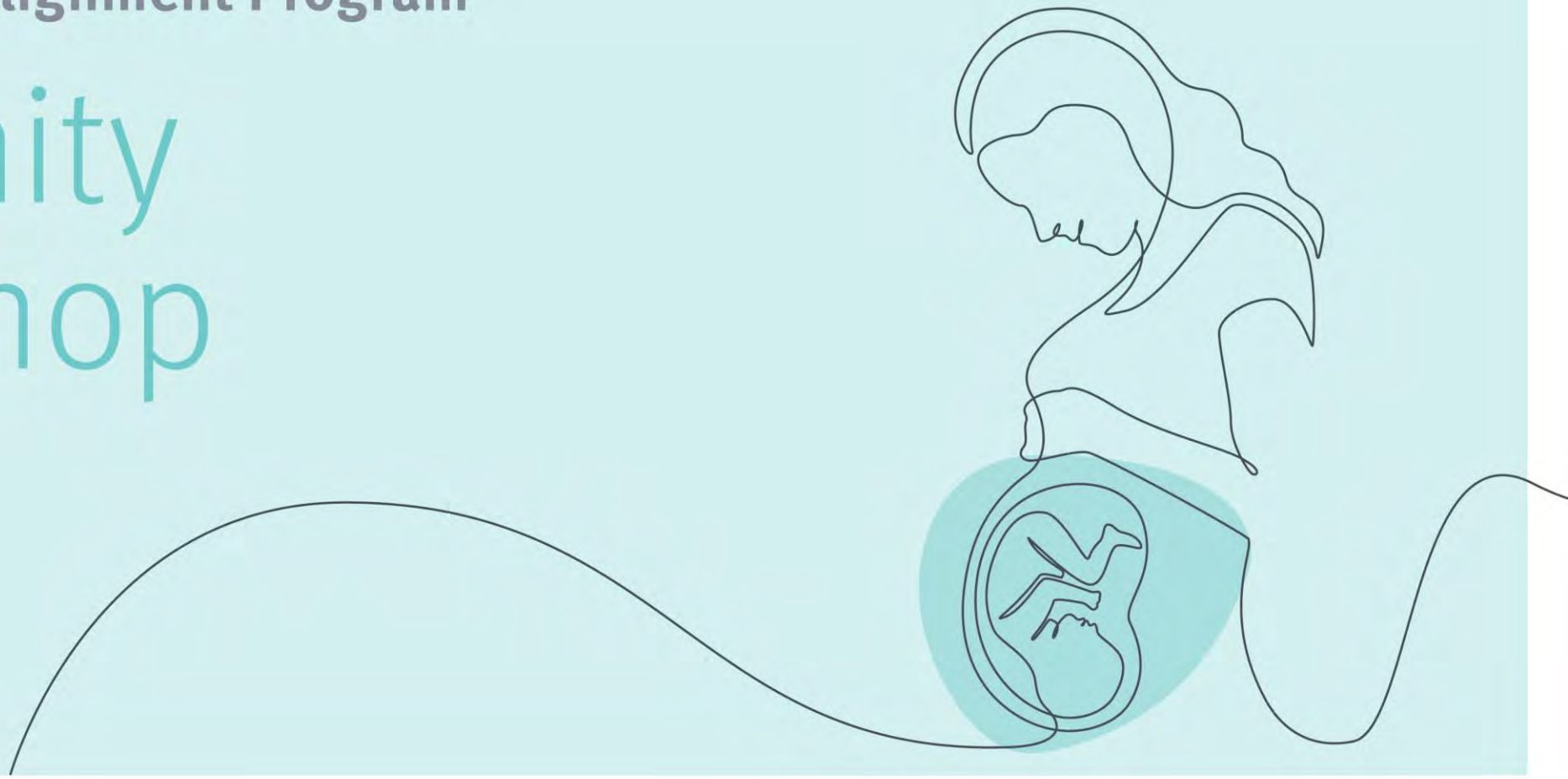
Metro North **GP Alignment Program**

Maternity Workshop



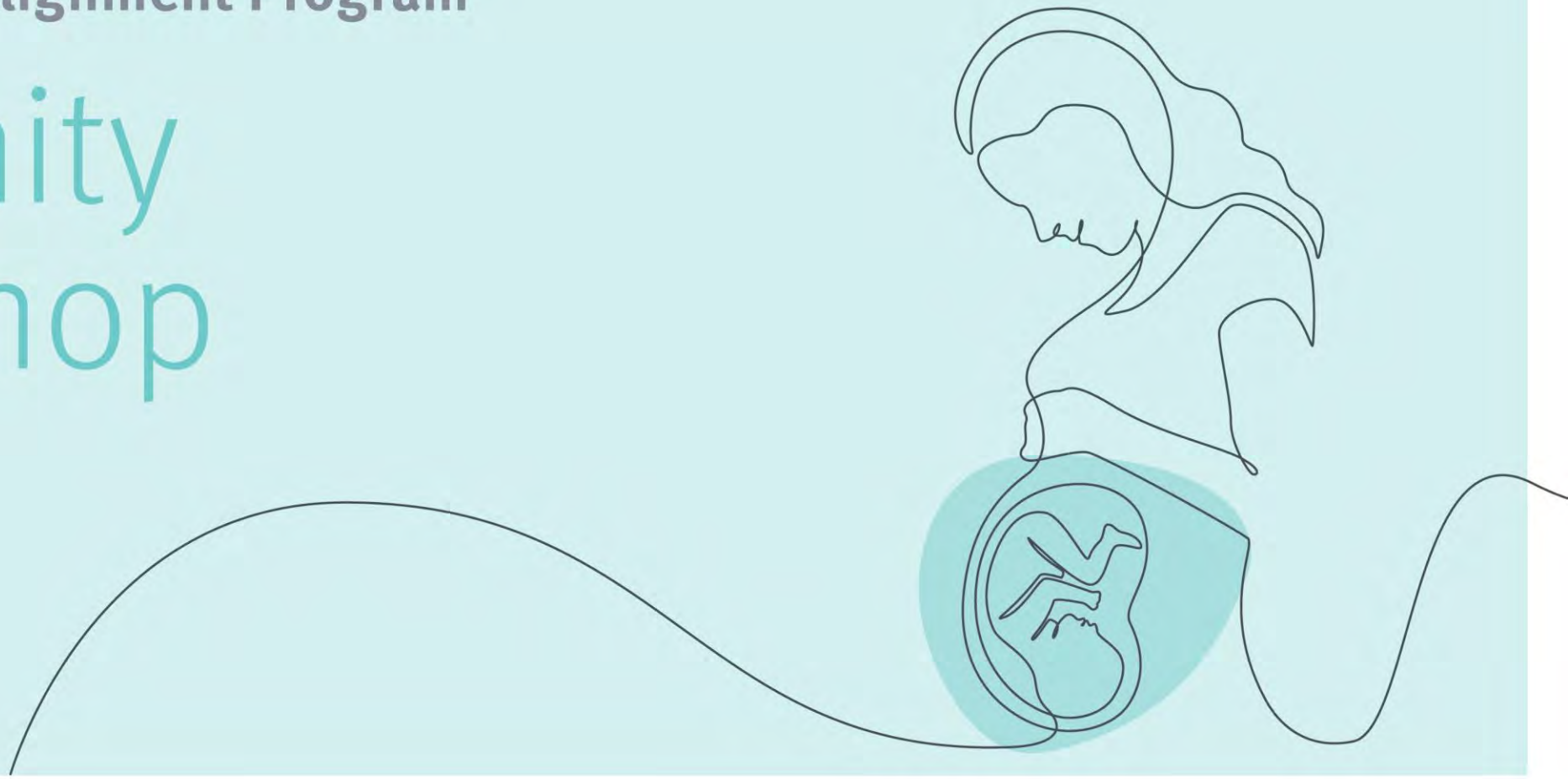
CASE STUDIES: Postnatal Cases

phn BRISBANE NORTH
An Australian Government Initiative

Queensland Government
Metro North Health

Metro North **GP Alignment Program**

Maternity Workshop



CASE STUDY

JESSICA – POSTNATAL

phn BRISBANE NORTH
An Australian Government Initiative

Queensland Government
Metro North Health

CASE STUDY: JESSICA
POSTNATAL

- **Jessica - G1P2 had an elective Caesarean section at 38 weeks**
- **She is now 10 days post partum and presents for a routine postnatal check, along with babies Jack and Joe**
- **As you commence your routine post partum check, you enquire about feeding and Jessica reports *"Joe is unsettled and not breastfeeding well, so this morning I gave him some formula".***
- **What do you complete for their check ups?**

Post partum care – Day 5-10

- **Review:**
  - birth & complications
  - vaginal blood loss
  - feeding & breasts
  - immunisations (MMR, Pertussis)
  - contraception
  - psychological wellbeing
  - ongoing follow up (GP, Child Health)
- **Check:**
  - bowel & bladder function

Post partum care – Day 5-10

- **Examine:**
  - **BP/abdomen/perineum/Caesarean Section wound/breasts/nipples**
  - **baby as per personal health record**

- **Offer:**
  - **contraception**

Postnatal care | NICE

Contraception

- **Options at 5 – 10 days post partum include**:
  - **Abstinence**
  - **Condoms**
  - **Lactational amenorrhoea method**
  - **Progesterone only pill**
  - **Depo-Provera/Implanon NXT**
  - **Not Combined oral contraceptive pill**
  - **Not IUD unless inserted straight after birth**

Neonatal examination by day 7

If baby is discharged from hospital within 72 hours of birth this examination should be conducted by a GP.

Date ___/___/___ Age_____ Weight_____

Head Circ_____ Feeding _____ Signature _____

Hearing screen (see page 23): ☐ Further assessment indicated ☐ No further assessment indicated ☐ Screen not done

Newborn Bloodspot screening (see page 19 and 20) ☐ Completed ☐ Repeat completed Date ___/___/___ ☐ N/A ☐ Declined

Family history (including deafness) _____

Mother's medication/supplements _____

Baby's medication/supplements _____

Feeding concerns _____

Birth marks _____

Examination

✔ = normal, ✘ = abnormal (explain in comments), **0** = not examined.

☐ jaundice	☐ spine	☐ respiratory
☐ fontanelle/sutures	☐ genitalia	☐ cardiac (auscultation)
☐ eyes / red reflexes / white pupils	☐ anus	☐ cardiac (femoral pulses)
☐ face/ears/mouth/palate/tongue/frenulum	☐ meconium within 24 hours	☐ hips
☐ neck/limbs	☐ abdomen and umbilicus	☐ neurological/reflexes

Comments _____

Recommendations, follow ups, medication _____

Health promotion issues discussed with parents or care giver

☐ Roles of GP/child health nurse/community midwife/health worker ☐ Vaccinations funded/non-funded

☐ Safety, e.g. injury prevention, safe sleeping, smoke-free environment ☐ Hearing / ear health ☐ Feeding

Doctor's signature _____ Name _____

Postnatal check day 5-7 (Baby)

- Ask targeted questions to ascertain if feeding is progressing normally
- Weight, length, head circumference
- Examination
- Assess for neonatal jaundice
- Check Newborn Blood Spot and Hearing Screening done
- Check birth immunisations done (Hepatitis B; RSV if indicated)
- Review baby input/output
- Health promotion
  - safe sleeping
  - role of community midwife/child health nurse
  - local hospital/community lactation support

Health assessment

Approx 0–4 weeks

Child's age _____

To be completed by doctor or child health nurse.

Health Assessment	Within Normal Limits Yes	Within Normal Limits No	Review	Refer	Comments
Weight _____ kg					
Length _____ cm					
Head circumference _____ cm					
Head symmetry					
Mouth/palate/frenulum					
Vision/eye examination (refer to P.12)					
Newborn hearing screen completed	R ☐ L ☐	R ☐ L ☐			
Cardiovascular					
Femoral pulses					
Hips					
Genitalia					
Skin check					
Development					
Other _____					

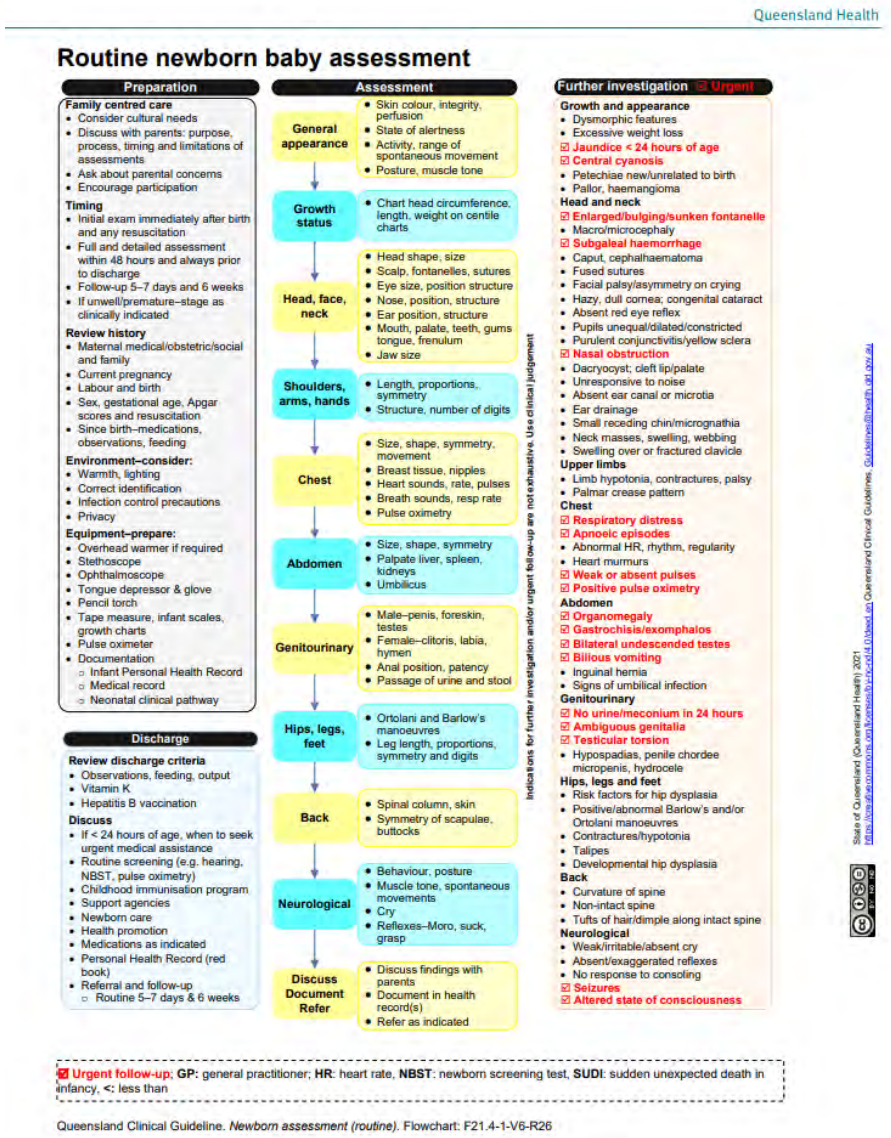
Rural & Remote practitioners please refer to the Primary Clinical Care Manual (PCCM) for additional checks

Comments _____

Name _____ ☐ Medical Practitioner ☐ Registered Nurse

Signature _____ Date ___/___/___

Remember your baby's vaccinations can be given from 6 weeks.



