5 Postnatal

Introduction

Traditional birth assistants and health staff can offer a range of postnatal care for mothers and babies, which may include traditional ceremonies, particularly on return to their community.

In traditional care, after the birth the woman or a birth assistant prepared warm ash or sand to pack onto her abdomen, between her legs, and at the base of her spine. The warmth relieved pain, helped stop bleeding, and reduced the smell of blood and the placenta (baby bag).

After the birth, the mother would take part in a smoking ceremony to give her energy and strengthen her body, provide protection for the mother and the baby, and give the baby a good start in life. Leaves of the mulga tree, emu bush (yellow and pink flowers), stringy bark, or other traditional plants native to a region, were used to make the smoke. In some places a shelter was built with the smoking fire inside. The woman sat over the smoking leaves near the fire to smoke her abdomen and breasts. Smoking the breasts was thought to help the flow of milk.

All parts of baby were held briefly in the smoke. The ceremony was used to invoke health and acceptable social behaviour in the child. For example, if you smoke the baby's mouth, the child will not swear later. Women may say that a child is aggressive because they were born in hospital and put into water, rather than being smoked and put in the earth.

Aboriginal women traditionally breastfed well into their baby's second or third year. The whole community was accustomed to seeing babies being breastfed. Girls and young women learned about breastfeeding by watching, and would often care for other women's babies. Mothers often fed each other's babies.

Postnatal care of mother

Check mother and baby every day for 5 days then as needed until 6–8 week postnatal check (*p219*). Also see *Postnatal care of baby (p228*).

Check file notes for

- Discharge summaries for mother and baby
- Woman's blood group, baby's blood group
  - If woman Rh negative, check Kleihauer results, need for further RhD-Ig
- FBC results (Hb), syphilis serology
- Medical, mental health, social problems during pregnancy for follow-up
- Postnatal immunisations needed — see local guidelines

Ask

- How she is feeling
- How baby is going, how she is managing care of baby
- Breastfeeding, breast and/or nipple pain, other problems
- Pain — after-birth pains, abdominal or pelvic, perineal, wound (if present), headache, neck or back, calves
- Problems — fever, vaginal bleeding or discharge, urinary problems, incontinence (*p318*), bowels (eg constipation or leakage)
- Mood changes, symptoms of depression or anxiety (*p221*)
- Plans for contraception (*p333*) and baby-spacing

Check

- Temp, pulse, RR, BP, O_2 sats — work out REWS (*p8*)
- Hb — if less than 110g/L see *Anaemia (weak blood) in adults* (*CARPA STM p303*)
- If diabetes in pregnancy — see *Follow-up of medical problems in pregnancy* (*p209*)
- Urine — midstream urine U/A. If positive or symptoms of UTI — MC&S
- Breasts, nipples — cracked or sore nipples, redness, inflammation, breast lumps or pain, issues with breastfeeding (*p204*)
- Uterus — feel for tenderness, firmness. **Do not** feel if Caesarean section
  - Moves down from umbilicus (descends), getting smaller by 1cm a day
  - Breastfeeding helps uterus move down
  - By 6 weeks — usual size in pelvis, not felt in abdomen
- Vaginal loss — colour, amount, smell (ask and look)
  - Bright blood loss for 2–3 days, then dark to pink, gets less over 2 weeks. May have light bleeding for 4–6 weeks. Should stop by 6 weeks
  - Breastfeeding usually reduces length of bleeding time
  - Not normal — blood clots, smelly vaginal loss, heavy bleeding

If heavy bleeding starts again — see *Secondary postpartum haemorrhage* (*p212*).

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- If Caesarean section — check abdominal wound. Sutures removed, healing, redness, inflammation
- Perineum — clean, not infected, changing pads often, piles (haemorrhoids)
  - If tear or episiotomy — check healing
  - If attempted vaginal birth before Caesarean section — perineal trauma
- Legs — signs of blood clots (*p138*). Check for fever, pain, swelling in calf muscles
- Baby — see *Postnatal care of baby* (*p228*)

Do

- If woman RhD negative with no Anti-D antibodies and baby RhD positive — RhD-Ig usually given in hospital within 72 hours of birth (IM 625 international units). If not given — **medical consult**
- If Hb less than 110g/L — see *Anaemia (weak blood) in adults* (*CARPA STM p303*)
- **Iodine** oral once a day — 150microgram. Can be in multivitamin designed for pregnancy and breastfeeding
  - If woman has thyroid condition — **medical consult**
- **Medical consult** about following up medical problems (*p209*) in pregnancy (eg high BP, diabetes)

Talk with woman about

- Important to come to clinic for checks for herself and baby over next few weeks, especially if concerns
- Feeding baby
  - Strongly encourage breastfeeding (*p199*)
  - If not able to breastfeed — talk with midwife, lactation consultant
  - If choosing not to breastfeed — talk about formula feeding (*p236*)
- Immunisations for baby
  - Check if given before leaving hospital. Organise if needed
- How to sleep baby safely and reduce risk of SIDS
  - To reduce risk of SIDS
    - Sleep baby on their back from birth, not on tummy or side
    - Sleep baby with head and face uncovered
    - **Do not** smoke while pregnant or near baby
    - Provide a safe sleeping environment night and day
    - Sleep baby in adult carer's room in own safe sleeping place, for first 6–12 months
    - Breastfeed baby (*p199*)
  - Sharing a sleep surface (bed share) with a baby is not recommended. If parents choose to bed share with baby, important to follow all of the steps above for SIDS prevention. Also important to
    - Sleep baby beside 1 parent only — not between 2 parents. Parent should face baby

  - Make sure mattress is firm, and baby can't fall off bed. Can put mattress on floor, but be aware of situations where baby could become trapped. **Do not** push bed up against wall
  - **Do not** put baby in adult's bed alone, or to sleep on sofa, beanbag or sagging mattress
  - **Do not** wrap baby
  - **Do not** bed share with babies who are preterm or unwell
  - **Do not** bed share with baby when parent or carers are smokers or affected by drugs or alcohol
- Emotional changes after birth — birth experiences, adjustment to mothering, feelings toward baby, fatigue
- Social circumstances and support, domestic/family violence (*p324*)
- Forms — birth registration, family allowance, Medicare. Where to get help to complete them
- Diet — high fibre, plenty of fluids to keep bowels regular
- Leg exercises and walking — prevent blood clots (*p138*)
- Pelvic floor exercises (*p283*) — help prevent urinary incontinence
- Contraception (*p335*) and baby-spacing, sexual health, sexual activity after birth
- When to seek help — signs and symptoms of postpartum haemorrhage (*p58*), pre-eclampsia (*p21*), infection (*p215*)

Treat common problems

- After-birth pains — can last a few days, often happen when feeding
  - Give **paracetamol** up to 4 times a day (qid) – adult 1g (*CARPA STM p380*)
- Constipation — advise exercise, high fibre diet, plenty of fluids
  - If has not passed faeces for 3 days — encourage drinking lots of water, consider laxative (eg bulking agent), faeces softener (eg docusate)
- Haemorrhoids — make sure not constipated
  - Give anorectal cream or suppository, but only for few days
  - If severe, don't get better — **medical consult** about surgical referral
- Urine — may sting tears of vulva, perineum, labia
  - Encourage drinking lots of water
  - Give urinary alkaliniser
  - Advise — kneel or lean forward to pass urine, pass urine in shower/bath
  - Treat UTI (*CARPA STM p411*)
- Mood — feeling bit sad, teary for few days after birth is common. Reassure
  - If depressed (*p221*), acting in strange way, still sad feelings more than 2 weeks after birth — **medical consult**

If simple treatments don't work or other problems — **medical consult**.

If Caesarean section

- Check abdominal wound daily until healed
- Give adequate **pain relief** (*CARPA STM p377*)

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- Encourage to move about as much as possible
- Check for complications of operation
  - Bowels not working (transient ileus)
  - UTI (*CARPA STM p411*) or chest infection (*CARPA STM p309*)
  - Blood clot in leg (DVT) (*p138*)
  - Wound infection
- Advise to avoid lifting, strenuous activity
- Talk with woman about the birth, her feelings about having a Caesarean section, impact on future pregnancies
- Advise to come to clinic with baby for medical review, 6–8 week postnatal check (*p219*)

Breastfeeding

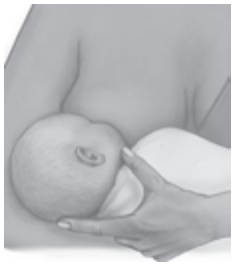
Breastfeeding is the perfect way to feed a baby.

