South Australian Perinatal Practice Guidelines

Normal pregnancy, labour and puerperium

Antenatal care

Options of care

- Pregnancy and childbirth is a natural life event and in most cases a normal birth occurs
- Women with low risk factors should be cared for by midwives. Obstetricians should care for women with identified high risk factors
- Options of care should be offered to all women in accordance with their individual needs, including:
    - Midwifery continuity of care models e.g. Midwifery Group Practice, Birthing Centre, Continuity of carer
    - Shared or complete care with general practitioner and / or hospital clinic
    - Hospital clinic
    - Choice of private obstetrician

The Pregnancy SA infoline

- The Pregnancy SA Infoline provides a single point of contact for women booking their first antenatal appointment in metropolitan public hospitals
- The Infoline connects the woman to her closest public maternity service where an appointment can be made. At this first appointment, antenatal staff will discuss suitable birthing options
- Country residents who plan on birthing in the country should continue to contact their local GP or health service to make their first antenatal appointment
- Alternatively country residents who plan on birthing in a metropolitan public hospital should contact their GP or the Pregnancy SA Infoline to book their first antenatal appointment
- Women who require specialist perinatal care are not required to call the new service. Referral to specialist services can be done in the usual way
- Call your GP or the Pregnancy SA Infoline: 1300 368 820. Available Monday to Friday, 8.30 am to 5.00 pm, excluding public holidays

South Australian Pregnancy Record (SAPR)

- The use of the SAPR is endorsed by the Department of Health as a complete record of the woman's antenatal care
- Women who are pregnant are required to carry their SAPR at all times and bring their SAPR to each antenatal or general practitioner (GP) visit or any admission to hospital
- The SAPR will be added to the woman's hospital medical record at admission for birth and will remain the property of the hospital
- A copy may be given to the woman on request

Clinic visits

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First contact

- At the first contact, arrangements should be made for the first antenatal visit, which requires a long appointment and should ideally occur within the first 10 weeks

Frequency of visits

- Research suggests that antenatal midwife care of women with uncomplicated pregnancies is being extensively implemented with economic benefits for health institutions (Villar 2003)
- The frequency of visits should be in accordance with the woman's needs. For example, a healthy woman in her second pregnancy need only attend for a few visits (e.g. 5-8)
- Suggested antenatal visits for first pregnancy are:
    - Booking visit; 19-20, 24, 28, 32, 36, 38, 40 and 41 weeks
    - Women in successive pregnancies may attend less often

First visit

- Usually occurs with a midwife within the first ten weeks of gestation

Process

Following appropriate explanation

- Complete South Australian Pregnancy Record (SAPR), including personal history, family history, significant factors, past pregnancies, LMP cycle
- Complete Edinburgh Postnatal Depression Scale (EPDS) and AnteNatal Risk Questionnaire (ANRQ) with the woman at booking and refer as appropriate (for further information on screening tools, refer to the PPG 'screening for perinatal anxiety and depression)
- Complete Smoke-free Pregnancy Assessment and Intervention information sheet (see in PPG 'Specific drugs in pregnancy-tobacco').
    - Offer women who smoke referral for smoking cessation interventions / supports e.g. Quitline 13 7848
- Note any allergies and document in relevant areas of case notes
- Calculate and document estimated date of delivery (EDD)
- Offer dating ultrasound if dates unknown or uncertain
- Attend and document medical examination in SAPR, including date, age, parity, booking blood pressure, weight and height, cervical smear (if greater than two years since previous normal smear), heart and lungs assessment, and breast awareness
- Use weight and height to calculate body mass index (BMI) and document in SAPR. (See PPG 'Women with a high body mass index'). Women with a BMI < 17 (see PPG 'Eating disorders in pregnancy') or > 40 or weight above 100 kilograms may require additional care during pregnancy
    - Appropriate counselling as indicated (e.g. balanced diet, exercise)
    - Consider dietician review
    - Arrange anaesthetic referral for women with a BMI > 40 (particularly if short stature)

Recommendations for weight gain in pregnancy by pre-pregnancy BMI

Source	BMI

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	<18.5	18.5-24.9	25-29.9	30-34.9	35.9-39.9	≥ 40
SOGC 2010	12.5-18 kg	11.5-16 kg	7-11.5 kg	7 kg	7 kg	7 kg
IOM 2010	12.7-18.1 kg	11.3-15.9 kg	6.8-11.3 kg	5-9 kg	5-9 kg	5-9 kg
Cedergren 2007	4.0-10 kg	2-10 kg	> 9 kg	> 6 kg	> 6 kg	> 6 kg
Bodnar et al. 2010				9.1-13.5 kg	5-9 kg	2.2-< 5 kg
Crane et al. 2009		11.5-16 kg	7-11.5 kg	7-11.5 kg	7-11.5 kg	7 kg