Queensland Health

Routine newborn baby assessment

Preparation

Family centred care
- Consider cultural needs
- Discuss with parents: purpose, process, timing and limitations of assessments
- Ask about parental concerns
- Encourage participation

Timing
- Initial exam immediately after birth and any resuscitation
- Full and detailed assessment within 48 hours and always prior to discharge
- Follow-up 5–7 days and 6 weeks
- If unwell/premature–stage as clinically indicated

Review history
- Maternal medical/obstetric/social and family
- Current pregnancy
- Labour and birth
- Sex, gestational age, Apgar scores and resuscitation
- Since birth–medications, observations, feeding

Environment–consider:
- Warmth, lighting
- Correct identification
- Infection control precautions
- Privacy

Equipment–prepare:
- Overhead warmer if required
- Stethoscope
- Ophthalmoscope
- Tongue depressor & glove
- Pencil torch
- Tape measure, infant scales, growth charts
- Pulse oximeter
- Documentation
  - ☐ Infant Personal Health Record
  - ☐ Medical record
  - ☐ Neonatal clinical pathway

Discharge

Review discharge criteria
- Observations, feeding, output
- Vitamin K
- Hepatitis B vaccination

Discuss
- If < 24 hours of age, when to seek urgent medical assistance
- Routine screening (e.g. hearing, NBST, pulse oximetry)
- Childhood immunisation program
- Support agencies
- Newborn care
- Health promotion
- Medications as indicated
- Personal Health Record (red book)
- Referral and follow-up
  - ☐ Routine 5–7 days & 6 weeks

Assessment

General appearance
- Skin colour, integrity, perfusion
- State of alertness
- Activity, range of spontaneous movement
- Posture, muscle tone

Growth status
- Chart head circumference, length, weight on centile charts

Head, face, neck
- Head shape, size
- Scalp, fontanelles, sutures
- Eye size, position structure
- Nose, position, structure
- Ear position, structure
- Mouth, palate, teeth, gums tongue, frenulum
- Jaw size

Shoulders, arms, hands
- Length, proportions, symmetry
- Structure, number of digits

Chest
- Size, shape, symmetry, movement
- Breast tissue, nipples
- Heart sounds, rate, pulses
- Breath sounds, resp rate
- Pulse oximetry

Abdomen
- Size, shape, symmetry
- Palpate liver, spleen, kidneys
- Umbilicus

Genitourinary
- Male–penis, foreskin, testes
- Female–clitoris, labia, hymen
- Anal position, patency
- Passage of urine and stool

Hips, legs, feet
- Ortolani and Barlow's manoeuvres
- Leg length, proportions, symmetry and digits

Back
- Spinal column, skin
- Symmetry of scapulae, buttocks

Neurological
- Behaviour, posture
- Muscle tone, spontaneous movements
- Cry
- Reflexes–Moro, suck, grasp

Discuss Document Refer
- Discuss findings with parents
- Document in health record(s)
- Refer as indicated

Indications for further investigation and/or urgent follow-up are not exhaustive. Use clinical judgement

Further investigation ☑ Urgent

Growth and appearance
- Dysmorphic features
- Excessive weight loss
- ☑ **Jaundice < 24 hours of age**
- ☑ **Central cyanosis**
- Petechiae new/unrelated to birth
- Pallor, haemangioma

Head and neck
- ☑ **Enlarged/bulging/sunken fontanelle**
- Macro/microcephaly
- ☑ **Subgaleal haemorrhage**
- Caput, cephalhaematoma
- Fused sutures
- Facial palsy/asymmetry on crying
- Hazy, dull cornea; congenital cataract
- Absent red eye reflex
- Pupils unequal/dilated/constricted
- Purulent conjunctivitis/yellow sclera
- ☑ **Nasal obstruction**
- Dacryocyst; cleft lip/palate
- Unresponsive to noise
- Absent ear canal or microtia
- Ear drainage
- Small receding chin/micrognathia
- Neck masses, swelling, webbing
- Swelling over or fractured clavicle

Upper limbs
- Limb hypotonia, contractures, palsy
- Palmar crease pattern

Chest
- ☑ **Respiratory distress**
- ☑ **Apnoeic episodes**
- Abnormal HR, rhythm, regularity
- Heart murmurs
- ☑ **Weak or absent pulses**
- ☑ **Positive pulse oximetry**

Abdomen
- ☑ **Organomegaly**
- ☑ **Gastrochisis/exomphalos**
- ☑ **Bilateral undescended testes**
- ☑ **Bilious vomiting**
- Inguinal hernia
- Signs of umbilical infection

Genitourinary
- ☑ **No urine/meconium in 24 hours**
- ☑ **Ambiguous genitalia**
- ☑ **Testicular torsion**
- Hypospadias, penile chordee micropenis, hydrocele

Hips, legs and feet
- Risk factors for hip dysplasia
- Positive/abnormal Barlow's and/or Ortolani manoeuvres
- Contractures/hypotonia
- Talipes
- Developmental hip dysplasia

Back
- Curvature of spine
- Non-intact spine
- Tufts of hair/dimple along intact spine

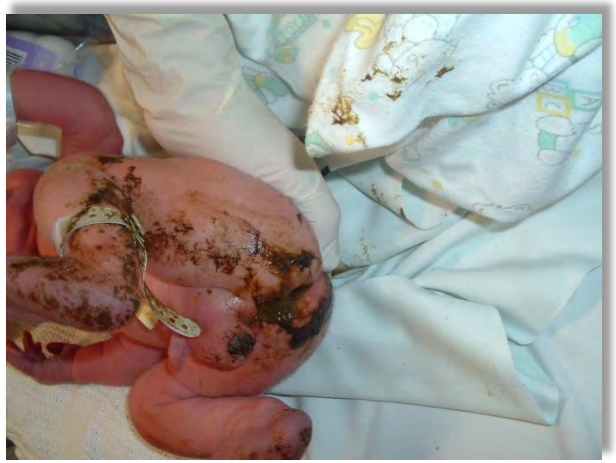
Neurological
- Weak/irritable/absent cry
- Absent/exaggerated reflexes
- No response to consoling
- ☑ **Seizures**
- ☑ **Altered state of consciousness**

☑ **Urgent follow-up**; **GP**: general practitioner; **HR**: heart rate, **NBST**: newborn screening test, **SUDI**: sudden unexpected death in infancy, **<**: less than

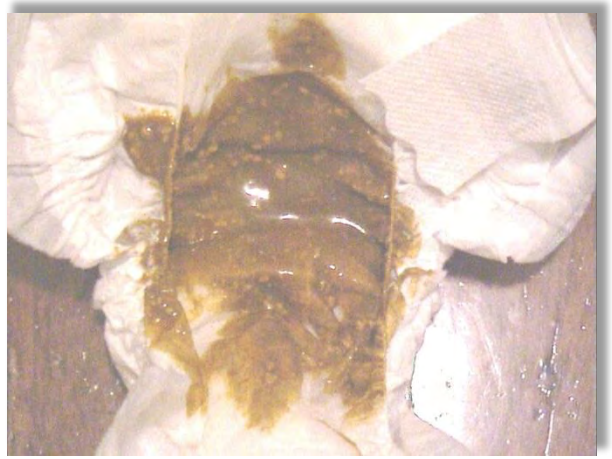
Queensland Clinical Guideline. *Newborn assessment (routine)*. Flowchart: F21.4-1-V6-R26

[Queensland Clinical Guidelines | Queensland Health]

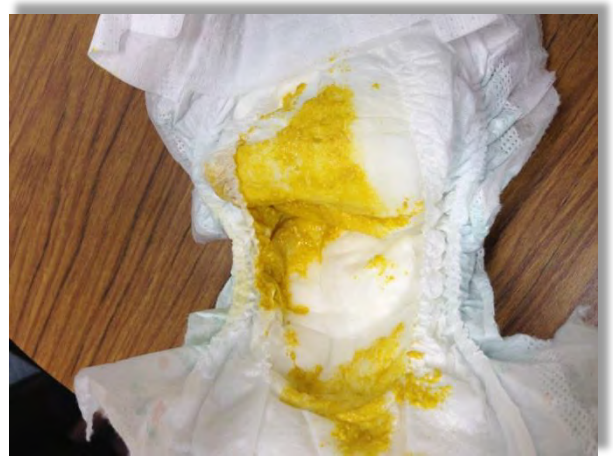
Breast feeding is going well when…



Meconium
At birth



Transitional Stool
Day 2-4



Within 24 – 48 hours of "milk in" -
from Day 5 - 7

- Feeding 8-12 times every 24 hours with some babies needing to feed more frequently
- At least 3-4 yellow stools/day by day 5 - 7
- 3 or more wet nappies by day 3; 6 or more by day 7
- Mother can hear baby gulping or swallowing milk
- Breastfeeding is comfortable
- Baby is receiving only breast milk

Input/output checklist

Age (hours)	Breast milk intake	Number of breastfeed	Number of wet nappies	Stooling	Stool colour	Stool consistency	Baby weight
0–24	0–5 mL colostrum at first feed 2–10 mL (average of 7 mL) per feed 7–123 mL of colostrum total in first 24 hours	First 8 hours: 1 or more Second 8 hours: 2 or more Third 8 hours: 2 or more	1 or more	1–2	black	tarry/sticky	Loses 7% average 10% maximum
24–48	5–15 mL per feed Increasing volumes	8–12	2 or more	1–2 1–2	greenish/black then brownish 'transitional'	softening	
48–72	15–30 mL per feed Increasing volumes	8–12	3 or more	3–4	greenish/yellow	soft	
72–96	30–60 mL per feed 395–800 mL per day	8–12	4 or more	4 large or 10 small	yellow/seedy	soft/liquid	
End of first week	395–800 mL per day Increasing volumes 440–1220 mL per day by one month	8–12	6 or more	4 large or 10 small	yellow/seedy	soft/liquid	Weight loss plateaus then starts to regain weight

- Between 4–6 days of age, babies start to regain weight and by two weeks will have returned to birth weight
- Most babies have returned to birth weight by 10 days of age
- Average weekly weight gain of 150 to 200 grams to three months of age
- Babies usually double their birth weight by six months of age, and triple their birth weight by 12 months of age
- Weight gain or loss is only one aspect of wellbeing—assess every woman and baby on an individual basis
- Urates may be present before secretory activation when milk flow increases–urates not expected after 96 hours of age
- Number of bowel motions of breastfed babies tends to decrease between six weeks and three months of age

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Infant feeding

- **NHMRC**
  - **exclusive breastfeeding until around 6 months**
  - **continued breastfeeding with addition of complementary foods until 12 months**
- **WHO and UNICEF**
  - **initiate breastfeeding within the first hour of birth**
  - **exclusive breastfeeding for the first 6 months**
  - **breast feed on demand – no bottles, teats or pacifiers**
  - **from 6 months, children should begin eating safe and adequate complementary foods while continuing to breastfeed for up to 2 years and beyond**

Infant feeding

- **Start to introduce solid foods when infant ready, at around 6 months, (not before 4 months)**
- **Continue to breastfeed while introducing solids**
- **Introduce a wide variety of foods from each food group by 12 months**
- **Include common allergy causing foods by 12 months in an age appropriate form e.g., smooth peanut butter/paste, well cooked egg**
- **Only introduce one common allergy causing food at each meal**

Australasian Society of Clinical Immunology and Allergy (ASCIA)

Why is breastfeeding important?