For breastfeeding — mother needs

- Support from partner, family, friends
- Time to rest and enjoy her baby
- Healthy foods — including bush foods, fruit, vegetables, meat, milk, bread
- Plenty of water to drink
- To avoid smoking, alcohol, other substances

Supporting breastfeeding

- Talk about breastfeeding during pregnancy, offer information
- Promote skin-to-skin contact between mother and baby straight after birth for at least an hour or until first breastfeed
- Encourage mother to recognise when baby ready to breastfeed. Offer help if needed
- Important to keep baby and mother together after birth and in early days/weeks of life to enable breastfeeding and bonding to be established



5.1

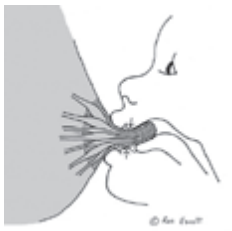
If help needed

- Make sure mother has privacy and is comfortable
- Baby should be warm, but doesn't need to be tightly wrapped
- Mother supports baby behind shoulder/neck area — F 5.1
  - **Do not** grasp or hold baby's head to position baby at breast
- Baby close to mother's body, head and shoulders facing breast, nose and mouth at level of nipple
- Mother touches baby's cheek with nipple to encourage baby to open mouth
- When baby's mouth wide open and tongue down, mother can move baby toward her breast, baby's mouth to her nipple
- Reassure mother it may take a few tries to attach baby to breast
- Different positions may help baby to get attached and feeding

5.2

Signs that baby attached and sucking

- Optimal attachment — F 5.2
  - Poor attachment — F 5.3
- Mother and baby comfortable, no breast or nipple pain when baby sucks
- Baby on its side, chest-to-chest with mother, chin to her breast



5.3

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- Baby's head slightly back, supported on mother's arm
- Baby's mouth wide open with most of the dark part of breast around nipple (areola) in baby's mouth
- Baby's lips flanged around areola with no air leaks
- Baby's jaw moves when sucking, no 'clicking' noise
- Swallowing can be seen and heard

Young babies

- Baby should be fed 'on demand' — every time it cries for a feed
- Babies may need to feed 8–12 times in 24 hours, sometimes more often
- Some babies want to feed for 5 minutes, other babies for much longer
- Baby can't be overfed on breast milk, will drink just the right amount for good growth
- If baby not growing well in first 2 weeks after birth — may be breastfeeding issue (*p204*)
- Talk with mother about how baby has been feeding, sleeping, wet and dirty nappies — babies should have around 6 wet nappies a day
- Both mother and baby need full check up if mother, family or health practitioner worried

Older babies

- Exclusive breastfeeding for about first 6 months is best for all babies. This means breast milk only — no other food or drink, not even water
- At around 6 months — start healthy solid food and boiled and cooled water
- Continue to breastfeed until 1–2 years, or longer if mother and baby want
  - At least 12 months may help protect against infections
- Older baby having fewer breastfeeds still benefits from breast milk
- As baby has more other foods, breast milk supply will slowly decrease
- If mother wants to stop breastfeeding older baby — talk about slowly reducing breastfeeds over a period of time
- Breastfeeding without appropriate introduction of other food at around 6 months may lead to serious growth problems. See *Appropriate first foods* (*p234*)

Expressing and storing breast milk

- Some mothers express colostrum or breast milk if baby is sick or preterm, someone else caring for baby, or if away from baby
- Support mother with expressing — make sure she has the correct information and help, advise her that baby will continue to have the benefits of breast milk
  - Midwife/lactation consultant can help if needed
- Can hand express — F 5.4 or use manual or electric breast pump — F 5.5

5.4

- Store breast milk in clean, sealed plastic container
  - Fridge — up to 72 hours, at back where it is coldest
  - Freezer inside fridge — up to 2 weeks
  - Freezer compartment of fridge (with separate door) — up to 3 months
  - Deep freeze — 6–12 months
- Expressed milk separates into layers. Shake container before giving to baby
- Warm bottle of breast milk in hot water, if needed. Warm to body temperature only
  - Fine to use thawed, doesn't have to be warmed
  - **Do not** use microwave to thaw or heat milk
- Talk with midwife or lactation consultant for more information

5.5

Medicines

Some medicines taken by mother can pass into breast milk and be harmful for baby, especially if less than 3 months old.

Do not give medicine to breastfeeding mother without checking it is safe. Check a medicine reference book or contact your closest Pregnancy Drug Information Centre for more information.

Special circumstances

Preterm babies

- Breast milk is especially good for preterm, small, sick babies
- If baby not able to breastfeed — try other methods of giving breast milk
  - Express into baby's mouth, cup feeding, finger feeding
- If baby needs tube feeding — expressed breast milk can be given via nasogastric tube

Blood-borne viruses

- Sometimes mother advised not to breastfeed or to breastfeed for a short time only to lessen risk of passing virus to baby (eg HIV positive)
  - Talk with CDC/PHU HIV/AIDS specialist, make individual breastfeeding plan
- Mothers with syphilis, hepatitis A, hepatitis B, hepatitis C can breastfeed their babies
  - If hepatitis C and cracked or bleeding nipples — advise to express and discard milk until bleeding areas healed
  - Talk with someone experienced in this area — CDC/PHU, lactation consultant

Alcohol and other substances

- Best for baby to breastfeed, even if mother smoking or drinking alcohol

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- Advice about alcohol for breastfeeding mothers
  - Baby will get alcohol and other substances through her breast milk
  - Not drinking alcohol is the safest option
  - Women should avoid alcohol in first month after birth, until breastfeeding well established
  - After that
    - Limit alcohol to no more than 2 standard drinks a day (*CARPA STM p209*)
    - Avoid drinking immediately before breastfeeding
    - If planning to drink — think about expressing milk in advance
  - Adult who has been drinking alcohol should not sleep next to baby
  - Talk about best way to take care of baby if she is drinking. Ask about family support, involve other services for help
- Advice about smoking for breastfeeding mothers
  - Best to breastfeed baby — benefits greater than risks
  - Don't smoke just before or while breastfeeding
  - Minimal amounts of nicotine in breast milk, still exposure to passive smoke
  - Nicotine may reduce milk production

Caring for breastfed baby away from its mother

Breastfed baby may need to be looked after by someone else (eg if mother goes to hospital).

- If baby very young — encourage mother to express enough breast milk to give baby for time she will be away
  - No other drinks or food should be given to young baby if possible. See *Infant feeding guidelines* (*p234*)
  - Encourage mother to continue to express while away to maintain supply
- Older baby may already be having other food or drinks. Give these until mother returns
- Mother may ask another woman to breastfeed baby. If any concerns — talk with midwife or lactation consultant

Next pregnancy and new baby

- Some women keep feeding older child when pregnant with another baby. Usually quite safe and should be supported
- Some mothers continue feeding older child after new baby is born. May feed babies together or at different times
- Important that new baby is fed first and has plenty of time at the breast. Usually enough milk for both, but growth of both children, especially new baby, needs to be monitored
- Toddlers can be very demanding, so woman needs to understand that new baby must not miss out on feeding
- New baby needs to put on at least 175–200g each week. **If growth poor — immediate intervention needed**

Suppressing lactation

Woman wants to stop milk supply (eg very sick, baby died or given to someone else).

- Women start making milk at about 20 weeks pregnant so mother may need help with suppressing even after loss of very preterm baby
- Advise minimal handling of breasts (avoid massage or stimulation), wear firm bra
- If has been breastfeeding — may need to express some milk for comfort, decrease over few days until milk supply decreases
- May take a few days. Advise to take **paracetamol** up to 4 times a day (qid) for pain if needed – adult 1g (*CARPA STM p380*)
- If concerns — talk with midwife, lactation consultant

For more information

Australian Breastfeeding Association — *www.breastfeeding.asn.au*

Breastfeeding — common issues

Most issues temporary and not a reason to stop breastfeeding. Give consistent, supportive advice. Talk with midwife or lactation consultant if not sure.

