

## Metro North GP Alignment Program



**MATERNITY WORKSHOP**

Saturday 2nd September 2023

# Workshop Presentations and Resources – Part 2

## Metro North GP Alignment Program



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# First Trimester Case Studies

# Red group – first trimester

- Jessica - healthy 24 year old
- LNMP 4 weeks ago & uHCG is positive
- This is her first pregnancy, she has no private health insurance & she wants to know what comes next
- She has a 15 min appointment
- Outline your approach

# NHMRC Iodine recommendation

- NHMRC recommends **all women** who are **pregnant, breastfeeding or considering pregnancy**, take an **iodine** supplement of **150 micrograms (µg) each day**
- women with pre-existing thyroid conditions should seek advice from medical practitioner prior to taking a supplement
- women who are thyrotoxic, have Graves' disease or multinodular goitre should not take supplemental iodine

<https://www.nhmrc.gov.au/about-us/publications/iodine-supplementation-pregnant-and-breastfeeding-women>



# Iodine supplementation

- Iodine and folic acid fortification of bread mandatory since 2009 but not high enough levels for pregnancy – supplementation recommended
- **Most pregnancy and breastfeeding multivitamins contain iodine**
- Iodised salt recommended for women of childbearing age

<https://www.foodstandards.gov.au/>

# Omega-3

- If women are low in omega-3, 800 mg DHA and 100 mg EPA per day may reduce their risk of preterm birth
- SA Pathology-SAHMRI collaboration assessing the feasibility of identifying women who are low in omega-3 and may benefit from omega-3 supplementation to reduce their risk of early birth
- Testing available in Qld but no MBS rebate and result may be difficult to interpret

<https://www.health.gov.au/resources/pregnancy-care-guidelines>

[sahmri.org/omega3](http://sahmri.org/omega3)

Nutrition Education Materials Online (NEMO)

- Home
- For patients
- For Health Professionals
- FEEDS
- About us
- Contact us



## Nutrition Education Materials Online (NEMO)

### Health Professionals

Maternal Health

Search by keyword

Title	Author	Description
<b>Clinician resources</b>		
<a href="#">Gestational Diabetes Mellitus eLearning Series</a>	Queensland Health	
<a href="#">NHMRC Pregnancy Care Guidelines 2019</a>	Department of Health	
<b>Evidenced-Based Demand Management Toolkit</b>		
<b>Patient education resources</b>		
<a href="#">Diabetes in Pregnancy – Dietitian form</a>	Queensland Health	
<a href="#">Folate</a>	Food Standards Australia & New Zealand	
<a href="#">Food safety (including listeria)</a>	Food Standards Australia & New Zealand	
<a href="#">Gestational Diabetes Presentation</a>	NEMO Maternal Health Group	
<a href="#">Mercury</a>	Food Standards Australia & New Zealand	