	Health outcome associated with breastfeeding	No. Studies	Pooled Effect	95% CI	Interpretation: odds (OR) / risk (RR) of outcome is:
For baby	Performance in intelligence tests[14]	17	3.44 points	2.30–4.58	increased
	Overweight/obesity in later life[15]	113	OR: 0.74	0.70–0.78	reduced
	Type 2 diabetes[15]	11	OR: 0.65	0.49–0.86	reduced
	Malocculsion[16] Ever versus never breastfed Exclusive versus ever breastfed	 18 9	 OR: 0.34 OR: 0.54	 0.24–0.48 0.38–0.77	reduced
	Dental caries[17] If breastfed beyond 12 months If breastfed up to 12 months	 5 7	 OR: 1.99 OR: 0.50	 1.36–2.96 0.25–0.99	increased reduced
	Acute otitis media (until 2 years)[18] If exclusive breastfeeding for first 6 months More versus less breastfeeding	 5 12	 OR: 0.57 OR: 0.65	 0.44–0.75 0.59–0.72	reduced
	Childhood leukaemia[19] Any breastfeeding for 6 months of longer Ever versus never breastfed	 18 15	 OR: 0.81 OR: 0.89	 0.73–0.89 0.84–0.94	reduced
	SIDS[20] Exclusive breastfeeding Any breastfeeding	 8 18	 OR: 0.27 OR: 0.40	 0.24–0.31 0.35–0.44	reduced
	Severe respiratory infections[8]	16	RR: 0.68	0.60–0.77	reduced
	Mortality due to infectious diseases[8]	9	OR: 0.48	0.38–0.60	reduced
	Protection against diarrhoea morbidity/hospital admission[8]	15	RR: 0.69	0.58–0.82	reduced
Maternal	Breast cancer[21]	98	OR: 0.78	0.74–0.82	reduced
	Ovarian cancer[21]	41	OR: 0.70	0.64–0.77	reduced
	Type 2 diabetes[22]	6	RR: 0.68	0.57–0.82	reduced
	BMI in postmenopausal women[23]	1	0.22 kg/m^2	0.21–0.22	reduced

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Breastfeeding cautions

Aspect	Consideration
Breastfeeding not recommended	• Specialised formula required for: o Galactosaemia[6,27,61] ▪ Galactose-free formula required o Maple syrup urine disease[27,61] ▪ Formula free of leucine, isoleucine and valine required o Phenylketonuria (PKU)[6,61] ▪ Phenylalanine-free formula required ▪ Some breastfeeding may be possible with careful monitoring • Human immunodeficiency virus (HIV) positive mother[6,27,61]
Temporary avoidance or supplementation required	• Examples include, but are not limited to: o Severe maternal illness when woman is unable to care for baby (e.g. sepsis)[6] o If hepatitis C positive and nipples are bleeding[100] o If herpes simplex virus type 1 (HSV-1) on the breast[61], avoid breastfeeding until all active lesions have resolved[6] o Recently acquired syphilis ▪ Mother-baby contact and breastfeeding can begin after 24 hours of therapy, provided there are no lesions around the breasts or nipples[6] • Refer to Section 4: Supplementary feeding
Maternal medication and substance use	• Individualise care: o Refer to a breast milk pharmacopeia for recommendations about specific medications (e.g. LactMed[101], Hale's Medication and Mothers' Milk[102]) o Temporary or permanent cessation of breastfeeding may be advised during treatment with some medications such as chemotherapy[61] o Refer to Queensland Clinical Guidelines: *Perinatal substance use: neonatal* and *maternal*[87,88]
Recommendation	• Whenever an interruption to breastfeeding is being considered, weigh the benefits of breastfeeding against the risks and discuss with the woman and family[27] • When a woman decides to continue breastfeeding in situations where a degree of risk is identified, refer for specialist advice and management • Where temporary avoidance of breastfeeding is indicated, support the woman to express breast milk to maintain lactation

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Medications in breastfeeding

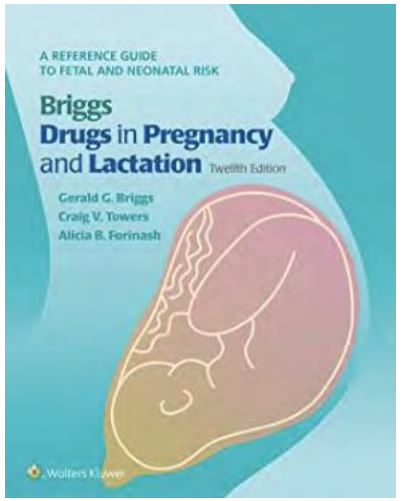
- **Antenatal Pharmacists**
  - **RBWH**
    - **P: 3647 0810 Monday - Friday**
    - **F: 3646 3544**
    - **E: pharmacy-maternityoutpatients-RBWH@health.qld.gov.au**
  - **Redcliffe Hospital**
    - **P: 3883 7464 Monday - Friday**
    - **F: 3883 7908**
    - **E: redh-pharmacy@health.qld.gov.au**

Medications in breastfeeding

- **Queensland Medicines Advice & Information Service (QMAIS) for Health Professionals**
  - **P: 07 3646 7599 or 07 3646 7098**
  - **E: QMAIS@health.qld.gov.au**
- **LactMed - U.S. National Library of Medicine https://www.ncbi.nlm.nih.gov/books/NBK501922/**
- **Drugs in Pregnancy and Lactation Gerald Briggs et al**
- **Medications and Mothers' Milk Online**

  https://www.halesmeds.com
- **The Women's Pregnancy and Breastfeeding Medicines Guide (PBMG) - subscription required**

  https://thewomenspbmg.org.au/



Source: Google images

During Pregnancy

- **Share breastfeeding information at every antenatal visit**
  - **many women decide how they will feed their baby before or early in pregnancy**
  - **more likely to initiate and continue to breastfeed if their doctor encourages them to**

During Pregnancy

- **Identify risk factors for challenges/concerns**
  - **diabetes, thyroid disease, obesity, Aboriginal and/or Torres Strait Islander women, adolescent/young women, history of abuse, substance use**
  - **breast and nipple variations, surgery or injury**
  - **Current medications**
  - **Use of tobacco, alcohol or other substances**
  - **Infectious diseases requiring additional precautions, or where breastfeeding may be contraindicated**
  - **Family history of inborn errors of metabolism**
- **Breast examination not routinely recommended**
- **Refer if required**

Common presentations to GPs

- Need for information, affirmation and reassurance
- Baby not attaching to breast
- Nipple pain and trauma
- Concerns about milk supply
- Blocked ducts
- Mastitis
- Unsettled baby
- Sleepy baby
- Jaundice
- Parent/Carer mental health

Breastfeeding Concerns at 3 and 7 Days Postpartum and Feeding Status at 2 Months Erin A. Wagner et al, *PEDIATRICS* Volume 132, Number 4, October 2013

Recommendations for common concerns

- Consider specific recommendations listed below in addition to the universal recommendations and supportive care strategies outlined in the guideline
- Refer to appropriately qualified health professional (e.g. IBCLC, medical officer, child health nurse) if concerns persist and/or interventions require monitoring after discharge from the service

Concern	Signs/Consideration	Recommendations
Sleepy baby not exhibiting feeding cues	• Prolonged periods of not feeding require investigation • Exclude causes such as effects of maternal analgesia during labour and birth, effects of the birth process and illness	• Reassure woman this is usually temporary • Refer to Flowchart: Management of the healthy term baby in the first 24–48 hours • Refer to Queensland Clinical Guideline: *Neonatal jaundice*[86]
Alert baby who is exhibiting feeding cues but unable to attach	• Reason may not be apparent • Can be distressing for both the woman and her baby as baby may back arch, cry when approaching the breast and push away	• Only persist with offering breast whilst baby is calm • Skin to skin contact may help baby self-regulate to a calm state • Holding/pushing head or forcing to breast is counterproductive, distressing and associated with persistent arching by baby (arching reflex)
	• Woman related reasons include: o Inverted or flat nipples, areola engorgement/oedema • When nipple is flat or inverted, or areola engorged, it obliterates nipple, and makes grasping nipple/areola difficult or impossible for baby • Reverse pressure softening (RPS) uses gentle positive pressure to soften areola and surrounding tissue by temporarily moving swelling slightly backward and upward into the breast	• Gently compress and massage areola to soften and make nipple more prominent • Encourage reverse pressure softening or hand expressing before attempting breastfeeding • Hand expressing colostrum on to the nipple may encourage baby to attach • Shape breast/compress areola to make it easier for baby to grasp • Nipple shields may be indicated once milk is flowing well if other attempts have failed o Ongoing surveillance encouraged to monitor milk transfer
	• Baby related reasons include: o Birth trauma o Ankyloglossia (tongue-tie)	• Expert lactation support and advice on attachment and breastfeeding technique may be beneficial and sufficient • Suspected tongue-tie requires: o Prompt assessment to determine whether interfering with feeding o If affecting breastfeeding, referral for thorough functional assessment of suspected ankyloglossia by an experienced health professional
Delay in secretory activation or poor milk transfer	• Common cause of poor milk transfer is sub-optimal attachment • Possible causes of delay in secretory activation include: o Postpartum haemorrhage, diabetes, obesity • Possible causes of low milk production at stage of initiation include breast surgery, hypoplastic breasts, chronic disease or medical conditions	• Refer to relevant sections within the guideline • Delay in secretory activation in first 72 hours warrants investigation • Review history and birth events for possible cause • A baby with suspected dehydration requires medical assessment • Triage for early post discharge surveillance

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Recommendations for common concerns

Concern	Signs/Consideration	Recommendations
Nipple pain and trauma	• Nipple discomfort in the first few days is common • Commonly cited reason for ceasing breastfeeding • Sub-optimal positioning is the most common cause • Other causes include tongue-tie, flat or retracted nipples, poor skin health (e.g. eczema, bacterial, thrush, herpes), nipple vasospasm • Regardless of treatment used, most women report a reduction in nipple pain to mild levels approximately 7–10 days after birth • Sore nipples occurring beyond the first weeks of breastfeeding may be caused by: o Infections such as staphylococcus aureus and candida o Vasospasm	• Reassure if nipples tender but no sign of compression after a feed • Review and optimise positioning and attachment • Soften areola sufficiently to enable baby to grasp adequately • Review nipple care o Avoid soaps and synthetic bras o Change breast pads frequently o Expose breasts to air briefly after breastfeeding o Allow expressed breast milk to dry on the nipple after breastfeed • Limited evidence exists about the effectiveness of treatment for nipple pain resulting from nipple trauma • Refer if pain/trauma persists beyond first week or infection suspected • Educate regarding importance of handwashing and good hygiene when touching or handling nipples
Breast engorgement	• Engorgement: swelling and distension of the breasts resulting from secretory activation (lactogenesis II) • Presents as bilateral breast pain, firmness and swelling • Onset most commonly between days 3 and 5 postpartum but may be as late as 9–10 days postpartum • More frequent breastfeeding (or expressing, if baby is not feeding at the breast) in first 48 hours is associated with less engorgement	• Provide guidance regarding possibility of engorgement prior to discharge • Promote physiological breastfeeding (feeding in response to baby's cues) • Focus treatment on alleviating inflammation and discomfort through use of cool packs and anti-inflammatory medication o If there are no individual contraindications, paracetamol and ibuprofen are safe options most breastfeeding women in appropriate doses • Reverse pressure softening of the areola, and manual pump or hand expression to move small volumes of milk may aid attachment and facilitate physiological milk transfer
Mastitis spectrum	• Encompasses a spectrum and progression of conditions resulting from breast inflammation: • Clinical presentation varies according to severity and progression of inflammation o Symptoms range from localised inflammation (redness, swelling and tenderness) to systemic signs and symptoms (fevers, chills and tachycardia) • May or may not progress to bacterial infection o Common organisms include Staphylococcus and Streptococcus • Many mastitis symptoms resolve with physiological breastfeeding, conservative care and support	• Maintain physiological breastfeeding (feeding in response to baby's cues) or physiological pumping if baby is not feeding at the breast • Advise mother to o Avoid increased expressing or use of breast pump o Avoid nipple shield use where possible o Wear appropriately fitting supportive bra o Avoid deep massage of the breast • Focus treatment on alleviating inflammation and discomfort through use of cool packs and anti-inflammatory medication o If there are no individual contraindications, paracetamol and ibuprofen are safe options most breastfeeding women in appropriate doses • If symptoms not improving within 12–24 hours or if acutely ill, seek expert advice

Queensland Clinical Guidelines | Queensland Health

Assessing tongue tie

LINGUAL FRENULUM PROTOCOL FOR INFANTS
Martinelli, 2015

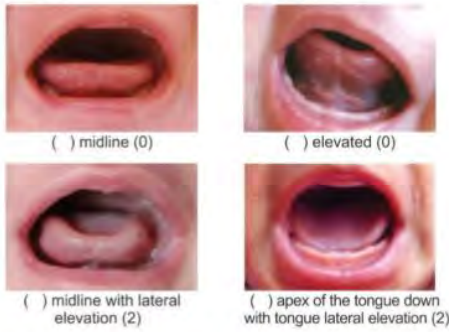
CLINICAL EXAMINATION (video for future analysis suggested)

PART I – ANATOMO-FUNCTIONAL EVALUATION

1. Lip posture at rest

( ) closed (0) ( ) half-open (1) ( ) open (1)

2. Tongue posture during crying



( ) midline (0) ( ) elevated (0)

( ) midline with lateral elevation (2)

( ) apex of the tongue down with tongue lateral elevation (2)

3. Shape of the apex of the tongue when elevated during crying or during elevation maneuver

( ) round (0) ( ) V-shaped (2) ( ) heart-shaped (3)

LINGUAL FRENULUM PROTOCOL FOR INFANTS
Martinelli, 2015

4. Lingual Frenulum

( ) visible ( ) not visible ( ) visible with maneuver*

*Maneuver: elevate and push back the tongue.
If the frenulum is not visible, go to PART II (Non-nutritive sucking and nutritive sucking evaluations)

4.1. Frenulum thickness

( ) thin (0) ( ) thick (2)

4.2. Frenulum attachment to the tongue

( ) midline (0) ( ) between midline and apex (2) ( ) apex (3)

4.3. Frenulum attachment to the floor of the mouth

( ) visible from the sublingual caruncles (0)

( ) visible from the inferior alveolar crest (1)

Anatomo-functional evaluation total score (items 1,2, 3 and 4): Best result=0 Worst result=12

When the score of items 1, 2, 3 and 4 of the anatomo-functional evaluation is equal or greater than 7, the interference of the frenulum with the movements of the tongue may be considered.
Release of lingual frenulum is indicated.

[Lingual Frenulum Protocol for Infants | Martinelli]

Resources for families

- **Pregnancy, Birth and Baby**

http://www.pregnancybirthbaby.org.au/

- **Breastfeeding Queensland Health**

https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/clinical-staff/maternity/nutrition/breastfeeding

- **Australian Breastfeeding Association**

https://www.breastfeeding.asn.au/

- **Raising Children Network**

https://www.raisingchildren.net.au

raisingchildren.net.au
the australian parenting website

Search the site

pregnancy | newborns | babies | toddlers | preschoolers | school age | pre-teens | teens | grown-ups | autism | disability

Suitable for 0-3 months

Newborns: breastfeeding & bottle-feeding

SHARE

Newborns: about breastfeeding

Newborns: how to breastfeed

Breastfeeding attachment techniques

Good attachment is key to successful breastfeeding. Baby-led attachment is when you let baby find the breast. Mother-led attachment is when you attach baby.

