Intrapartum care

Normal labour and birth

Care throughout labour
Ask the woman about her wants and expectations for labour
Don’t intervene if labour is progressing normally
Tell the women that first labour lasts on average 8 hours and second labour lasts on average 5 hours
Ensure supportive one-to-one care
Do not leave the woman on her own
Encourage involvement of birth partner(s)
Encourage the woman to mobilise and adopt comfortable positions
Take routine hygiene measures
Do not give H₂-receptor antagonists or antacids routinely to low-risk women
For coping with pain, see pages 10–11

Vaginal exam
Tap water may be used for cleansing prior to exam
Ensure exam is really necessary
Ensure consent, privacy, dignity and comfort
Explain reason for the exam and what’s involved
Explain findings sensitively

Initial assessment
Listen to the woman. Ask about vaginal loss and contractions
Review clinical records
Check temperature, pulse, BP, urinalysis
Observe contractions, fetal heart rate (FHR)
Palpate abdomen
Offer vaginal exam
For coping with pain, see pages 10–11

Women not in established labour
If initial assessment normal, offer individualised support and encourage these women to remain at/return home
For prelabour rupture, see page 14

First stage of labour
Use a partogram once labour is established
If a partogram action line is used, this should be a 4-hour action line
Every 15 min after a contraction check FHR
Every 30 min: document frequency of contractions
Every hour: check pulse
Every 4 hours: check BP, temperature and offer vaginal exam
Regularly: check frequency of bladder emptying
Consider the woman’s emotional and psychological needs
For coping with pain, see pages 10–11

Concerns
Indications for electronic fetal monitoring (EFM) in low-risk women, e.g. significant meconium-stained liquor, abnormal FHR, maternal pyrexia, fresh bleeding; see pages 17–18
† diastolic BP (over 90 mmHg) or † systolic BP (over 140 mmHg) twice, 30 min apart
Uncertainty about the presence of a fetal heartbeat
Suspected delay
Nulliparous: < 2 cm dilatation in 4 hours
Parous: < 2 cm dilatation in 4 hours or slowing in progress
See page 12
Intrapartum care

**Second stage of labour**
- Every 5 min after a contraction: check FHR
- Every 30 min: document frequency of contractions
- Every hour: check BP, pulse, offer vaginal exam
- Every 4 hours: check temperature
- Regularly: check frequency of bladder emptying
- Assess progress, including fetal position and station
- If woman has full dilatation but no urge to push, assess after 1 hour
- Discourage the woman from lying supine/semi-supine
- Consider the woman’s position, hydration and pain-relief needs.
- Provide support and encouragement

**Concerns**
- Indications for EFM in low-risk women, e.g. meconium-stained liquor, abnormal FHR, maternal pyrexia, fresh bleeding, oxytocin for augmentation, see pages 17–18
- Nulliparous: consider oxytocin, with offer of regional analgesia, if contractions inadequate at onset of second stage
- Nulliparous: active second stage 2 hours
- Parous: active second stage 1 hour
- See page 13

**Episiotomy**
- Carry out episiotomy only when there is:
  - clinical need such as instrumental birth
  - suspected fetal compromise
- Do not offer routinely following previous third- or fourth-degree trauma
- Use mediolateral technique (between 45° and 60° to right side, originating at vaginal fourchette)
- Use tested effective analgesia

**Birth**
- see top of page 9

**Key:**
- **OB** seek obstetrician advice (transfer to obstetric unit if appropriate)
- **HT** healthcare professional trained in operative vaginal birth

8 NICE clinical guideline 55

Quick reference guide
Importantly, the image contains a care pathway for normal labour and birth. It includes sections for Intrapartum care, Third stage of labour, Care after birth, and Perineal care. Each section details specific actions and considerations for healthcare providers to follow during the labour and birth process. The pathway also highlights concerns and actions to take in the event of certain situations, such as retained placenta or suspected postpartum haemorrhage. For detailed content and further information, please refer to the NICE clinical guideline 55.
Coping with pain

Supporting women
- Consider your attitude to coping with pain in labour and ensure your care supports the woman’s choice.
- Offer support and encouragement.
- Encourage her to ask for analgesia at any point during labour.

Pain-relieving strategies
- Encourage labouring in water to reduce pain.
- Support women’s use of breathing/relaxation techniques, massage, music.
- Acupuncture, acupressure and hypnosis should not be provided, but do not prevent women if they wish to use these.
- Do not offer TENS to women in established labour.

