



# EARLY ANTENATAL CARE: MIDWIVES PIVOTAL ROLE IN PRETERM BIRTH PREVENTION

Early engagement in antenatal care is widely recognised as a cornerstone of improving maternal and neonatal outcomes and plays a pivotal role in the prevention of preterm birth. Preterm birth, defined as birth before 37 weeks of gestation, remains the leading cause of neonatal morbidity and mortality worldwide. The World Health Organization (WHO) estimates that approximately 15 million babies are born preterm each year, with complications of prematurity accounting for around 1 million deaths annually<sup>1</sup>. Reducing the incidence of preterm birth is therefore a global health priority, and timely access to high-quality antenatal care is one of the most effective strategies available.

The Australian Pregnancy Care Guidelines (Department of Health and Aged Care 2024) recommends that

“The first antenatal visit should occur within the first 10 weeks of pregnancy or as soon as possible after a pregnancy is confirmed” reinforcing the importance of early and proactive care. The guidelines also recommend “Women should be provided with evidence-based information and encouraged to participate in decisions about care”<sup>2</sup>.

Midwives are central to the delivery of this care and play a crucial role in improving outcomes for women and babies. The role of the midwife has been instrumental in reducing morbidity and mortality rates globally<sup>3,4</sup>. In 2023, 79% of women in Australia accessed antenatal care within the first trimester<sup>5</sup>. Midwives are uniquely positioned to establish trusting relationships, identify risk factors early, and provide

personalised, culturally safe care. Their role in health education, continuity of care, and timely referral to specialist services is instrumental in preventing complications, including preterm birth.

Together, early antenatal engagement and the expertise of midwives form a powerful foundation for safer pregnancies, healthier births, and stronger beginnings for babies.

## Introducing the Preterm Birth Prevention Checklist

A recent publication in the *Lancet, Obstetrics, Gynaecology and Women's Health*, demonstrated how the world's first preterm birth prevention Collaborative has reduced and sustained the rates of harmful early birth across Australia. Midwives in the Every Weeks Counts Collaborative hospitals were the drivers for change within their service, implementing strategies, local work place instructions and work flows to support improvements in care<sup>6</sup>.

Drawing on the Australian Preterm Birth Prevention Alliance and the *Every Week Counts* Collaborative's seven key strategies for preterm and early term birth prevention, a Preterm Birth Prevention Checklist has been developed to support clinicians in everyday practice.

The evidence-based checklist provides a concise and practical framework to support midwives in the early identification of risk factors, facilitate timely and effective interventions and promote consistency in care across all maternity settings.

### 1. Take a detailed history and identify risks for preterm birth and pre-eclampsia

One of the key advantages of early antenatal care is the opportunity

to identify women at increased risk of preterm birth and pre-eclampsia. A thorough medical, surgical, obstetric and psychosocial history taken at the first visit allows midwives to stratify risk and tailor care accordingly. The midwifery assessment enables detection of conditions such as hypertension, diabetes, thyroid disorders, or infections, all of which can contribute to adverse pregnancy outcomes if left unmanaged<sup>7</sup>. Midwives ensure prompt referral to specialised care<sup>8</sup>, appropriate investigations and evidence-based interventions, supporting improved maternal and neonatal outcomes<sup>9</sup>.

## Midwives are uniquely positioned to establish trusting relationships, identify risk factors early, and provide personalised, culturally safe care.

### 2. Discuss smoking and vaping cessation, offer Nicotine Replacement Therapy and refer to Quitline or iSistaQuit

Antenatal care provides a valuable platform for health promotion and lifestyle interventions. Counselling around smoking and vaping cessation and substance use, can significantly reduce modifiable risks for preterm birth. Women are more receptive to health advice during pregnancy, with midwives playing a significant role in empowering women to take control of their health and wellbeing during this critical period<sup>10</sup>.

All women who smoke and those who have recently quit should be offered psychosocial intervention

support to quit smoking<sup>11,12</sup>. Psychosocial counselling interventions reduce the risk of neonatal intensive care unit admissions (by 22%), low birth weight (by 17%) and preterm birth<sup>13</sup>. Current recommendations include the combination of behavioural intervention and pharmacotherapy, if clinically appropriate, as the best way to support people to quit smoking.

### 3. Promote and offer continuity models of care

Early engagement in antenatal care lays the foundation for trust, empowering women to actively participate in their care. When combined with continuity of carer, this relationship-driven approach has been shown to significantly enhance understanding of clinical recommendations, improve health outcomes, and elevate overall satisfaction with maternity services. It is not just best practice; it is transformative care. Midwifery continuity of care has consistently demonstrated improved clinical outcomes, enhanced maternal satisfaction, and reduced intervention rates<sup>14</sup>. Midwives are uniquely positioned to provide continuity of care, particularly in community-based settings that reach women who may otherwise face barriers to accessing timely and appropriate services. Their ability to build trusting, culturally safe relationships enable early engagement, continuity, and advocacy, especially for women experiencing socioeconomic disadvantage, cultural marginalisation, or geographical isolation.

Equity of access is critical. Women from vulnerable populations are more likely to engage in antenatal care later in pregnancy and are disproportionately affected by

preterm birth<sup>9</sup>. Addressing these disparities requires targeted, inclusive strategies that raise awareness of the benefits of early care, supported by accessible referral pathways and culturally responsive models of care.

The Lancet Series on Midwifery (2014) underscores the essential role of midwives in delivering high-quality care across all levels of risk. Midwifery-led continuity of care remains the gold standard, not only for improving outcomes but also for ensuring that all women, regardless of background, receive the care they need, when and where they need it<sup>3,15,16</sup>.