VIDEO: Breastfeeding and baby-led attachment

Baby-led attachment is letting baby follow their instincts to find the breast and attach. It can help you get started and overcome breastfeeding challenges.

VIDEO: Breastfeeding: getting a good attachment

Good attachment is key to successful breastfeeding, but how do you make it happen? This video shows you how to do mother-led attachment to the breast.

Breastfeeding positions: in pictures

Cradle position, football hold or lying down? Our illustrated guide takes you through the breastfeeding positions you can use to breastfeed your baby.

Breastfeeding is best: Aboriginal parents

This picture guide for Aboriginal parents shows breastfeeding positions and techniques. Breastfeeding and breastmilk are best for babies.

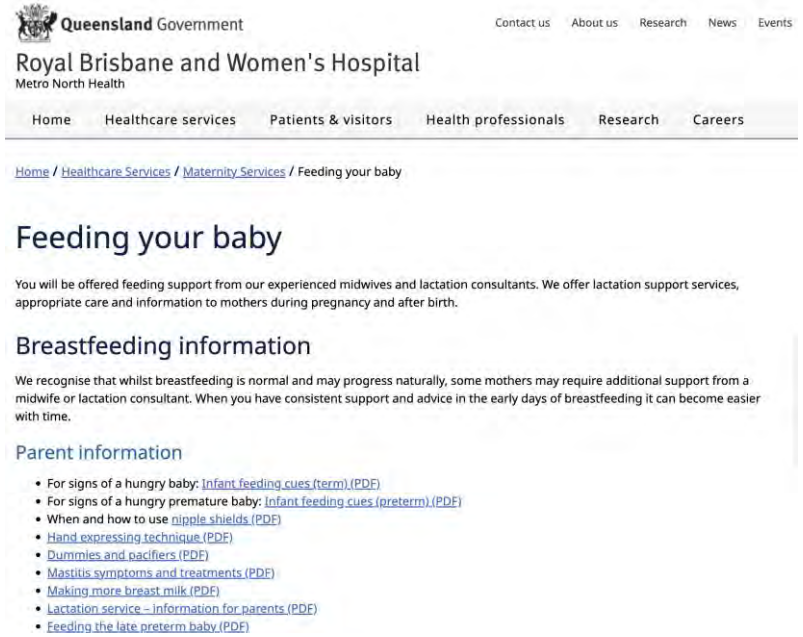
VIDEO: How to breastfeed: breastfeeding positions

Breastfeeding positions include cradle and cross-cradle holds, football hold and lying down. This video helps you choose positions that suit you and baby.

[Newborns breastfeeding & bottle-feeding | Raising Children Network]

Infant feeding support

- **Hospital based Community Midwifery Service (CMS)**
- **Hospital-based Lactation Service**



Queensland Government

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Home / Healthcare Services / Maternity Services / Feeding your baby

Feeding your baby

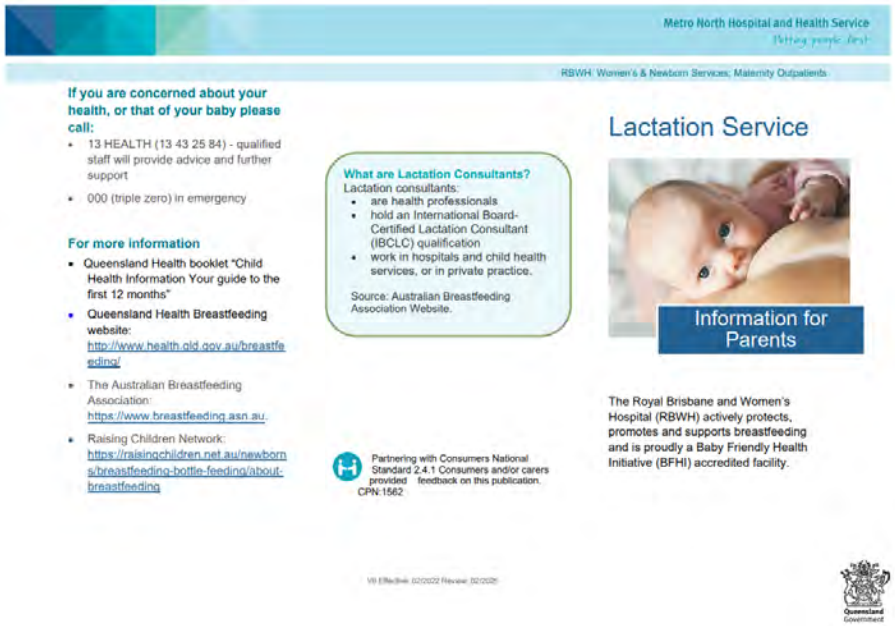
You will be offered feeding support from our experienced midwives and lactation consultants. We offer lactation support services, appropriate care and information to mothers during pregnancy and after birth.

Breastfeeding information

We recognise that whilst breastfeeding is normal and may progress naturally, some mothers may require additional support from a midwife or lactation consultant. When you have consistent support and advice in the early days of breastfeeding it can become easier with time.

Parent information

- For signs of a hungry baby: Infant feeding cues (term) (PDF)
- For signs of a hungry premature baby: Infant feeding cues (preterm) (PDF)
- When and how to use nipple shields (PDF)
- Hand expressing technique (PDF)
- Dummies and pacifiers (PDF)
- Mastitis symptoms and treatments (PDF)
- Making more breast milk (PDF)
- Lactation service – information for parents (PDF)
- Feeding the late preterm baby (PDF)



Metro North Hospital and Health Service

RBWH: Women's & Newborn Services; Maternity Outpatients

If you are concerned about your health, or that of your baby please call:

- 13 HEALTH (13 43 25 84) - qualified staff will provide advice and further support
- 000 (triple zero) in emergency

For more information

- Queensland Health booklet "Child Health Information Your guide to the first 12 months"
- Queensland Health Breastfeeding website: http://www.health.qld.gov.au/breastfeeding/
- The Australian Breastfeeding Association: https://www.breastfeeding.asn.au.
- Raising Children Network: https://raisingchildren.net.au/newborns/breastfeeding-bottle-feeding/about-breastfeeding

What are Lactation Consultants?

Lactation consultants:

- are health professionals
- hold an International Board-Certified Lactation Consultant (IBCLC) qualification
- work in hospitals and child health services, or in private practice.

Source: Australian Breastfeeding Association Website.

Partnering with Consumers National Standard 2.4.1 Consumers and/or carers provided feedback on this publication. CPN:1562

Lactation Service

Information for Parents

The Royal Brisbane and Women's Hospital (RBWH) actively protects, promotes and supports breastfeeding and is proudly a Baby Friendly Health Initiative (BFHI) accredited facility.

[Feeding your baby | Royal Brisbane and Women's Hospital]

Infant feeding support

Queensland Government

Search website Search

For Queenslanders Contact us

Home › Health and wellbeing › [...] › Babies and early childhood health › Child and baby health clinics

Print

Babies and early childhood health

- Baby and early childhood health issues and concerns
- Early childhood developmental milestones
- Breastfeeding and your baby
- New parents information—help and support
- **Child and baby health clinics**
- Child health phone support

Child and baby health clinics

We provide health services for babies and children to give them the best possible start in life.

Services

Newborn drop-in services

Parents of newborns have access to drop-in services in Queensland.

Each centre provides different services, but all will generally provide free parenting and infant development information, feeding help and support.

Visit Children's Health Queensland for your nearest newborn drop-in services. To find any health service search the health services directory.

Child health clinics

Child health services provide parenting information and support for families in Queensland.

These free services may include nutrition, child growth and development assessments. You may need to book an appointment for this service—please see the information provided by the individual clinic.

Visit Children's Health Queensland for your nearest child health clinic. To find any health service search the health services directory.

Concerned? Make the call

Call 13 HEALTH (13 43 25 84) 24 hours a day, 7 days a week.

For child health advice and breastfeeding support, ask to speak to a Child Health Nurse (available from 6.30am-11pm every day).

Register your baby's birth

[Child and baby health clinics | Health and wellbeing | Queensland Government]


Find a Lactation Consultant >
LCANZ
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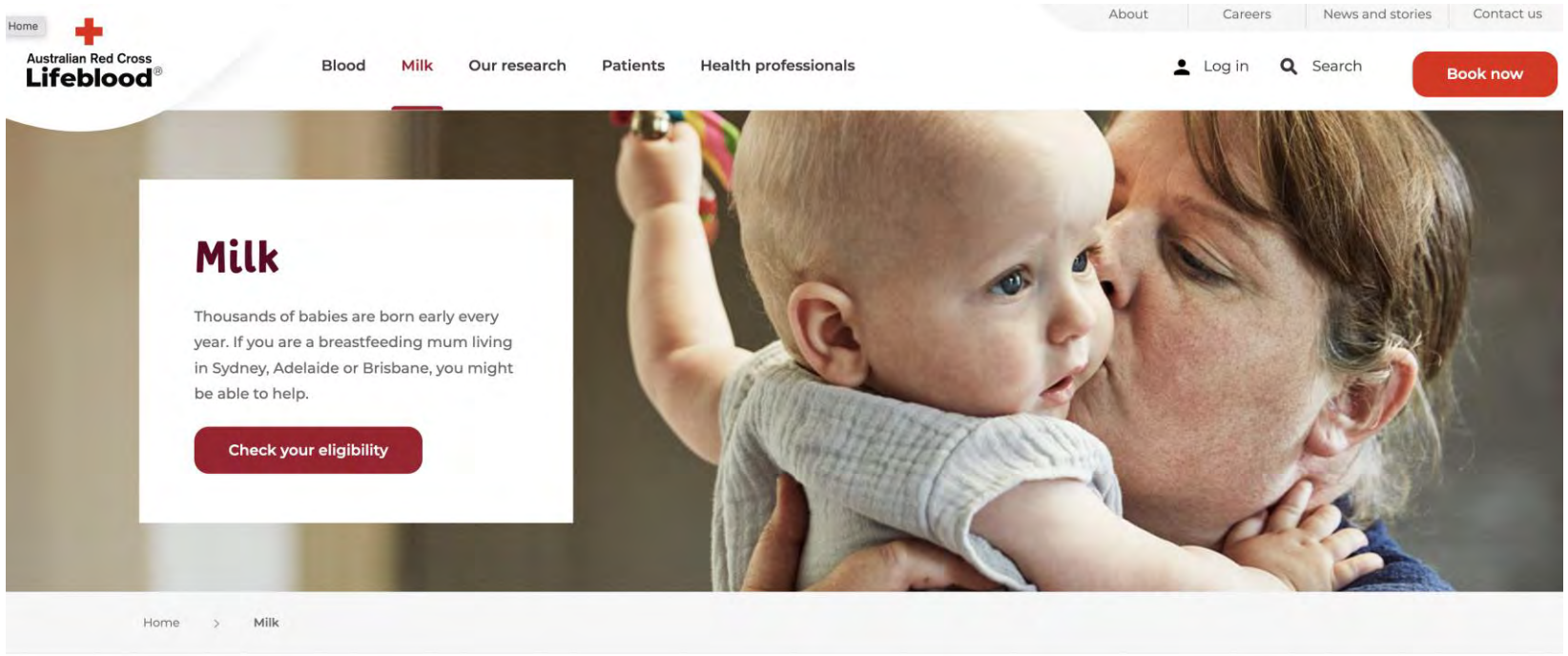
The professional organisation for IBCLCs®
Lactation Consultants of Australia and New Zealand (LCANZ) is the professional organisation for International Board Certified Lactation Consultant's (IBCLCs®), health professionals and members of the public who have an interest in lactation and breastfeeding in Australia and New Zealand
LEARN MORE
For Clients
For Lactation Consultants
For Medical Professionals
For Government

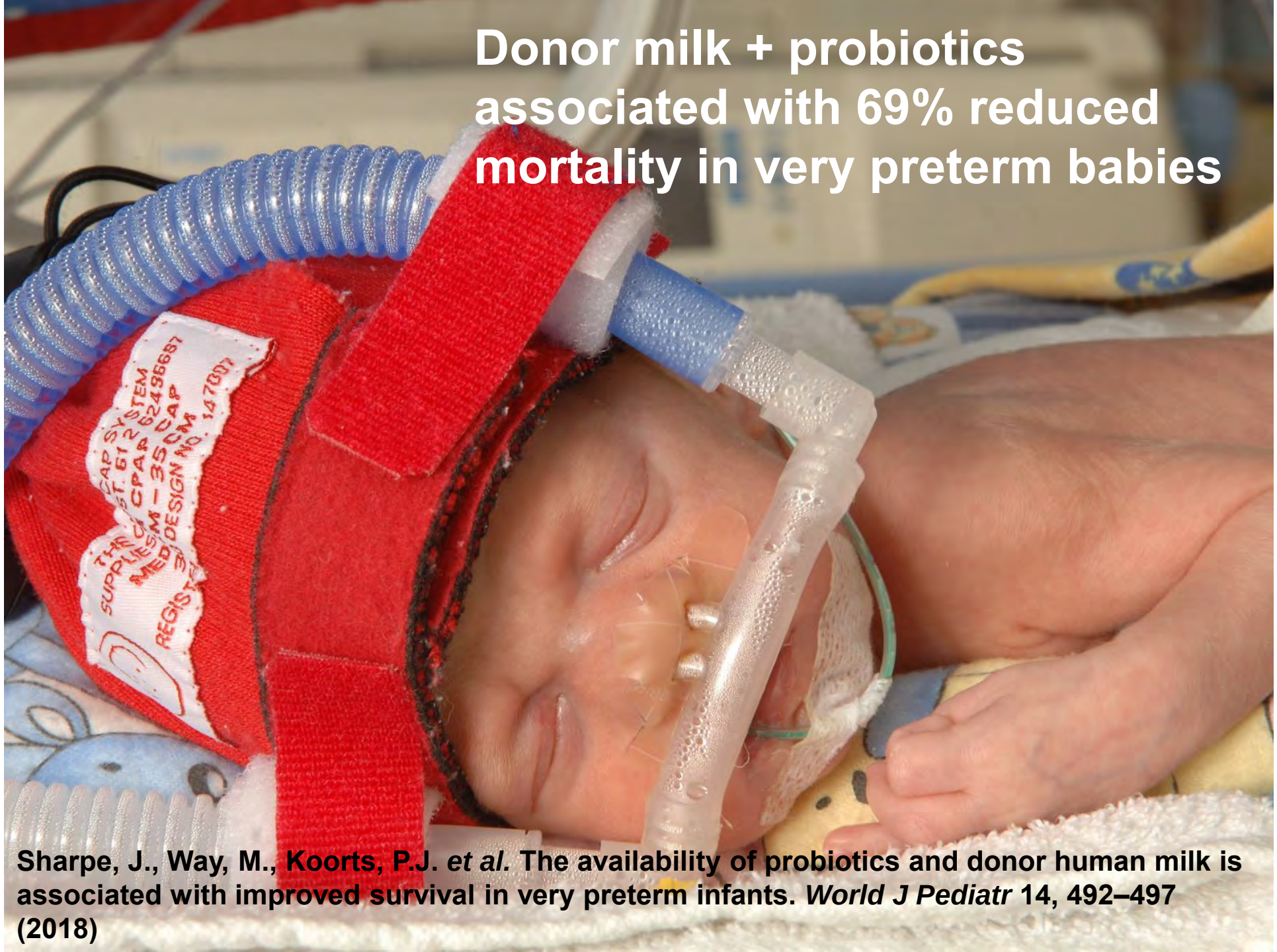
Additional resources for health professionals