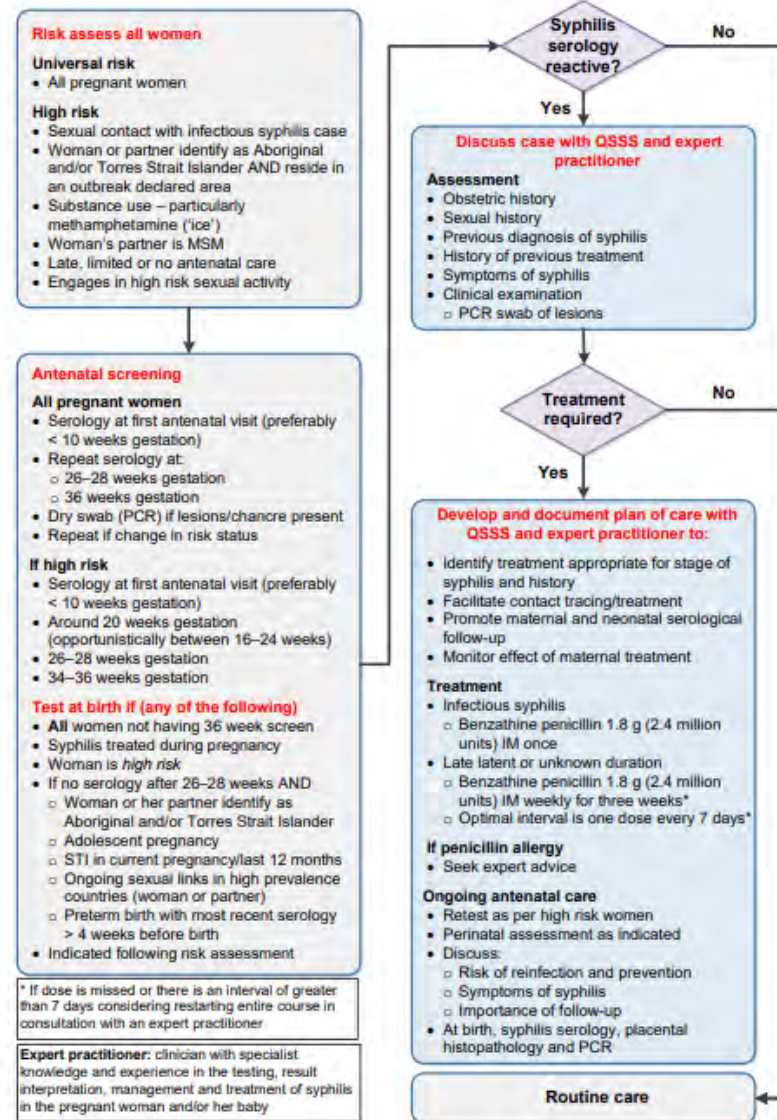
<https://www.health.qld.gov.au/nutrition/clinicians>

# Specific STI testing

- National guidelines recommend testing *all* women under the age of 30 for **Chlamydia** as part of antenatal screen
- Queensland guidelines recommend repeating **Syphilis** serology at
  - K26-28 and K36 in **all** women
  - K20, K26-28 and K34-36 if high risk

<https://www.health.gov.au/resources/pregnancy-care-guidelines>  
<https://www.health.qld.gov.au/qcg>

## Flow Chart: Antenatal care



IM: intramuscular injection; MSM: Men who have sex with men; PCR: Polymerase Chain Reaction; QSSS: Queensland Syphilis Surveillance Service; STI: sexually transmitted infection; <: less than ≤ less than or equal to



# Antenatal Sexual health Kit (ASK) - Self-paced

True's Clinical Education Unit has recommenced ASK education sessions. Join a live webinar by registering to a session below, or email [ask@true.org.au](mailto:ask@true.org.au) if you would like an education session for your workplace. Otherwise individually register for the ASK package and complete the self-directed online webinar, modules and podcasts via the orange 'Register now' icon.

Register Now



## Cost

Fully funded, free to access



## Delivery method

The online ASK course is multifaceted and consists of:

- A 30-minute presentation
- Online learning modules
- Podcast series of 4
- Online resource hub
- Frequently Asked Questions (FAQ)



<https://www.true.org.au/education>

# Queensland dTpa vaccination program for pregnant women

- vaccination during pregnancy reduces the risk of pertussis in young infants by 90%
- direct passive protection by transplacental transfer of pertussis antibodies from mother to fetus during pregnancy

<https://immunisationhandbook.health.gov.au/>

# Queensland dTpa vaccination program for pregnant women

- recommended as a single dose in **each** pregnancy (optimal time 20 - 32 weeks)
- funded by Queensland Health

<https://immunisationhandbook.health.gov.au/>

# dTpa recommendations for adult household contacts and carers

Adult household contacts and carers of infants <6 months of age are recommended to receive dTpa vaccine at least 2 weeks before they have close contact with the infant if their last dose was more than 10 years ago

<https://immunisationhandbook.health.gov.au/>

# Influenza

- pregnant women are strongly recommended to receive influenza vaccine each pregnancy
- can be given during any stage of pregnancy

<https://immunisationhandbook.health.gov.au/>



# COVID-19

RANZCOG and ATAGI recommend

- bivalent COVID-19 vaccine (Original/Omicron BA.1 or Original/Omicron BA.4/5) for primary course and booster doses
- can be given at any stage of pregnancy, breast feeding or planning a pregnancy
- can be given at the same time as Influenza vaccine