NHMRC endorsed Clinical Practice Guidelines-Antenatal Care-first trimester consultation draft May 2011

- Give women verbal and written advice about weight gain during pregnancy that is appropriate to their pre-pregnancy BMI
- MSSU (for further information on asymptomatic bacteriuria – refer to the PPG 'urinary tract infection in pregnancy')
- Offer available birthing options in accordance with the woman's needs
- Offer screening for vitamin D insufficiency to at risk women (see PPG 'Vitamin D deficiency')
- Offer information on recommendations for vitamin and mineral supplementation in pregnancy (see PPG 'vitamin and mineral supplementation in pregnancy')
- Offer screening tests for chromosomal anomalies:
  - 1st trimester screening – nuchal translucency 11+0 to 13+6 weeks and bio-chemistry from 9+0 to 13+6 weeks to detect risk for Downs syndrome
  - 2nd trimester screening – biochemistry at 14+0 to 20+6 weeks for detection of Neural tube defect (NTD) and Downs
  - Refer to: www.wch.sa.gov.au/samsas.html for further information about Maternal Serum Antenatal Screening in the first or second trimester

If the 1st trimester screening demonstrates low risk the woman should not be offered 2nd trimester serum screening.

- Morphology ultrasound at 18-20 weeks
- Organise booking bloods and screening where appropriate
- Provide explanations of antenatal handouts
- Discuss Parent Education Classes

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- Discuss any general health issues – healthy lifestyle programs e.g. Quit
- Advise the woman to have oral health checks and treatment, if required
- Assess the need for referral to any other services e.g. Physiotherapy, Social Worker, Mental Health liaison, DASSA, Anaesthetist, Physician, Obstetric Consultant
- Provide the opportunity for the woman to voice any questions or concerns
- Ensure the woman has her SAPR with her and organise time for next appointment

Booking Bloods

- Following appropriate explanation and verbal consent blood for the following tests should be obtained:
    - Complete blood picture
    - Blood group and antibody screen
    - Rubella screen
    - Trepinostika screening assay (syphilis) (for further information, refer to the PPG 'Syphilis in pregnancy')
    - Hepatitis B screen (for further information, refer to the PPG 'Hepatitis B in pregnancy)
    - Hepatitis C screen (for further information, refer to the PPG Hepatitis C in pregnancy)
    - HIV test (for further information, refer to the PPG 'HIV in pregnancy')
- Document in SAPR that verbal consent has been obtained for viral infection screens
- There are some tests that may be offered to specific groups:
    - Screening for haemoglobinopathies (sickle cell disease or thalassaemia)
    - Chlamydia (offer cervical swab screening to women living in areas with a high prevalence of sexually transmitted infections)
    - Bacterial vaginosis (diagnosis and early treatment < 20 weeks may be beneficial for women with a previous preterm birth)
    - Varicella
    - Haemoglobin electrophoresis (thalassaemia)
    - Ferritin (for further information, refer to the PPG 'women who decline blood transfusion')
    - Vitamin D (for further information, refer to the PPG 'Vitamin D deficiency')
    - Mantoux skin test (for further information, refer to the PPG 'Antenatal screening for Mycobacterium tuberculosis')

Documentation at subsequent visits

- At each visit, the following details **must be documented in the SAPR (pages 15 & 16) and hospital antenatal medical record where specified:**
    - Date of attendance
    - Gestation in completed weeks
    - Symphysio-fundal height in centimetres, also recorded on graph in SAPR
    - Weight

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- Blood pressure (measured on the right arm with the woman seated)
- After 30 weeks gestation, presentation and station
- Fetal heart and fetal movements. If the number of fetal movements (after 28 weeks) is reduced, especially if the woman has felt < 10 movements in 2 hours, she should be referred for further assessment to a facility which has the capability of CTG monitoring and / or ultrasound scanning (for further information, refer to the PPG 'reduced fetal movements')
- Laboratory test results
- Legible signature
- Time of next attendance