Sore nipples

- Sore nipples common, especially in first 2 weeks after birth
- If untreated — can lead to cracked or bleeding nipples, mastitis (*p207*)

Causes

- Usually poor attachment — may be due to
  - Breast engorgement or poor positioning — common
  - Baby having tongue or lip tie. If suspected — **medical consult**
- Occasionally bacterial or fungal infections of skin — check mother's nipple and baby's mouth for oral thrush

Do

- Give **paracetamol** up to 4 times a day (qid) – adult 1g for pain relief (*CARPA STM p380*). Use in time to take effect before starting feed
- If fungal infection — **medical consult** about applying **miconazole 2%** cream twice a day (bd) to nipples
  - If infection spread to baby's mouth — give baby **nystatin** oral liquid 4 times a day (qid) – child 1ml
- If bacterial infection suspected — **medical consult**
- Avoid use of creams except purified lanolin
  - Use small amount **purified lanolin** on sore spot only. No need to wipe off, can continue breastfeeding
  - All other creams need to be washed off before baby breastfeeds

Before feed

- Reassure woman that nipples heal well if care taken with attachment
- Ensure woman comfortable. Expressing a little milk will soften areola, get milk flowing for feed
- Warm compress held against breast is soothing, encourages flow of milk

During feed

- Offer less painful side first
- Check baby's position — see *Signs baby is attached and sucking* (*p199*)
- Try different feeding positions — across mother's chest, in 'football' hold, lying beside mother. Suggest feeding positions are changed from feed to feed
- If too painful to feed — rest nipple for 12–24 hours to help healing. Express milk by hand or pump (*p200*), give to baby with medicine cup or spoon
- Discourage the use of bottles, baby learns to suck in a different way

After feed

- Check nipple for blanching — indicates baby hasn't attached well

- Suggest mother smear some breast milk on nipple, let it air dry
- Assess daily until resolved
- Talk with lactation consultant or midwife

Breast engorgement

- Woman not unwell, may have low-grade fever
- Both breasts and axilla become hard, often swollen, tender, warm

Causes

- Increased blood supply to breast when milk 'comes in' around 3–5 days after birth
- Breasts not emptied by regular feeding
  - Problems — sleepy baby, feeds restricted, mother and baby separated

Check

- Temp, pulse, RR, BP

Do not

- **Do not** restrict woman's fluid intake, won't help engorgement, may be harmful

Do

- Pain relief for mother can include
  - **Paracetamol** up to 4 times a day (qid) – adult 1g (*CARPA STM p380*)
  - Ice packs to breasts after feeds
  - Expressing some milk between feeds to relieve tension in breast. Can do in shower or after warm compress
- Management aimed at getting baby to feed well — see *Breastfeeding* (*p199*)
  - Allow baby to feed completely from first breast before offering other. Start next feed on breast that was offered last — will be the fullest
  - Allow breast that baby not feeding from to drip onto cloth or pad
  - Avoid ill-fitting bras
- Reassure mother that engorgement will improve after 24–48 hours
- Assess daily until resolved

Blocked milk ducts

- Woman looks and feels well
- Suspect blocked milk duct if tender lump or swollen area in breast

Check

- Temp, pulse, RR, BP
- Check for tender lump or swollen area in breast, nipple damage, tissue damage, signs of engorgement, red areas, tender areas including under arms

Do

- Give **paracetamol** up to 4 times a day (qid) – adult 1g for pain relief (*CARPA STM p380*). Use in time to take effect before starting feed
- Apply warmth to area before feed — hot water bottle, hot pack, shower
- Feed from affected breast first, make sure breast emptied at each feed
- During feed, gently but firmly massage lump toward nipple
- Change feeding positions from feed to feed to help drain breasts
- Advise mother to come back to clinic straight away if fever or feels unwell. May be developing mastitis

Early, effective treatment of breast engorgement and blocked milk ducts can prevent mastitis.

Milk supply

- In early postnatal period, milk supply can be affected by
  - Part of placenta or membranes left inside uterus (retained products)
  - Poor attachment of baby to breast — due to positioning, baby preterm, baby tongue or lip tied
  - Sore nipples making attachment challenging
  - Less common — hormonal issues, breast surgery, some medicines
- Later, mother may be concerned about low supply if breasts feel soft, baby feeding frequently. Both can be normal — baby will naturally want to feed more often during growth spurts or if unsettled

Ask

- How baby is attaching, feeding — see *Breastfeeding* (*p199*)
- Mother's postnatal wellbeing — see *Postnatal care of mother* (*p195*)

Do

- If retained products suspected — **medical consult**
- Check baby's history, neonatal check — see *Postnatal care of baby* (*p228*)
- Reassure mother that baby getting enough breast milk if — bright eyes, wet mouth and tongue, 5–6 wet nappies a day, pale coloured urine, weight gain
- Supply will usually increase within a few days if
  - Baby is fed when it wants to be fed
  - Frequency and duration of feeds are increased
  - Mother expresses breast milk (*p200*)
- Supply will decrease if baby has other drinks (eg formula or water)
- Sometimes domperidone tablets given to help with breast milk supply (eg if they have a growing preterm baby)
  - Also need to keep expressing to ensure supply
  - Domperidone slowly reduced once supply established

Mastitis

- Inflammation of breast tissue. Always consider in breastfeeding woman with flu-like symptoms
- Woman usually has fever and feels unwell
- Usually only 1 breast, or part of 1 breast, affected

Causes

- Infection in breast due to
  - Cracked nipples with broken skin
  - Untreated engorgement and/or blocked milk ducts
- Prolonged pressure on breasts — tight bra, holding or pressing on breast during feeding

Ask

- Previous history of mastitis
- How baby is attaching, feeding, feeding on one or both sides, other concerns — see *Breastfeeding* (*p199*)

Check

- Temp, pulse, RR, BP, O_2 sats — work out REWS (*p8*)
- Check breasts for tissue damage, nipple trauma
- Affected part of breast appears reddened, may be hard, tender/painful
- May have enlarged tender lymph nodes in armpit

Do

- **Medical consult** about all women who may have mastitis
  - If very unwell — need to send to hospital, IV antibiotics
- If doesn't need IV antibiotics —
  - Give **di/flucloxacillin** oral 4 times a day (qid) for 10 days – adult 500mg
  - *OR* **cefalexin** oral 4 times a day (qid) for 10 days – adult 500mg
- If allergic to penicillin — **medical consult**
- For pain relief — give
  - **Paracetamol** up to 4 times a day (qid) – adult 1g (*CARPA STM p380*)
  - *OR* **paracetamol-codeine** oral up to 4 times a day (qid) – adult 500+30mg (*CARPA STM p381*)
- Encourage woman to continue breastfeeding to empty breast
  - Feed from affected breast first **unless pus draining from nipple**. If pus — hand-express to empty breast
  - To improve milk drainage from breast — advise to feed baby often, check baby is well-positioned and sucking well, especially on affected side
  - If baby doesn't feed well on affected side — encourage woman to express milk to drain breast
- Encourage rest, good diet, plenty of fluids
- Assess daily until resolved
- If not improved after 24 hours of treatment — **medical consult**

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Breast abscess

- Woman looks and feels very unwell, usually has fever
- Localised swelling, redness, pain in 1 breast
- May be 'pointing' swelling like a boil on skin

Causes

- Bacterial infection hasn't drained properly, localised collection of pus
  - May develop if mastitis not treated properly

Check

- Temp, pulse, RR, BP, O_2 sats — work out REWS (*p8*)

Do

- Discourage woman from eating or drinking — may need operation to drain
- **Medical consult** about management — IV antibiotics, IV fluid, send to hospital
- Start IV antibiotics straight away
  - Give **flucloxacillin** IV every 6 hours (qid) – adult 1g
  - If allergic to penicillin — **medical consult**
- For pain relief — give
  - **Paracetamol** up to 4 times a day (qid) – adult 1g (*CARPA STM p380*)
  - *OR* **paracetamol-codeine** oral up to 4 times a day (qid) – adult 500+30mg (*CARPA STM p381*)
- Important to drain breast. Encourage breastfeeding unless near nipple or pus draining. In this case, express by hand or breast pump on affected side and breastfeed baby on the unaffected side — see *Breastfeeding* (*p200*)
- If too painful to feed baby or express — gentle massage under warm shower

Follow-up of medical problems in pregnancy

- Follow-up significant medical problems as early as possible and at 6–8 week postnatal check
- Advise women with chronic medical problems or risk factors for pregnancy-induced problems to plan future pregnancies carefully
- Talk about contraception, baby-spacing, coming to clinic early when pregnant for antenatal and specialist medical care