<https://www.health.gov.au/our-work/covid-19-vaccines>

# Vaccination in pregnant women

- In Australia, vaccination is predominantly undertaken in General Practices (Australian Immunisation Handbook 2018)
- Women who receive a recommendation from their health care provider are more likely to receive vaccines
- Some Metro North Health Antenatal Clinics and Hospitals provide Influenza and dTpa vaccinations

# Pregnancy Health Record

## Immunisation

All vaccinations are required to be reported to the Australian Immunisation Register.			Complete signature log on page a1.
<b>Rh D immunoglobulin</b> (Rh D negative women only) Blood group:	<input type="checkbox"/> 28 weeks If no, reason: .....	Initials:	
	Date given: ..... / ..... / .....	Batch number:	
	<input type="checkbox"/> 34–36 weeks If no, reason: .....	Initials:	
	Date given: ..... / ..... / .....	Batch number:	
<b>dTpa (diphtheria, tetanus and pertussis) vaccine</b> (recommended 20–32 weeks)	<input type="checkbox"/> Discussed <input type="checkbox"/> Declined	Gestation: ..... weeks	Initials:
	Date given: ..... / ..... / .....	Batch number:	
<b>COVID-19 vaccination</b>	<input type="checkbox"/> Declined <input type="checkbox"/> Yes <input type="checkbox"/> Up-to-date	Date last given: ..... / ..... / .....	Initials:
<b>Influenza vaccine</b> (recommended at any gestation)	<input type="checkbox"/> Declined <input type="checkbox"/> Yes <input type="checkbox"/> No	Gestation: ..... weeks	Initials:
	Date given: ..... / ..... / .....	Batch number:	
<b>Other</b>	Specify:	Gestation: ..... weeks	Initials:
	Date given: ..... / ..... / .....	Batch number:	

# Blue group - first trimester

- **Kylie** – a healthy 32 year old aboriginal woman is pleased as her period is overdue and her home pregnancy test is positive
- She has been stable on 100 mcg thyroxine daily for several years & is taking no other medication
- **She has a 15 min appointment**
- **Outline your approach**

# Working together to support Aboriginal and Torres Strait Islander Families

- Ngarrama Maternity Services
- Ngarrama Allied Health
- Ngarrama Family Service
- Women's Business Gynaecology Shared Pathway
- Brisbane North PHN Aboriginal and Torres Strait Islander health and wellbeing





HOME / PROGRAMS FOR OUR COMMUNITY / ABORIGINAL AND TORRES  
STRAIT ISLANDER HEALTH AND WELLBEING

# Aboriginal and Torres Strait Islander health and wellbeing

We're committed to improving the health outcomes of  
Aboriginal and Torres Strait Islander people in the  
North Brisbane and Moreton Bay region.



Through working with community and for community, we aim to close the gap in life expectancy, improve the mortality rates for children, and improve access to culturally appropriate and high-quality healthcare.

# Pre-gestational hypothyroidism

## - management in pregnancy

- **increase total weekly dose by 30%** once pregnancy confirmed
- **monitor TFT every 4 weeks during first trimester and every 6 - 8 weeks thereafter**
- **target TSH 0.5 – 2.5 mIU/L**
- **postpartum - return to pre-pregnancy dose**

# Pre-gestational hyperthyroidism - management in pregnancy

- **refer to Endocrinology service pre-conception or as early as possible in pregnancy**

# Thyroid Tips

- Routine TSH in pregnancy is **not** recommended
- Check TSH if
  - current or previous treatment for or symptoms of thyroid dysfunction &/or goitre
  - known positive antithyroid antibodies
  - > 30yo
  - BMI > 40
  - FHx thyroid disease
  - T1 DM, coeliac disease, Addison's disease, pernicious anaemia
  - history of miscarriage, infertility or pre-term delivery
  - Recent use amiodarone, lithium, IV contrast for CT scan