- **Queensland Clinical Guideline:**
  Establishing breastfeeding **http://www.health.qld.gov.au/qcg/**
- **Academy of Breastfeeding Medicine http://www.bfmed.org/**

Donated breast milk for preterm infants



[Donated breast milk | Australian Red Cross Lifeblood]



Sharpe, J., Way, M., **Koorts, P.J.** *et al.* The availability of probiotics and donor human milk is associated with improved survival in very preterm infants. *World J Pediatr* 14, 492–497 (2018)

Infant formula feeding

- **Respect decision not to breastfeed**
- **Cow's milk-based formula suitable for newborn for first 12 months**
- **Special formulas under medical supervision**
- **Changing type of formula because of minor rashes and irritability is usually of no benefit**
- **Show parents how to safely prepare formula and how to bottle feed (refer to *Child Health Information: Your guide to the First 12 months* book)**

Your guide to the first 12 months | Children's Health Queensland

Child Health Service

Child and Youth Community Health Service

Multidisciplinary Team

- **Child Health Nurses**
- **Early Intervention Clinicians (EIC) - Social Workers and Psychologists (Parenting Support)**
- **Aboriginal and Torres Strait Islander Advanced Health Workers**
- **Support Staff**

[Services | Children's Health Queensland]

Child Health Service

- **Children - birth to 8 years and their Parents/Carers**
  - **Free**
  - **Do not need to be Medicare Eligible**
  - **Free interpreter service available**

[Services | Children's Health Queensland]

Child Health Service

- myChildHealth clinic – telehealth clinic as first point of contact for clients to provide introduction to service and answer early parenting questions
- Drop-in clinics – brief consultation, no appointment, 0 – 5 years
- Clinic & home visiting by appointment
- Telehealth appointments
- Key age checks – PEDS-R, ASQ & ASQ-TRAK
- Sustained home visiting for more vulnerable families
- Day stay infant feeding and parent support program 0 – 6 months
- Parenting groups
  - New parent groups
  - Postnatal wellbeing group
  - Circle of Security
  - Positive Parenting Program

Services | Children's Health Queensland

Child Health Service

- **Parents can self refer**
  - **1300 366 039**
  - **Online Appointment Booking Enquiry form**

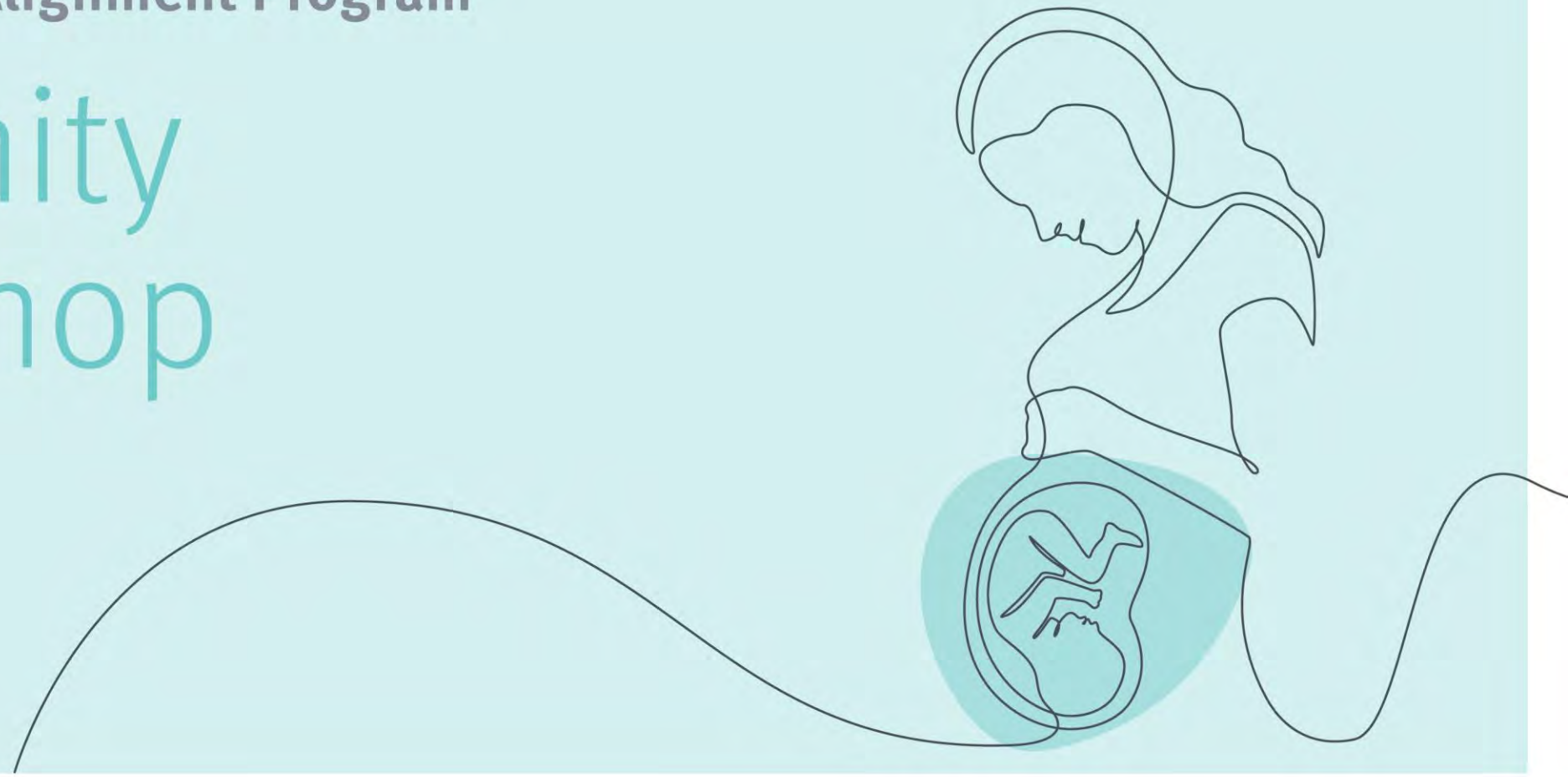
  [Child Health Appointment booking enquiry form | Children's Health Queensland]
- **GPs can refer**
  - **Child Youth & Family Health Service**

  [Referral forms | Children's Health Queensland]
- **Contact your local Clinical Nurse Consultant to discuss options for families**
  - **Caboolture/North Lakes: 0411 654 136**
  - **Nundah/Keperra: 0411 896 331**

[Services | Children's Health Queensland]

Metro North **GP Alignment Program**

Maternity Workshop



CASE STUDY

NICOLE – POSTNATAL

phn BRISBANE NORTH
An Australian Government Initiative

Queensland Government
Metro North Health

CASE STUDY: NICOLE

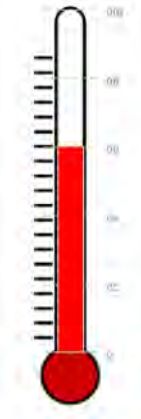
POSTNATAL

- Nicole – G2P2, BMI 40, VTE risk, GDM, hypertension
- She had a Caesarean birth, and has a healthy baby girl weighing 4200g
- She presents at 5 days post partum, looking flushed and moving slowly. She is accompanied by her husband and her mother is caring for the baby at home
- Your preliminary observations reveal a temperature of 39.2, BP 105/68 and PR of 112

- What is your approach?

Post Partum Pyrexia

- **Definition:**
  - **Oral temperature of 38.0° C or more on any two of the first 10 days postpartum, exclusive of the first 24 hours**
- **Common Causes:**
  - **UTI / endometritis / mastitis / breast abscess / pneumonia / pharyngitis/gastroenteritis**
  - **Surgical site infection / septic thrombophlebitis**
  - **Drug reaction**
  - **Clostridium difficile diarrhoea**
  - **Infections related to regional anaesthesia**



[Identification & management of maternal sepsis during and following pregnancy | RCOG]

Post Partum Pyrexia - Management

- **Refer urgently if any 'Red flags':**
  - **appears seriously ill, anxious, distressed**
  - **temperature >38°C**
  - **sustained tachycardia (>90 bpm)**
  - **breathlessness (RR>20 breaths/minute)**
  - **abdominal or chest pain**
  - **diarrhoea and/or vomiting**
  - **uterine or renal angle pain**

Identification & management of maternal sepsis during and following pregnancy | RCOG

Post Partum Pyrexia - Management

- **History, examination and investigations to identify cause and direct optimal therapy**

- **Amoxycillin with Clavulanic Acid, Metronidazole, Clindamycin, Carbapenems, Piperacillin-Tazobactam, Gentamicin**

BJOG: An International Journal of Obstetrics & Gynaecology WILEY

BJOG An International Journal of Obstetrics and Gynaecology

RCOG GREEN-TOP GUIDELINE

Identification and Management of Maternal Sepsis During and Following Pregnancy

Green-top Guideline No. 64

David Lissauer | Marina Morgan | Anita Banerjee | Felicity Plaat | Dharmintra Pasupathy | the Royal College of Obstetrics and Gynaecology

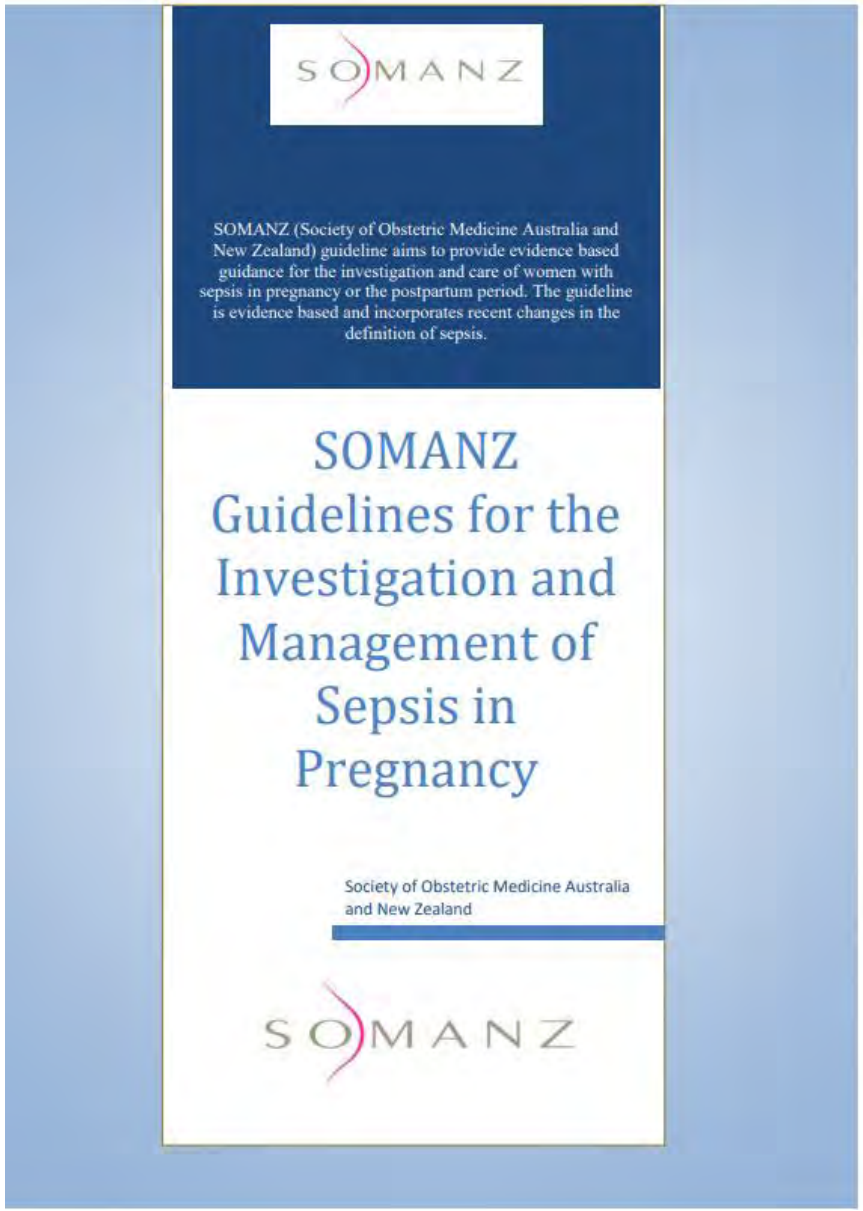
Correspondence: Royal College of Obstetricians and Gynaecologists, 10–18 Union Street, London SE1 1SZ. | (Email: clinicaleffectiveness@rcog.org.uk)

Funding: All those involved in the development of the Green-top Guidelines, including the Guidelines Committee, Guidelines Committee co-chairs, guideline developers, peer reviewers and other reviewers, are unpaid volunteers and receive no direct funding for their work in producing the guideline. The exception to this are the RCOG staff involved who are salaried employees of the College and Guidelines Committee members who receive reimbursement for expenses for at-tending Guidelines Committee meetings. Please see more information on travel expense rules on the RCOG website.