Inhalation analgesia and opioids
- Ensure access to Entonox and opioids such as pethidine or diamorphine. Explain that:
  - they provide limited pain relief
  - Entonox may make the woman feel nauseous and light-headed
  - opioids may cause drowsiness, nausea and vomiting in the woman
  - opioids may cause short-term respiratory depression and drowsiness for several days in the baby
  - opioids may interfere with breastfeeding.
- Provide antiemetic if opioids used.
- No birthing pool or bath within 2 hours of opioids or if drowsy.

Before choosing epidural
- Inform women that epidural:
  - is only available in obstetric units
  - provides more effective pain relief than opioids
  - is associated with a longer second stage of labour and an increased chance of vaginal instrumental birth
  - is not associated with long-term backache
  - is not associated with a longer first stage of labour or an increased chance of caesarean birth
  - is accompanied by a more intensive level of monitoring and IV access
  - large amounts of epidural opioid may cause short-term respiratory problems in the baby and make the baby drowsy.

See page 11.
Regional analgesia
(Regional analgesia is only available in obstetric units, administered by an anaesthetist.)

Provide for all women who request regional analgesia (including those in severe pain in latent first stage) after discussion, see page 10

Secure IV access
Preloading/maintenance fluid infusion not needed routinely

Establishment/after each bolus: measure BP every 5 min for 15 min; provide continuous EFM for 30 min (see pages 17–18)
After 30 min: call anaesthetist if the woman is still in pain
Every hour: check level of sensory block
No routine use of oxytocin in the second stage
Encourage and help the woman to adopt any comfortable upright position

Fully dilated: delay pushing for at least 1 hour, unless baby’s head is visible or woman has urge to push
Birth should take place within 4 hours

Epidural or combined spinal–epidural analgesia is recommended
Use low-concentration anaesthetic and opioid for establishing and maintaining epidural
Do not use high concentrations of local anaesthetics routinely
Use combined spinal–epidural analgesia (bupivacaine and fentanyl) for rapid relief
Continue epidural until after completion of the third stage and any perineal repair
Complications

Delay in the first stage

Definition of delay in the first stage

Nulliparous: < 2 cm dilatation in 4 hours

Consider also:
• descent and rotation of the fetal head
• changes in strength, duration and frequency of uterine contractions
• station and position of presenting part
• woman’s emotional state

Parous: < 2 cm dilatation in 4 hours or a slowing in progress

Delay suspected: consider amniotomy if membranes intact
Whether membranes ruptured or intact, advise vaginal exam 2 hours later

Progress > 1 cm: return to page 7, first stage
Progress < 1 cm: diagnose delay
Offer support and effective pain relief
Offer continuous EFM

If membranes ruptured
If membranes intact: advise amniotomy. Advise repeat vaginal exam 2 hours later

Amniotomy
Explain procedure and that it:
• will shorten labour by about an hour
• may make contractions stronger and more painful

Nulliparous: consider oxytocin following spontaneous or artificial rupture of membranes
If oxytocin used advise continuous EFM, see pages 17–18

Parous: abdominal palpation
• vaginal exam
before making decision about the use of oxytocin
If oxytocin used advise continuous EFM, see pages 17–18

Oxytocin
Explain that oxytocin will bring forward time of birth but not influence mode of birth, will increase frequency and strength of contractions and continuous EFM will be necessary, see pages 17–18
Offer epidural before starting oxytocin, see page 11
Oxytocin increments > every 30 min; increase until 4–5 contractions in 10 min

Progress > 2 cm: vaginal exam 4-hourly
Progress < 2 cm: consider CS

Vaginal exam 4 hours after starting oxytocin in established labour

Progress > 1 cm: return to page 7, first stage

Vaginal exam 4 hours after starting oxytocin in established labour

Progress > 2 cm: vaginal exam 4-hourly
Progress < 2 cm: consider CS

1 See ‘Caesarean section’ (NICE clinical guideline 13).
**Intrapartum care**

**Delay in the second stage**

- **Nulliparous**: delay suspected if inadequate progress after 1 hour of active second stage
  - Offer vaginal exam; advise amniotomy if membranes intact
  - Offer support and encouragement and consider analgesia/anaesthesia
  - Birth within 1 hour: return to page 9, third stage
  - No birth within next hour (total active second stage = 2 hours)
  - Parous: active second stage = 1 hour
  - Diagnosis of delay in the second stage

- **Assessment and ongoing review every 15–30 min by obstetrician**
  - Do not start oxytocin
  - Consider instrumental birth if concern about fetal well-being or for prolonged second stage
  - Advise CS if vaginal birth not possible
  - Birth expected to take place within 3 hours of start of active second stage for nulliparous women and within 2 hours for parous women

- **Good progress**: return to page 8, second stage

- **Birth**: return to page 9, third stage

- **Instrumental birth**
  - Choice of instrument depends on balance of clinical circumstance and practitioner experience
  - Use tested effective anaesthesia
  - If declined or if concern about fetal compromise, use pudendal block with local anaesthetic to perineum

