

Labour and Birth Care

Routine care in normal labour and birth

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Note:

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing 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,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

Note: The words woman/women/mother/she/her have been used throughout this guideline as most pregnant and birthing people identify with their birth sex. However, for the purpose of this guideline, these terms include people who do not identify as women or mothers, including those with a non-binary identity. All clinicians should ask the pregnant person what their preferred term is and ensure this is communicated to the healthcare team.

Explanation of the Aboriginal artwork:

The Aboriginal artwork used symbolises the connection to country and the circle shape shows the strong relationships amongst families and the Aboriginal culture. The horse shoe shape design shown in front of the generic statement symbolises a woman and those enclosing a smaller horse shoe shape depicts a pregnant woman. The smaller horse shoe shape in this instance represents the unborn child. The artwork shown before the specific statements within the document symbolises a footprint and demonstrates the need to move forward together in unison.



Australian Aboriginal Culture is the oldest living culture in the world yet Aboriginal people continue to experience the poorest health outcomes when compared to non-Aboriginal Australians. In South Australia, Aboriginal women are 2-5 times more likely to die in childbirth and their babies are 2-3 times more likely to be of low birth weight. The accumulative effects of stress, low socio economic status, exposure to violence, historical trauma, culturally unsafe and discriminatory health services and health systems are all major contributors to the disparities in Aboriginal maternal and birthing outcomes. Despite these unacceptable statistics, the birth of an Aboriginal baby is a celebration of life and an important cultural event bringing family together in celebration, obligation and responsibility. The diversity between Aboriginal cultures, language and practices differ greatly and so it is imperative that perinatal services prepare to respectfully manage Aboriginal protocol and provide a culturally positive health care experience for Aboriginal people to ensure the best maternal, neonatal and child health outcomes.

Purpose and Scope of Perinatal Practice Guideline (PPG)

This guideline outlines the recommended routine care for women in labour and birth without complications. It includes communication, birth environment, maternal and fetal/baby assessment, non-pharmacological labour pain coping strategies, birth process and management of the third stage of labour. Immediate postpartum care of the woman and baby is included.



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Summary of Practice Recommendations

Woman-centred care should underpin all interactions with the woman and her partner/support person(s).

Where possible women should be encouraged to remain at home during latent phase of first stage labour.

Enable women to eat and drink as desired.

Encourage women to remain active and upright during labour.

There is no reason to intervene in latent phase of first stage if maternal and fetal wellbeing is reassuring.

A cervical dilatation rate of 1 cm in 2 hours is adequate for both nulliparous and parous women.

Women should be encouraged to follow their own urges in active second stage without directed pushing.

Women with epidural analgesia should be allowed additional time for a passive second stage of labour without pushing.

Techniques to support a slow controlled birth of the head such as 'hands on' technique are recommended.

Delayed cord clamping (1-3 minutes, but prior to 5 minutes) is recommended in active management of third stage.

Women have the option of physiological 3rd stage but should be aware of the small increased risk of postpartum haemorrhage when compared to active management.

Keep the woman (and baby) warm and the environment quiet and dim in physiological third stage.

Genito-anal assessment is recommended to assess for perineal and other tears.

Uninterrupted skin-to-skin between the mother and her baby is recommended for a minimum of 1-2 hours or until after the first breastfeed.



Abbreviations

ARM	Artificial rupture of the membranes
BMI	Body mass index
cm	Centimetres
CTG	Cardiotocograph
FHR	Fetal heart rate
GBS	Group B streptococcus
GP	General practitioner
HIV	Human immunodeficiency virus
IM	Intramuscular
IV	Intravenous
PPG	Perinatal practice guideline
PV	Per vaginum
PPH	Postpartum haemorrhage
ROM	Rupture of membranes
SAPR	South Australian Pregnancy Record
TENS	Transcutaneous electrical nerve stimulation
VE	Vaginal examination

Definitions

Latent first stage of labour	A period of time characterised by painful uterine contractions and variable changes in the cervix, including some degree of effacement and slower progression of dilatation up to 5 cm for first and subsequent labours ^{1(p35)}
Active first stage of labour	A period of time characterised by regular painful contractions, a substantial degree of cervical effacement and more rapid cervical dilatation from 5 cm until full dilatation
Second stage of labour	A period of time between full cervical dilatation and birth of the baby: ^{1(p120)} Passive: Before or in the absence of the urge to push Active: When the woman has an involuntary urge to push as a result of expulsive uterine contractions or where there is active maternal pushing effort
Normal birth	The infant is born spontaneously [without help] in the vertex position [head down] between 37 and 42 completed weeks of pregnancy
Third stage of labour	Commences immediately following the birth of the baby until expulsion of the placenta and membranes ²
Fourth stage of labour	The hour or two after placental expulsion when the uterus regains its tone and begins the process of involution ³



Introduction

The purpose of this PPG is to protect, promote and support normal birth through woman-centred and evidenced based collaborative care. This is in line with international strategies to support physiological birth to improve maternal and neonatal psychological and physical health, reduce healthcare costs and reduce overuse of medical interventions.¹ This is particularly pertinent to South Australian women with the rising caesarean section rate and reducing rate of spontaneous onset of labour.⁴ Labour and birth are normal physiological processes, and as such, any intervention or interference in these processes should be supported by evidence, as per the relevant PPG (available at www.sahealth.sa.gov.au/perinatal).