KEY RECOMMENDATIONS

- Consider sepsis as a possible diagnosis in all women during pregnancy, and in the intrapartum and postpartum period, with a suspected infection and whose clinical condition rapidly deteriorates. [Good Practice Point (GPP)]
- If sepsis is suspected in the community, urgent escalation and referral to hospital is indicated. [GPP]
- Monitoring of a woman with suspected sepsis should be performed using an early warning system modified for obstetrics, managed through a multidisciplinary approach with early escalation and senior input. [GPP]
- Serum lactate should be measured urgently in women with features indicating a high risk of sepsis. Serum lactate of 4 mmol/l or more should prompt immediate escalation of care, including consideration of discussion with critical care team. [Grade D]
- Any relevant imaging studies should be performed promptly to confirm the source of infection. [Grade D]
- Use of a sepsis bundle may improve compliance with urgent management in women at high risk of sepsis. [Grade D]
- Administration of intravenous broad-spectrum antibiotics is recommended within one hour in women at high risk of sepsis, with or without septic shock. [Grade C]
- In a critically ill pregnant woman, birth of the baby can be expedited if it would be beneficial to the woman or the baby or to both. A decision on the timing and mode of birth should be made by a senior obstetrician following discussion with the woman and/or family if her condition permits. [GPP]

[Identification & management of maternal sepsis during and following pregnancy | RCOG]



SOMANZ Guidelines for the Investigation and Management of Sepsis in Pregnancy

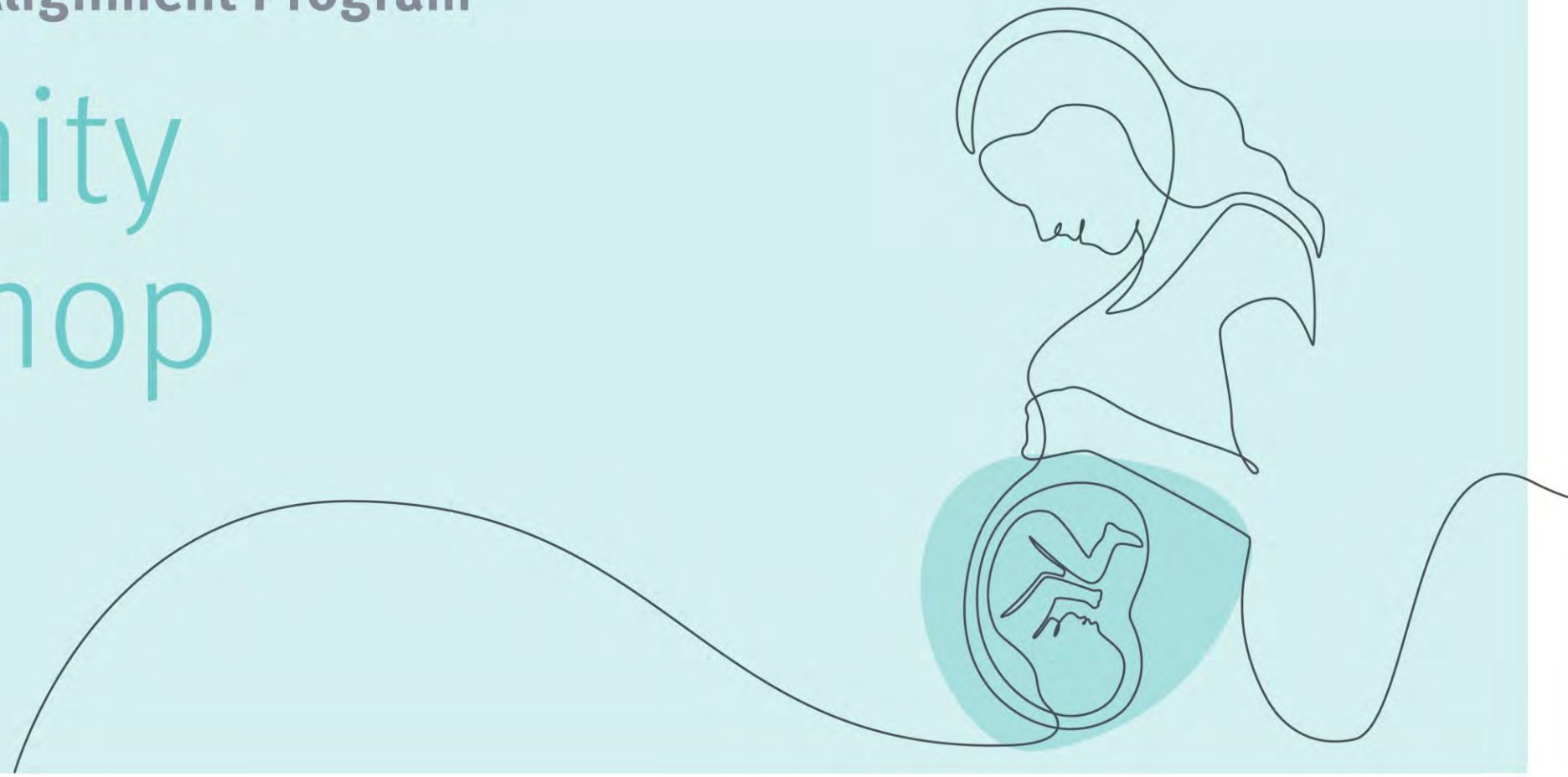
GDM follow up

- OGTT at 6 – 12 weeks postpartum
- Annual OGTT or HbA1c if contemplating another pregnancy
- Optimise postpartum and interpregnancy weight
- Early glucose testing in future pregnancies
- If no further pregnancies planned, screen for diabetes every 3 years for life
- Lifelong screening for cardiovascular disease

Queensland Clinical Guidelines

Metro North **GP Alignment Program**

Maternity Workshop



CASE STUDY

KYLIE – POSTNATAL

phn BRISBANE NORTH
An Australian Government Initiative

Queensland Government
Metro North Health

CASE STUDY: KYLIE
POSTNATAL

- Kylie - G1P1 had a vaginal birth and a third degree perineal tear
- Now 6 weeks post partum, she presents for her routine visit
- Baby Jasmine has the following appointment for 6 week check and immunisations

- What do you complete for their check ups?

Post partum care – Week 6

- **Review:**
  - **birth & complications**
  - **vaginal blood loss**
  - **feeding and breasts**
  - **infant growth and development**
  - **immunisations**
  - **contraception**
  - **nutrition, physical activity, smoking, alcohol and other drugs**
  - **medical issues (e.g., OGTT if GDM)**
  - **psychological wellbeing of mother & partner (EPDS)**
  - **ongoing follow up (GP, Child Health)**
  - **need for referrals**

EPDS

- **Screen for Depression – EPDS**
  - **6 – 12 weeks post partum and again in the first postnatal year**
  - **arrange further assessment if EPDS score 13 or more**
  - **arrange immediate further assessment if positive score Q10**

Post partum care – Week 6

- **Check:**
  - **bladder & bowel function**
- **Examine:**
  - **BP/abdomen/perineum/Caesarean section wound/breasts/nipples**
  - **baby as per personal health record**
- **Offer:**
  - **Cervical Screening Test if due**
  - **contraception**
  - **baby 6 week immunisations**

Postnatal care | Topic | NICE

Perineal care

OASIS (Obstetric Anal Sphincter Injuries)

- Dedicated perineal clinic
- Obstetrician
- Physiotherapist
- Continence Nurse

Queensland Clinical Guidelines | Queensland Health

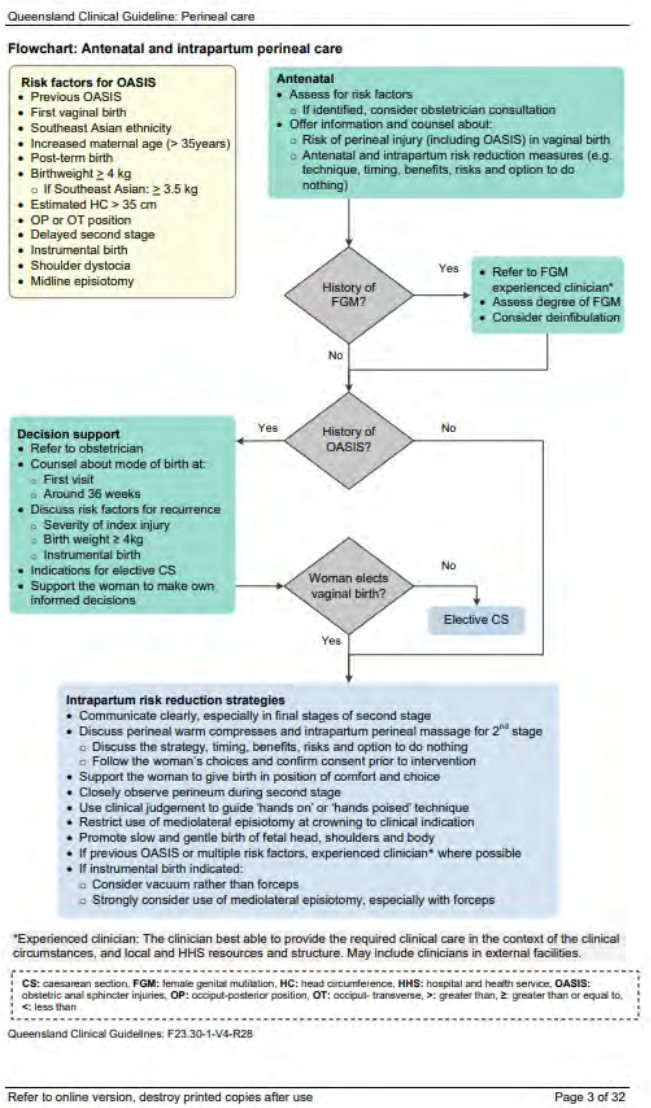
Perineal care

- **If incontinence or pain, consider referral to gynaecologist, uro-gynaecologist or colorectal surgeon**

- **Consider:**
  - **endoanal ultrasound**
  - **anorectal manometry**
  - **secondary sphincter repair**
  - **referral to physiotherapist for assessment and individualised PFMT**

Queensland Clinical Guidelines | Queensland Health

Perineal care - resources



Queensland Clinical Guideline: Perineal care

Flowchart: Antenatal and intrapartum perineal care

Risk factors for OASIS
- Previous OASIS
- First vaginal birth
- Southeast Asian ethnicity
- Increased maternal age (> 35years)
- Post-term birth
- Birthweight ≥ 4 kg
  - If Southeast Asian: ≥ 3.5 kg
- Estimated HC > 35 cm
- OP or OT position
- Delayed second stage
- Instrumental birth
- Shoulder dystocia
- Midline episiotomy

Antenatal
- Assess for risk factors
  - If identified, consider obstetrician consultation
- Offer information and counsel about:
  - Risk of perineal injury (including OASIS) in vaginal birth
  - Antenatal and intrapartum risk reduction measures (e.g. technique, timing, benefits, risks and option to do nothing)

History of FGM? — Yes → Refer to FGM experienced clinician*; Assess degree of FGM; Consider deinfibulation

No

History of OASIS? — Yes / No

Decision support
- Refer to obstetrician
- Counsel about mode of birth at:
  - First visit
  - Around 36 weeks
- Discuss risk factors for recurrence
  - Severity of index injury
  - Birth weight ≥ 4kg
  - Instrumental birth
- Indications for elective CS
- Support the woman to make own informed decisions

Woman elects vaginal birth? — No → Elective CS; Yes

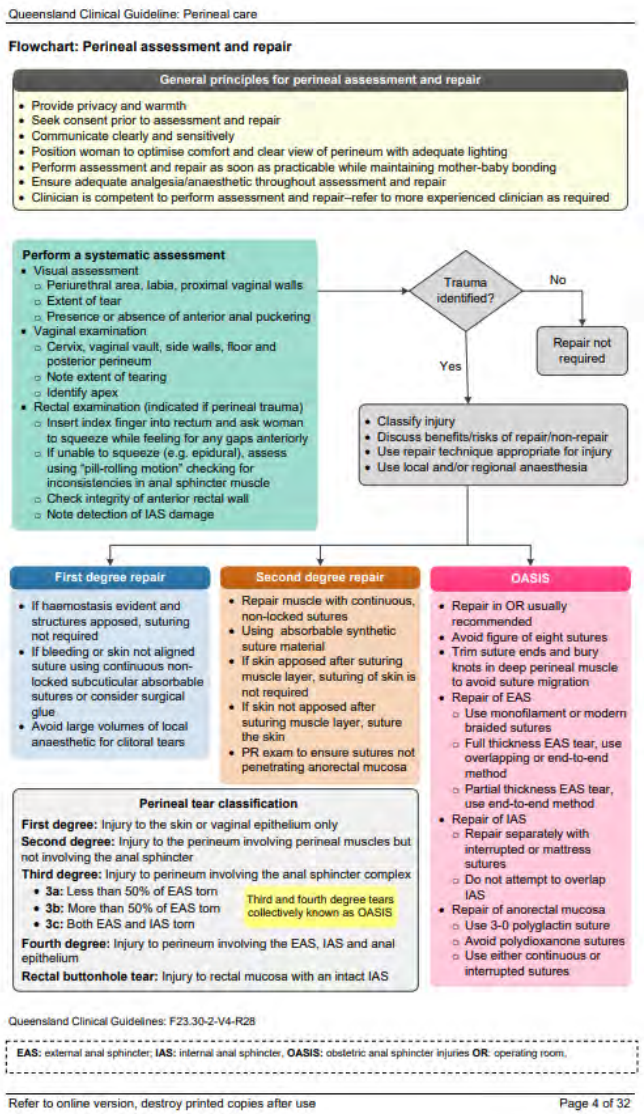
Intrapartum risk reduction strategies
- Communicate clearly, especially in final stages of second stage
- Discuss perineal warm compresses and intrapartum perineal massage for 2nd stage
  - Discuss the strategy, timing, benefits, risks and option to do nothing
  - Follow the woman's choices and confirm consent prior to intervention
- Support the woman to give birth in position of comfort and choice
- Closely observe perineum during second stage
- Use clinical judgement to guide 'hands on' or 'hands poised' technique
- Restrict use of mediolateral episiotomy at crowning to clinical indication
- Promote slow and gentle birth of fetal head, shoulders and body
- If previous OASIS or multiple risk factors, experienced clinician* where possible
- If instrumental birth indicated:
  - Consider vacuum rather than forceps
  - Strongly consider use of mediolateral episiotomy, especially with forceps

*Experienced clinician: The clinician best able to provide the required clinical care in the context of the clinical circumstances, and local and HHS resources and structure. May include clinicians in external facilities.