**Key:**
- **GB**: seek obstetrician advice (transfer to obstetric unit if appropriate)
- **HP**: healthcare professional trained in operative vaginal birth

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NICE clinical guideline 55

Quick reference guide 13
Prelabour rupture of the membranes (PROM) at term

Normal progress: return to page 7, first stage
If membranes intact advise woman to return home

Suspected PROM
Offer speculum exam
Avoid digital vaginal exam in absence of contractions

PROM – care of the woman
Advise woman that:
- risk of serious neonatal infection is 1% rather than 0.5%
- 60% will go into labour within 24 hours
- induction of labour is appropriate after 24 hours
If evidence of infection, prescribe full course of broad-spectrum antibiotics

Until induction or if the woman chooses expectant management beyond 24 hours
Do not offer lower vaginal swabs and maternal C-reactive protein
Advise the woman to record her temperature every 4 hours during waking hours and to report immediately any change in the colour or smell of her vaginal loss
Inform her that bathing or showering are not associated with an increase in infection, but that having sexual intercourse may be
Assess fetal movement and heart rate at initial contact and then every 24 hours following membrane rupture while the woman is not in labour
Advise the woman to report immediately any decrease in fetal movements

PROM certain history
No speculum exam

PROM > 24 hours
Induction of labour
Transfer/access to neonatal care
Stay in hospital at least 12 hours after birth so the baby can be observed

PROM – care of the baby
If no signs of infection do not give antibiotics to the baby
For baby with possible sepsis or born to a woman with evidence of chorioamnionitis: immediately refer to neonatal care
Observe asymptomatic term babies (PROM > 24 hours) for the first 12 hours at 1 hour, 2 hours then 2-hourly for 10 hours:
- general wellbeing
- chest movements and nasal flare
- skin colour (test capillary refill)
- feeding
- muscle tone
- temperature
- heart rate and respiration
No blood, cerebrospinal fluid and/or surface culture tests for asymptomatic baby
Woman to inform immediately of any concerns about the baby in first 5 days

2 Care of women who have their labour induced is covered by ‘Induction of labour’ (NICE inherited clinical guideline D).
Intrapartum care

Meconium-stained liquor

Light meconium-stained liquor
- Consider continuous EFM based on risk assessment: stage of labour, volume of liquor, parity, FHR, transfer pathway; see pages 17–18

Baby in good condition
- 1 and 2 hours, observe:
  - general wellbeing
  - chest movements and nasal flare
  - skin colour (test capillary refill)
  - feeding
  - muscle tone
  - temperature
  - heart rate and respiration
- Review by a neonatologist if baby’s condition causes concern at any time

Significant meconium-stained liquor
- Dark green or black amniotic fluid that is thick or tenacious, or any meconium-stained fluid containing lumps of meconium
- Advise continuous EFM, see pages 17–18
- FBS available in labour and advanced neonatal life support available for birth
- Do not suction nasopharynx and oropharynx before birth of the shoulders and trunk
- Suction upper airways only if thick/tenacious meconium in oropharynx

Baby in good condition
- 1 hour, 2 hours then 2-hourly until 12 hours old, observe:
  - general wellbeing
  - chest movements and nasal flare
  - skin colour (test capillary refill)
  - feeding
  - muscle tone
  - temperature
  - heart rate and respiration

Baby has depressed vital signs
- Laryngoscopy and suction under direct vision by a healthcare professional trained in advanced neonatal life support

Key:
- OB seek obstetrician advice (transfer to obstetric unit if appropriate)
- HT healthcare professional trained in operative vaginal birth

NICE clinical guideline 55

Quick reference guide
Intrapartum care

Retained placenta

**Diagnosis of delay in the third stage**

- > 30 min after birth with active management (see page 9)
- > 1 hour after birth with physiological management (see page 9)

**Secure IV access**

**Oxytocin**

Injection of 20 IU in 20 ml of saline into the umbilical vein, proximal cord clamping

No IV oxytocin infusion

- Oxytocin effective
- Oxytocin not effective within 30 min

**Placenta delivered**

- Placenta delivered: return to page 9, care after birth
- Use analgesia or anaesthesia for assessment
- If woman reports inadequate pain relief, stop assessment and address this need
- Use effective regional or general anaesthesia for manual removal of the placenta

Key:

- **OB** seek obstetrician advice (transfer to obstetric unit if appropriate)
- **HT** healthcare professional trained in operative vaginal birth

Complications
Intrapartum care

Continuous EFM

- Meconium-stained liquor
- FHR less than 110 or greater than 160 bpm; decelerations after a contraction
- Maternal pyrexia (38.0°C once or 37.5°C twice 2 hours apart)
- Fresh bleeding in labour
- Oxytocin for augmentation
- Woman’s request (Q1) not necessary