- Record results in SAPR following adequate explanation of results with the pregnant woman
- Document in the medical record and SAPR any deviation from normal or concerns about the woman's clinical condition and arrange referral to the appropriate service or Registrar / Obstetrician
- Refer the woman to Registrar / Obstetrician for review if any abnormalities of blood pressure, growth or routine tests are identified

Subsequent visits

- Refer to the schedule of visits for each hospital
- Healthy lifestyle programs may be offered during antenatal visits e.g. Quit

19 – 20 weeks

- Morphology ultrasound (usually at 18 weeks)
- Calculate final expected date of birth

26 – 30 weeks

- Complete blood picture
- Oral glucose challenge test (OGCT)
- Antibodies
- Prophylactic anti D to be given to Rhesus negative women having their first baby who have reached 28 weeks gestation
- Discussion / education with woman on the benefits of breastfeeding

34 – 36 weeks

- 2nd dose of prophylactic anti D to be given to Rhesus negative women at 34 weeks gestation
- Repeat complete blood picture if at risk of anaemia
- Visit with Consultant Obstetrician is required at 36 weeks for GP shared care
- Each hospital has a guideline for the screening and management of Group B Streptococcus colonisation. Refer to the particulars of each hospital

41 weeks

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- Discuss induction of labour (for further information, refer to the PPG 'Prolonged pregnancy')
- **Supplements in pregnancy**
- For further information on supplements in pregnancy see PPG 'vitamin and mineral supplementation in pregnancy'
- Iodine supplementation 150 micrograms daily is recommended (see PPG 'vitamin and mineral supplementation in pregnancy')
- Offer screening for vitamin D insufficiency to at risk women (see PPG 'Vitamin D deficiency')
- Supplemental iron will only be required after proof of iron deficiency (see PPG 'anaemia in pregnancy')
- Folic acid 0.5 mg / day should be taken at least one month before conception and until 12 weeks gestation. If the woman is at increased risk of neural tube defect, on antiepileptic drugs or has hyperhomocysteinaemia the dose should be 5 mg / day(see PPG 'vitamin and mineral supplementation in pregnancy')

Normal labour

Definition

- Normal labour at term is characterised by 'regular, rhythmic, progressive uterine contractions that produce effacement and dilation of the cervix'
- Where the estimated gestational age is accurate, it is expected that labour will begin within two weeks of the estimated date of delivery (EDD) (Farrington & Ward 1999)

The role of caregivers

- Defined by the model of care chosen by the woman appropriate to her individual needs. Each caregiver should be aware of the scope of their practice and appropriately inform and coopt others as required
- All women should be treated with respect and should be in control of, and involved in what is happening to them
- Establish any communication needs and maintain a calm and confident approach

Management

- The Department of Health (DH) recommends all women in labour should be cared for on a 1:1 woman to midwife ratio (DHS 2000)

Normal labour admission

Interview the woman and review SAPR and case notes for:

- Antenatal history including psychosocial
- Relevant medical history
- Specific recommendations for birth e.g. Obstetric, Physician or Anaesthetic considerations

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- Medications or substance use
- Drug allergies
- Blood group and ABO and Rhesus D grouping
- Last haemoglobin, hepatitis B, hepatitis C and HIV
- Group B streptococcal status
- Any relevant ultrasound findings
- Preferences in relation to her labour care

History

- Time of onset, frequency and character of contractions
- Membranes intact or ruptured

General observations

- Pulse, blood pressure, temperature, respirations
- Note colour of liquor and report blood or meconium

Abdominal palpation to determine:

- Fundal height in centimetres
- Position
- Lie
- Station of the head
- Presentation

Listen to fetal heart rate

- Document appropriately

Urinalysis

- Document appropriately

If indicated, perform vaginal examination on admission

- Note condition of the perineum
- State of the pelvic floor
- Position of the cervix, as well as the consistency, length and dilatation
- Effacement and application of the cervix to the presenting part
- Membranes intact or ruptured
- The presentation and position of the presenting part
- Note the presence of caput and moulding
- The station of the presenting part in relation to ischial spines
- Size and shape of the pelvis
- Document findings in relevant place in the case notes and on the partogram

Observations – use of the partogram for documentation of observations if established in labour

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Fetal heart rate

- In early labour, 1 hourly or more frequently if warranted
- Once established in labour, 15 minutely (throughout and after contraction) or in accordance with hospital policy
- CTG monitoring only where clinically indicated
- After excluding gestation < 34 weeks gestation, Hepatitis B, Hepatitis C, HIV, thrombocytopenia or malpresentations, consider applying a fetal scalp electrode in the following:
    - Significant meconium stained liquor
    - Significant loss of contact on EFM