The role of caregivers

A midwife and/or a doctor are legally eligible to attend women giving birth in South Australia (Health Practitioner Regulation National Law (South Australia) Act 2010).⁵

Women should be cared for on a 1:1 woman to midwife ratio.⁶ Continuous 1:1 support in labour is associated with improved labour and birth outcomes and increased satisfaction with care.^{2,7}

Communication and Provision of Care

Woman-centred care should underpin all interactions with the woman to ensure that her social, emotional, physical, psychological, spiritual and cultural needs and expectations are met.⁸

All health care professionals should ensure that in all birth settings there is a culture of respect for each woman as an individual undergoing a significant and emotionally intense life experience, so that the woman is in control, is listened to and is cared for with compassion.^{2(p7)}

This should be characterised by the following:^{1(p25)}

- > Introducing themselves to the woman and her partner/support person(s)
- > Addressing the woman and her partner/support person(s) by name
- > Offering information in a clear and concise manner, avoiding medical jargon and using pictorial aids as required. Use of an interpreter to ensure adequate communication may be required
- > Respecting, responding to and supporting the woman's needs, preferences and questions with a positive attitude and compassion
- > Informing women that they have choices, giving details to inform choices (including updates during labour), answering questions and supporting their choices
- > Ensuring that procedures are explained with appropriate informed consent obtained
- > Ensuring privacy and confidentiality are maintained at all times

Birth Plan

The benefits of birth plans have been described as:⁹

- > Enhanced communication between woman and care provider in labour
- > Enhanced awareness of options, providing discussed with care provider in the antenatal period
- > Increased sense of control for the woman
- > Decreased intervention in labour and birth

However, women may also find planning for birth problematic.⁹ Values and beliefs of caregivers in relation to birth plans can affect women's experiences, with women rating their experience of care higher when more requests are met. Conversely, women are less satisfied if their plans/requests are unable to be implemented. This highlights the importance of caregiver involvement in the development of realistic birth plans, discussion of the birth plan with caregivers in labour and the need to inform women that plans may need to change and why.¹⁰



Traditional ways of birthing and birthing practices vary among Aboriginal nations. 'Women's Business' should be acknowledged and respected for all Aboriginal women. Female caregivers should be offered wherever possible.

Consultation or referral

During labour and/or birth, any deviations from normal may require discussion, consultation or referral with other healthcare providers. Subsequent modifications to the woman's birth plan should be discussed fully, with the woman's decisions supported. For more information, please refer to the relevant PPG (available at www.sahealth.sa.gov.au/perinatal) and the Australian College of Midwives *National Midwifery Guidelines for Consultation and Referral*.¹¹

Place of birth / birth environment

In SA, women in labour at term can give birth at home, in a hospital birth centre or a standard labour ward/delivery suite, depending on local availability and the woman's risk factors. Women should be informed of their local options and reasons why this would alter based on complications and availability.⁶

Evidence suggests that women's sense of comfort, privacy and control over labour and birth choices is increased in their own home.^{12,13} Furthermore, women are more likely to have a spontaneous vaginal birth without intervention if they plan to birth at home.

Similarly, labour and birth in a birth centre with midwifery-led continuity of care is associated with higher rates of maternal satisfaction and lower rates of medical intervention when compared to standard hospital care.¹⁴

Aim to create an environment that is home-like where the woman's privacy can be protected, lighting can be adjusted and medical equipment is discretely positioned.¹⁵

Assessment during labour

Initial assessment

The aim of initial assessment is to determine any need for consultation and referral, to identify the stage of labour and to provide support for the woman in terms of reassurance and coping strategies.² This can occur via telephone, in the woman's home or in the hospital as per local policy.

Evidence suggests that women experience less intervention and are more likely to achieve a normal vaginal birth if they are not admitted to hospital until active first stage of labour.^{1,16} However, a woman's needs (i.e. support for labour pain), should take precedence. Encourage women to remain at / return to home if assessed as latent stage of labour with reassurance, information and advice given for coping strategies and indications to contact their maternity care provider.

History

Consult woman, SAPR, medical record and/or electronic record.