Anaemia

- See *Anaemia (weak blood) in adults* (*CARPA STM p303*) if any of
  - Anaemia during pregnancy
  - Hb less than 110g/L at first check after birth
  - Heavy vaginal bleeding during or after birth (postpartum haemorrhage)
  - Caesarean section birth

Heart disease

- If woman has RHD —
  - Check she is on recall register
  - Are prophylactic benzathine penicillin (penicillin G) injections up-to-date
  - See *Acute rheumatic fever and rheumatic heart disease* (*CARPA STM p294*)
- Medical review if
  - Heart disease caused problem or needed medicine during pregnancy
  - Murmur diagnosed during pregnancy not yet investigated

High BP

- Check discharge papers for plan to control BP in community
  - See woman every week for 6 weeks. Check BP, weight, U/A for protein
  - High BP medicine may need
    - Type or dose changed, if chronic high BP
    - Slow withdrawal, if pregnancy-induced high BP
  - If BP not controlled according to plan — **medical consult**
- Medical review at 6 week postnatal check, or earlier if needed
- If recurrent or early severe pre-eclampsia — medical review early in postnatal period. May need special tests to investigate problem, referral to specialist
  - Follow management plan decided at this visit
- Review 3 months after birth. Check BP, weight, U/A for protein
  - If BP still high — manage as chronic high BP (*CARPA STM p268*)
  - If U/A still shows protein (1+ or more) — investigate cause

STIs

Gonorrhoea, chlamydia, trichomonas

- If positive tests for gonorrhoea, chlamydia or trichomonas in pregnancy —
  - Check if treatment given. Special considerations mean trichomonas may not have been treated in pregnancy (*p249*)
  - Check that contact tracing done and partner/s treated
  - If mother not treated during pregnancy — baby needs medical review

Syphilis

Active syphilis in pregnant woman is a **medical emergency**.
Positive serology should have been managed definitively during pregnancy.

- Check results of syphilis tests taken during pregnancy and at birth (*p247*)
  - If unsure whether treated — talk with sexual health unit
- If the mother has positive syphilis serology — check baby's risk of congenital syphilis was assessed. If baby was not born in hospital — always do **medical/ sexual health consult** about baby's risk

Urinary tract infections

- If urinary symptoms (*CARPA STM p411*) — mid-stream urine for MC&S
- If persistent or recurrent urinary tract infections, kidney infection (pyelonephritis) or *proteus* urinary infection in pregnancy —
  - Mid-stream urine for MC&S
  - Take blood for FBC, UEC
  - Renal ultrasound if not already done
  - Medical review

Diabetes

If diabetes in pregnancy — need careful follow-up.

Pre-existing diabetes

- See *Diabetes* (*CARPA STM p254*)
- If breastfeeding —
  - **Do not** use sulfonylurea
  - If using insulin — increased risk of high or low blood glucose (hyper or hypoglycaemia). May need doses changed while breastfeeding
- Talk about
  - Contraception (*p335*) and planning next pregnancy
  - Pre-pregnancy check

Gestational diabetes

- Some women diagnosed with gestational diabetes will actually have pre-existing diabetes
  - May be identified in hospital (BGL test) and discharged with care plan

- For all other women
  - All medicines for blood glucose control stopped after birth
  - 75g OGTT at 6–8 week postnatal check. If not possible — do HbA1c at 4 months
    - See *Testing for diabetes* (*CARPA STM p234*) to interpret results
  - Put on recall register for
    - Yearly fasting OGTT
    - Adult Health Check (*CPM p123*)
  - Talk about
    - Risk of developing Type 2 diabetes later on
    - Early check in next pregnancy — testing for diabetes at first visit. May have gestational diabetes in future pregnancies
    - Healthy diet and exercise, keeping weight down

Secondary postpartum haemorrhage

Abnormal vaginal bleeding between 24 hours and 6 weeks after birth.

Causes

- Part of placenta or membranes left inside uterus (retained products)
- Infection in uterus (endometritis). Can be caused by retained products
- Tears of birth canal or uterus scar — may be infected
- Other — cervical polyps, cancer, ectropion, blood clotting disorders
- May be more than 1 cause

Urgent problems — emergency

- Very heavy bleeding (bright with large clots)
- Signs of shock
- Infection in uterus

Signs of shock

- Restless, confused, drowsy, unconscious
- Pale, cool, moist skin
- Fast breathing
- Pulse fast (more than 100 beats/min) or difficult to feel
- Low BP (systolic less than 100mmHg)
- Capillary refill longer than 2 seconds

Check first

Remember — Life support — DRS ABC (*CARPA STM p10*).

- Temp, pulse, RR, BP, O_2 sats — work out REWS (*p8*)

Do — if emergency

- **Medical consult**
- Give **oxygen** to target O_2 sats 94–98% *OR* if moderate/severe COPD 88–92%
  - Non-rebreather mask 10–15L/min
- Put in 2 IV cannula (*CPM p84*), largest possible
  - Give **normal saline** – 1L straight away
  - If you can't get IV cannula in — put in IO needle (*CPM p88*)
- Put in indwelling urinary catheter (*p281*) and measure hourly
- Give **oxytocin** IM single dose – 10 international units
- Feel uterus. If soft/boggy — see *Rubbing up a contraction* (*p168*)
- Prepare **oxytocin** infusion (40 international units in 500mL **normal saline**)
- If directed to by doctor — give **misoprostol tablet**

Check file notes

- Date and details of birth, estimated blood loss, were placenta and membranes thought to be complete, perineal tears or episiotomy, any complications
- Last Hb and vaginal swab results
- Contraception used since birth — especially Depo or ENG-implant. Could it be causing bleeding
- Medical history, allergies, medicines

Ask

- Bleeding — how much, what colour, any clots, has it stopped since birth
- When did bleeding become heavy
- Did bleeding start after sex
- Could this be first period
- Did anything cause bleeding to start (eg injury)
- Discharge, smell
- Pain — where, when did it start
- Any other symptoms — fever, chills, nausea, vomiting

Check

- POC test for Hb
- Take blood for blood cultures before giving antibiotics
- Urine for U/A, send for MC&S
- Blood loss
  - Check woman's clothing
  - Is blood coming from vulva, vagina or rectum
  - Colour — bright, dark
  - Clots — how big, any smell
- Measure and record blood loss
  - Put pad between woman's legs. Change pad each time you check
  - Save and weigh all pads (1g increase= 1mL loss)
- Abdomen (*CARPA STM p18*) — feel for tenderness, rebound, guarding
- Uterus
  - Fundal height (*p98*)
  - Tender, painful, hard or soft
  - If soft/boggy — see *Rubbing up a contraction* (*p168*)
- Speculum exam, if skilled (*p272*)
  - Look at vulva and perineum for sores, bleeding, infected tears
  - Try to see where bleeding coming from — may need to swab out vagina
  - Is cervix open or closed
    - If open — remove any tissue caught in cervix using sponge forceps. Save all clots and tissue

►

  - High vaginal swab for MC&S and endocervical swabs for MC&S, gonorrhoea, chlamydia and trichomonas NAAT
  - Look for infected tears of vagina or cervix
- Bimanual exam, if skilled (*p278*)
  - Tenderness, masses, size of uterus, is cervix painful when moved

Do not

- **Do not** let woman eat or drink anything — may need operation

Do

- If well, no signs of infection, only small amount of blood loss (less than 500mL) — **medical consult** about treating in community
- See *Infections after childbirth* (*p215*)
- **Send to hospital if**
  - Heavy bleeding and/or shock
  - Unwell and/or temp more than 38°C
  - Severe abdominal pain
  - Possible retained products
  - Diagnosis uncertain
- **Medical consult** about antibiotics
  - Give **amoxi/ampicillin** IV single dose – adult 2g
    - *AND* **metronidazole** IV single dose – adult 500mg
    - *AND* **gentamicin** IV single dose (doses *p373*)
  - *THEN* **amoxi/ampicillin** IV every 6 hours (qid) – adult 1g
    - *AND* **metronidazole** IV every 12 hours (bd) – adult 500mg
  - If delay in sending to hospital of more than 24 hours — give **gentamicin** once a day (doses *p373*) if directed by doctor
  - If allergic to penicillin — **medical consult**
- **While waiting for evacuation**
  - Explain to woman what is happening and why
  - Consider appropriate escort for baby, who will go with mother
  - Continue management as directed by doctor

Infections after childbirth

If woman unwell and/or febrile in first 6 weeks after childbirth — examine carefully. Sepsis can be subtle in onset and women may deteriorate rapidly (*p8*).