Maternal pulse

- Should be taken with every fetal heart to confirm maternal and fetal rates are separate
- An elevated maternal pulse is an early indicator of a change in maternal condition

State of membranes, and / or liquor

- Ask the woman hourly if she has any PV loss
- Check pad following rupture of membranes for blood or meconium and listen to the fetal heart rate

Descent of the presenting part

- Check by abdominal palpation every 2 hours after the woman has emptied her bladder

Contractions

- Note frequency and duration (15-30 seconds, 30-45 seconds, > 45 seconds)
- Strength (mild, moderate, strong)
- Resting time should be noted by palpation for 10 minutes, every hour in early labour and every ½ hour in established labour

Temperature

- Record every 4 hours (hourly if hypothermia or hyperthermia)
- Report temperature ≥ 38° Celsius or ≤ 35° Celsius

Blood Pressure

- If not established in labour, blood pressure check on admission and then every four hours
- Established labour – every hour unless indicated otherwise

Respiratory rate

- Established labour – every hour unless indicated otherwise

Urine

- Explain to the woman the benefits of emptying her bladder frequently (at least every two hours) and encourage this practice (see bladder management below)
- Observe and / or test urine for blood, protein and ketones as clinically indicated
- Record and report if urine is blood stained

Non-pharmacologic and pharmacologic management of labour

- The woman's labouring environment, presence of companion support persons and provision of continuous care by the primary caregiver have all been shown to positively influence women's ability to manage their labour (Hodnett 2000)

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- Factors such as the woman's desire to maintain personal control and participate fully in her labour and birth as well as a fear of pharmacological methods of pain relief may also influence the way she wishes to manage her labour (Enkin et al. 2000)

Non-pharmacological methods

Offer

- Physical methods such as upright postures, sitting, standing and mobilising, relaxation, attention focusing and distraction, touch and massage, heat, breathing awareness, position changes, warm water, music
- Aromatherapy using lavender oil
- Acupuncture and hypnosis where available in controlled settings
- Transcutaneous electrical nerve stimulation (TENS) in controlled settings

Pharmacological methods

- Nitrous Oxide and Oxygen
- Pethidine
- Fentanyl or Remifentanyl (in controlled settings)
- Epidural or spinal anaesthesia

Diet and fluids

- Gastric emptying is delayed during labour
- Diet and fluids are not restricted for women having normal, uncomplicated labours
- The restriction of diet and fluids in labour derives from important concerns related to the risks of gastric content regurgitation into the lungs during general anaesthesia (Singata and Tranmer 2002)
- Consider the role of isotonic calorific drinks versus diet in labour where risks are identified
- Women in labour should be regularly assessed to determine hydration status especially where loss of fluids due to vomiting is a problem

Best practice notes

- Administer oral ranitidine 150 mg every 12 hours to women who are at greater risk of aspirating during anaesthesia (e.g. obesity, hiatus hernia, severe active reflux in pregnancy), and those for whom surgical intervention in labour becomes a relatively high likelihood (e.g. severe pre-eclampsia, significant signs of fetal compromise, antepartum or intrapartum haemorrhage, multiple pregnancy, breech presentation) (Power 1987; Ormezzano et al. 1990; Vila et al. 1991; Hood, Dewan 1993)
- If oral medication is not possible (vomiting) or surgical intervention is likely within the next 2 hours, ranitidine 50 mg may be administered by slow intravenous injection (diluted in 20mL of sodium chloride 0.9 % and given over 5 minutes)
- Avoid the use of particulate antacids such as Mylanta® or Gaviscon®

Activity

- Woman's choice
- Preferable for the woman to mobilise or sit out of bed (see non pharmacological methods of pain relief)
- Research has found that upright or lateral positions reduce the length of 2nd stage (Gupta et al. 2004)

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- Labouring women should not lie flat on their back because aortocaval compression can occur; creating compromised uterine blood flow and supine hypotension which may result in fetal compromise (Page 2000)