Current pregnancy

- > Estimated date of birth / gestation
- > Pregnancy progress / complications
- > Investigations
 - Blood group and Rhesus D status
 - Last haemoglobin
 - Hepatitis B, hepatitis C and HIV (+/- other infectious diseases)
 - Group B streptococcal status
 - Ultrasound findings, including placental site
 - Targeted screening results
- > Preferences in relation to her labour care / birth plan
- > Specific recommendations for birth

Past obstetric history

- > Gravida / Parity
- > Mode of birth
- > Woman's experience and potential impact on current labour
- > Breastfeeding history

Health history

- > Medical
- > Surgical
- > Gynaecological
- > Medications
- > Substance use
- > Allergies

Psychosocial

- > Mental health
- > Cultural considerations
- > Support person(s)

Clinical assessment (initial and ongoing)

Contractions

- > Maternal description of onset, frequency and intensity
- > Assess frequency, duration, strength (mild, moderate, strong) and resting tone over 10 minutes hourly in latent stage and every 30 minutes in active first stage
- > Woman's response / management

Maternal observations

Pulse

- > Take with every fetal heart to confirm maternal and fetal rates are separate
- > Maternal bradycardia or tachycardia requires medical review

Temperature

- > Record every 4 hours (hourly if hypothermia or hyperthermia)
- > Consult if temperature $\geq 38^{\circ}\text{C}$ or $\leq 35^{\circ}\text{C}$

Blood Pressure (BP)

- > Latent stage of labour, check on admission and then every four hours
- > Active labour, check every hour

Respiratory rate

- > Latent stage of labour, check on admission and then every four hours
- > Active labour, check every hour

Urine / bladder management

- > Ward urinalysis on admission and if concerned re obstructed labour (consult if blood-stained urine)
- > Explain to the woman the benefits of emptying her bladder frequently (at least every two hours) and encourage this practice (see *Bladder Management for Intrapartum and Postnatal Women* PPG available at www.sahealth.sa.gov.au/perinatal)

Vaginal loss

- > Ask the woman about her vaginal loss every hour
- > Ask the woman to report any changes (e.g. rupture of membranes, liquor, blood)

Abdominal observation and palpation

Perform on admission, prior to vaginal examination and every 2 hours in active labour, including:

- > Appearance
- > Fundal height
- > Fetal lie, presentation, position
- > Engagement of presenting part
- > Liquor volume



Vaginal Examination (VE)

For admission assessment (if indicated, or within 4 hours of admission), 4 hourly in active labour and at other times only if the VE will aid clinical decision making.¹

- > observe general appearance of perineal and vulval area
- > position of cervix
- > effacement and consistency
- > dilatation
- > application to presenting part
- > presenting part, position, attitude and station
- > presence of fetal caput and/or moulding
- > membrane status
- > vaginal loss – discharge, liquor, blood
- > Note:
 - Verbal consent should always be obtained prior to VE
 - A chaperone or support person should be present if possible
 - Abdominal palpation should always be performed prior to VE
 - Always auscultate FHR following VE
 - Explain findings and implications to woman

Fetal wellbeing

- > Ask about fetal movements in previous 24 hours
- > Use a Doppler ultrasound device or Pinard fetal stethoscope for intermittent auscultation of the fetal heart rate (FHR)
- > Each auscultation episode should commence towards the end of a contraction and be continued for at least 30-60 seconds after the contraction has finished.¹⁷
- > Latent stage of labour, check 1 hourly or more frequently if indicated
- > Active first stage of labour, check every 15-30 minutes
- > Second stage of labour, check following each contraction or every 5 minutes
- > Electronic fetal monitoring via cardiotocography (CTG) only where clinically indicated (see *Fetal Surveillance (Cardiotocography)* PPG available at www.sahealth.sa.gov.au/perinatal). Note: Admission CTG is not recommended.¹

Food and fluid intake

There is no evidence to support the restriction of fluids and foods during labour.^{1,18}

- > Support women to eat and drink as they want
- > Offer frequent sips of water to maintain hydration
- > Assess hydration status during labour

Note: If surgical intervention is likely within the next 2 hours, a single dose of pantoprazole 40mg may be administered by slow intravenous injection (diluted in 10mL of sodium chloride 0.9 % [4mg/mL] and given over at least 2 minutes).

Management of women with Group B Streptococcus (GBS)

Antibiotic prophylaxis is recommended for women who:

- > Screened Group B Streptococcus (GBS) positive during pregnancy (either 36 week vaginal/perianal swab or urine at any stage in the pregnancy)
- > Had a previous baby with GBS sepsis
- > Screened GBS negative or GBS status unknown with rupture of membranes (ROM) > 18 hours
- > With intrapartum fever (temperature $\geq 38^{\circ}\text{C}$) and GBS status unknown

See *Antibiotics in the Peripartum Period* PPG available at www.sahealth.sa.gov.au/perinatal

Labour pain coping strategies

The woman's labouring environment, presence of companion support person(s), provision of continuity of midwifery care and continuous labour support are proven to have a positive impact on labour and birth for the woman, increasing the likelihood of achieving a normal birth.¹⁹

Both non-pharmacological and pharmacological options for managing pain in normal labour should be discussed with the woman in the antenatal period.

At the transitional phase of 8–10 cm dilatation, women may exhibit shakiness, irritability, nausea and vomiting and their supportive needs increase.