# Subclinical hypothyroidism diagnosed in pregnancy

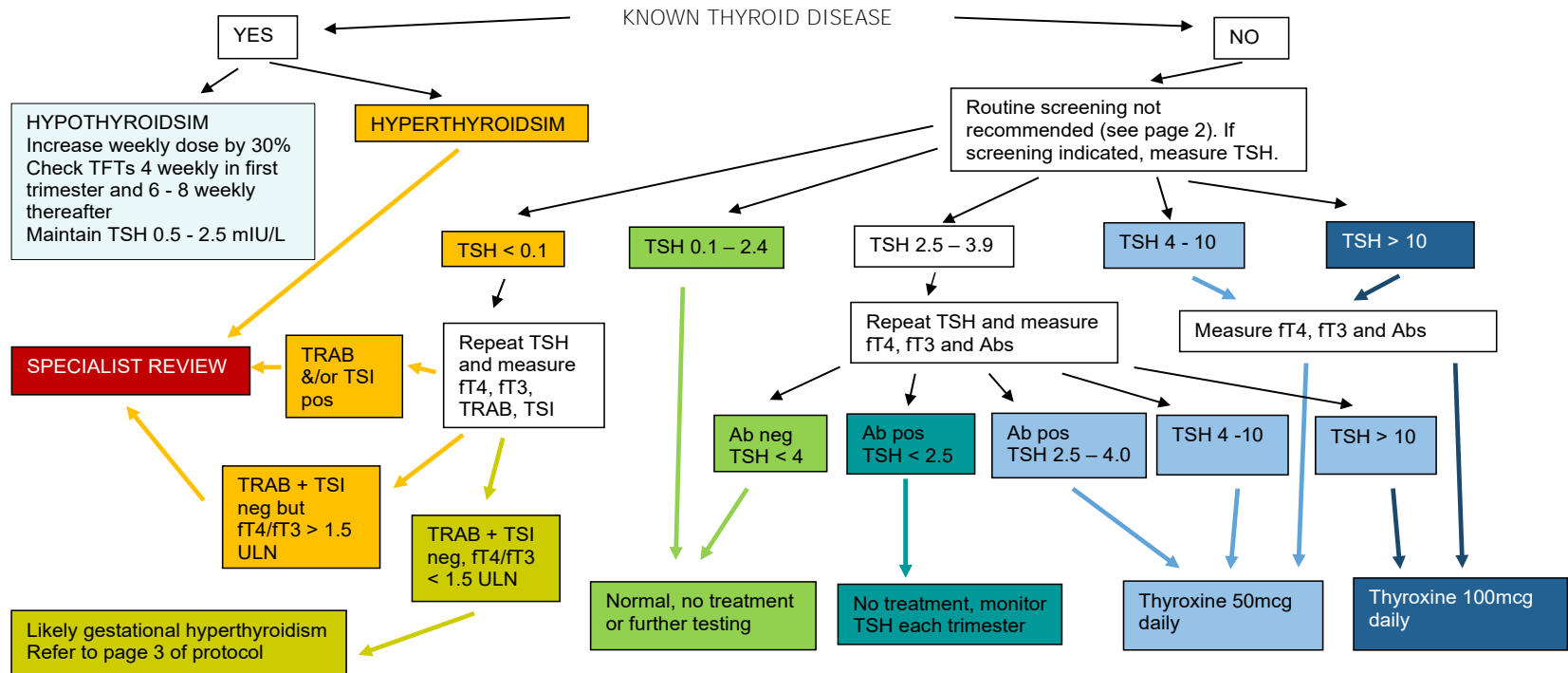
- TSH 2.5 - 4.0, repeat TSH, measure fT4, fT3 & anti-thyroid antibody titres
- 4.0 - 10, measure anti-thyroid antibody titres and commence thyroxine 50mcg daily
- If TSH > 10.0, measure anti-thyroid antibody titres and commence thyroxine 100mcg daily



# Subclinical hyperthyroidism diagnosed in pregnancy

- Prior to 20 weeks
  - TSH  $< 0.1$ , repeat TSH, measure fT4, fT3, TRAb, &/or TSH receptor stimulating immunoglobulin (TSI)
- From 20 weeks - term
  - TSH  $< 0.4$ , repeat TSH, measure fT4, fT3, TRAb, &/or TSH receptor stimulating immunoglobulin (TSI)
- Refer all patients with positive TRAb and/or TSI