Bladder management

- Women should be encouraged to void every 2 hours in labour with a low threshold for catheterisation if unable to void (unable to void on 2 occasions or a palpable bladder) (Birch et al. 2009)
- Post void residual volume is greater during labour in women with epidural analgesia than in women who use no or other pain relief methods (Weiniger et al. 2006). Consider the need for an indwelling catheter for women in labour with an epidural
- Women who have an operative birth with an epidural or spinal block should have an indwelling catheter until 6 hours after birth
- After birth, encourage all women to void within 1-2 hours – maximum 6 hours
- Discuss with the woman the importance of ensuring urinary function returns to normal (for further information, refer to the PPG 'Postpartum bladder dysfunction')

Duration of first stage

- Women should be informed that, while the length of *established* first stage of labour varies between women, first labours last on average 8 hours and are unlikely to last over 18 hours. Second and subsequent labours last on average 5 hours and are unlikely to last over 12 hours (NICE 2007)
- A diagnosis of delay in the established first stage of labour needs to take into consideration all aspects of progress in labour and should include:
    - Cervical dilatation of less than 2 cm in 4 hours for first labours
    - Cervical dilatation of less than 2 cm in 4 hours or a slowing in the progress of labour for second or subsequent labours
    - Descent and rotation of the fetal head
    - Changes in the strength, duration and frequency of uterine contractions (NICE 2007)
- When delay in first stage is confirmed in nulliparous women, consult obstetrician and consider the need for Syntocinon® augmentation. Explain to the woman that the use of oxytocin following spontaneous or artificial rupture of the membranes will bring forward her time of birth, but will not influence the mode of birth or other outcomes (NICE 2007)

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Duration of second stage

- In cases where women have a functional epidural insitu, research has found no discernable adverse maternal or fetal outcomes in relation to prolonged second stage up to 4.9 hours
- Allowing women in second stage to rest and await fetal descent has been linked to beneficial effects such as:
    - Reduced maternal fatigue in primigravidas
    - Fewer decelerations
    - Decreased pushing time (Hansen et al. 2002)
- The second stage of labour should be characterised by spontaneous pushing, freedom of mobility, upright posture and a flexible time frame (Walsh 2000)
- (for further information, refer to the PPG ‘delays in the second stage of labour’)

Normal vaginal birth

Process

- Ensure nearby access to a neonatal resuscitation trolley
- A clean drape should be placed under the woman
- Note the number of pads on the tray
- Where progress is uncomplicated, the woman should be encouraged to spontaneously push. Directed pushing should be reserved for those situations where epidural analgesia interferes with the Ferguson reflex to spontaneously bear down
- Have the baby wrap nearby
- Assist with the birth of the baby in the most appropriate manner for the position the woman has adopted
- If meconium stained liquor is present and the baby is vigorous, then no special action is required. If the baby doesn’t breathe effectively, minimise stimulation of the baby and transfer the baby to the paediatrician / extended practice nurse or neonatal nurse practitioner soon after birth so that the cords may be visualised and any meconium seen below the cords can be suctioned under direct vision
- Draw the head slightly forward and feel the neck checking for the presence of cord. If the cord is loosely around the neck, slip over the head or deliver the shoulders through the loop. If the cord is tightly around the neck or more than once around the neck clamp the cord with two black’s forceps, cut and loosen

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- Await restitution and external rotation. If external rotation does not occur the accoucheur can aid this by placing the palms of the hands flat over the baby's ears and gently turning in the appropriate direction
- Deliver the anterior shoulder by gentle traction in the direction of the anus.
- Administer oxytocic for active management of third stage
- Deliver the posterior shoulder by gentle traction in the direction of the mother's abdomen, observing the perineum
- Deliver the trunk by supporting the baby's head with one hand and sliding the other hand underneath the baby to the buttocks, following the curve of the pelvis
- Note the time. Using skin to skin contact, place the baby in an appropriate position so that the mother can touch and hold her baby when she is ready and to facilitate early breastfeeding. Allow the parents to identify the sex of the baby
- Assign an apgar score at one and five minutes
- Clamp and cut the cord for active management of third stage. The cord should not be clamped earlier than is necessary, based on a clinical assessment of the situation (see below)
- Collect cord bloods and send for group rhesus factor and direct Coombs test if indicated
- Collect cord blood gases if indicated
- Placenta to histopathology as indicated