Non-pharmacological strategies

A number of non-pharmacological strategies are associated with reduced labour pain. Although pain reduction may be limited, evidence suggests that these strategies are associated with other positive outcomes such as bonding with their partner and a sense of achievement.²⁰ They include:

- > Water immersion (see *First Stage Labour and Birth in Water Policy* available at www.sahealth.sa.gov.au/perinatal)
- > Heat packs / compresses
- > Warm showers
- > Acupressure and/or acupuncture
- > Transcutaneous electrical nerve stimulation (TENS)
- > Massage
- > Hypnosis, relaxation techniques, attention focusing, breathing awareness, music and distraction
- > Aromatherapy

Pharmacological methods

For detailed information on all pharmacological methods of pain relief (including sterile water injections), refer to the *Analgesia for Labour and Birth (Pharmacological)* PPG available at www.sahealth.sa.gov.au/perinatal

Mobility and positioning

Upright postures (kneeling, squatting, standing), mobilising, using a birth ball and position changes have been demonstrated to reduce pain in labour.²¹

Research has found that upright or lateral positions reduce the length of both active first stage and second stage of labour.²¹

- > Avoid supine positions due to aortocaval compression, creating compromised uterine blood flow and supine hypotension which may result in fetal compromise
- > Provide an environment and equipment for the woman to move as she needs to

Duration of labour

The Friedman curve for labour progression (1 cm/hour from 3cm dilation) has traditionally been used for diagnosis of delay in the first stage of labour. However, a more contemporary description of labour progress has been developed by Zhang and colleagues²², that takes into consideration the effects of increased epidural use and higher average BMIs etc. First stage dilatation is described as non-linear / hyperbolic, with no abrupt change in rate of dilation to indicate transition into active first stage around 5-6 cm.²³ Slower rates of dilatation are now largely accepted, along with increased time in second stage, including delayed active pushing for women with epidurals.^{1,23}

Latent first stage

Women should be informed that there is no standard duration of latent phase and that it varies between women and is not simply based on parity. A systematic review involving over 100,000 women found that it can take 4 hours to progress from 3-4 cm and a further 4 hours to progress from 4-5 cm.²⁴ In women undergoing induction of labour, the time to dilate 1cm during latent phase is significantly longer than in women with spontaneous onset.²³

- > The use of medical interventions to accelerate labour before 5 cm dilation is therefore not recommended providing maternal and fetal assessment is reassuring.¹
- > Delaying admission to the labour ward until active first stage may result in reduced medical intervention (e.g. pharmacological pain relief, augmentation of labour, caesarean section). However a decision to admit the woman to hospital for increased support should be made in consultation with the woman to ensure her emotional, psychological and medical needs are being met (e.g. need for continuous labour support, pain relief).¹

Active first stage

Women should be informed that the duration of active first stage is usually less than 12 hours for nulliparous women and less than 10 hours for parous women.¹ Rate of dilatation in active first stage is similar in both spontaneous and induced labours.²³

- > Dilatation of 0.5-1 cm/hour in active first stage is reasonable for both nulliparous and parous women. A slower rate is likely to be normal for some women and is acceptable providing there is some progress in dilatation, and maternal and fetal condition is reassuring.¹

Delay in active first stage

The use of medical interventions to accelerate labour should NOT be commenced based on a cervical dilation rate of < 0.5-1 cm/hour alone. Consideration of the complete clinical picture and women's preferences should inform need for intervention.¹

- > A diagnosis of delay in the active first stage of labour needs to take into consideration all aspects of progress in labour and should include²:
 - Parity (and previous labour experience if relevant)
 - Maternal and fetal observations
 - Cervical dilatation of less than 2 cm in 4 hours or a slowing in the progress of labour
 - Descent and rotation of the fetal head
 - Changes in the strength, duration and frequency of uterine contractions
- > When delay in first stage is suspected, consult midwifery team leader (if applicable) and/or obstetrician/GP. Determine if clinical intervention required. Consider the following:
 - Maternal position (avoid semi-recumbent; encourage active, upright posture and/or position changes)
 - Maternal hydration (consider IV fluids if vomiting / clinical evidence of dehydration)
 - Maternal nutrition (encourage maternal calorie intake and/or consider IV glucose infusion if vomiting/minimal oral intake > 12 hours)
 - Analgesia to manage pain
 - Performing artificial rupture of the membranes (ARM) if forewaters intact
 - Need for oxytocin augmentation (see *Induction and Augmentation of Labour* PPG available at www.sahealth.sa.gov.au/perinatal)

Second stage

Women should be informed that the duration of the second stage of labour varies. For most nulliparous women it lasts up to 3 hours and in parous women, up to 2 hours. The second stage of labour should be characterised by spontaneous pushing, freedom of mobility, upright posture and a flexible time frame.²⁶

Duration of the second stage of labour is increased for both nulliparous and parous women with epidural anaesthesia.^{23,27}

Duration of second stage is similar for women with induced or spontaneous labour.²³

Imposing a maximum time for second stage of labour remains controversial. Increasing the time by 1 hour (from previous 3 hours for nulliparous and 2 hours for parous women), has been shown to reduce caesarean section by approximately 50%, without increasing maternal or neonatal morbidity.^{27,28,29}



However, some studies have found small increases in maternal and/or neonatal infection³⁰, postnatal urinary incontinence³¹, postpartum haemorrhage and 3rd and 4th degree perineal tears^{32,33} with prolonged second stage. A more recent retrospective study by Gimovsky and others²⁸ examined this in detail for nulliparous women. They found that these adverse perinatal outcomes were only worse when second stage was extremely prolonged (≥ 5 hours), when compared with normal second stage length.