Common sites of infection

- Uterus — endometritis (*below*). **Most common** cause of postnatal infection
- Urinary tract — UTI (*CARPA STM p411*)
- Breast — mastitis (*p207*)
- Wound — perineal or abdominal (*p218*)
- Chest (*CARPA STM p309*)

Remember: Can be more than 1 type of infection.

Ask

- Breastfeeding issues (*p204*)
- Symptoms of chest infection
- Bowel or urine problems

Check

- Temp, pulse, RR, BP, O_2 sats — work out REWS (*p8*)
- Check breasts for signs of inflammation — tenderness, red areas, lumps in breast or axilla. See *Mastitis* (*p207*)
- Listen to breathing (*CPM p189*)
- Abdominal assessment (*CARPA STM p18*)
  - If Caesarean section — check wound
- Perineum — sores (*p256*), episiotomy, tears, offensive discharge
- Signs of DVT or PE (*p138*)
- U/A

Do

- If signs of infections — see
  - *Uterus infection (endometritis)* (*below*)
  - *Abdominal and perineal wound infections* (*p218*)
- **Medical consult** about all women with possible postnatal infection
  - Consider blood cultures

Uterus infection (endometritis)

Problems

- May be heavy vaginal bleeding
- Sepsis — bacteria infecting uterus enter bloodstream

If woman is or starts bleeding heavily — see *Secondary postpartum haemorrhage* straight away (*p212*).

Causes

- Part of placenta or membranes left inside uterus (retained products)
- Infection in vagina (eg STI, GBS)
- Infection introduced during or after birth (eg Caesarean section, forceps, manual removal, perineal tear)

Check file notes

- Date and type of birth
- Were placenta and membranes thought to be complete, perineal trauma (eg tears), other complications
- Did woman have high temp after birth
- Last vaginal swab results
  - If STI in pregnancy — were woman and partner/s treated
- Perinatal infection in baby

Ask

- Pain — where, what type, when did it start
- Vaginal loss — how much, has it increased, colour, any clots, has bleeding stopped since birth
- Vaginal discharge — brown, smelly (offensive)
- Has she had sex since birth, was there any pain
- Any other symptoms. Woman may complain of
  - Feeling unwell, no energy
  - Fever, chills
  - Nausea, vomiting, poor appetite
  - Difficulty breathing, chest pain, abdominal pain, pain in legs

Check

- Temp, pulse, RR, BP, O_2 sats — work out REWS (*p8*)
- Uterus — feel for
  - Height of fundus (*p98*)
  - Tenderness, bulkiness, firm or soft
  - Central or to one side
- Vaginal loss — how much, colour, smell, any clots
  - Put pad between woman's legs. Change pad each time you check
  - If bleeding — save and weigh all pads (1g increase = 1mL loss)
- Speculum exam, if skilled (*p272*) — cervix open or closed
- Standard STI check (*p238*)
- Bimanual exam, if skilled (*p278*) — tenderness, masses, size of uterus, is cervix painful when moved

Do

- **Medical consult** about sending to hospital
- **Need to send to hospital if**
  - Very unwell and/or signs of sepsis (*p8*)
  - Severe abdominal pain
  - Bleeding heavily and/or in shock
  - Possible retained products
  - Vomiting up medicines
  - Nobody to help look after her and her baby
  - Diagnosis uncertain

If sending to hospital

- Put in IV cannula (*CPM p84*), largest possible
  - Take blood cultures before starting antibiotics — send in with woman
  - Start **normal saline** 1L at 125mL/hr
- **Medical consult** about antibiotics
  - Give straight away
    - **Ceftriaxone** IM/IV single dose – adult 1g. If IM — mix with 4mL **lidocaine (lignocaine) 1%**
    - *AND* **azithromycin** oral single dose – adult 1g
    - *AND* **metronidazole** IV single dose – adult 500mg
  - If allergic to penicillin — **medical consult**
  - If delay in sending to hospital of more than 24 hours and directed to by doctor — give **gentamicin** IV once a day (doses *p373*)
- **While waiting for evacuation**
  - If pain relief needed — give
    - **Paracetamol** up to 4 times a day (qid) – adult 1g (*CARPA STM p380*)
    - *OR* **paracetamol-codeine** oral up to 4 times a day (qid) – adult 500+30mg (*CARPA STM p381*)
  - **Do not** let woman eat or drink anything — may need operation
  - Encourage to continue to breastfeed baby, if possible
  - Continue observations until evacuation

If woman staying in community

- **Medical consult** about antibiotics
  - Give **azithromycin** oral single dose – adult 1g
    - *AND* **ceftriaxone** IM single dose – adult 500mg mixed with 2mL **lidocaine (lignocaine) 1%**
  - Next day give **amoxicillin-clavulanic acid** oral twice a day (bd) for 10 days – adult 875+125mg
  - Day 8 give **azithromycin** oral single dose – adult 1g
  - If allergic to penicillin — **medical consult**

►

- If pain relief needed — give
  - **Paracetamol** up to 4 times a day (qid) – adult 1g (*CARPA STM p380*)
  - *OR* **paracetamol-codeine** oral up to 4 times a day (qid) – adult 500+30mg (*CARPA STM p381*)
- Assess daily for 5 days (or until antibiotics finished). Make sure she has support and help at home
- Tell woman to come back to clinic straight away if fever, vomiting, pain, heavy bleeding
- If woman not improving after 1–2 days of treatment — **medical consult**, may need to go to hospital
- Check swab and urine results
  - If positive STI — see *Pelvic inflammatory disease* for follow-up (*p260*). Remember to treat partner/s

Abdominal and perineal wound infections

Check

- Take swab of wound site, send for MC&S
  - Check swab results and antibiotic sensitivity
- Assess daily, clean and dress wound until healed

Do

- **Medical consult** about
  - Removing any stitches
  - Antibiotics
    - Give **amoxicillin-clavulanic acid** oral twice a day (bd) for 5 days – adult 875+125mg
    - If allergic to penicillin — **medical consult**
- If pain relief needed — give
  - **Paracetamol** up to 4 times a day (qid) – adult 1g (*CARPA STM p380*)
  - *OR* **paracetamol-codeine** oral up to 4 times a day (qid) – adult 500+30mg (*CARPA STM p381*)
- If perineal wound — keep area as clean and dry as possible
  - Encourage perineal hygiene — shower or wash perineal area twice a day, change pads often
- If wound not improving after 1–2 days of treatment — **medical consult**

Mother's 6–8 week postnatal check

Opportunity to assess mother for medical, mental health, social and emotional, sexual health issues — prevent sickness, promote general health and wellbeing in mother.

Check file notes and ask woman about

- Pregnancy, labour, birth
- Date of last cervical screening and result — is it due again
- Immunisations — whooping cough, influenza
- Test results
  - Last genital swabs, any treatment
  - Syphilis serology — date, any treatment
  - Hb
  - Rubella serology — date of MMR immunisation, if given
  - Hepatitis B serology, hepatitis C serology. See *Hepatitis* (*CARPA STM p363*)

Ask

- General health and wellbeing, sleep, exercise
- Nutrition — diet
- Breasts — breastfeeding (*p199*), issues with breasts or nipples (*p204*)
- Abdomen — pain, wound healing if Caesarean birth
- Vaginal loss or bleeding (lochia) — colour, amount, smell
- Urine problems — urinary symptoms, incontinence (*p318*)
- Faeces — constipation, incontinence
- Perineal healing — pain, ongoing discharge
- Sex — pain or discomfort, safe sex advice (*p252*)
- Contraception (*p335*) and baby-spacing
  - Advise to wait at least 2 years before becoming pregnant again
- Medicines
- Smoking or substance use
- Emotional wellbeing (*p221*) — sadness, depression, anxiety, mood changes, unusual behaviour, daily coping strategies
- Relationship difficulties or concerns
- Domestic/family violence (*p324*)
- Parenting concerns
- Social supports, extended family involvement, isolation, mobility
- Financial situation — social security, family payments, Medicare

Check

- Standard STI check (*p238*)
- Cervical screening if due — **if** perineum healed **and** lochia has stopped (*p289*)
- If perineal tear or episiotomy — check perineal healing

