

GUIDELINE FOR THE MANAGEMENT OF PREGNANCY BEYOND 41 WEEKS GESTATION

Introduction

This guideline will explore different aspects of a common occurrence in midwifery practice: pregnancy progressing beyond 41 weeks gestation. Current research demonstrates that although there are some increased risks for both mother and baby, the absolute risks of adverse events associated with increasing gestational age are small. Debate exists in both practice and literature in terms of whether to await spontaneous labour or to induce labour. This guideline is intended to support the informed choice discussion between a midwife and her client, and includes topics such as: incidence, complications, and management options for pregnancy beyond 41 weeks gestation.

Review of Terms

For the purposes of this document:

'*Postdates*' pregnancy refers to a pregnancy lasting beyond 40 weeks.

'*Post-term*' pregnancy refers to a pregnancy lasting beyond 42 weeks.

Incidence

It is difficult to define the incidence of pregnancy beyond 41 weeks gestation due to: inaccurate dating (over-estimates the incidence), and induction of labour as a management strategy (under-estimates the incidence), as well as the misuse of terms (listed above).

Complications Associated with Pregnancy Beyond 41 Weeks Gestation

Although the risk of complications rise with increasing gestational age beyond 41 weeks, it is important to note that the absolute risk of adverse events remains small.

Complications

i). Perinatal Mortality

Gestational age	Stillbirth rate ⁱ (reported per 1000 births)	Infant mortality rate ⁱⁱ (reported per 1000 births)	Total mortality rate ⁱⁱⁱ (reported per 1000 births)
40 weeks	0.86 to 1.61	1.57	2.43 to 3.18
41 weeks	1.27 to 1.78	1.48	2.75 to 3.26
42 weeks	1.55 to 1.94	3.29	4.84 to 5.23
43 weeks or more	2.1 to 2.12	3.71	5.81 to 5.83

ⁱ None of the signs of life are present at or after the birth.

ⁱⁱ Deaths during the first year of life.

ⁱⁱⁱ Combined stillbirth and infant mortality rate

Research suggests that the perinatal risk seems to be higher for intrauterine growth restricted or small for gestational age infants than it is for average for gestational age infants born after 40 weeks.

ii). Macrosomia and Shoulder Dystocia

Post-term infants have a higher risk of being macrosomic, and therefore have a greater risk of shoulder dystocia. Shoulder dystocia can cause maternal trauma, perinatal morbidity (hypoxia, nerve injury, broken bones, damaged tissues) and in rare cases, perinatal mortality.

iii). Meconium Aspiration Syndrome

Gestational Age	Meconium Stained Amniotic Fluid (reported per 1000 births)	Meconium Aspiration Syndrome (reported per 1000 births)
40 weeks	175	2.9
41 weeks	215	5.1
42 weeks	250	4.7
43 weeks	Not available	Not available

Meconium stained fluid and meconium aspiration syndrome increases beyond 40 weeks gestation. Meconium aspiration is associated with respiratory distress and pulmonary infection.

iv) Oligohydramnios

Oligohydramnios may be due to declining placental function. Complications include umbilical cord compression, resulting in transient or permanent decreased oxygenation to the fetus.

Other Complications

- Increased incidence of non-progressive labour
- Increased incidence of instrumental delivery
- Increased incidence of caesarean section delivery

Contributing Factors

- Nulliparity
- High BMI
- Previous history of postdates pregnancy
- Male fetal gender

Prevention

Calculating the estimated due date (EDD) by the most accurate method available may assist in preventing post-term pregnancy. In general, the opportunity for accurate assessment of gestational age decreases with the passage of time. Once the pregnancy has been dated with the most accurate data available, the EDD should not be changed.

Methods include:

- Naegele's rule
- adding 280 days to the first day of the last normal menstrual period (LNMP)
- adding 266 days to the conception date
- ultrasound dating (more accurate the earlier the gestation)

* Pregnancy wheels may be prone to error due to the poor quality control in their production, therefore midwives should be aware of the potential errors in using pregnancy wheels to calculate the due date.