CS: caesarean section, **FGM:** female genital mutilation, **HC:** head circumference, **HHS:** hospital and health service, **OASIS:** obstetric anal sphincter injuries, **OP:** occiput-posterior position, **OT:** occiput- transverse, **>:** greater than, **≥:** greater than or equal to, **<:** less than

Queensland Clinical Guidelines: F23.30-1-V4-R28

Refer to online version, destroy printed copies after use — Page 3 of 32



Queensland Clinical Guideline: Perineal care

Flowchart: Perineal assessment and repair

General principles for perineal assessment and repair
- Provide privacy and warmth
- Seek consent prior to assessment and repair
- Communicate clearly and sensitively
- Position woman to optimise comfort and clear view of perineum with adequate lighting
- Perform assessment and repair as soon as practicable while maintaining mother-baby bonding
- Ensure adequate analgesia/anaesthetic throughout assessment and repair
- Clinician is competent to perform assessment and repair--refer to more experienced clinician as required

Perform a systematic assessment
- Visual assessment
  - Periurethral area, labia, proximal vaginal walls
  - Extent of tear
  - Presence or absence of anterior anal puckering
- Vaginal examination
  - Cervix, vaginal vault, side walls, floor and posterior perineum
  - Note extent of tearing
  - Identify apex
- Rectal examination (indicated if perineal trauma)
  - Insert index finger into rectum and ask woman to squeeze while feeling for any gaps anteriorly
  - If unable to squeeze (e.g. epidural), assess using "pill-rolling motion" checking for inconsistencies in anal sphincter muscle
  - Check integrity of anterior rectal wall
  - Note detection of IAS damage

Trauma identified? — No → Repair not required; Yes

- Classify injury
- Discuss benefits/risks of repair/non-repair
- Use repair technique appropriate for injury
- Use local and/or regional anaesthesia

First degree repair
- If haemostasis evident and structures apposed, suturing not required
- If bleeding or skin not aligned suture using continuous non-locked subcuticular absorbable sutures or consider surgical glue
- Avoid large volumes of local anaesthetic for clitoral tears

Second degree repair
- Repair muscle with continuous, non-locked sutures
- Using absorbable synthetic suture material
- If skin apposed after suturing muscle layer, suturing of skin is not required
- If skin not apposed after suturing muscle layer, suture the skin
- PR exam to ensure sutures not penetrating anorectal mucosa

OASIS
- Repair in OR usually recommended
- Avoid figure of eight sutures
- Trim suture ends and bury knots in deep perineal muscle to avoid suture migration
- Repair of EAS
  - Use monofilament or modern braided sutures
  - Full thickness EAS tear, use overlapping or end-to-end method
  - Partial thickness EAS tear, use end-to-end method
- Repair of IAS
  - Repair separately with interrupted or mattress sutures
  - Do not attempt to overlap IAS
- Repair of anorectal mucosa
  - Use 3-0 polyglactin suture
  - Avoid polydioxanone sutures
  - Use either continuous or interrupted sutures

Perineal tear classification

First degree: Injury to the skin or vaginal epithelium only
Second degree: Injury to the perineum involving perineal muscles but not involving the anal sphincter
Third degree: Injury to perineum involving the anal sphincter complex
- **3a:** Less than 50% of EAS torn
- **3b:** More than 50% of EAS torn
- **3c:** Both EAS and IAS torn

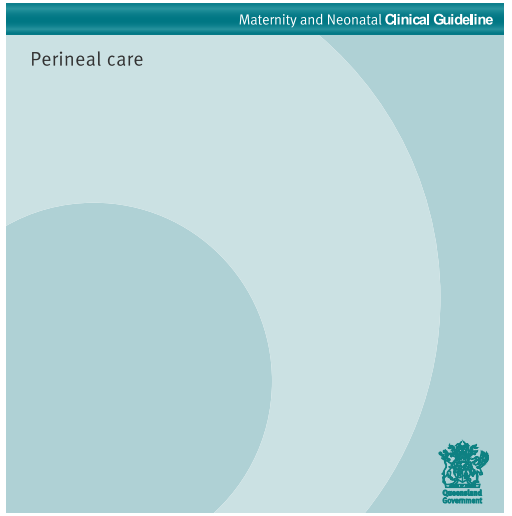
Third and fourth degree tears collectively known as OASIS

Fourth degree: Injury to perineum involving the EAS, IAS and anal epithelium
Rectal buttonhole tear: Injury to rectal mucosa with an intact IAS

Queensland Clinical Guidelines: F23.30-2-V4-R28

EAS: external anal sphincter; **IAS:** internal anal sphincter, **OASIS:** obstetric anal sphincter injuries **OR:** operating room.

Refer to online version, destroy printed copies after use — Page 4 of 32



Queensland Health
Clinical Excellence Queensland

Queensland Clinical Guidelines
Translating evidence into best clinical practice

Maternity and Neonatal **Clinical Guideline**

Perineal care

[Queensland Clinical Guidelines | Queensland Health]

Perineal care - resources

6.4 Follow up after perineal injury

Table 29. Post perineal repair follow up

Aspect	Considerations

Self-care advice until six weeks post birth	• Plan review around six weeks postpartum for assessment of wound healing
	  ○ Advise about indications to seek earlier medical review (signs of wound infection or breakdown)
	• Discuss resumption of sexual activity
	  ○ Women with perineal suturing are at increased risk of dyspareunia[128]
	  ○ Wound healing and emotional readiness can influence the decision to resume sexual activity
	  ○ Ways to minimise discomfort (e.g. experimenting with sexual positions, use of lubrication)
	• Advise to see healthcare provider if:
	  ○ Experiencing dyspareunia
	  ○ Constipation or symptoms of urinary or faecal incontinence

If OASIS	• Refer to an obstetrician for review 6–12 weeks postpartum[11] • Refer to a women's health physiotherapist for ongoing follow up and PFMT[11,69] • Refer to a continence clinic prior to discharge • Establish local protocols for follow up of women with OASIS to avoid a fragmentation of care[50] • If fourth degree tear consider involvement of a colo-rectal surgeon

After six weeks postpartum	• If symptoms persist after three months and a program of pelvic floor rehabilitation has been completed, consider specialist referral to multidisciplinary service which may include colorectal surgeon
	• Recommend specialised multidisciplinary services (e.g. urogynaecologist, mental health clinician, women's health/pelvic floor physiotherapist, sexual health clinician)[129] as indicated
	• Care considerations may include[11]:
	  ○ Endoanal USS (EAU)
	  ○ Anorectal manometry
	  ○ Consideration of secondary sphincter repair
	• Referral to a women's and pelvic health physiotherapist for assessment and individualised PFMT to help manage pelvic floor dysfunction[69]

[Queensland Clinical Guidelines | Queensland Health]

Continence advisory service

Referral reasons may include:		
Lower urinary tract symptoms: Frequency, urgency, urge incontinence, stress incontinence, voiding difficulties, poor stream, feeling of incomplete emptying	Bowel symptoms: Constipation, diarrhoea, faecal soiling, flatus incontinence	Issues with 3rd and 4th degree tears
Pre work up for referral acceptance: • Bladder symptoms – MSU M/C/S • Bowel symptoms – Stool M/C/S if indicated		

Enquiries and referrals:
Phone: 07 3646 2325
Fax: 07 3646 1769 – attention Continence Advisory Service WNS
Email: RBWH-Continence-Advisor-WNBS@health.qld.gov.au

Metro North **GP Alignment Program**

Maternity Workshop

CASE STUDY

KATE – POSTNATAL

phn BRISBANE NORTH
An Australian Government Initiative

Queensland Government
Metro North Health

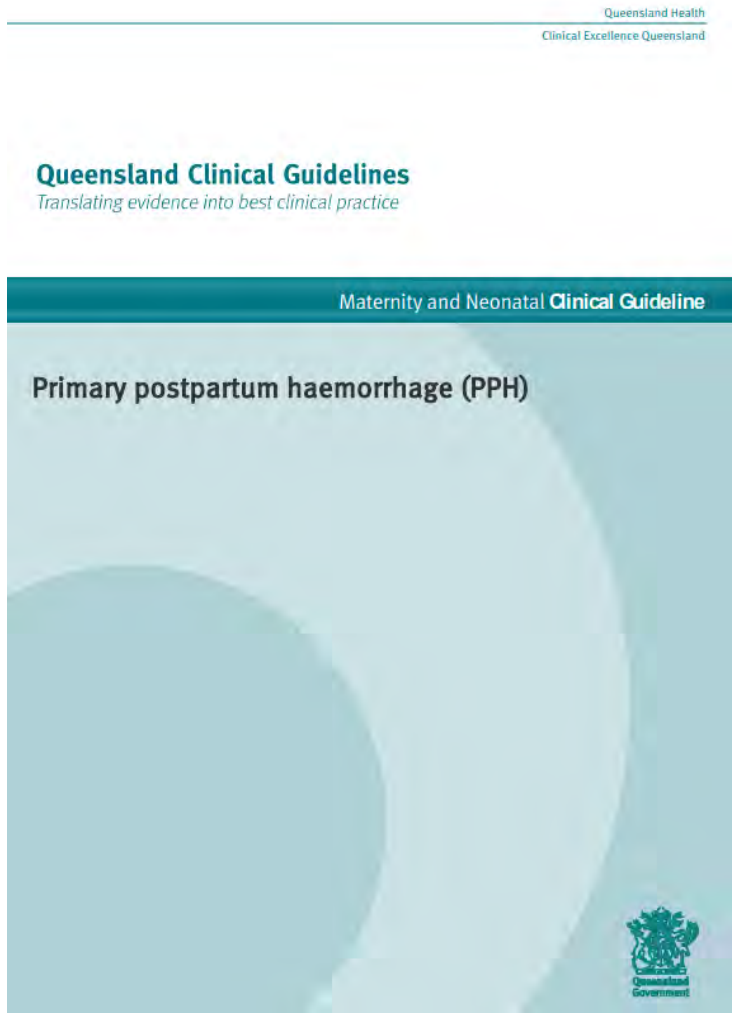
CASE STUDY: KATE
POSTNATAL

- Kate – G3P3 had an uncomplicated pregnancy, a straightforward birth and post partum course
- She presents at 5 weeks requesting a checkup, looking pale and tired
- She reports that she is still bleeding very heavily, with pain, blood clots and regular flooding
- Kate also complains of pain in her left thigh

- What do you check?

Postpartum haemorrhage (PPH)

- **Secondary PPH = excessive bleeding that occurs between 24 hours post birth and 6 weeks**
- **Primary PPH = excessive bleeding in first 24 hours post birth**



[Queensland Clinical Guidelines | Queensland Health]

Secondary PPH

- **Common causes:**
  - **endometritis +/- retained products of conception (RPOC)**

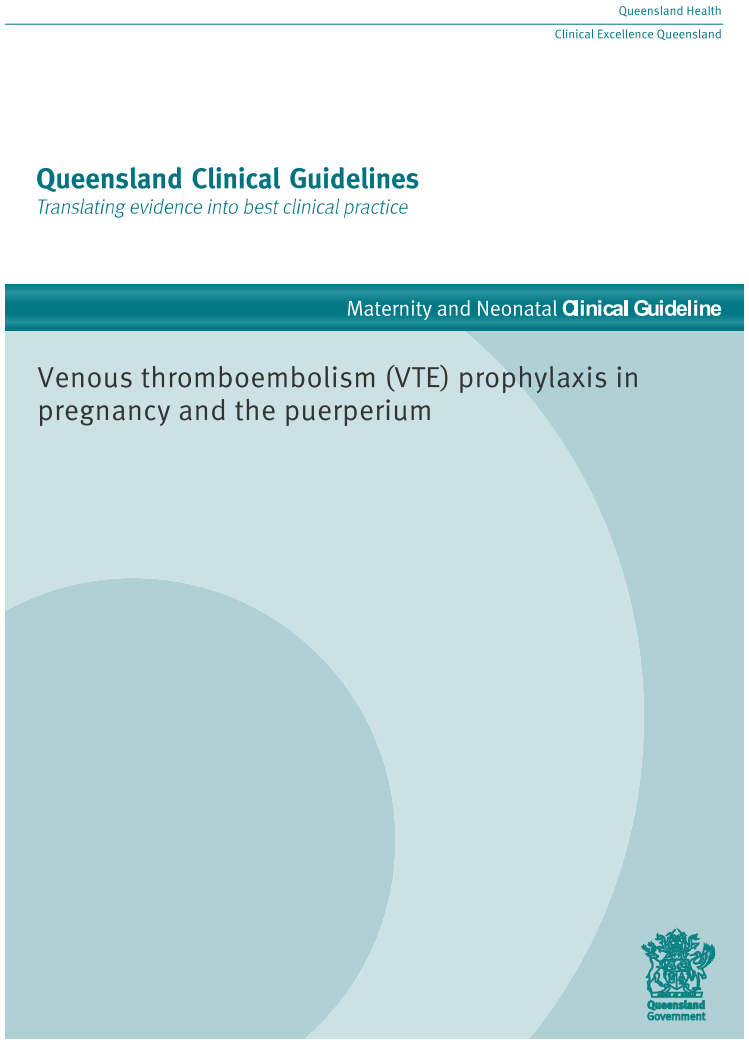
- **Rare causes:**
  - **bleeding diathesis**
  - **pseudo aneurysm / AV malformations of uterine artery**
  - **choriocarcinoma**