►

- Any tests needed for follow-up of problems in pregnancy
  - Heart disease (*p209*), high BP (*p209*), STI (*p210*), UTI (*p210*), diabetes (*p210*)
- POC test for Hb
  - If Hb less than 110g/L — take blood for FBC, see *Anaemia (weak blood) in adults* (*CARPA STM p303*)
- U/A
  - If protein 1+ or more — send urine for MC&S and ACR, see *Chronic kidney disease* (*CARPA STM p244*)
- If UTI symptoms — offer treatment (*CARPA STM p411*), send urine for MC&S
- Do Edinburgh Postnatal Depression Scale (*p221*)

Do

- Treat immediate problems, arrange follow-up if needed
- Encourage pelvic floor exercises (*p283*), especially if incontinent (*p318*)
- If incontinent — medical review
- Immunisations
  - If not immune to rubella — offer MMR
    - Explain she should not get pregnant for next 4 weeks
  - If HBsAg and Anti-HBs negative — consider **hepatitis B immunisation**. See *Hepatitis* (*CARPA STM p363*)
  - If no **whooping cough (pertussis) immunisation** in third trimester or early postnatal period — offer to woman and immediate family
  - If state/territory schedule incomplete — offer **pneumococcal immunisation**
  - Encourage woman to check that family has immunisations up to date
- Talk about and arrange contraception, if not already done (*p335*)
- **Medical consult** about abnormal findings
- If symptoms of depression, domestic/family violence issues, difficulties caring for self or baby, social isolation, substance abuse, smoking or relationship issues — provide emergency contact details and arrange appropriate follow-up
- If not getting social security payment — suggest she see Centrelink agent

Make sure baby's 6-8 week postnatal check has been arranged (*p231*).

Perinatal depression and anxiety

Early recognition and management of perinatal depression is essential.

- Talk and ask about depression, anxiety, other mental health issues at all routine antenatal and postnatal checks for woman and baby
- If history of severe mental illness (eg depression, bipolar disorder, psychosis) — will need mental health team involved in care, especially if taking medicines, even if no current symptoms
- Consider screening and further mental health assessment if
  - Sad, more down than usual, feeling hopeless and helpless
  - Does not interact spontaneously, unmotivated
  - Not enjoying things they normally enjoy, low energy
  - Not interacting with baby, not caring for herself or baby as well as expected
  - More irritable and angry than normal, behaviour changed
  - Disturbed sleep not related to pregnancy or baby waking
  - Decreased appetite or more hungry, weight loss or gain

Ask

- How is woman feeling emotionally
  - May be hard for woman to tell a stranger. Help her feel comfortable, give her plenty of time to build trust and relationship, may take several visits
  - Explain that you ask every pregnant woman and new mum these questions, to help you work out if she needs extra support
  - Let her talk freely about her situation, reassure, validate her feelings
- About risk factors
  - Past or present mental health problems
    - Have you ever had a period of 2 weeks or more when you have felt really down or stressed
    - Have you ever had treatment for a mental health problem before (eg depression, anxiety, bipolar, psychosis)
    - Has anyone in your close family had mental health problems
  - Past or current physical, sexual, psychological abuse
  - When you were growing up, did you always feel safe and cared for
  - Do you feel safe and cared for with your current partner
  - Current drug or alcohol use
    - Do you or others think that you (or your partner) have a problem with alcohol, drugs, other substances
  - Recent life stressors
    - Has anything happened in last 12 months that has been particularly stressful — relationship problems, domestic/family violence, death in family, gambling or money issues, housing problems including overcrowding, pregnancy loss
    - How did you cope with this

►

- Quality of attachment to mother
  - Ask who grew the woman up, may not have been her biological mother. Mother or grandmother may be from the stolen generation, might have affected attachment to their caregivers and led to difficulties in attachment to their own babies — ongoing generational attachment difficulties
  - When you were growing up was your mother (or main caregiver) loving and supportive of you
- Practical and emotional support. Consider current relationship or pregnancy — is it 'right skin', is woman living in her own or different community/clan, is partner supportive
  - If you found yourself struggling to cope, who could give you practical and emotional support

Check

- Do clinical assessment to exclude physical causes (*CPM p94*)
  - Take blood for FBC, UEC, BGL, LFT, TFT, iron studies
- Current medicines
- **Edinburgh Postnatal Depression Scale (EPDS)** (*p224*)
  - Do at least twice during pregnancy and once in early postnatal period, but can do as often as needed
    - As a minimum — first antenatal visit, third trimester of pregnancy, mother's 6-8 week postnatal check, 6 months after birth
  - If woman has low English literacy —
    - May need help to answer questions
    - Consider using interpreter — not family or someone who knows woman or she may not answer openly
- If postnatal —
  - Check interactions with baby, appropriate response to baby's needs
  - Safety and wellbeing of baby
    - Does mother have any thoughts of harming baby
    - Poor level of care or growth faltering can indicate postnatal depression

Do

Most important thing to decide — is there immediate or short-term risk to safety of mother or baby.

- EPDS not diagnostic. If mental health issues indicated — further mental health assessment needed
  - **Medical/mental health consult**
- If immediate risk to mother or baby — develop short-term safety plan
- Offer treatment for medical conditions that may be causing some of her symptoms — anaemia, iron deficiency, thyroid problems

- Talk to woman about perinatal depression/anxiety, or other disorders if needed. Ask if she wants further help or treatment
- Explore any fears she may have about disclosing further or accepting help or treatment, reassure her that you can provide her with support
- Make management plan (*CPM p128*)
- Medicines may be needed for women with severe symptoms or risk
  - Potential for harm to fetus or breastfed baby must be balanced with harm to woman or child if she remains untreated
  - **Medical/mental health consult**
  - If no safe options for effective local treatment — consider transfer to regional centre or hospital

Follow-up

- In follow-up visits, always give new mothers opportunities to talk about their feelings about themselves and their babies
- If you have any concerns — **medical consult**

Scoring EPDS

Add scores for the marked items for total score. See *EPDS scoring guide* (*p225*).

- 0–9 — likelihood of depression low
  - No formal action needed, reassure woman — unless positive response to Question 10 or high score on single question
- 10–12 — likelihood of depression moderate
  - Supportive treatment (*p222*), repeat EPDS in 2 weeks
- 13 or more — likelihood of depression high
  - Treat as needed (*p222*)

If positive answer to Q10 — always do suicide risk assessment straight away (*CARPA STM p207*).

Edinburgh Postnatal Depression Scale (EPDS)

Date: _____Weeks pregnant:_____ Weeks post birth: _____

Surname: _____Given Name:_____

As you have recently had a baby or are pregnant, we would like to know how you are feeling. Please circle the number next to the answer which comes closest to how you have felt **in the last 7 days,** not just how you feel today. Here is an example already completed:

I have felt happy:

( ) Yes, all of the time
(x) Yes, most of the time
( ) No, not very often
( ) No, not at all

This would mean: *I have felt happy most of the time during the past week*.

Please complete the other questions in the same way.

In the past 7 days

1. I have been able to laugh and see the funny side of things:
( ) As much as I always could
( ) Not quite as much now
( ) Definitely not so much now
( ) Not at all

2. I have looked forward with enjoyment to things:
( ) As much as I always did
( ) Rather less than I used to
( ) Definitely less than I used to
( ) Hardly at all

3. I have blamed myself unnecessarily when things went wrong:
( ) Yes, most of the time
( ) Yes, some of the time
( ) Not very often
( ) No, never

4. I have been anxious or worried for no good reason:
( ) No, not at all
( ) Hardly ever
( ) Yes, sometimes
( ) Yes, very often

5. I have felt scared or panicky for no good reason:
( ) Yes, quite a lot
( ) Yes, sometimes
( ) No, not much
( ) No, not at all

6. Things have been getting on top of me:
( ) Yes, most of the time I haven't been able to cope at all
( ) Yes, sometimes I haven't been coping as well as usual
( ) No, most of the time I have coped quite well
( ) No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping:
( ) Yes, most of the time
( ) Yes, sometimes
( ) Not very often
( ) No, not at all

8. I have felt sad or miserable:
( ) Yes, most of the time
( ) Yes, quite often
( ) Not very often
( ) No, not at all

9. I have been so unhappy that I have been crying:
( ) Yes, most of the time
( ) Yes, quite often
( ) Only occasionally
( ) No, never

10. The thought of harming myself has occurred to me:
( ) Yes, quite often
( ) Sometimes
( ) Hardly ever
( ) Never

TOTAL SCORE:

