South Australian Perinatal Practice Guidelines

Chapter 7
Prolonged pregnancy

Maternity Care in SA

Government of South Australia
SA Health

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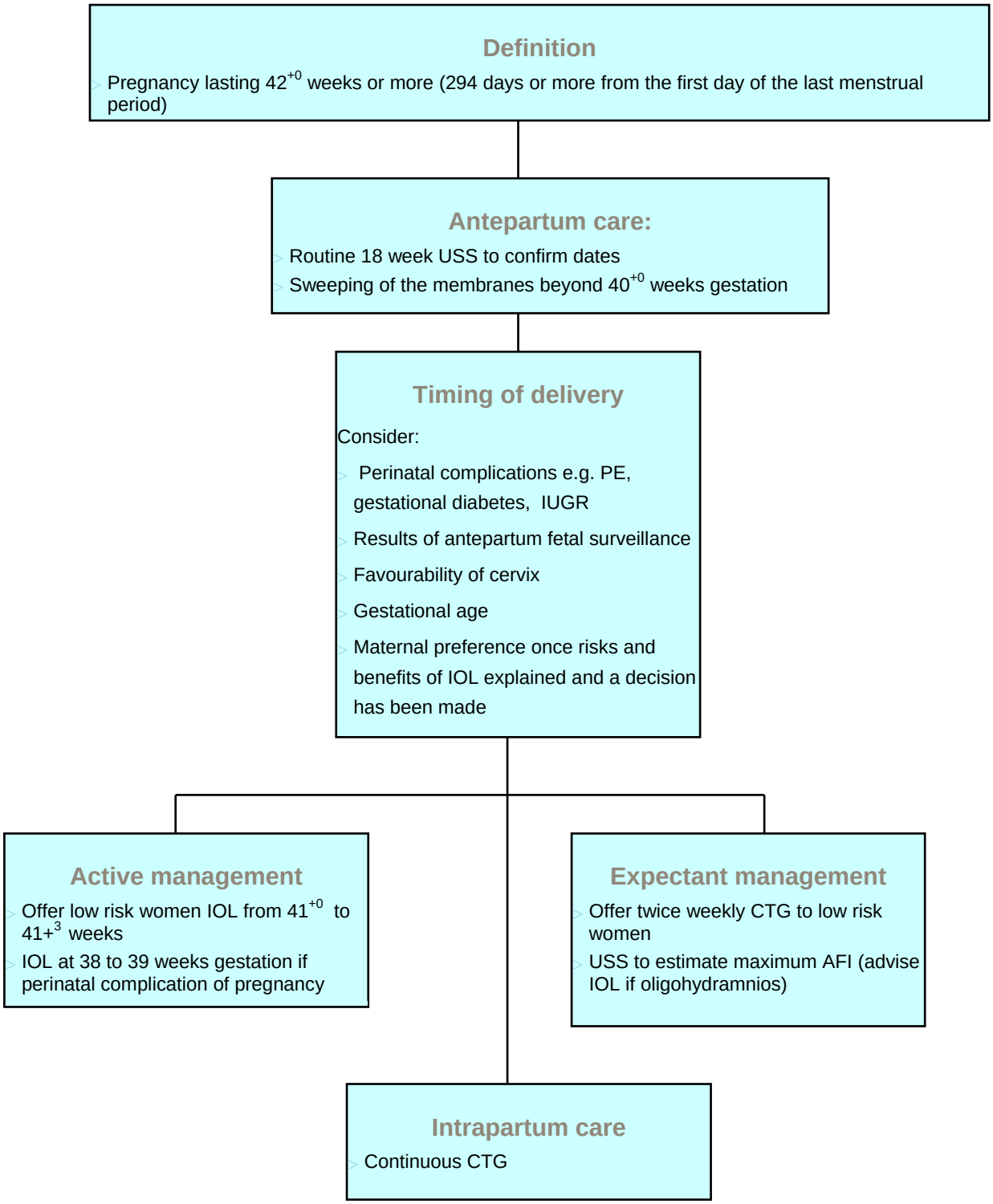
This guideline does not address **all** the elements of guideline practice and assumes that the individual clinicians are responsible to:

- Discuss care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes the use of interpreter services where necessary
- Advise consumers of their choice and ensure informed consent is obtained
- Provide care within scope of practice, meet all legislative requirements and maintain standards of professional conduct
- Document all care in accordance with mandatory and local requirements

Prolonged pregnancy



Abbreviations

AFI	Amniotic fluid index
CTG	Cardiotocograph
et al.	And others
IOL	Induction of labour
IUGR	Intrauterine growth restriction
LMP	Last menstrual period
mmol/L	Millimoles per litre
MSL	Meconium stained liquor
PE	Preeclampsia
RCOG	Royal College of Obstetricians and Gynaecologists
SOGC	Society of Obstetricians and Gynaecologists of Canada
USS	Ultrasound