Occupational health and safety

- Employ standard precautions when managing women in labour

Third stage management

Literature review

- Third stage management aims to minimise serious adverse effects such as blood loss and retained placenta with minimal interference to the physiological process (Enkin et al 2000)
- Following birth, placental separation usually occurs within ten minutes, however it may take thirty minutes or longer (Archie & Biswas 2003)
- Delivery of the third stage may be through active or expectant management.
- Active management of third stage has been associated with less blood loss and a reduced risk of post partum haemorrhage (Prendiville 2003)
- Active management of the third stage of labour: FIGO (2004) and WHO (2006) describe active management as giving the oxytocic soon after birth and delivering the placenta by controlled cord traction, followed by uterine massage
- Delayed cord clamping (> 30 seconds) may benefit baby by reducing anaemia, and particularly the preterm baby by allowing time for transfusion of placental blood to baby. For the mother, delayed cord clamping does not increase the risk of postpartum haemorrhage
    - However, early clamping may be required if there is postpartum haemorrhage, vasa praevia or placenta praevia, if there is a tight nuchal cord or if baby is asphyxiated and requires immediate resuscitation (WHO 2006; RCOG 2011)
- Expectant management of the third stage of labour: placenta delivers spontaneously with gravity or nipple stimulation

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- Although the recommendation for management of third stage is active, in uncomplicated labours (no oxytocin or epidural) where the woman's history is also uncomplicated, the woman may exercise her choice of expectant (physiological) management of the third stage

Active and expectant (physiological) management of the third stage

Active management of third stage – CCT

- FIGO (2004) and WHO (2006) describe 3 components in active management:
  - Administration of a uterotonic agent soon after birth
  - Delivery of the placenta by controlled cord traction
  - Uterine massage after delivery of the placenta, as appropriate
  - This combination of measures has not been constant. Early cord clamping (within 30-60 seconds) has often been included in these measures. Current cord clamping recommendations are to clamp and cut the cord at around 2-3 minutes. However, early clamping may be required if the baby is asphyxiated and requires immediate resuscitation (WHO 2006).
- Randomised controlled trials (Prendiville et al. 1988; Rogers et al. 1998) and common sense indicate that the main effective element in all active management guidelines is the administration of the uterotonic agent

Process

- Ensure an oxytocic is administered at birth. Intravenous Syntocinon® is the treatment of choice and should be given slowly (at least over 1 minute) to avoid hypotension
- The cord is clamped and cut within 2-3 minutes of birth
- Obtain cord bloods and send for group Rhesus factor and direct Coombs test if indicated
- Reclamp the cord close to the vulva
- Confirm a strong uterine contraction is present. If no contraction is present, await contraction before applying controlled cord traction (ensure counter-pressure on the uterus above the symphysis pubis before applying controlled cord traction). If no uterine contraction is present after ten minutes, perform uterine massage to stimulate a contraction and expel any clots or repeat single administration of oxytocic
- Cord traction on an attached placenta without a uterine contraction may result in uterine inversion
- 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 during controlled cord traction
- Apply controlled cord traction downwards (45˚) and then outwards and upwards as placental advancement occurs
- 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
- Placental separation is confirmed as the placenta appears at the vulva
- Maintain tension on the cord and deliver the placenta gently and slowly to ease the membranes out intact

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- If the membranes tear, gently examine the upper vagina and cervix wearing sterile gloves, and use a sponge forceps to remove any pieces of membrane that are present
- Place placenta and membranes in receiver (kidney dish)
- Once the placenta is delivered, check by palpation that the fundus is firm and contracted (and central). If the uterine fundus is not firmly contracted, perform uterine massage until a firm contraction is felt
- Check the placenta is complete

Expectant (physiological) management of third stage

Process

- Usually involves no administration of an oxytocic agent at birth
- Do not clamp the cord unless clinically indicated i.e. if cord is around the baby's neck or active resuscitation is required
- Assess if active management is indicated
- The woman usually remains upright to aid placental expulsion
- Do not handle the uterus or instigate controlled cord traction
- Continually observe the woman including vaginal blood loss
- If the woman's condition is stable await spontaneous expulsion of the placenta
- Once the placenta has been delivered check by palpation that the fundus is firm and contracted (and central)
- Check the placenta is complete

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 (NICE 2007)

Placenta undelivered (trapped or adherent)

- 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
- Use appropriate measures to aid delivery of the placenta
  - Give Syntocinon® 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

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- If the placenta is not delivered within 30 minutes, inform medical staff (for further information, refer to the PPG 'Postpartum haemorrhage - placenta undelivered')
- Intravenous access, complete blood picture and group and save may be required

