix (<=30mm)

Relative risk

Favours progestogen Favours control

95%-CI

Control

Progestogen

Study

Events Total Events Total

Non-short cervix (>30mm)

With PPTB

| , | | | | | | | |
|---------------------------------------|------------------|-----|----|---------|---------------------------|------|-------------|
| aginal progesterone | | | | | | | |
| onseca 2007 | 4 | 15 | 12 | 23 | | 0.51 | 0.20; 1.29] |
| D'Brien 2007 | 10 | 57 | 17 | 58 | | 0.60 | 0.30; 1.19] |
| OPPTIMUM | 23 | 142 | 33 | 140 | | 0.69 | 0.43; 1.11] |
| REGNANT | 10 | 48 | 11 | 45 | | 0.85 | 0.40; 1.81] |
| ixed effect model | | 262 | | 266 | \$ | 0.67 | 0.48; 0.93] |
| Random effects mod | | | | | \Leftrightarrow | 0.67 | 0.48; 0.93] |
| leterogeneity: / ² = 0%, 1 | $c^2 = 0, p = 0$ | .84 | | | | | |
| 7-OHPC | | | | | | | |
| HENIX Singleton | 3 | 27 | 9 | 29 - | | 0.36 | 0.11; 1.19] |
| ROLONG | 9 | 87 | 10 | 51 | | 0.53 | 0.23; 1.21] |
| ixed effect model | | 114 | | 80 | | 0.47 | 0.23; 0.92] |
| Random effects mod | el | | | | | 0.47 | 0.23; 0.92] |
| leterogeneity: 1 ² = 0%, 1 | $c^2 = 0, p = 0$ | .60 | | | | | |
| leterogeneity: /2 = 0%, 1 | $r^2 = 0, p = 0$ | .85 | | | | | |
| | | | | | 0.2 0.5 1 2 5 | | |
| | | | 1 | Favours | s progestogen Favours con | trol | |
| | | | | | | | |

| | Proges | togen | C | ontrol | | | |
|--|----------|---------|--------|---------|--------------------------|--------|--------------|
| Study | Events | Total | Events | Total | Relative risk | RR | 95%-CI |
| Vaginal progesterone | | | | | 1 | | |
| O'Brien 2007 | 36 | 248 | 40 | 240 | | 0.87 | [0.58; 1.32] |
| OPPTIMUM | 15 | 118 | 11 | 119 | | - 1.38 | [0.66; 2.87] |
| Fixed effect model | | 366 | | 359 | | 0.97 | 0.68; 1.39] |
| Random effects model | | | | | | 0.99 | 0.66: 1.471 |
| Heterogeneity: $I^2 = 11\%$, τ^2 | = 0.0117 | , p = 0 | 29 | | | | |
| 17-OHPC | | | | | | | |
| PROLONG | 50 | 731 | 21 | 361 | | 1.18 | [0.72: 1.93] |
| Fixed effect model | | 731 | | 361 | | 1.18 | 0.72; 1.93] |
| Random effects model | | | | | | 1.18 | 0.72; 1.93] |
| Heterogeneity: not applicate | le | | | | | | |
| Heterogeneity: $l^2 = 0\%$, τ^2 | | 47 | | | | | |
| | | | | | 0.5 1 2 | | |
| | | | | Favours | progestogen Favours cont | trol | |
| | | | | | | | |

Control Progestogen Control Progestogen 95%-CI Study Events Total Events Total Relative risk RR 95%-CI Study Events Total Events Total **Relative risk** RF Vaginal progesterone Vaginal progesterone O'Brien 2007 0 Fonseca 2007 18 99 26 89 0.62 [0.37; 1.06] 3 2 2.14 [0.14; 33.81] OPPTIMUM 40 6 45 O'Brien 2007 1 0 0 4 0.75 [0.23; 2.47] OPPTIMUM 51 17 42 0.78 [0.45; 1.34] Fixed effect model 43 47 0.88 [0.30; 2.64] 16 0.88 [0.30: 2.64] PREGNANT 74 8 68 0.11 [0.01; 0.89] Random effects model TRIPLE P 5 25 0.67 [0.20; 2.22] Heterogeneity: $l_{2}^{2} = 0\%$, $\tau_{2}^{2} = 0$, p = 0.494 30 Fixed effect model 255 224 0.65 [0.46: 0.93] Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, p = 0.49Random effects model 0.65 [0.45; 0.95] 0.1 0.5 1 2 10 Heterogeneity: $I^2 = 5\%$, $\tau^2 = 0.0090$, p = 0.37Favours progestogen Favours control 17-OHPC PHENIX Singleton 22 6 23 1.39 [0.58; 3.37] 8 SCAN 41 327 48 330 0.86 [0.58; 1.27] Fixed effect model 349 353 0.93 [0.65; 1.33] Random effects model 0.93 [0.65; 1.33] Heterogeneity: $I_{2}^{2} = 0\%$, $\tau^{2} = 0$, p = 0.33Heterogeneity: $l^2 = 17\%$, $\tau^2 = 0.0237$, p = 0.300.1 0.51 2 10

