South Australian Perinatal Practice Guidelines

Delays in the Second Stage of Labour

Introduction

- The guideline for management of delays in second stage of labour is intended for women at term with low risk pregnancies and reassuring maternal and fetal status. It is not suitable for women with multiple gestation or women attempting vaginal birth after caesarean section, because in these clinical situations there is very little evidence on best practice, and management is individualised

Literature review

- In women without epidural anaesthesia, use of any upright or lateral position, compared with supine or lithotomy positions, is associated with reduced duration of second stage of labour (Gupta et al. 2004)
- Length of second stage is not associated with neonatal morbidity (Janni et al. 2002; Cheng et al. 2004; Altman & Lydon-Rochelle 2006)
- Increased maternal morbidity in women with prolonged second stage may be partially attributed to the higher rate of operative procedures and should not be solely based on the elapsed time after full dilatation (Janni et al. 2002)
- The effect of prolonged second stage of labour on pelvic support and urinary and faecal continence requires further investigation
- Extremely prolonged second stage (> 4 hours) is associated with increased incidence of postpartum haemorrhage and caesarean section (Cheng et al. 2004)

Definitions

For the purpose of this guideline, the following definitions of labour are recommended:

Passive second stage of labour

- The finding of full dilatation of the cervix before (or in the absence of) involuntary expulsive contractions

Active second stage of labour

- The baby is visible
- Expulsive contractions with a finding of full dilatation of the cervix
- Active maternal effort following confirmation of full dilatation of the cervix in the absence of expulsive contractions (NICE 2007)

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Length of second stage

The length of 2nd stage varies according to:

- Maternal positioning
- Position of the fetus
- Station at completion of first stage
- Quality of the uterine contractions
- Use of oxytocin augmentation
- Pushing efforts of the woman
- Type of analgesia

(Archie & Biswas 2003; Altman & Lydon-Rochelle 2006)

- The beginning of second stage (diagnosis of complete cervical dilation) is difficult to determine as it depends on the timing and indication for vaginal examination
- The evidence suggests that, in controlled circumstances (where fetal and maternal wellbeing is established), allowing women in second stage to rest and await fetal descent has beneficial effects including:
  - Reduced maternal fatigue in nulliparas
  - Less fetal heart rate decelerations
  - Reduced pushing time for both nulliparas and multiparas (Hansen et al. 2002)
- There is no evidence for setting a time limit for active (pushing) phase of second stage unless there is a lack of descent (ACOG 2003)
- Individual practitioners need to take into account their own capabilities and local practices when determining how long to leave a woman in the second stage before deciding on expediting delivery

Nulliparous women

- Normal length of second stage is 30 minutes to 3 hours (median duration: 50 minutes)
- Prolonged second stage should be considered when active second stage exceeds:
  - 3 hours with regional anaesthesia
  - 2 hours if no regional anaesthesia is used (ACOG 2003)
- Medical review should be requested after active second stage has lasted 2 hours if birth is not imminent
- Amniotomy should be offered if the membranes are intact

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Multiparous women

- Normal length of second stage is 5 – 30 minutes (median duration: 20 minutes)
- Prolonged second stage should be considered if active second stage exceeds:
    - 2 hours with regional anaesthesia
    - 1 hour if no regional anaesthesia is used (ACOG 2003)
- Medical review should be requested after active second stage has lasted 1 hour if birth is not imminent
- Amniotomy should be offered if the membranes are intact

Delayed descent in second stage

- A prolonged second stage of labour warrants clinical reassessment of the woman, fetus and expulsive forces
    - Assess fetal size, adequacy of the pelvis, fetal wellbeing, and maternal pushing efforts

Exclude the following:

- Full bladder
- Cephalo-pelvic disproportion
    - Careful review of the notes, including recent scan results and SFH measurements
    - Abdominal palpation
    - Vaginal examination including a pelvic assessment, examination of the fetal head for caput and moulding
- Malpresentation of the fetal head, e.g. occipito-posterior or occipito transverse, or deflexed fetal head
- Inadequate uterine activity
- Inelastic perineal tissues, especially in the older primipara

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Observe for the following possible indicators of obstructed labour

- Maternal and fetal tachycardia
- Hypertonus with frequent, strong contractions
- Vaginal bleeding
- Haematuria
- Maternal temperature
- Constant severe abdominal pain
- Physiologic retraction ring (Bandl's ring)

- Catheterise the bladder
- Abdominal and pelvic assessment
- Ultrasound can improve the accuracy of determining the position of the baby
- Provided there are no maternal or fetal complications, in consultation with an obstetrician, decide whether there is any advantage to waiting
- If there is a reason for the second stage to be expedited, decide on the most appropriate type of instrumental delivery, e.g. simple forceps, rotational forceps or ventouse
- Consider trial of forceps / ventouse in operating theatre if difficulty is anticipated

Syntocinon augmentation in the second stage

- Syntocinon® augmentation in the second stage for a nulliparous woman is a safe option to overcome inadequate uterine activity. Extreme caution should be exercised in a multiparous woman
- Oxytocin administration can begin at any time during the second stage, particularly in nulliparous women with epidural anaesthesia, OR where contractions are assessed to be inadequate OR there is lack of progress
- Women who are already receiving oxytocin at the onset of the second stage should continue to receive it during the second stage

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Abbreviations

ACOG	American College of Obstetricians and Gynecologists
CTG	Cardiotocograph
et al.	And others
e.g.	For example
OP	Occipito posterior
OT	Occipito transverse
IOL	Induction of labour
LSCS	Lower segment caesarean section
PPG	Perinatal Practice Guidelines
SFH	Symphyseal fundal height
USS	Ultrasound

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