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 partially separated

- This is potentially the most dangerous situation with the possibility of significant bleeding. Delivery by controlled cord traction may be attempted but only if the uterus is well contracted. If the uterus is not contracted, administer intravenous Syntocinon® 10 IU and deliver the placenta by controlled cord traction once the uterus is contracted
- An intravenous 40 IU Syntocinon® infusion may be needed after delivery of the placenta if the uterus is not well contracted
- If there is ongoing heavy blood loss and the placenta cannot be delivered, arrange immediate transfer to theatre

Placenta not separated

- If the placenta has not separated 30 minutes after the delivery, ask for medical review.
- Continue to observe for any bleeding
- Arrangements should be made to perform a manual removal of placenta in theatre (for further information, refer to the PPG 'Peripartum prophylactic antibiotics')

Uterine massage in the immediate postpartum period

- Uterine massage immediately after delivery of the placenta is now recommended as part of routine management of the third stage (FIGO 2004; WHO 2006)
- Explain to the woman that uterine massage is uncomfortable but the action may be necessary to prevent ongoing bleeding
    - Immediately after delivery of the placenta (active or physiological management), check the size and tone of the fundus of the uterus and massage as required until a contraction is sustained
    - Palpate the abdomen for a contracted uterus every 15 minutes for the first hour and repeat uterine massage as needed during the first 2 hours
    - Ensure that the uterus does not become relaxed or boggy after uterine massage

Best practice notes

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- When using active management 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
- Never apply cord traction without applying counter-traction above the pubic bone on a well contracted uterus
- Continue to observe and record the amount of blood loss
- Ongoing observation of maternal condition for clinical signs of shock
- Inform medical staff if the placenta is not delivered after thirty minutes. Medical review to assess the need for manual removal of placenta in theatre is required (for further information, refer to the PPG 'retained placent'a)
- Ensure appropriate measures to aid delivery of the placenta (for further information, refer to the PPG 'retained placenta') (Farrington and Ward 1999)
- Recheck for a contraction or signs of separation or check digitally for the presence of the placenta in the vagina before recommencing controlled cord traction, when using active management
- If the cord separates and the placenta is in the vagina, encourage maternal effort to deliver the placenta

Immediately postpartum

Baby

- Apgar score at one and five minutes
- Document name, sex, date of birth and hospital record number on identibands, confirm correct identity with the mother or father before attaching to baby
- Attend initial examination to identify any major physical abnormality or problems that require referral
- Encourage skin to skin contact for at least 1 hour and early breastfeeding
- Record weight, head circumference, length and temperature, respirations and heart rate soon after the first hour of birth
- All babies routinely direct room in with their mother unless otherwise indicated
- Refer to individual hospital criteria for indications to transfer a newly born baby to the nursery

Mother

- Immediately after delivery of the placenta (active or physiological management), check the size and tone of the fundus of the uterus and massage as required until a contraction is sustained and observe the perineum for excessive blood loss
- Palpate the abdomen for a contracted uterus every 15 minutes for the first hour and repeat uterine massage as needed during the first 2 hours
- Frequent maternal observations should be taken as appropriate, including pulse, respirations, blood pressure, fundus (see above) and PV loss as well as state of perineum. An initial temperature should also be taken and if elevated repeated
- Offer a light meal, shower or sponge before transfer to the postnatal ward
- Consider if there is any indication for an indwelling catheter e.g. postpartum haemorrhage with 40 units Syntocinon infusion in progress, grossly swollen labia or trauma around the urethra (see bladder management above)
- Document first and second voids, describing volume, sensation, flow or any hesitancy in initiating void see PPG 'postpartum bladder dysfunction'
- Following medical review of both the woman and her baby, early discharge is an option for women with no complications four to six hours after birth

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- The woman and her newborn baby should remain in the delivery / birthing room for at least one hour following birth

Documentation

- Ensure all relevant documentation is complete before transfer / discharge

Postpartum management

Management

- Care following birth is primarily to allow time for the mother to recover after birth and develop parenting skills to confidently care for her baby
- Care of the woman should be individualised according to her needs and documented on the appropriate care plan
- Discharge planning is ongoing from time of admission to discharge
- Early discharge is an option for women with no complications after birth

Initial management

- Receive labour and birth details etc

Maternal Checks

- Observe vital signs
- Fundal consistency and position
- Lochia - amount and colour
- State of perineum - bruising, and swelling
- Check if the woman has passed urine since birth (for further information, refer to the PPG 'Postpartum bladder dysfunction')
- Observation frequency as clinically indicated