EPDS scoring guide

1. I have been able to laugh and see the funny side of things: (0) As much as I always could (1) Not quite as much now (2) Definitely not so much now (3) Not at all	**6. Things have been getting on top of me:** (3) Yes, most of the time I haven't been able to cope at all (2) Yes, sometimes I haven't been coping as well as usual (1) No, most of the time I have coped quite well (0) No, I have been coping as well as ever
2. I have looked forward with enjoyment to things: (0) As much as I always did (1) Rather less than I used to (2) Definitely less than I used to (3) Hardly at all	**7. I have been so unhappy that I have had difficulty sleeping:** (3) Yes, most of the time (2) Yes, sometimes (1) Not very often (0) No, not at all
3. I have blamed myself unnecessarily when things went wrong: (3) Yes, most of the time (2) Yes, some of the time (1) Not very often (0) No, never	**8. I have felt sad or miserable:** (3) Yes, most of the time (2) Yes, quite often (1) Not very often (0) No, not at all
4. I have been anxious or worried for no good reason: (0) No, not at all (1) Hardly ever (2) Yes, sometimes (3) Yes, very often	**9. I have been so unhappy that I have been crying:** (3) Yes, most of the time (2) Yes, quite often (1) Only occasionally (0) No, never
5. I have felt scared or panicky for no good reason: (3) Yes, quite a lot (2) Yes, sometimes (1) No, not much (0) No, not at all	**10. The thought of harming myself has occurred to me:** (3) Yes, quite often (2) Sometimes (1) Hardly ever (0) Never
TOTAL SCORE:	

Newborn screening test

Used to screen babies for rare genetic metabolic or endocrine conditions, needing further clinical evaluation. Usually done in hospital.

Do

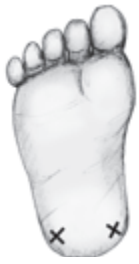
- Explain and demonstrate procedure
  - If parents decline to have infant screened —
    - Record in baby's file notes
    - Complete and return screening collection card, record reason for non-collection on card

Document

- Fill out all details on screening collection card using pen before starting test
- If test a repeat collection — write 'repeat' on card
- **Do not** touch circle area on card, contamination of sample may occur
- Record collection on 'Examination of the Newborn' page on baby's chart (if first test), and in baby's file notes
  - Record card number in baby's file notes
- Detection of galactosaemia depends on type of feed baby had before test. Record on card — breastfeed only, bottle-feed only, mixed feed

Perform test

- Blood ideally collected 48–72 hours after birth (collect after 72 hours if missed)
- Collect equipment — screening collection card, gloves, sterile lancet (point not more than 2.4mm), cotton wool ball or gauze, small sticking plaster
- Wrap baby securely. Have parent hold or breastfeed baby so baby relaxed
- Make sure heel is pink and warm so blood flows easily — keep lower than body
- If heel cold and blood won't flow — warm with warm water
- Pressing firmly against skin before pricking may help blood flow
- Clean heel with damp cotton wool ball, allow to dry completely
  - Tests unreliable if contaminated with water, faeces, talc, urine etc
- Prick on inside or outside edge of heel on bottom (plantar) surface of foot — F 5.6. Use downward side of heel
- **Do not** squeeze/milk heel — excess tissue fluid will be expelled. Let blood drip out
- Wipe away first drop of blood
- Let large drop of blood form. Absorb blood with filter card — correct side marked on card
- Put drop on centre of circle, allow to spread by itself. Circle usually not filled with first drop. Put more drops in centre of circle and let spread, until circle completely filled
  - **Do not** let blood dry between drops
  - Only fill from correct side as marked on card



5.6

  - Turn card over to check circle full on both sides
  - Completely fill circle before moving to next
- Fill other circles the same way. All 4 circles must be completely filled

Dry and send card

- Card needs to be air dried for at least 4 hours at room temperature (not more than 30°C) away from moisture or splashes
- Use rack or edge of bench to dry card, stand up to let air flow to both sides
- Put card in envelope when **totally** dry
- If more than one card being sent — pack so blood spots alternate top and bottom, to reduce cross-contamination
- **Do not** put card in plastic, may 'sweat' especially if not completely dry
- Put envelope inside another addressed envelope. **Mail direct to pathology lab address on card as soon as possible**.

Follow-up

- Only abnormal results reported. If significant abnormal results — clinician recorded on card contacted by phone. **Medical consult**

Postnatal care of baby

For immediate care of baby after birth — see *Newborn resuscitation* (p70), *Newborn needing special care* (p76), *Care of normal newborn for first 24 hours* (p184).

Check baby and mother every day for 5 days, then as needed until baby's 6–8 week postnatal check (p231), mother's 6–8 week postnatal check (p219).

Check file notes and birth record

- Locate hospital discharge summary
- Check neonatal hearing test done in hospital — if not done, contact local maternity unit about catch up test
- Check baby's birth immunisations. If **hepatitis B** or **BCG immunisations** not given — **medical consult**
  - **BCG immunisation** usually arranged through CDC/PHU

Some babies at extra risk of getting sick in first few days of life, even if well at birth. See *Newborn needing special care* (p76).

Ask mother about baby

- Feeding, sleeping, wet and dirty nappies, activity level, any other concerns

Check baby

Normal observations

- Temp — 36.5–37.5°C under arm
- Heart rate — 110–160 beats/min
- RR — 30–60 breaths/min

- Alertness
- Temp under arm (axillary)
- Colour, heart rate (use stethoscope), RR when baby quiet
- Look carefully for signs of breathing problems, even if normal RR
  - Nasal flaring, chest in-drawing, apnoea (stops breathing for more than 15 seconds)
  - Noises with breathing — grunting, stridor, wheeze
  - Difficulty feeding
- Fontanelles — sunken or bulging
- Eyes — discharge, redness, white of eye yellow (jaundiced)
- Mouth
  - Thrush — white patches that don't wipe away with cotton bud
  - Tongue and/or lip tie
- Skin — colour, skin folds, cleanliness, nappy area for rash

- Weight — at birth, day 3, day 5, every 2 weeks until 6 weeks
  - Baby may lose up to 10% (no more) of birth weight by day 3. Should be gaining weight on day 5, back to birth weight by day 7–14
  - From then on, should be a steady weight gain following a smooth curve on growth chart (*CARPA STM p158*)
  - Plot baby's weight on a growth chart at least every 2–4 weeks
- Moves arms and legs equally on both sides
- Umbilical cord or umbilicus — red, infected, bleeding
- Mother's interaction with baby, signs of perinatal depression (*p221*)
- Any odd (dysmorphic) features
- Urine — 6 or more wet nappies each day
- Faeces — changing from dark green to yellow paste, frequency variable
  - Lack of faeces in breastfed babies not a concern, if no other signs of illness or distress. Breastfed babies may pass faeces from several times a day to none for up to 5 days
  - Carefully monitor bottle-fed babies. If baby appears constipated — check how formula being mixed (*p234*)

Do

- Do newborn screening test (*p226*) ideally 48–72 hours after birth
- Tell mother when next set of immunisations for baby due
- Talk with woman about feeding methods
  - Encourage and support breastfeeding (*p199*)
  - If baby bottle-fed — talk with mother or carer about equipment, formula feeding (*p236*), need for frequent checks at clinic
  - See *Infant feeding guidelines* (*p234*)
- Talk with woman about cord care — put nothing on stump, fold nappy below stump, wash and dry stump if it gets soiled
- Start growth chart (*CARPA STM p156*) (if not already done) — record on day 3, day 5, then every 2 weeks
- If mother had history of substance misuse during pregnancy —
  - Watch for signs of withdrawal in first few days (eg irritable, jittery, high pitch cry)
    - Baby may need supportive care and medicines
  - Arrange paediatrician review and development assessment
- If mother a smoker — suggest
  - If she smokes — not to smoke around baby, children
  - Not to smoke just before or while breastfeeding
  - Avoid other people's smoke
    - Try to make home a smoke-free place
    - Have place outside for smokers, away from children's play and sleeping areas

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- Advise to return to clinic if baby
  - Not feeding well
  - Has difficulty breathing
  - High temperature
  - Any other concerns
- If any concerns about baby or mother — **medical consult**
- Check baby at least weekly until 6–8 week postnatal check (*p231*)
  - If worried that mother or baby medically or socially 'at risk' — keep regular contact with mother, review baby more than once a week
- All babies need review by doctor at 6 weeks of age
  - If baby born in community — make sure baby has full medical examination at next doctor visit