Appendix Figure 10: Analysis of subpopulations of participants defined according to categorised cervical length and presence of a previous PTB. These plots are based on considerably fewer data than the main analysis owing to unmeasured/unknown values for cervical length meaning that 6 trials (4 for VP, 2 for 17-OHPC) cannot be included. Different trials contribute to different subpopulation analyses and there may be differences between trials other than the factors by which they are grouped.

No PPTB

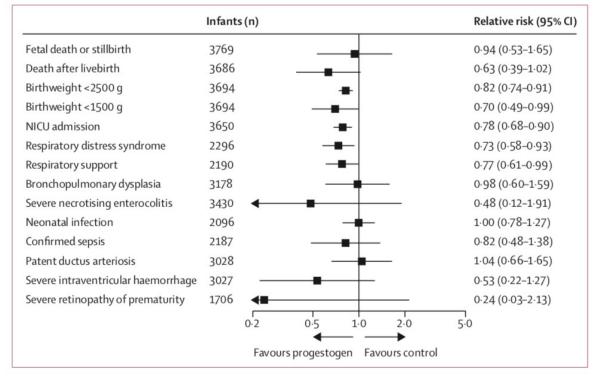
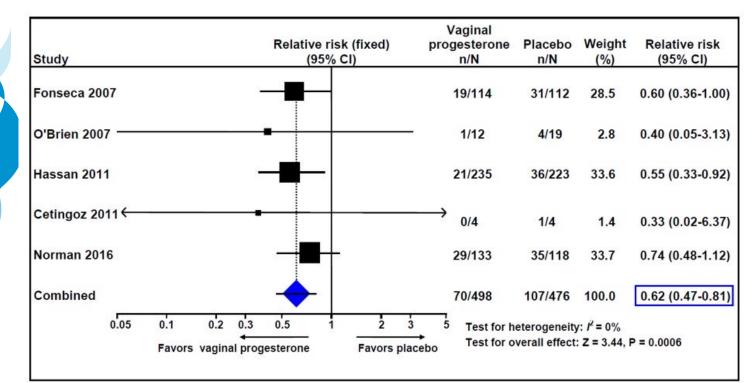


Figure 3: Vaginal progesterone: additional neonatal outcomes in singleton pregnancies

NICU=neonatal intensive care unit. Severe intraventricular haemorrhage was grade III or IV. Severe retinopathy of prematurity was stage 3 or worse. Severe necrotising enterocolitis was grade II or III. Fetal death or stillbirth number of events (n)=23, control n=24; death after livebirth n=26, control n=40; birthweight <2500 g n=442, control n=524; birthweight <1500 g n=131, control n=168; NICU admission n=286, control n=353; respiratory distress syndrome n=99, control n=132; respiratory support n=100, control n=128; bronchopulmonary dysplasia n=32, control n=32; severe necrotising enterocolitis n=3, control n=6; neonatal infection n=113, control n=111; sepsis n=25, control n=30; patent ductus arteriosis n=37, control n=35; severe intraventricular haemorrhage n=7, control n=13; retinopathy of prematurity n=1, control n=4.

Vaginal progesterone for short cervix



Meta-analysis IPD data

Romero et al, AJOG Feb 2018 SA Health

Vaginal progesterone for short cervix

Hassan et al, Ultrasound Obstetrics and Gynaecology, 2011

- RCT, double blinded, placebo controlled study which looked at vaginal progesterone to reduce the rate of preterm birth in women with a sonographic short cervix
- Women with a short cervix treated with progesterone
 - 95% delivered > 28 weeks
 - 85% delivered > 35 weeks
 - 70% delivered > 37 weeks



Cervical Cerclage

Indications

History

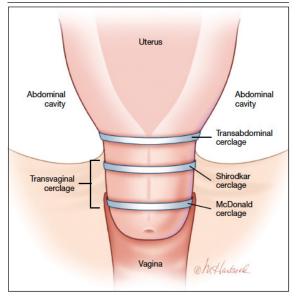
- 3 or more spontaneous PTB or mid-trimester pregnancy losses
- Usually placed between 12-14 weeks (but can be inserted up to 24/40)
- Ultrasound indication
 - Previous PTB (<34 weeks) and CVL <25mm OR
 - No previous PTB and CVL <10-15mm
- Physical examination findings
 - Open cervix on examination
 - No evidence of active chorioamnionitis or active labour
 - Gestation <24 weeks