- > If the woman and fetus are in good condition and there is evidence of continued descent of the fetal head (labour progress), there is no need for intervention in second stage unless it is extremely prolonged.¹
- > Upper limits for combined passive and active second stage before initiation of obstetric intervention are recommended as follows:
 - Four (4) hours for nulliparous women (no more than 3 hours active)
 - Three (3) hours for parous women (no more than 2 hours active)²³

Passive Second Stage

Full cervical dilatation in the absence of involuntary expulsive contractions / urge to push.

- > Delay pushing (in the absence of clinical concern) if there is no urge to push
- > If no urge to push after 1 hour in women without an epidural, reassess and consider obstetric consult
- > For women with an epidural, delaying active pushing for up to 2 hours is reasonable if maternal and fetal condition is reassuring. The WHO¹ recommends waiting for the woman to regain the sensory urge to bear down prior to active pushing.

Active second stage

Full cervical dilatation with expulsive contractions and/or maternal pushing. Women should be encouraged to follow their own urge to push.¹

There should be continued assessment of progress in active second stage. Suggested timing for consult by obstetrician/GP is described below. This timing enables interventions to facilitate normal birth before the upper limits (described above), are reached.

- > If concerned about descent, contraction frequency/intensity or there is a suspicion of obstructed labour, review clinical situation, reassess and/or consult obstetrician/GP after:
 - One(1) hour of pushing in nulliparous women
 - Thirty (30) minutes of pushing in parous women
- > If no earlier concerns, consult obstetrician/GP if birth is not imminent after:
 - Two (2) hours of pushing in nulliparous women
 - One (1) hour of pushing in parous women

For further information, refer to the *Delays in the second stage of labour* PPG available at www.sahealth.sa.gov.au/perinatal

Normal vaginal birth

- > Prepare room and equipment as per local policy

Birth position

Women should be supported in their chosen birth position.¹

Upright position in second stage in women without an epidural is associated with³⁴:

- > A decrease in length of second stage
- > A reduction in assisted birth
- > A reduced incidence of episiotomy
- > A decreased rate of FHR abnormalities
- > A possible increase in second degree tears
- > No difference in third and fourth degree tears
- > An increased incidence of blood loss 500 mL or more



Upright position in second stage in women with an epidural is associated with³⁵:

- > No difference in length of second stage
- > No difference in rate of assisted birth
- > Increased incidence of caesarean section

Note: The most recent Cochrane review³⁵ found that women with epidurals had better outcomes if they avoided lying flat / supine and instead moved between side-lying positions and they also rated their experience more highly.

Birth process (including perineal care)³⁶

- > Encourage the woman to trust her body and to spontaneously push according to her own bodily instincts without directed pushing
- > Apply warm perineal compresses during second stage at the commencement of perineal stretching with consent, as this is associated with improved perineal outcomes
- > Gentle verbal guidance to control, slow or reduce depth of maternal breathing should be used to birth the baby slowly
- > Use hands to gently support ('guard') the perineum during the birth of the baby's head and shoulders. Support of the perineum with the dominant hand and counter-pressure to the fetal head using the non-dominant hand. The aim is to evaluate the speed at which the fetal head is progressing and to allow the use of appropriate pressure to allow progress but prevent uncontrolled expulsion
- > Note the time of the birth of the fetal head and then wait for restitution to occur (Note: do not check for nuchal cord. If present, most babies will be born unimpeded 'through' the cord.)
- > Continue to support the perineum and encourage the woman to push gently to birth the shoulders of the baby with the next contraction. In the event that the shoulders do not birth spontaneously, remove the dominant hand and apply gentle traction in the direction of the woman's anus
- > Allow the posterior shoulder of the fetus to be released following the curve of Carus, protecting the perineum throughout
- > Support the birth of the body by moving both hands in line with the emerging trunk and pass the baby directly to the mother to commence skin-to-skin for a minimum of one hour pending the baby's condition and mother's wishes. See [Immediate care of the baby](#) (below).

Note - although access to the perineum is necessary for the achievement of perineal support at crowning, it should never be a reason to restrict a woman's movement during the second stage.