## Management of Thyroid Disorders – prior to 13 weeks



Version 3.0 Effective: August 2022 Review: August 2025

Royal Brisbane & Women's Hospital  
Butterfield Street  
Herston QLD 4029

Telephone +61 7 3646 8111  
www.health.qld.gov.au

Metro North  
Health



Queensland  
Government

# Vitamin D

- Routine Vitamin D testing not recommended
- 400 IU Vitamin D daily as part of a pregnancy multivitamin

<https://ranzcog.edu.au/resources/statements-and-guidelines-directory/>

<https://www.mja.com.au/journal/2012/196/11/vitamin-d-and-health-adults-australia-and-new-zealand-position-statement>

# Vitamin D deficiency

25-hydroxyvitamin D, quantification in serum, for the investigation of a patient who:

- (a) has signs or symptoms of osteoporosis or osteomalacia; or
- (b) has increased alkaline phosphatase and otherwise normal liver function tests; or
- (c) has hyperparathyroidism, hypo- or hypercalcaemia, or hypophosphataemia; or
- (d) is suffering from malabsorption (for example, because the patient has cystic fibrosis, short bowel syndrome, inflammatory bowel disease or untreated coeliac disease, or has had bariatric surgery); or
- (e) has deeply pigmented skin, or chronic and severe lack of sun exposure for cultural, medical, occupational or residential reasons; or**
- (f) is taking medication known to decrease 25OH-D levels (for example, anticonvulsants); or
- (g) has chronic renal failure or is a renal transplant recipient; or
- (h) is less than 16 years of age and has signs or symptoms of rickets; or
- (i) is an infant whose mother has established vitamin D deficiency; or
- (j) is an exclusively breastfed baby and has at least one other risk factor mentioned in a paragraph in this item; or
- (k) has a sibling who is less than 16 years of age and has vitamin D deficiency

<http://www.mbsonline.gov.au/>

# Vitamin D deficiency

- > 50 nmol/L - 400 IU vitamin D (cholecalciferol) daily as part of pregnancy multivitamin
- 30 - 49 nmol/L - 1000 IU daily
- < 30 nmol/L - 3000 – 5000 IU daily for 6 -12 weeks then check vitamin D; continue 1000 – 2000 IU daily maintenance dose

<https://www.mja.com.au/journal/2012/196/11/vitamin-d-and-health-adults-australia-and-new-zealand-position-statement>

# Green group – first trimester

- **Amanda** – a healthy 40 year old presents with a positive pregnancy test. Her first child, now 23 years old was born at term weighing 4500g
- Her BMI is 24, blood tests (FBC, E/LFT, TFT, Iron studies) from 2 years ago were normal and her family is healthy
- She requests an USS “just to be sure” as she knows her risk of miscarriage is high and she wants to see the baby’s heart beat ASAP
- **She has a 30 min appointment**
- **Outline your approach**

# Women > 35yo

Risks include:

- GDM
- Preeclampsia
- VTE
- Miscarriage
- Multiple pregnancy
- Chromosomal abnormality
- Preterm birth
- Low birth weight
- Caesarean birth



# WOMEN'S IMAGING REQUEST



**Royal Brisbane and Women's Hospital**  
Level 3, Ned Hanlon Building, Herston 4029  
Phone: 3646 2606 Fax: (07) 3646 5379

Metro North Hospital and Health Service

[Print Form](#)

Patient information sheets available at [www.qheps.health.qld.gov.au/consent](http://www.qheps.health.qld.gov.au/consent)

UR..... ☐ Female ☐ Male ☐ Indeterminate  
Family Name .....  
Given Names .....  
DOB ..... / ..... / .....  
Home address .....  
Phone Nos .....

☐ Inpatient ☐ Ward  
☐ Outpatient ☐ Clinic  
☐ Bulk Bill .....

☐ Routine ☐ Urgent  
☐ Within ..... (Must arrange with Specialist)  
weeks ☐ Next OPD appt ..... / ..... / .....