Baby Checks

- Check baby's identification (according to individual hospital system) to ensure that the name, spelling, sex and hospital record number are correctly identified
- Document above as per individual hospital criteria
- Review the woman's medical / obstetric history in SAPR and case notes
- Review the SAPR and case notes for any significant psychosocial needs e.g. women with issues related to mental health, substance abuse, domestic violence, history of sexual abuse, and previous abuse of an infant, intellectual disability, attachment, physical disability or serious / chronic medical problems
- If any of the above factors are identified, the midwife should facilitate notification of the woman's admission to the appropriate allied health supports e.g. Social Worker, Mental Health Worker, Continence Nurse Advisor, Child Protection or midwife from Warinilla Clinic
- Appropriate information leaflets (as per individual hospital criteria) should be given to the woman following admission e.g. Leaflets on Hep B immunisation, medicare forms etc
- Encourage maternal / infant bonding and adequate periods of rest

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Ongoing management

- The midwife is the primary caregiver

Observations

- As per clinically indicated

Advise the woman in relation to:

- Personal hygiene
- Perineal care
- Good bladder and bowel care
- Parenting skills
- General care of her baby
- Feeding
- Offer information in relation to breastfeeding principles and support services
- Offer information in relation to artificial feeding principles and practice only if mother is artificially feeding
- Offer information in relation to lactation suppression if required
- Offer and obtain written consent for Hearing Screen in participating hospitals
- Offer information on baby resuscitation e.g. video
- Continue mother and baby discharge planning and complete documentation.
- Encourage early discharge if no complications
- Early postnatal transfer to other hospitals can be arranged following review of both mother and baby by appropriate medical officers (as per individual hospital criteria)
- The midwife should phone the receiving hospital before transfer to verify bed availability
- Complete discharge summary and transfer letters
- Contraception
- Before discharge, the midwife should discuss options of contraception with the woman
- Family Allowance, Birth Registration and Medicare Enrolment forms
- Before discharge, the midwife should ensure that the woman understands the process for completion and lodging of the above forms
- Provide information for Community Services

Discharge management

- Report any deviation from normal to the Medical Officer
- The individual hospital's discharge planner / postnatal care pathway should be completed before discharge
- Ensure postnatal follow up arranged with GP
- Offer domiciliary midwife visit as per individual hospital criteria
- If the woman has consented to the mother-carer program, early discharge may be arranged within 24 hours. Regular home visits by the domiciliary midwife should be arranged for these women before discharge

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- If early discharge, ensure Hearing Screen is offered by domiciliary midwife
- Inform the woman that, as part of the Child and Family Health (CaFH) Services Universal Home Visiting Program, she will be contacted to make an appointment for a home visit with the CaFH nurse within the first two weeks
- In high risk infant situations, a referral should be made to CaFH for inclusion in the two year sustained home visiting program (link to chapter 149 women with significant psychosocial needs)
- Complete the personal health record book (neonate) and give to the woman with explanation
- The midwife or medical officer should complete a discharge summary

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Useful web sites

RANZCOG College Statements. Available at: http://www.ranzcog.edu.au/publications/collegestatements.shtml

RANZCOG college statement: Antenatal Screening Tests. Available at: http://www.ranzcog.edu.au/publications/statements/C-obs3.pdf

RANZCOG college statement: Management of the third stage of labour. Available at: http://www.ranzcog.edu.au/publications/statements/C-obs21.pdf

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A guide to tests and investigations for uncomplicated pregnancies. Available at: http://www.3centres.com.au/tests_frame.htm

Antenatal Care: NICE guideline. Available at: http://guidance.nice.org.uk/CG6/niceguidance/pdf/English

Postnatal Care: NICE guideline. Available at: http://guidance.nice.org.uk/CG37/guidance/pdf/English

Abbreviations

CaFH	Child and Family Health
DH	Department of Health
EDD	Estimated date of delivery
FIGO	International Federation of Gynaecologists and Obstetricians
e.g.	For example
GP	General Practitioner
ICM	International Confederation of Midwives
mg	Milligram(s)
mL	Millilitre(s)
NICE	National Institute for Clinical Excellence
OGCT	Oral glucose challenge test
PV	Per vaginam
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
SAPR	South Australian Pregnancy Record
TENS	Transcutaneous electrical nerve stimulation
WHO	World Health Organisation

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