Cervical Cerclage

- Inserted usually between 14-24 weeks
- Removed at 36-37 weeks (or earlier if labour / ROM)
- Spinal anaesthetic
- Usually admitted for 1-2 nights
- Indomethacin and cephazolin for 24-48 hours
- McDonald or Shirodkar technique
- Suture materials include mersiline tape, prolene, nylon and silk

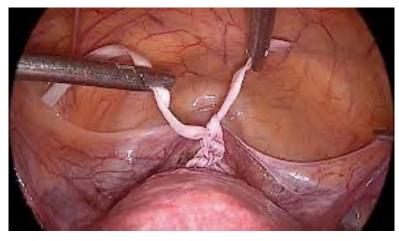
FIGURE 2 Suture placement in transvaginal and transabdominal cerclage procedures



Cervical cerclage

Consider transabdominal cerclage if;

- Previous cervical surgery where there is no intravaginal cervix to suture
- History of failed cervical cerclage
- Placed pre-pregnancy or in early pregnancy
- Now offered laparoscopically (few clinicians only)
- Woman requires CS for delivery (suture not removed)







Strategy #6

Women who smoke should be identified and offered QUITline support

- Identify women who smoke at initial booking visit
- Refer to appropriate resources
- Offer nicotine replacement options
- Incentive programs in hospitals to encourage women to stop smoking - LMHS



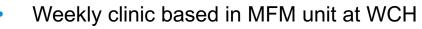
Strategy #7

Promotion of continuity of care models

- Challenge of public heath systems
- Benefit of GP shared care model
- Able to be provided through a few models in public systems
 - AFBP
 - MGP
 - MFM
 - Community midwifery clinics



Preterm Birth Clinic - WCH



- Staffed by Dr Rachel Earl, Dr Kate Andrewartha, (Dr Amanda Poprzeczny)
- Referral based clinic
- Aimed to provide continuity of care for high risk women through the early part of pregnancy
- Fortnightly ultrasound of cervical length from 14/15 weeks
- Facilitate commencement of progesterone or cervical cerclage if required
- Collect data on interventions and outcomes in this population and in conjunction with other PTB Clinic networks
- Returned to usual model of care from 23/24 weeks

SA Health

Women's and Children's

Hospital

Preterm birth clinic WCH



Referral criteria for PTB Clinic

- Previous spontaneous PTB <34 weeks gestation
- One or more spontaneous mid-trimester fetal loss (16-24 weeks)
- History of cervical / uterine surgery
 - Previous fully dilated caesarean section
 - 2 or more LLETZ
 - Cone biopsy
 - Radical trachelectomy
 - · Resection of uterine septum or adhesions
- Uterine anomaly bicornuate uterus, unicornuate uterus, uterus didelphys, septate uterus, fetal exposure to DES
- Incidental finding of short cervix on ultrasound
 - <15mm at dating scan (11-14 weeks)
 - <25mm before 24 weeks gestation including routine morphology ultrasound cervical length measurement
- Cervical cerclage in previous pregnancy
- Follow up of women who have had a cervical cerclage placed in current pregnancy
- Consultant obstetrician request



PRE TERM BIRTH (MFM PTB)

□ Previous spontaneous preterm birth ≤ 34 weeks
 □ Previous mid-trimester fetal loss OR previous cervical cerclage OR previous fully dilated Caesarean Section
 □ Previous Cervical surgery – 2 or more LLetz OR 1 Cone biopsy OR Radica trachelectomy
 □ Mullerian developmental anomaly OR Uterine Surgery such as Septum resection
 □ Ultrasound short cervix in current pregnancy - ≤ 15 mm at dating scan (11-14 weeks) or ≤25mm before 28 weeks



Referral Form – Maternal Fetal Medicine

| Head of Unit: Dr Peter Muller | Professor Jodie Dodd | | SA Health |
|---------------------------------------|-----------------------------|--|-------------------|
| | | | |
| Dr Rachel Earl | Dr Mark Morton | Dr Amanda Poprezeczny | Dr Alice Robinson |
| Dr Victoria Snowball | Dr Chris Wilkinson | Dr Jane Woolcock | |
| Dear (Dr's Name) | | | |
| This referral has been discussed with | (midwife/doctor) | | |
| PATIENT DETAIL | | | |
| Name: | | | |
| Address: | | | |
| | | | |
| Date of Birth: | | Phone: | |
| Mobile: | | Medicare Number: Medi | icare Expiry: |
| Support person: | | Phone: | |
| nterpreter required: 🗖 No 🗖 Yes La | nguage: | | |
| ATSI Status: 🗖 No 🗖 Yes, Aboriginal | Yes, Torres Strait Islander | Yes, Aboriginal & Torres Strait Islander | |
| REFERRING PRACTITIONER DETAILS | | | |
| Referring Doctor: | | | |
| | | | |

Signature:

Address:

The below information **MUST** be provided with this referral request.