## EXAMINATION REQUESTED

### Obstetric Ultrasound

- ☐ 1st Trimester Viability / Dating Scan  
☐ 11 Wk 4 Day - 13 Wk 6 Day Nuchal Translucency +/- Karyotype  
☐ First Trimester Serum Screening  
(GP to arrange this 5 days prior to U/S) ☐ Hosp. ☐ QML ☐ S+N  
☐ 18-20 Wk Morphology Scan  
☐ Growth & Well-Being Scan  
☐ Multiple pregnancy growth scan  
☐ Cervical Length screening ☐ Frequency .....

### Gynaecology

- ☐ TV Scan ☐ TV consented ☐ yes ☐ No  
☐ Ultrasound Pelvis  
☐ Saline sonohysterogram (day 10 of cycle)  
☐ Hysterosalpingogram (HSG) day 10 (X-ray)

## RADIOLOGY FINAL CHECK

- Patient identification verified ☐  
Procedure & consent verified ☐  
Correct side & site verified ☐  
Correct patient data & side markers ☐

## YES

Sonographer/Radiographer

Signature .....

### General Ultrasound

- ☐ Abdomen ☐ Renal

### Neonatal Ultrasound

- ☐ Cranium ☐ Abdomen  
☐ Renal ☐ Hips

Fetal MRI / complete general imaging blue request form for MRI

## CLINICAL DETAILS

- ☐ No clinical concerns. Routine follow-up  
or This imaging is needed to (tick one and explain)  
☐ Confirm ☐ Exclude ☐ Define ☐ Progress of

G ..... P ..... M ..... E ..... T .....

LNMP: ..... EDD: .....

Current BMI.....

## Imaging pathway for BMI>40

1. Nuchal scan (11w4d-13w6d)
2. TV scan (14-16w)
3. Morphology scan (22w)
4. Growth scan if necessary (28 or 34w)

Radiologist protocol /Initial.....

Radiographers comments

Requested by ..... Consultant ..... ☐ Bulk Bill  
Pager/Phone ..... Provider No .....  
Signature ..... Date .....

Time .....  
Date .....  
Room .....  
Initials .....

Notice to the patient. For Medicare eligible examinations only: Your referrer has recommended that you use Queensland Health. You may choose another provider but please discuss this with your referrer first.  
Version No: 3.1 Effective date: 05/2016 Review date: 05/2017

[https://metronorth.health.qld.gov.au/specialist\\_service/refer-your-patient/antenatal-and-maternity](https://metronorth.health.qld.gov.au/specialist_service/refer-your-patient/antenatal-and-maternity)

## Maternal Fetal Medicine (MFM)

Royal Brisbane and Women's Hospital

Royal Brisbane and Women's Hospital



### Maternal Fetal Medicine (MFM) Referral Guidelines for Antenatal Ultrasound and MFM Consultation

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MIR G 6130  
v10.00 - 08/2022 Locally  
Printed

**MATERNAL FETAL MEDICINE REFERRAL FOR IMAGING AND CONSULT**

# Orange group – first trimester

- **Nicole** – a healthy 37 year old has a positive home pregnancy test
- Home pregnancy test performed 3/52 earlier was negative
- Nicole is unsure when she fell pregnant as her periods are irregular and her LNMP was 7 weeks ago
- Her pre-pregnancy weight is 108kg height 165cm BMI 40
- Nicole has been taking folic Acid 0.5 mg daily and wants to know what to do next
- She has a positive family history of VTE
- **15 min appointment booked**
- **Outline your approach**

# Women > 35 yo

Risks include

- GDM
- Preeclampsia
- VTE
- Miscarriage
- Multiple pregnancy
- Chromosomal abnormality
- Preterm birth
- Low birth weight
- Caesarean birth

# Obesity guidelines

Queensland Health

Clinical Excellence Queensland

## Queensland Clinical Guidelines

*Translating evidence into best clinical practice*

### Maternity and Neonatal Clinical Guideline

#### Obesity and pregnancy (including post bariatric surgery)

Queensland Clinical Guidelines <https://www.health.qld.gov.au/qcg>

# Risks of high pre-pregnancy BMI

## Maternal Risks

- Maternal death or severe morbidity
- Miscarriage
- Thromboembolic disease
- Gestational diabetes mellitus
- Hypertension & pre-eclampsia
- Pre-term birth
- Induction of labour
- Instrumental delivery
- Caesarean section
- Anaesthetic risks
- Wound infection
- Post partum haemorrhage
- Breast feeding challenges
- Depression & anxiety
- Eating disorders