Episiotomy

Routine episiotomy is not protective for pelvic floor dysfunction or incontinence and increases the risk of severe perineal/vaginal trauma.³⁷ The Cochrane review assessing routine versus 'selective' use of episiotomy found a slight reduction in severe perineal tears (2.5/100 versus 3.6/100) in the selective group.³⁷ 'Selective' indications were either for fetal compromise and/or to prevent severe perinatal trauma. Risk factors for severe perineal trauma include being nulliparous, of South East Asian origin, posterior fourchette to mid-anus < 2.5cm and previous 3rd or 4th degree tear.³⁶

Episiotomy should ONLY be considered if clinically indicated in normal birth. Absolute indications are^{6,38}:

- > To expedite birth due to fetal compromise (e.g. late FHR decelerations)
- > Shoulder dystocia (see *Shoulder Dystocia* PPG available at www.sahealth.sa.gov.au/perinatal)
- > Female genital mutilation (see *Female Genital Mutilation* PPG available at www.sahealth.sa.gov.au/perinatal)
- > Instrumental birth

If episiotomy is indicated:

- > Gain the woman's informed consent after explanation of rationale etc.
- > Administer an appropriate local anaesthetic (e.g. 1% lignocaine) and wait for it to take effect
- > When the perineum is distended, perform right medial lateral episiotomy by making an incision 3-5 cm in length from the fourchette with careful attention to ensure it is angled 60 degrees away from the midline. See local guidelines/procedures.



Third stage of labour

Third stage commences with the birth of the baby and is complete with the birth of the placenta and membranes. Management of the third stage can be either expectant (physiological) or active. Following birth, placental separation usually occurs within ten minutes, however it may take thirty minutes or longer.

The most recent Cochrane³⁹ review of management of the third stage of labour found that active management reduced the risk of severe postpartum haemorrhage (PPH) > 1000mL at the time of birth and may reduce the incidence of maternal anaemia (Hb < 9 g/dL). However, active management is also associated with increases in the woman's BP, 'after' pains, vomiting and the number of women returning to hospital with bleeding postnatally. In women at low risk of PPH it is uncertain whether active management provided any benefit over expectant management. Active management did not reduce the length of third stage or need for manual removal of the placenta.³⁹

- > Women at low risk of excessive bleeding have the option of active or expectant (physiological) management of the third stage, but should be aware of the small increased risk of PPH with physiological compared to active management.

Timing of cord clamping

The umbilical cord should not be clamped earlier than is necessary.^{1,2} There is an increasing body of evidence demonstrating that delaying cord clamping for a minimum of 1-3 minutes has advantages for the baby without affecting maternal outcomes⁴⁰:

- > Baby benefits from continued oxygen until spontaneous breathing is established. Research shows a decreased incidence in newborn bradycardia if the cord is clamped after respiration commences
- > Decreased incidence of anaemia in the baby with iron stores increased

Deferred cord clamping (until after the cord stops pulsating) versus clamping at approximately 5 minutes enhances the above effects with physiological management. In active management, the cord should be clamped before 5 minutes.⁴⁰

However, the decision on when to cut the cord must be based on clinical assessment of the situation. Early clamping may be required if there is postpartum haemorrhage, vasa praevia, placenta praevia, cord avulsion or if the baby is asphyxiated and requires immediate resuscitation.² However, consideration should be given to newborn resuscitation with the cord intact if possible.⁴⁰

Performing cord blood gas sampling with intact cord

Refer to *Fetal Acid Base Balance Assessment* PPG (www.sahealth.sa.gov.au/perinatal) for indications for cord blood gas sampling.

Tizard⁴⁰ has assessed the available research in this area and concluded that there is no specific reason for double cord clamping for the purpose of specimen collection, as both gas analysis and delayed cord clamping are achievable. The procedure is essentially unchanged when the cord is intact except for the following:

- > The cord may require more stabilisation without clamps; a towel may be used
 - > The cord blood needs to be obtained within 30-60 seconds of the baby's birth versus sampling from a doubly clamped cord where the specimen can be collected up to 60 minutes later
 - > Use a small 25 or 27 gauge needle
 - > Apply gentle pressure over the puncture site for 30 seconds if blood leakage is more than minimal
- Note: During cord blood sampling, ensure adequate personal protection equipment (PPE), including eye wear, as the cord may spurt.

Active management of third stage

There are 3 components in active management²:

- > Administration of a uterotonic agent either with the birth of the anterior shoulder or soon after birth of the baby
- > Delayed cord clamping (> 1 minute and < 5 minutes)
- > Controlled cord traction after signs of separation of the placenta to deliver the placenta and membranes



Indications

Management of the third stage in women at increased risk of PPH (including all women who have had induction or augmentation of labour).