CLINICAL INFORMATION/REASON FOR REFERRAL (Page 1 of 2)

| Copy of ALL Ultrasounds attached | Copy of Antenatal bloods attached |
|--|--|
| Commentation in the second sec | Convert to the second s |
| Pre Term Birth | Other – Please Specify |
| Early Pregnancy Care Coordination | Abnormal Maternal Serum Screening |
| Severe Maternal Medical Conditions | Pre/Post-Pregnancy Counselling |
| Complex Multiple Pregnancy | ADACS Follow up |
| Fetal Anomaly | Current/Previous Pregnancy Complications |
| Gravidity/Parity: | EDC: |
| Construction of the state | 500 |

DA Health

Date:

Additional Clinical information or reason for referral inc. Previous Obs Hx and previous surgery Hx

LMH and FMC

Lyell McEwin

- Women at risk are identified through initial referral or triage visit
- First visit with Consultant/Reg in High Risk Pregnancy Clinic
- Any patient with short cervix sent to WAU \rightarrow management arranged
- On-call registrar available for phone advice re patient

<u>FMC</u>

- Referral faxed through to 8204 5210
- Tuesday Preterm birth clinic review at 14-16 weeks
- Cervical length U/s booked
- Short cervix on u/s → patient sent to WAS for review (8-9pm) or call on-call registrar

What can I do to help?

- Identify women at risk early
- Identify risk factors for PTB and modify those that you can
- Ensure you check cervical length on morphology u/s
 - Request it if not routinely done by your radiology unit
 - Document in notes
 - Arrange further u/s monitoring, commence progesterone if CL <25mm or refer to MFM for consideration of cerclage
- Aim to gain gestation with those who are pre-term
- Aim to reduce early term deliveries
 - Changing of standard elective CS booking timeframe
 - Consult PPGs / other resources about best time for IOL (aim for evidence based IOL planning)
 - Discuss with patients regarding importance of the last few weeks of pregnancy Every Week Counts, Let's Talk Timing of Birth

INFORMATION FOR HEALTHCARE PROFESSIONALS

Let's Talk Timing of Birth Resources

The 'Let's Talk Timing of Birth' resources have been co-designed and tested with women and maternity healthcare professionals to promote shared decision-making around timing of birth. These resources, which include a brochure for women and complementary video to be played in antenatal walting rooms, provide information on the importance of timing birth at the appropriate gestational age, describe what a planned birth is, and when a planned birth might be considered. These resources also introduce the concept of stillbirth.

As healthcare professionals, we may be concerned that discussing stillbirth with women will cause fear and anxiety. The 'Let's Talk Timing of Birth' resources have been designed to introduce stillbirth in a sensitive manner and aid these discussions. Research has demonstrated that women do not want information withheld from them of fear that talking about stillbirth will frighten them. Discussing stillbirth as a rare event is important, as is informing women of the measures that they can take to reduce their chance of stillbirth (e.g. stopping smoking as soon as possible; attending all antenatal care appointments to monitor baby's health and growth; being aware of baby's movements from 28 weeks onwards and reporting any changes immediately to a doctor or midwife; going to sleep on their side from 28 weeks' onwards).



Talking it through

The 'Let's Talk Timing of Birth' brochure was developed to promote an open and shared discussion between a woman and her maternity healthcare professional, introducing should start early in pregnancy, with the view that it would be revisited during pregnancy. The brochure was not developed to replace any other usual conversations or to be given without a discussion.

Every week counts

Scan here to view the

Every Week Counts website

The 'Let's Talk Timing of Birth' resources also provide information on why every week of growth counts for a baby's health and development. Included in the brochure is a QR code leading to the Every Week Counts website.



EetsTalkTiming

Let's Talk Timing of Birth



Information to help you talk with your midwife or doctor about the best timing for your baby's birth.

Scan here to watch a video summarising the information in this brochure.



Safer Baby













Thank you

> Questions?



