

MATERNITY UNIT

GUIDELINE:

PREVENTION OF PRETERM BIRTH

AUTHOR:

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SCOPE:

All midwives and obstetricians working in the maternity unit

PURPOSE:

To provide care for women with identified risk factors for pre-term birth, so that care can be offered and provided which may reduce the risk of pre-term birth and perinatal morbidity/mortality.

DEFINITIONS:

Pre-term birth applies to any birth which occurs before 37 weeks gestation.

GUIDELINE:

Preterm birth is a common cause of perinatal morbidity/mortality. It may also have a significant lifelong impact on health.

Antenatal evaluation of all women should include assessment of risk for preterm birth. If indicated, consider possible cervical length screening, and referral for further management.

Progesterone therapy and cerclage in appropriate women has been shown to decrease the incidence of preterm birth in patients at risk.

RISK FACTORS:

There are a variety of risk factors that can predispose a woman to preterm labour and preterm birth. Most prominent among these are a prior history of preterm birth, cervical surgery, and multiple gestation.

ASSESSMENT AND MANAGEMENT (see Appendix 1 for flowchart)

1) If a woman has had two or more mid trimester losses, she should be referred by fourteen weeks for consideration of cervical cerclage. If the woman agrees to cerclage placement, this should be removed at 36 – 37 weeks.

2) If there is no history of mid trimester losses, but she has had a history of cervical surgery (cone biopsy, cervical trauma, more than one LLETZ), a trans-vaginal ultrasound scan should be offered and ordered and a virtual consult can be sent for consultation. A cervical length of >30 mm is very reassuring. Serial scanning is sometimes indicated in these women. If the woman has a cervix that is consistently greater than 30 mm, she can be released back to her

LMC for ongoing care. Cervical lengths less than 25mm are associated with a higher incidence of preterm birth and Utrogestan therapy can be recommended for these women. Utrogestan is typically prescribed as 200 mg vaginally daily, from 16 – 24 weeks until 36 weeks gestation. For continued shortening, consider cerclage if less than 24 weeks, steroids for > 24 weeks.

3) If she has had neither mid trimester losses nor cervical surgery, but has had one or more preterm births, she should be offered a 20 week trans-vaginal screening scan with her anatomy scan and be referred for possible Utrogestan therapy.

4) For all other women, a trans-abdominal ultrasound will be done in conjunction with her anatomy ultrasound scan. If the trans-abdominal scan demonstrates a cervix of ≥ 35 mm, no further action need be taken. If the cervical length is < 35 mm, a reflex trans-vaginal ultrasound scan will be offered. If the trans-vaginal scan confirms a cervix of <25 mm, she should be referred for possible Utrogestan therapy.

5) Any other patients incidentally discovered to have a trans-vaginal cervical length of < 25 mm should be referred for possible Utrogestan therapy.

ADDITIONAL NOTES

Options for treatment include progesterone therapy and cerclage. Both have been shown to decrease the incidence of preterm delivery and neonatal morbidity in women with a history of preterm birth.

17 alpha hydroxyprogesterone caproate intramuscularly administered weekly starting at 16-20 weeks and stopping at 36 weeks has been shown to decrease the risk of preterm birth in women who have had at least one prior preterm birth. However, this medication is not available in New Zealand. Therefore, at TDH, we recommend the use of Utrogestan capsules 200 mg intravaginally, daily, from 16-20 weeks to 36 weeks in those women with a prior history of preterm birth before 37 weeks of gestation.

Placement of cerclage upon identification of a short cervix (“ultrasound-indicated cerclage”) is effective in reducing preterm birth in appropriate cases. The benefit of ultrasound-indicated cerclage may derive from bolstering cervical strength, preventing membranes from being exposed, and retention of the mucus plug. Women who have cerclage placement may also be offered progesterone. The type of therapy offered will depend on the assessed degree of risk.

Women with a history of delivery prior to 37 weeks gestation (not including iatrogenic preterm birth for fetal/maternal indications) should be offered cervical length screening in addition to vaginal progesterone. Measurement of cervical length in the second trimester, especially before 24 weeks, has been shown to reduce the risk of preterm birth. The shorter

the cervical length the higher the positive likelihood ratio for spontaneous preterm birth <35 weeks. For those women who have previously birthed a preterm infant who are noted to have a cervical length <25 mm, cerclage has been shown to be beneficial and should be offered. Women with singleton pregnancy, no prior birth, but risk factors for cervical insufficiency such as uterine anomaly, prior minor cervical surgery or pregnancy termination may be screened with a single cervical length scan at 18-24 weeks gestation. If cervix <20 mm consider progesterone treatment. Cerclage has not been shown to prevent preterm birth in this population.

Routine cervical length screening is now recommended by some but not all authorities. It is not usual practice in New Zealand; however, it is not uncommon that a shortened cervix may be incidentally discovered on ultrasound. In asymptomatic women incidentally found to have a cervical length of less than 20-25 mm at less than 24-25 weeks of gestation, we recommend referral for consider of cerclage or progesterone therapy (Utrogestan 200 mg a day vaginally from time of diagnosis, continued until 36 weeks).

Progesterone has not been shown to prevent preterm birth in twin gestations in those without a history of a prior singleton preterm birth and is not recommended in this group of women. Whether progesterone is beneficial for those women with twins who have had a prior singleton preterm birth is unclear as such a sub-group analysis was not done in the twins studies mentioned above. However, since these women have the same risk factors as those with singletons and a prior singleton preterm birth (or PPROM) for recurrent preterm delivery, in addition to their risk of preterm birth due to twins, it is reasonable to offer progesterone to women carrying twins who have a history of preterm birth or PPROM.

References:

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- 5) De Franco, EB, et.al. Prophylactic administration of progesterone by vaginal suppository to reduce the incidence of spontaneous preterm birth in women at increased risk: a randomised placebo-controlled double blind study. *Am J Obstet Gynecol* 2003; 118: 419-24.
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- 8) Berghella V, et.al. Cerclage for short cervix on ultrasonography in women with singleton gestations and previous preterm birth. *Obstet Gynecol* 2001; 117:663-71.
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- 10) Iams, JD. Prevention of Preterm Parturition. *N Engl J Med* 2014;370:254-61.
- 11) Andrews, WW. What is New in Preterm Birth Prevention? *Obstet Gynecol* 2013;122:390-2.

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[Appendix 1](#)



Maternity -
algorithm with TAUS

[Appendix 2](#)



Application for
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