Management of the third stage where the woman and caregiver value small reductions in blood loss and potentially reduced length of third stage.¹

Process

- > Administer uterotonic
 - Oxytocin 10 units is the treatment of choice and the preferred route is intramuscular (IM). When given via the intravenous route, administer slowly (at least over 1 minute) to avoid hypotension
 - Consider alternate prophylaxis with IM syntometrine® (oxytocin 5 units and ergometrine maleate 500 micrograms) if at risk of PPH and no history of hypertension
- > Double clamp the cord after a minimum of 60 seconds (maximum 5 minutes). If APGAR is 5 or less at 1 minute, clamp and cut the cord to facilitate resuscitation if unable to do so with cord intact
- > Collect cord blood gases if indicated (see *Fetal Acid Base Balance Assessment* PPG available at www.sahealth.sa.gov.au/perinatal)
- > Collect cord bloods and send for group, Rhesus factor and direct Coombs test if indicated
- > Reclamp the cord close to the vulva
- > Observe for signs of placental separation (uterus rises, becomes firmer and globular; trickle or gush of blood PV; cord lengthens and does not retract with suprapubic pressure)
- > Once a contraction is confirmed, firmly hold the cord and place the other hand over the symphysis pubis to stabilise the uterus by applying counter-pressure. Apply controlled cord traction downwards (at 45 degrees), then outwards and upwards as placental advancement occurs
- > If no contraction is present, await contraction before applying controlled cord traction. Cord traction on an attached placenta without a uterine contraction may result in uterine inversion. If no uterine contraction occurs after 10 minutes, consider uterine massage to stimulate a contraction or repeat the uterotonic
- > If the placenta does not descend during the 30-40 seconds of controlled cord traction, do not continue to pull on the cord. Gently hold the cord and wait until the uterus is well contracted again before repeating controlled cord traction with counter-pressure
- > Do not continue with controlled cord traction if there is no placental advancement, the uterus relaxes, or it is evident that the cord is tearing
- > Maintain tension on the cord and as the placenta delivers; then hold the placenta in both hands and gently twist it to ease the membranes out intact
- > Place placenta and membranes in receiver
- > Once the placenta is delivered, check by palpation that the fundus is firm, contracted and central. If the uterine fundus is not firmly contracted, perform uterine massage until a firm contraction is felt
- > If the membranes tear, gently examine the upper vagina and cervix wearing sterile gloves, and use sponge forceps to remove any pieces of membrane that are present

Physiological (expectant) management of third stage**Indications**

Physiological management of the third stage is suitable for women who have had a normal pregnancy without anaemia, spontaneous onset of labour, normal first and second stages of labour and no risk factors for PPH.

Process

- > Do not administer uterotonic agent at birth
- > Assess if active management is indicated (e.g. recommended if bleeding needs to be controlled)
- > Do not clamp the cord. If the baby has an APGAR ≤ 5 at 1 minute or a heart rate ≤ 60 bpm, the cord may need to be clamped and cut to facilitate resuscitation. If this is the case, switching to active management with administration of an uterotonic is advised



- > Maintain a warm, safe, private, dim, quiet environment with baby skin-to-skin. Note: covering the woman and her baby in warm blankets supports both physiological third stage and adequate thermoregulation in the newborn⁴¹
 - > Support initiation of breastfeeding
 - > Continually observe the woman as unobtrusively as possible⁴¹, including vaginal blood loss
 - > Do not handle the uterus or instigate controlled cord traction
 - > Encourage the woman to be upright to aid placental expulsion
 - > If the woman's condition is stable, await spontaneous expulsion of the placenta (i.e. maternal effort and gravity only). This is often preceded by a 'gush' of blood and the woman noting a 'full' feeling in her vagina. The placenta is normally birthed within 60 minutes
- Note: If the placenta is not birthed within 60 minutes or there is increasing blood loss, administer uterotonic and switch to active management (see [Prolonged third stage](#) below)
- > Once the placenta has been birthed, check by palpation that the fundus is firm, contracted and central. If the uterine fundus is not firmly contracted, perform uterine massage until a firm contraction is felt

Lotus Birth

The practice of lotus birth (umbilical non-severance) is **strongly discouraged** due to lack of research and potential for harm.²⁵ There is no established benefit of lotus birth.

Evidence on the safety of lotus birth is limited to case studies.^{25,42,43,44} Whilst some studies reported no adverse effects, the practice has been associated with increased rates of neonatal infection (omphalitis, idiopathic neonatal hepatitis, endocarditis), all of which may lead to neonatal septicaemia and subsequent death.

Lotus birth routinely includes:

- > Umbilical non-severance with the baby remaining attached to the placenta until the cord separates naturally
- > Placenta is washed, dried, salted (with/without additional herbs for odour reduction) and wrapped in breathable material

If a woman chooses lotus birth:

- > Ensure the woman (and her partner) have been informed about the increased risk of neonatal infection (and rarely, death), and that the practice is not supported by SA Health. This should be clearly documented in the woman's medical record
- > Respect her informed choice
- > Ensure the woman is aware of the process and supplies her own materials (hospitals will not provide this)
- > Provide information to the parent(s) on signs of infection and when to contact a healthcare provider
- > Advise of ongoing placental/cord/umbilical care requirements (e.g. change breathable material as required, continue to salt the placenta, avoid strain on the cord)

Prolonged third stage

The third stage of labour is diagnosed as prolonged if not completed within 30 minutes of the birth of the baby with active management and 60 minutes with physiological management.²

- > The situation should be assessed, including checking for contraction of the uterus, signs of separation and assessing whether the placenta is sitting in the vagina or not
- > Continue to observe for any bleeding
- > If the placenta has not separated 30 minutes after the birth with active management or 60 minutes with physiological management, seek medical review

Placenta sitting in the cervix or vagina

- > If the placenta is sitting in the lower uterus or vagina, deliver the placenta by controlled cord traction



Placenta trapped or adherent

- > Use appropriate measures to aid birth of the placenta
 - Give oxytocin if not given at the time of birth
 - Upright position (provided there is no haemodynamic instability)
 - Encourage skin-to-skin contact between mother and baby and early suckling
 - Attempt to deliver placenta by controlled cord traction
- > Intravenous access, complete blood picture and group and save may be required
- > Arrangements should be made to perform a manual removal of placenta in theatre if the placenta remains in situ.