#### 4. Ensure cervical length measurement is recorded at morphology ultrasound

The detection of a short cervix during a mid-pregnancy ultrasound (16–24 weeks gestation) is a well-established, evidence-based strategy for reducing the risk of preterm birth and is one of seven key interventions implemented to improve perinatal outcomes<sup>17,18</sup>.

Midwives play a critical role in ensuring all women have their cervical length measured at their mid trimester morphology ultrasound and empowering women with the knowledge and resources of the importance of this screening for preterm birth prevention.

To ensure this strategy is applied consistently, it is essential that morphology ultrasound request forms clearly specify the need for cervical length assessment, guidelines for reporting and pathways for escalation if a shortened cervix is identified.

#### 5. Recommend vaginal progesterone and refer appropriately if cervical length is less than 25 mm, initiate vaginal

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#### progesterone and refer urgently to the appropriate specialist or service.

If a shortened cervix is identified, a clear clinical pathway should be followed, including:

- Immediate communication of findings to the referring clinician or hospital for urgent follow up and review, ideally same day assessment.
- Consideration of appropriate interventions such as vaginal progesterone or cervical cerclage, depending on individual risk factors<sup>18</sup>.

Endorsed midwives can prescribe progesterone pessaries 200mg for women with a shortened cervical length and for women that have had a previous spontaneous preterm birth. It is important to refer appropriately if the cervix measures <25mm at mid-pregnancy scan as further investigations will be needed<sup>8,18,19</sup>.

*Note: Local clinical guidelines should be followed following incidental finding of a short cervix*

#### Notes for Prescribers

- Progesterone 200mg (Qty = 42 pessaries) PBS item Code 12598C
- Ensure you use PBS Streamline number 11835 to reduce cost to women
- Ensure appropriate follow up is planned

#### 6. Consider vaginal progesterone 200mg nightly from 16 – 36 weeks for women with a history of spontaneous preterm birth <34/40

Initiating vaginal progesterone therapy should be considered for women with a singleton pregnancy with a history of previous preterm singleton birth<sup>18,19</sup>.

Midwives play a vital role in initiating the conversations with women, explaining the rationale behind the recommendation, and ensuring that the appropriate referral or follow-up with a prescribing practitioner occurs.

#### 7. Recognising high and moderate risk factors for pre-eclampsia

Pre-eclampsia is a serious pregnancy-related condition that can affect any woman, occurring in approximately 5–8% of all pregnancies. Some women are at increased risk due to specific medical or obstetric factors. According to Australian Pregnancy Care Guidelines and consistent with RANZCOG endorsed SOMANZ<sup>20</sup> guidelines, the initiation of low-dose aspirin (100–150 mg daily) from 12–16 weeks until 36 weeks gestation can reduce the risk of pre-eclampsia in women with high and moderate risk factors for pre-eclampsia. It is important for midwives to

recognise these risk factors and refer appropriately.

Pre-eclampsia screening using a combination of maternal characteristics, biomarkers and sonography is now available in some centres in Australia and will screen women for high and low risk for pre-eclampsia. This approach calculates a woman's individual risk and can detect up to 90% of women who will go on to develop early-onset pre-eclampsia. A high-risk result for pre-eclampsia cut off is more than 1:100<sup>21</sup>.

#### Early recognition of risk factors is key to timely commencement of aspirin

#### 8. Consider referral to early obstetric care for women with high risk factors for preterm birth

Identifying women at high risk of preterm birth and referring for early obstetric care can reduce the risk of preterm birth. A woman may have increased risk of experiencing a preterm birth if they have:

- had a previous spontaneous preterm birth
- had a previous pregnancy loss 16–24 weeks
- a known congenital uterine anomaly
- undergone previous cervical surgeries – LLETZ and cone biopsy
- short cervix <25mm identified on ultrasound scan

Women identified as having an increased risk of preterm birth should be offered cervical screening from 16 – 24 weeks to assess cervical length and where indicated, evidence-based interventions such as vaginal progesterone pessaries or cervical cerclage can be offered<sup>18,19</sup>.

**Preterm Birth Prevention Checklist**

- Take a detailed history and identify risks for preterm birth
- Promote and offer continuity models of care where possible
- Discuss smoking and vaping cessation, offer NRT refer to Quitline or iSistaQuit
- Consider vaginal progesterone 200mg nightly from 16 weeks for women with a history of a spontaneous PTB <34/40
- Ensure cervical length measurement is recorded on morphology scan
- Recommend vaginal progesterone 200mg nightly and refer appropriately if cervical length <25mm
- Consider commencement of aspirin 100–150mg nocte from 12–16 weeks until 36 weeks for women with high and moderate risk factors for pre-eclampsia
- Consider referral to tertiary centres for women with moderate and high risk of PTB

Please consult local and jurisdictional clinical guidelines as some recommendations may vary

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#### Please check local and jurisdictional clinical guidelines for pathways of care for women at risk of preterm birth.

In summary, early antenatal care is fundamental in reducing rates of preterm birth. By enabling early identification of risk, timely intervention, health promotion, and equitable access to care, it offers a comprehensive approach to reducing the burden of prematurity.

Strengthening systems that enable women to book and attend their first antenatal visit in the first trimester and supporting midwives and

multidisciplinary teams to deliver evidence-based interventions, represent critical steps toward improving maternal and neonatal health outcomes.

*Midwives should consult their local and jurisdictional clinical guidelines as some of these recommendations may vary.*



Scan the QR code for references.