Other risk factors present¹
- Previous CS
- Pre-eclampsia
- Pregnancy > 42 weeks
- PROM > 24 hours
- Induced labour
- Diabetes
- Antepartum haemorrhage
- Other maternal medical disease
- Fetal growth restriction
- Prematurity
- Oligohydramnios
- Abnormal Doppler artery velocimetry
- Multiple pregnancies
- Breech presentation

Maternal factors that may contribute to an abnormal trace³
- Woman’s position: advise her to adopt left-lateral position
- Woman is hypotensive
- Woman has just had a vaginal exam
- Woman has just emptied her bladder or bowel
- Woman has been vomiting or had a vasovagal episode
- Woman has just had regional analgesia sited or topped up

With oxytocin
- Suspicious trace: Q2 review; continue to increase oxytocin till 4 or 5 contractions every 10 min
- Pathological trace: stop oxytocin; full assessment by obstetrician before recommencing

Inform that EFM will restrict woman’s mobility
- Every hour take documented systematic assessment based on Tables 131 and 132, in the full version of the guideline

Normal trace with oxytocin
- Continue oxytocin until 4 or 5 contractions every 10 min. Reduce if more than 5 in 10 min

Abnormal trace
- Pathological trace
- Fetal blood sampling (FBS), see page 19 if result abnormal

Urgent birth

Key:
- low-risk women

³ These factors (risk factors for women outside the scope of this guideline and maternal factors that may contribute to an abnormal trace) are from ‘Electronic fetal monitoring’ (NICE inherited guideline C) which this guideline updates and replaces.
⁴ At the time of publication (September 2007), terbutaline did not have UK marketing authorisation for this indication. Informed consent should be obtained and documented.
Fetal blood sampling (FBS)

FBS

Woman in left-lateral position

Normal

pH $\geq 7.25$

Borderline

pH 7.21–7.24

Abnormal

pH $\leq 7.20$

Repeat FBS within 1 hour if FHR trace remains pathological

Repeat FBS within 30 min if FHR trace remains pathological

Urgent birth

Normal

pH $\geq 7.25$

Borderline

pH 7.21–7.24

Abnormal

pH $\leq 7.20$

FHR trace unchanged and FBS result stable; defer third/further FBS unless additional abnormalities develop on the trace

Third FBS necessary

Urgent birth

Key:

OB seek obstetrician advice (transfer to obstetric unit if appropriate)

HT healthcare professional trained in operative vaginal birth

Neonatal resuscitation

- Start basic resuscitation of newborn babies with air.
- Use oxygen for babies who do not respond.
- Attend a neonatal resuscitation course at least once a year\(^5\).

\(^5\) Consistent with the algorithm adopted in the ‘Newborn life support course’ developed by the Resuscitation Council (UK), available from www.resus.org.uk/siteindx.htm
Intrapartum care

Complications

Postpartum haemorrhage

Risk factors for postpartum haemorrhage

- Antenatal risk factors for which women should be advised to give birth in an obstetric unit:
  - previous retained placenta or postpartum haemorrhage
  - maternal haemoglobin level below 8.5 g/dl at onset of labour
  - increased body mass index
  - 4 or more previous babies
  - antepartum haemorrhage
  - overdistention or abnormalities of the uterus
  - low-lying placenta
  - woman 35 years or older

- Risk factors in labour:
  - induction
  - prolonged first, second or third stage of labour
  - oxytocin use
  - precipitate labour
  - operative birth or CS

Have strategies in place to respond quickly and appropriately to a postpartum haemorrhage

- Highlight risk factors in the notes
- Plan and discuss care

Managing postpartum haemorrhage

- Immediate treatment:
  - call for help
  - uterine massage
  - IV fluids

- Uterotonic options:
  - repeat bolus of oxytocin (IV)
  - ergometrine (IM/cautiously IV)
  - IM oxytocin with ergometrine (Syntometrine)
  - misoprostol
  - oxytocin infusion (Syntocinon)
  - carboprost (IM)

- Additional treatment options:
  - tranexamic acid (IV)
  - rFactor VIIa on advice from haematologist

Key:

- OB seek obstetrician advice (transfer to obstetric unit if appropriate)
- HT healthcare professional trained in operative vaginal birth

6 At the time of publication (September 2007), misoprostol and rFactor VIIa did not have UK marketing authorisation for this indication. Informed consent should be obtained and documented; however, if this is not possible, follow the Department of Health guidelines ‘Reference guide to consent for examination or treatment’ (2001) (available from www.dh.gov.uk). It may be appropriate to get consent in the antenatal period.