## Fetal/Baby Risks

- Congenital malformations
- Difficulties with fetal surveillance
- Stillbirth
- Macrosomia/LGA
- Shoulder dystocia
- Pre-term birth
- Jaundice, hypoglycaemia
- NICU admission
- Respiratory distress syndrome
- Neonatal and infant death
- Less breastfeeding
- Childhood obesity, metabolic syndrome, generational obesity
- Neurodevelopmental differences

# Resource considerations

- Facility design
- Staff training
- Large BP cuffs, calibrated bariatric scales
- Bariatric beds, theatre trolleys, wheelchairs etc
- USS
- Fetal monitoring
- Intravenous access

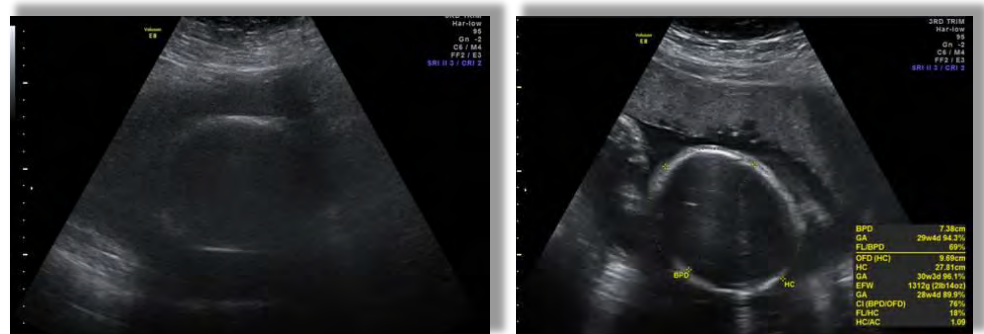


Image source: Donna Traves Sonographer, RBWH



# Obesity in pregnancy

- It is recommended that all women are weighed at each visit
- Advise women of their target weight gain based on **pre-pregnancy BMI** (Refer to page a9 PHR)
- Refer all women with BMI  $\geq 25$  to a dietitian

Target Weight Gains			
<p>*Calculations assume a 0.5–2kg weight gain in the first trimester for single babies.</p> <p>Refer to dietitian if multiple pregnancies, as different goals required. Dietary and physical activity requirements discussed. Refer to Queensland Clinical Guideline: <i>Obesity and pregnancy</i> for further information.</p>	Pre-pregnancy BMI (kg/m <sup>2</sup> )	Rate of gain 2nd and 3rd trimester (kg/week)*	Recommended total gain range (kg)
	Less than 18.5	0.51	12.5 to 18
	18.5 to 24.9	0.42	11.5 to 16
	25.0 to 29.9	0.28	7 to 11.5
	$\geq 30.0$	0.22	5 to 9

# RBWH Maternity Dietitian Referral

## Standard referral guidelines

**If the referral is incomplete or contains insufficient information it may be returned.**

To help with the accurate categorisation of patients referrals please ensure as much information as possible is provided.

### Required

- Date of referral
- Patient information:
  - Full name, date of birth, contact details, postal address or contact address (if not the same as usual residence)
  - Allergies (drug/ topical preparation)
  - Aboriginal and Torres Strait Islander status (if applicable)
- Referring practitioner:
  - Full name, address and contact details
  - Provider number and signature
- Patient referral information:
  - Detailed reason for referral (including the problem to be assessed, degree of loss of function, pain experienced etc.)
  - Summary of relevant medical, surgical, and psychosocial history including details of any risk factors/co-morbidities (e.g. diabetes, obesity, bariatric surgery, asthma, cardiac, renal or liver disease, hypertension, anaemia, eating disorders, mental health concerns etc)
  - Relevant investigations (pathology, radiology, histology etc), preferably results from within last 4 weeks
  - Current medications and doses, prescribed and over the counter (Note any recent changes in drug therapy)

### Desirable

- Relevant psychological and social issues impacted by condition (if applicable)
- Smoking & alcohol history (if applicable)
- South Sea Islander status (if applicable)
- Medicare Number (if applicable)
- Interpreter requirements (if applicable)
- Patient status – DVA, Work cover, Motor Vehicle Insurance, ineligible (if applicable)

If sufficient information is not provided you and your patient will be notified in writing that we are unable to clinically categorise and place the patient on an appropriate wait list until this information is received. Once a completed referral has been accepted and categorised you will receive advice that your patient has been placed on the waiting list. Please maintain clinical supervision of your patient's condition prior to the initial consultation with the specialist. Please notify Central Patient Intake (CPI) of any significant change in their condition.