Note: If at any time, there is ongoing heavy blood loss and the placenta cannot be delivered, arrange immediate transfer to theatre.

For further information on suspected adherent placenta following vaginal birth, see the *Morbidly Adherent Placenta Management* PPG available at www.sahealth.sa.gov.au/perinatal.

Management of the placenta post-birth

Complete gross examination of the placenta, membranes and cord (see *Histopathology Management of the Placenta* PPG for detail, available at www.sahealth.sa.gov.au/perinatal).

Histopathology management of the placenta

Send all placentas for histological assessment if any clinical indications are noted. See *Histopathology Management of the Placenta* PPG for detailed list of indications, available at www.sahealth.sa.gov.au/perinatal).

Retention of placenta for 7 days

Placentas that are not immediately sent for pathological examination should be refrigerated for one week in individually labelled plastic bags as per local procedure.

Release of a placenta for private use

If the woman requests to take her placenta home, she should be provided with information about the safe handling and disposal of the placenta in the home and sign the "Request for Release of Human Placenta" form. See the *Management of the Release of a Placenta for Private Use: SA Health Services* Policy available at www.sahealth.sa.gov.au/perinatal.



Traditional birthing practices regarding the disposal of the placenta vary among Aboriginal groups. These may include burying or burning of the placenta on Country to maintain spiritual connection to land/Country. This may be particularly important for women who are birthing away from Country.

Immediate postpartum care

The first few hours after birth should support physiological adaptation for both the mother and baby, breastfeeding and bonding.³ Undertake vigilant unobtrusive observation to monitor this adaptation and to assess mother-baby interaction and the woman's emotional response to birth.

Baby

- > Note the time of the birth
- > Dry the baby and stimulate as needed. Cover both baby and mother in dry warm towels/wraps
- > Assign an APGAR score at one and five minutes and assess need for/initiate resuscitation as required
- > If meconium stained liquor is present and the baby is vigorous, continue as normal. If the baby doesn't breathe effectively, minimise stimulation of the baby and transfer the baby to the resuscitaire after birth so that the cords may be visualised and any meconium seen below the cords can be suctioned under direct vision
- > Facilitate continuous skin-to-skin contact between the baby and mother immediately and for at least 1-2 hours or until after first breastfeed. This will assist with maintaining the newborn's temperature, oxygen transfer, bonding and breastfeeding

- > Attend initial examination (weight, head circumference, length and temperature, respirations and heart rate) to identify any major physical abnormality or problems that require referral within 4 hours of birth See *Postnatal: Care of the well woman and neonate* PPG available at www.sahealth.sa.gov.au/perinatal for details of initial and ongoing assessment
- > Document name, date of birth and hospital record number on identification bands, confirm correct identity with the mother or father before attaching to baby
- > All babies routinely direct room-in with their mother unless otherwise indicated
- > Refer to individual hospital criteria for indications to transfer a newborn to the nursery

Woman

- > Vital signs, blood loss and fundal position, tone and size should be checked every 15 minutes for the first hour after birth. See *Postnatal: Care of the well woman and neonate* PPG available at www.sahealth.sa.gov.au/perinatal for details of all observations, bladder management, postnatal care considerations and documentation required.
- > Offer a light meal, shower or sponge before transfer to the postnatal ward or home. In the case of planned birth at home, the midwife should remain with the woman for 4 hours post-birth

Genito-anal examination

- > The cervix, vagina, perineum and labia should be gently examined to identify any tears and assess need for suturing
- > In addition, a recto-anal examination following birth is now recommended for all women (including those with an intact perineum), and should be offered following a discussion of the benefits and risks associated⁴⁵
- > Verbal consent is required prior to the examination
- > Assessment and grading of perineal tears should be confirmed by a second experienced perinatal care provider

For full details on how to undertake the assessment, grading of perineal tears, perineal repair technique and postpartum perineal care, please refer to the *Perineal Care and Repair* PPG available at www.sahealth.sa.gov.au/perinatal.

Documentation

All documentation during labour and birth should be undertaken as contemporaneously as possible.

The **Rapid Detection and Response Maternal Observation Chart** (Form MR59G) should be used to record observations in the latent phase of first stage as well as postnatal observations.

The **partogram** should be used to record observations during active labour or following commencement of an oxytocin infusion prior to active first stage.

The **medical record** (case notes) should be used to describe assessment and decision-making.



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