Secondary PPH

- **Investigations:**
  - **FBE/iron studies/coagulation screen**
  - **Infection screen**
  - **Pelvic USS and Doppler flow**
  - **BHCG levels**

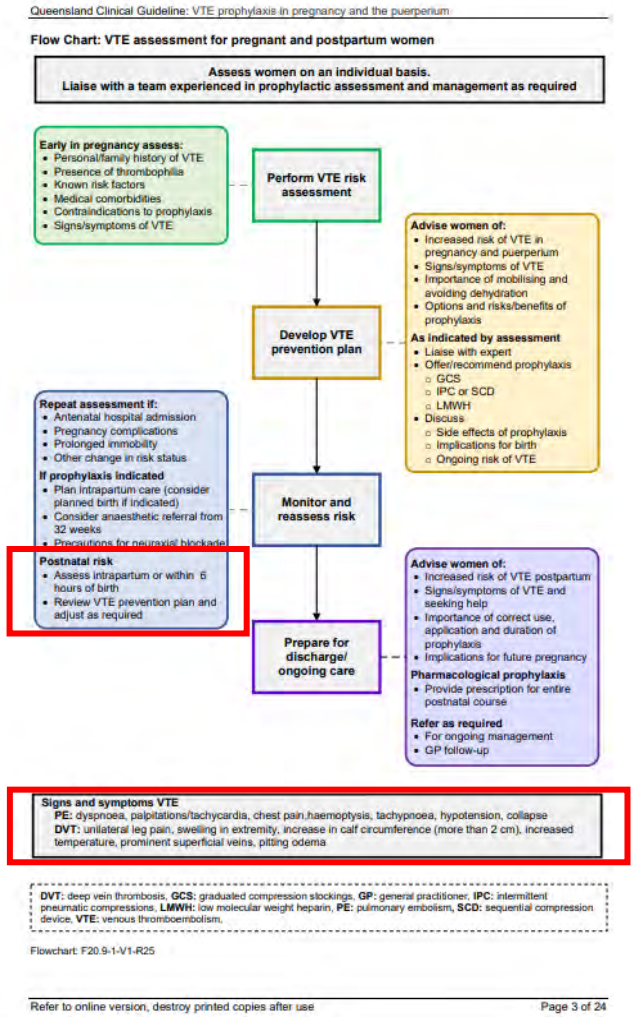
- **Treatment:**
  - **Antibiotics +/- uterotonics**
  - **If excessive / continued – investigate for RPOC (irrespective of USS findings)**
  - **Check histology**

VTE



[Queensland Clinical Guidelines | Queensland Health]

VTE postnatal assessment



Queensland Clinical Guideline: VTE prophylaxis in pregnancy and the puerperium

Flow Chart: VTE assessment for pregnant and postpartum women

Assess women on an individual basis.
Liaise with a team experienced in prophylactic assessment and management as required

Early in pregnancy assess:
- Personal/family history of VTE
- Presence of thrombophilia
- Known risk factors
- Medical comorbidities
- Contraindications to prophylaxis
- Signs/symptoms of VTE

Perform VTE risk assessment

Develop VTE prevention plan

Advise women of:
- Increased risk of VTE in pregnancy and puerperium
- Signs/symptoms of VTE
- Importance of mobilising and avoiding dehydration
- Options and risks/benefits of prophylaxis

As indicated by assessment
- Liaise with expert
- Offer/recommend prophylaxis
  - GCS
  - IPC or SCD
  - LMWH
- Discuss
  - Side effects of prophylaxis
  - Implications for birth
  - Ongoing risk of VTE

Repeat assessment if:
- Antenatal hospital admission
- Pregnancy complications
- Prolonged immobility
- Other change in risk status

If prophylaxis indicated
- Plan intrapartum care (consider planned birth if indicated)
- Consider anaesthetic referral from 32 weeks
- Precautions for neuraxial blockade

Monitor and reassess risk

Postnatal risk
- Assess intrapartum or within 6 hours of birth
- Review VTE prevention plan and adjust as required

Prepare for discharge/ ongoing care

Advise women of:
- Increased risk of VTE postpartum
- Signs/symptoms of VTE and seeking help
- Importance of correct use, application and duration of prophylaxis
- Implications for future pregnancy

Pharmacological prophylaxis
- Provide prescription for entire postnatal course

Refer as required
- For ongoing management
- GP follow-up

Signs and symptoms VTE
PE: dyspnoea, palpitations/tachycardia, chest pain,haemoptysis, tachypnoea, hypotension, collapse
DVT: unilateral leg pain, swelling in extremity, increase in calf circumference (more than 2 cm), increased temperature, prominent superficial veins, pitting odema

DVT: deep vein thrombosis, **GCS:** graduated compression stockings, **GP:** general practitioner, **IPC:** intermittent pneumatic compressions, **LMWH:** low molecular weight heparin, **PE:** pulmonary embolism, **SCD:** sequential compression device, **VTE:** venous thromboembolism,

Flowchart: F20.9-1-V1-R25

Refer to online version, destroy printed copies after use Page 3 of 24

[Queensland Clinical Guidelines | Queensland Health]

Flowchart: Antenatal and postnatal thromboprophylaxis according to risk

High risk

1 — **ANY ONE OF**
- ☐ Pre-pregnancy therapeutic anticoagulation (any reason)
- ☐ Any previous VTE plus high risk thrombophilia*#
- ☐ Recurrent unprovoked VTE (2 or more)
- ☐ VTE in current pregnancy (seek expert advice)

→ **Therapeutic anticoagulation**
- Continue/commence antenatal
- Continue 6 weeks postpartum

* *High prophylactic dose may be appropriate*

2 — **ANY ONE OF**
- ☐ Any single previous VTE not provoked by surgery
- ☐ Recurrent provoked VTE (2 or more)
- ☐ Active autoimmune or inflammatory disorder
- ☐ Medical co-morbidity: (e.g. cancer, nephrotic syndrome, heart failure, sickle cell, type I diabetes with nephropathy)

→ **LMWH standard prophylaxis**
- From first trimester
- Continue 6 weeks postpartum

3 — **IF THROMBOPHILIA**
- ☐ High or low risk thrombophilia* (no personal history VTE)

→ **Refer to Flowchart:** *VTE prophylaxis if thrombophilia*

4 — **ANY ONE OF**
- ☐ Antenatal hospital admission
- ☐ Ovarian hyperstimulation syndrome (first trimester only)
- ☐ Any surgery (…or postpartum)
- ☐ Severe hyperemesis or dehydration requiring IV fluid

→ **LMWH Standard prophylaxis**
- While in hospital or until resolves

All risk

SELECT ALL THAT APPLY (at every assessment (antenatal or postnatal))

	Risk score
☐ Family history (1st degree relative) of unprovoked or estrogen provoked VTE	1
☐ Single VTE provoked by surgery	3
☐ Age > 35 years	1
☐ Parity ≥ 3	1
☐ Smoking (any amount)	1
☐ Gross varicose veins	1
☐ Current BMI 30–39 kg/m²	1
☐ Current BMI ≥ 40 kg/m²	2
☐ IVF/ART	1
☐ Multiple pregnancy	1
☐ Pre-eclampsia in current pregnancy	1
☐ Immobility	1
☐ Current systemic infection	1
☐ Pre-existing diabetes	1
☐ Caesarean section in labour	3
☐ Elective caesarean section	1
☐ Prolonged labour > 24 hours	1
☐ Operative vaginal birth	1
☐ Preterm birth (< 37+0 weeks)	1
☐ PPH > 1 L or transfusion	1
☐ Stillbirth in current pregnancy	1
☐ Caesarean hysterectomy	3

Sum all risk scores

Antenatal risk score

ALL	Mobilise, avoid dehydration
3	**LMWH standard prophylaxis** • From 28 weeks
≥ 4	**LMWH standard prophylaxis** • From time of assessment

Postnatal risk score = antenatal + postnatal score

ALL	Mobilise early, avoid dehydration
2	**LMWH standard prophylaxis** • Until discharge
≥ 3	**LMWH standard prophylaxis** • 7 days (or longer if ongoing risk)

All caesarean sections
Recommend IPC or SCD until next day

GCS/TED stockings
- Consider for postnatal women until fully mobile
- Recommend if receiving LMWH

Enoxaparin: standard prophylaxis (subcut)

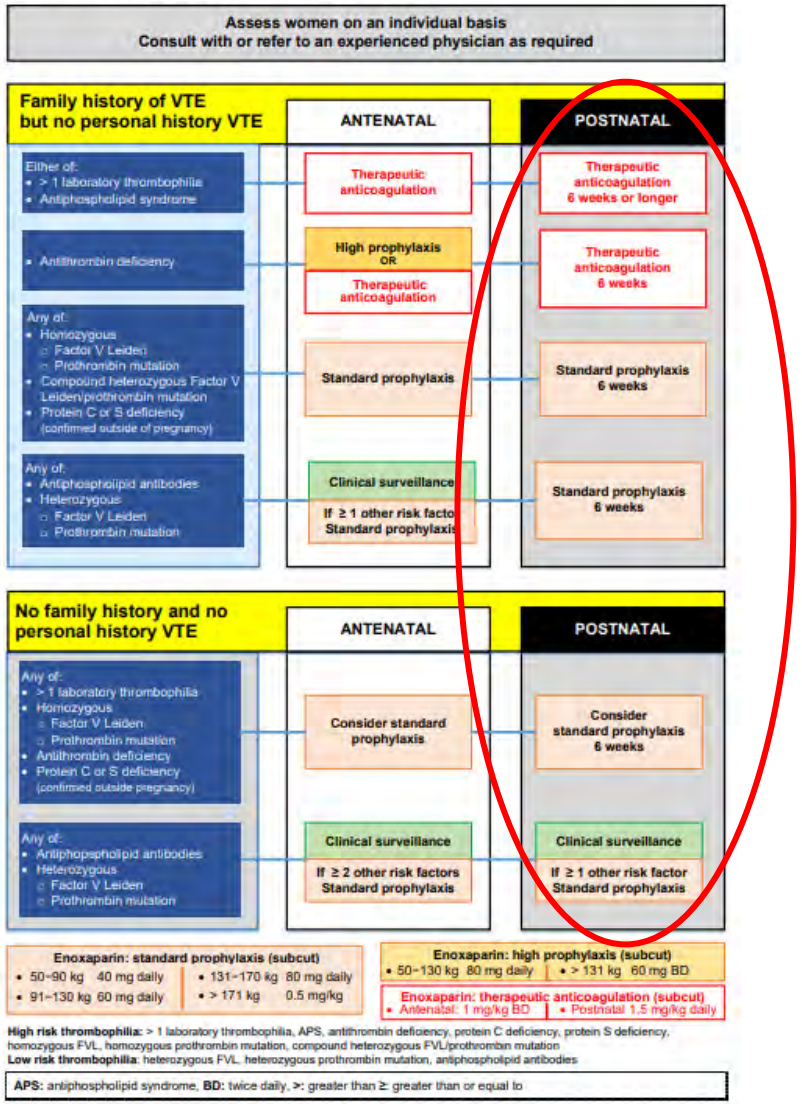
• 50–90 kg	40 mg daily	• 131–170 kg	80 mg daily
• 91–130 kg	60 mg daily	• > 171 kg	0.5 mg/kg

* **High risk thrombophilia:** > 1 labor… …philia, APS, antithrombin deficiency, protein C … …homozygous FVL, homozygous prothrombin mutation, compound heterozygous FVL/prothrombin mutation
Low risk thrombophilia heterozygous FVL, heterozygous prothrombin mutation, antiphospholipid antibodies

APS: antiphospholipid syndrome, **ART:** artificial reproductive technology, **BMI:** body mass index, **FVL:** factor V Leiden, **GCS:** graduated compression stockings, **IPC:** intermittent pneumatic compressions, **IVF:** in-vitro fertilisation, **LMWH:** low molecular weight heparin, **PE:** pulmonary embolism, **PPH:** Primary postpartum haemorrhage, **SCD:** sequential compression device, **SLE:** systemic lupus erythematosus, **TEDS:** thromboembolic deterrent stockings **VTE:** venous thromboembolism, **≥:** greater than or equal to, **>:** greater than

[Queensland Clinical Guidelines | Queensland Health]

Flowchart: Thromboprophylaxis if thrombophilia



High risk thrombophilia: > 1 laboratory thrombophilia, APS, antithrombin deficiency, protein C deficiency, protein S deficiency, homozygous FVL, homozygous prothrombin mutation, compound heterozygous FVL/prothrombin mutation
Low risk thrombophilia: heterozygous FVL, heterozygous prothrombin mutation, antiphospholipid antibodies

APS: antiphospholipid syndrome, **BD:** twice daily, **>:** greater than **≥** greater than or equal to

Flowchart: F20.9-3-V1-R25

Therapeutic anticoagulation

5.4.3 Therapeutic anticoagulation

If weight greater than 100 kg, liaise with an experienced physician regarding dose. If the woman has antithrombin deficiency, consider increased dose and monitoring of anti-Xa levels.

Table 21. Therapeutic anticoagulation

Medicine	Dosage
Dalteparin	• 100 units/kg twice per day[61]
Enoxaparin	• Antenatal: o 1 mg/kg subcutaneous twice per day[61] • Postnatal: o 1.5 mg/kg subcutaneous daily[61]
Heparin sodium (UFH)	• Loading Dose[61]: o 80 units/kg IV stat • Infusion[61]: o 18 units/kg/hour IV infusion • Monitor APTT[61] as per Queensland Health form: Heparin intravenous infusion order and administration–adult[15]
Warfarin	• Variable oral dose o Aim for INR 2–3 unless specified otherwise • Refer to Queensland Health's guidelines for anticoagulation using warfarin[62,63]