Baby's 6–8 week postnatal check

Purpose of check

- Assess how baby and mother are adapting to life together
- Check baby is growing and developing normally
- Listen to parents' concerns and answer any questions
- Risk assessment for issues that might influence baby's and/or mother's wellbeing (*p232*)
- Health promotion and education

Before consultation

- Obtain and check birth information and hospital discharge summary
  - Check newborn screening test done (*p226*)
  - Check if hepatitis B and BCG immunisations given at birth
    - Check immunisation database — may have been given at another community
- Plot birth weight, length, head circumference on growth chart
- If mother had positive syphilis serology — check baby's risk of congenital syphilis was assessed
  - If baby wasn't born in hospital — always do **medical/sexual health consult** about baby's risk
- If no neonatal hearing test — contact local maternity unit about catch-up test
- Check birth was registered, baby enrolled with Medicare
- Identify risk factors for abnormal development including
  - Difficult birth
  - Preterm birth, especially earlier than 32 weeks
  - Low birth weight, less than 2.5kg
  - History of meningitis
  - Substance use in pregnancy (eg alcohol, smoking, volatile substance misuse, drugs)

Consultation

- Do in quiet part of clinic when mother relaxed, baby contented. Hard to do useful examination on crying baby
- Involve mother — watch baby and mother interacting. Opportunity for health promotion, information sharing

Ask

- Baby's general health
- Feeding — breast or bottle, any problems
- Wet and dirty nappies
- Sleep
- Behaviour — is baby alert, interacting with people
- Mother's concerns about baby's behaviour, vision, hearing

Risk assessment

- Ask mother about
  - Previous child with growth issues and/or involvement with child protection services
  - Issues with infant weight gain or feeding difficulties
  - Conditions at home — family support, housing (eg access to food, water, sanitation)
  - Financial and social issues
  - Substance use including alcohol, smoking, other drugs, petrol sniffing
  - Domestic/family violence (*p324*)
- Any concerns about mother — infant attachment, symptoms of perinatal depression (*p221*)

Check

By any member of health care team

- Weight, length, head circumference — plot on growth chart (*CARPA STM p157*)
- Does baby look normal
- Baby's behaviour and movements
  - Does baby interact appropriately with mother, baby may smile at this age
  - Does baby look at your face, try to follow when you move your head
  - Is baby's muscle tone normal — not floppy or stiff
  - Does baby move arms and legs equally on both sides
  - When lying face down, does baby lift up its head
- Ears (*CPM p158*) — otitis media, pus in ear canal, perforated eardrums
  - Use otoscope
- Skin (*CPM p266*) — sores (*CARPA STM p387*), scabies (*CARPA STM p394*), nappy rash (*CARPA STM p406*)

By doctor, suitably qualified midwife or child health nurse

- Head to toe check, including
  - Eyes for red reflex
  - Heart sounds to detect any murmurs
  - Femoral pulses
  - Hips for developmental problems
  - In boys, can both testes be felt in scrotum

Do

- Show mother baby's growth chart, explain its purpose
- If any concerns about growth (*CARPA STM p151*) — **medical consult**
- Medical review for any abnormalities found in physical examination
- If social risk factors identified — **medical/allied health consult** about acute issues, additional support for family, plan for follow-up

- Provide health promotion and education about
  - Breastfeeding (*p199*) and infant feeding (*p234*)
  - How to sleep baby safely and reduce risk of SIDS (*p196*)
  - Injury prevention
  - Immunisations
- Offer 6–8 week immunisations
- Advise to return to clinic if baby
  - Not feeding well
  - Has difficulty breathing
  - High temperature
  - Any other concerns

Make sure mother's 6–8 week postnatal check (*p219*) has been arranged.

Infant feeding guidelines

Birth to 2 years is critical period for optimal growth, health and development. Also peak period for growth problems, anaemia, common childhood illnesses.

Table 5.1: Feeding guidelines birth to 2 years

Introduce at	Key message	Fluids	Food
Birth to around 6 months	• Breast milk has all nutrients needed • Give oral iron supplement (*CARPA STM p116*) from 4 months in Indigenous populations	• Breast milk **only** – on demand ◦ No other food or fluids needed ◦ Protective antibodies to boost infant's immune system	
Around 6 months – first foods	• Babies need food in addition to breast milk • First foods should be iron rich as infant's iron store is very low (depleted) • Starting solids too early or too late can make the baby sick or grow slowly	• Offer food before breast milk • Clean cool boiled water in a cup	• Give food at least 2–3 times a day in addition to breast milk • Offer food before breast milk • Offer around 2–3 spoonfuls increasing to ½ a cup (125mL) • Thick, smooth texture foods rich in iron ◦ Iron-fortified cereal (eg *Farex* or *Weetbix*) with expressed breast milk or clean cool boiled water ◦ Soft mashed meat or eggs ◦ Soft mashed fruit and vegetables
As baby learns to eat and swallow solid food	• Baby ready for lumpier textures which encourage chewing and speech development	• Offer food before breast milk • Clean cool boiled water in a cup	• Give food at least 4–6 times a day • Change texture from smooth to soft and lumpy ◦ Iron-fortified cereal (eg *Farex* or *Weetbix*) with expressed milk, clean cool boiled water or cow's milk* ◦ Soft meat, eggs ◦ Smooth peanut paste ◦ Soft fruits and vegetables ◦ Dairy products* (eg yoghurt, cheese) ◦ Finger foods ▪ Pieces of cheese or meat ▪ Pieces of fruit and cooked vegetables

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Introduce at	Key message	Fluids	Food
12–24 months	• Infants should be eating a wide range of healthy family foods • Solid foods should now be providing most of baby's nutritional needs.	• Offer food before breast milk • Clean water in a cup • Cow's milk in a cup*	• 3 meals plus 1–2 snacks a day • Variety of foods that rest of family eating • Talk about importance of offering foods from each food group — refer to *Australian Guide to Healthy Eating*. Includes ◦ Meat, chicken, fish, eggs, baked beans ◦ Vegetables, fruits ◦ Bread, cereals — preferably wholegrain, iron enriched ◦ Dairy foods

*Do not use cow's milk as a **drink** before 12 months (OK with cereal or in dairy products such as yoghurt).
Do not add salt or sugar to food.

Breastfeeding

- Involve father — mother more likely to breastfeed if father supportive
- Help mother to
  - **Exclusively breastfeed for first 6 months** (*p199*)
    - Only breast milk, no other foods or fluids, including water
    - Baby will feed on demand to meet fluid needs, even in hot weather
- Give oral iron supplement from 4 months (*CARPA STM p117*)
- Provide good complementary foods from 6 months, continue breastfeeding throughout first year and beyond
- Suggest expressing and storing breast milk (*p200*) if
  - Mother away from baby for any reason
  - Baby already having some formula feeds. Mother may not have considered this option
- If formula feeds planned (*p236*) —
  - Advise mother that baby will benefit from still having some breastfeeds (eg reduces chance of getting infections)
  - Reassure that it is fine to use both breast and formula feeding, if fully breastfeeding is not working out
  - Advise mother her supply of breast milk may be reduced if she feeds baby less
  - If help needed with breastfeeding — get advice from midwife or lactation consultant

Formula feeding

- Check correct formula is used
  - ‘Birth to 6 months’ appropriate for all infant age ranges unless a special formula is prescribed
  - Healthy infants don't need formulas advertised as ‘toddler’ or ‘supplementary formula’
- Sterilise all equipment and water for mixing formula until baby 12 months old
  - Boil tap water for 5 minutes for both equipment sterilisation and preparation of water for mixing with formula
  - If using electric kettle with automatic cut-off — after cut-off has activated, reset cut-off and boil again. About the same as boiling for 5 minutes
- **Do not** use water already used to sterilise equipment to prepare formula
- Infants need 150–200mL/kg of fluid a day until 6 months
  - Amount of milk and number of feeds needed varies between infants
  - Most young babies feed 3–4 hourly

Important points for preparing formula

Make sure parents/carers know how to mix formula correctly.

- Follow instructions on can exactly. Different brands have different sized scoops and amounts of water needed per scoop
  - **Do not** use different scoop, or add more or less scoops than instructed
- Fill scoop and level off top with clean knife
  - **Do not** pack down powder
- Use **cooled** boiled water. Mixes more easily, hot water can destroy vitamins and other nutrients
- Make up 1 bottle at a time as needed
  - **Do not** store prepared formula in door of fridge, must be stored at back
  - If not used within 24 hours — throw away