Management Options

Optimum management includes knowing when and how to intervene to initiate labour, while avoiding unnecessary intervention in order to facilitate the best possible outcome for mother and baby.

Regardless of the management method, important points to be discussed with client at 40 weeks gestation and continuing weekly until birth include:

- Reviewing EDD.
- Reviewing fetal movement count with client. If decreased fetal movements are reported, fetal health surveillance will be offered.

- Discussing with client the associated risks of postdates and post-term pregnancy.
- Reviewing options available to encourage spontaneous labour, such as: sweeping the membranes, acupuncture, homeopathic and herbal remedies, lovemaking/orgasm, nipple stimulation.
- Discussing management options: expectant management versus induction of labour.
- Discussing the existing research and evidence including the following limitations :
 - findings can be conflicting
 - findings are not easily comparable due to different study protocols
 - inadequate study sizes make it difficult to detect rare outcomes

1). Expectant Management with increased fetal health surveillance

Fetal health surveillance refers to the best available method in the community and may include: ultrasound, amniotic fluid volume assessment, non-stress test, and/or biophysical profile. Increased fetal health surveillance should be offered at around 41 weeks gestation and continue twice weekly until the birth. Induction of labour is indicated if there is evidence of fetal compromise.

Fetal and Maternal Risks

Complications associated with expectant management include those described in the 'Complications' section listed above. Evidence seems to indicate that expectant management beyond 42 weeks increases the risk to the fetus/neonate.

Community Standards

Discuss community standards and hospital standards for management of pregnancy progressing beyond 41 weeks gestation.

Practice considerations

Post-term pregnancy alone is not an indication for transfer of care. The midwife may remain the primary care provider unless a specific indication for transfer of care arises.

The College of Midwives of Manitoba (CMM) Standard for Discussion, Consultation and Transfer of Care requires that a midwife consult for:

- a documented pregnancy of greater than 42 weeks gestation
- evidence of change in fetal status
- thick or particulate meconium during the intrapartum period
- oligohydramnios (transfer of care).

CMM Standard for Planned Out of Hospital Birth (OOH) states that:

- if there is thick meconium stained amniotic fluid, transport to the hospital is indicated.
- OOH birth is contraindicated with a documented post-term pregnancy of more than 42 weeks with evidence of change in fetal status, and/or oligohydramnios.

Whenever meconium is present (thick, particulate or thin) the midwife in attendance must be prepared to intubate any non-vigorous newborn.

For clients choosing an Out of Hospital birth after 42 weeks gestation the following items are to be discussed and documented in the client's chart:

- the increased risk of complications due to post-term pregnancy
- the limitations of the OOH setting with respect to managing complications.
- the difference between fetal monitoring during labour in the hospital setting (e.g. may be continuous electronic fetal monitoring in hospital after 42 weeks gestation) versus the intermittent auscultation monitoring available in an OOH birth setting.

2). Induction

Risks of Induction at any gestation

Fetal Risks	Maternal Risks
Fetal compromise as a result of uterine hyperstimulation	Complications of prolonged labour or failed induction (e.g. chorioamnionitis, operative delivery)
Neonatal immaturity if dating is inaccurate	Uterine hyperstimulation
Fetal compromise as a result of prolonged labour	Increased use of epidural analgesia

The number of inductions necessary to avoid one intrauterine or perinatal death decreases constantly after 41 weeks gestation, for example:

- 671 inductions at 41 weeks gestation needed to avoid one perinatal death
- 195 inductions at 43 weeks gestation needed to avoid one perinatal death

Community Standards

Induction of labour in the uncomplicated pregnancy is often offered and encouraged after 41 weeks in the obstetrical community/hospital. However current research at this time is not of good quality and currently an optimal time for induction of labour has not been established.

Practice considerations

Discuss the time frame and process for induction of labour, including consultation/transfer of care with a physician. Discuss supportive role of the midwife.

Discuss fetal monitoring protocols during the intrapartum period.

Out of hospital (OOH) birth: Review if there are any methods of induction (e.g. prostin administration in the hospital, and then returning home) that may initiate

labour and allow for an OOH birth. This would be in collaboration with the consulting physician and be documented fully in the client's chart.

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