Table of contents

Definition

- Pregnancy lasting $42+^{0}$ weeks or more (294 days or more) from the first day of the last menstrual period (LMP) (Hilder et al. 1998; Enkin et al. 2000).
- Prolonged pregnancy, post term, post dates and post mature are used as synonyms but are laden with different evaluative overtones

Introduction

- Compared with expectant management:
    - IOL at 41^{+0} weeks reduces the caesarean section rate without compromising perinatal outcome (Hannah et al. 1992; SOGC 2008)
    - IOL at 41^{+0} weeks is associated with less intrapartum fetal compromise, meconium-stained liquor (MSL) and macrosomia (> 4,000 g) (Gülmezoglu et al. 2006; SOGC 2008)
- Low risk women should be offered induction of labour after 41^{+0} and by 41^{+3} weeks. Regular fetal surveillance should be offered to low risk women who choose expectant management (Gülmezoglu et al. 2006)

Incidence

- Depending on the accuracy of pregnancy dating approximately 5 to 10 % of pregnancies will reach 42^{+0} weeks (Olesen et al. 2003)

Adverse outcomes

- Post term pregnancy is associated with increased:

Maternal

- Induction of labour (IOL) rates
- Operative delivery
- Intrauterine infection
- Labour dystocia
- 3^{rd} or 4^{th} degree tears (related to macrosomia)

Neonatal

- Intrapartum fetal compromise
- Neonatal morbidity e.g. Meconium stained liquor (MSL), neonatal acidemia, birth injury
- Macrosomia
- Perinatal mortality
- Asphyxia
- Early neonatal convulsions
- Congenital malformations

  (Enkin et al. 2000; RCOG 2001; Crowley 2003; SOGC 2008).

- The risk of perinatal death in South Australia increases from 1: 7,000 at 36 weeks to 1:350 at 42 + weeks (Dodd et al. 2003).

Preventative measures

Primary

- Routine 18 weeks pregnancy ultrasound to confirm dates
- Sweeping of membranes beyond 40^{+0} weeks of gestation (digital separation of the membranes from the wall of the cervix and lower uterine segment) (Norwitz et al. 2007)

Secondary

From 41^{+0} weeks it may be reasonable to perform:

- Twice weekly CTG for expectant management
- Ultrasound (USS) to estimate maximum amniotic fluid index (< 5 or deepest pool < 2 indicates oligohydramnious)
- Oligohydramnios or evidence of fetal compromise is an indication for delivery

Induction of labour

- IOL is typically recommended when the risks to the fetus by continuing pregnancy are greater than those faced by the neonate after birth (selective IOL)
- Medical expert consensus favours IOL around 38^{+0} to 39^{+0} weeks of gestation for women with significant perinatal complications of pregnancy
- At term, low risk women should be counselled about the risks and benefits of an IOL at 41^{+0} to 41^{+3} weeks of gestation compared with expectant management (see consumer advice below)
- When determining timing of delivery, consider:
    - Identified perinatal complications of pregnancy e.g. preeclampsia, gestational diabetes, intrauterine growth restriction
    - Results of antepartum fetal surveillance (CTG and USS)
    - Favourability of the cervix
    - Gestational age
    - Maternal preference and risks if the woman chooses expectant management
- If the woman chooses induction of labour for prolonged pregnancy, ensure the advance booking is made early to avoid problems with available spaces

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Consumer advice for decision making regarding induction of labour or expectant management at 41^{+0} weeks gestation

Risks and benefits

- Most women will go into labour spontaneously by 42^{+0} weeks (NICE 2008)
- Membrane sweeping makes spontaneous labour more likely
- In cases where induction of labour is the preferred option, there is a small possibility that the induction may not be successful. Alternative options in this case include:
    - A further attempt to induce labour (the timing depending on the clinical situation and the woman's wishes)
    - Caesarean section (NICE 2008)
- Labour induction after 41^{+0} and by 41^{+3} weeks is associated with lower perinatal mortality and meconium stained liquor than expectant management with no increase in caesarean section rate (Gulmezoglu et al. 2006)
- Macrosomia and complications associated with macrosomia (prolonged labour, cephalopelvic disproportion and shoulder dystocia) occur more frequently beyond term
- In South Australia, the risk of fetal death in singleton pregnancies increases with gestational age:
    - 0.44 per 1,000 live births at 40^{+0} weeks' gestation
    - 0.76 per 1,000 live births at 41^{+0} weeks' gestation
    - 1.38 per 1,000 live births at 42^{+0} weeks' gestation (Dodd et al. 2003)

Recommendations

- It is recommended that women who choose expectant management have twice weekly Cardiotocography and amniotic fluid index assessments
- Oligohydramnios or evidence of fetal compromise is an indication for delivery
- Women with uncomplicated pregnancies should be offered induction of labour between 41^{+0} and 41^{+3} weeks to avoid the risks of prolonged pregnancy
- Waiting until 42^{+0} is not recommended
- Exact timing depends on the woman's preferences and local circumstances