## Referral requirements

**A referral may be rejected without the following information.**

— Essential referral information

### Resources

[Early Pregnancy Assessment Unit Referral & Admission Flowchart \(PDF\)](#)  
[Maternity and gynaecology resources](#)  
[Maternity Referral Form \(PDF\)](#)  
[Metro North Antenatal Shared Care \(PDF\)](#)  
[MFM Guidelines for Antenatal and Ultrasound Referral \(PDF\)](#)  
[MFM Referral for Imaging and Consult \(RBWH\) \(PDF\)](#)  
[RBWH Women's Imaging Request Form \(PDF\)](#)  
[RBWH Maternity Dietitian Referral Form \(PDF\)](#)  
[Specialists list](#)  
[Standardised Fetal Growth Chart Referral Pathway \(PDF\)](#)  
[Perinatal Wellbeing Team Referral \(PDF\)](#)  
[General referral criteria](#)

[https://metronorth.health.qld.gov.au/specialist\\_service/refer-your-patient/antenatal-and-maternity](https://metronorth.health.qld.gov.au/specialist_service/refer-your-patient/antenatal-and-maternity)



**Maternity Outpatients Department**  
**Location:** Ground floor, Ned Hanlon Building, Royal Brisbane and Women's Hospital  
**Phone:** (07) 3646 7182  
**Fax:** (07) 3646 5482  
**Email:** [LivingWellDuringPregnancy@health.qld.gov.au](mailto:LivingWellDuringPregnancy@health.qld.gov.au)

## Personal Healthy Lifestyle Phone Coaching

Is this program for you?

- Did you start pregnancy above a healthy weight (BMI above 25kg/m<sup>2</sup>)? or have you gained weight more quickly than recommended?
- Are you looking for some extra support, motivation and a personalised pregnancy health plan to get you on track?

If you answered **YES**, our program is for **YOU**!

Living Well during Pregnancy is a free healthy lifestyle telephone coaching program, exclusively for Royal mums-to-be, to help you achieve your healthiest pregnancy possible!

[Register or refer now](#)

## Pregnancy Workshop

Pregnant & wondering...

- Which cheese is safe to eat?
- Can I eat fish?
- Should I be taking a multivitamin?
- What heartburn & morning sickness remedies actually work?
- Is it safe to exercise in pregnancy?

We are here to answer all your questions, register for our 2-hour workshop today!

[Register or refer now](#)

## Resources

Printable flyer for mums: [Personal telephone health coaching Living Well during Pregnancy \(PDF\)](#)

Printable flyer for mums: [Pregnancy Workshop Nurture Your Bump \(PDF\)](#)

Printable referral form: [RBWH Maternity Dietitian \(PDF\)](#)

## Pregnancy Weight Gain Charts

Select the correct chart based on pre-pregnancy BMI:

- [BMI less than 25kg/m<sup>2</sup> \(Healthy weight\) \(PDF\)](#)
- [BMI more than 25kg/m<sup>2</sup> \(Above healthy weight\) \(PDF\)](#)

If pregnant with twins or triplets:

- [BMI less than 25kg/m<sup>2</sup> \(Healthy weight\) \(PDF\)](#)
- [BMI more than 25kg/m<sup>2</sup> \(Above healthy weight\) \(PDF\)](#)

## Refer your RBWH patient to see a dietitian

For support with:

- Hyperemesis
- Previous weight loss surgery
- Low pre-pregnancy body weight (BMI < 18.5kg/m<sup>2</sup>)
- Low gestational weight gain

[Refer your patient > \(PDF\)](#)

<https://metronorth.health.qld.gov.au/rbwh/healthcare-services/maternity-services/living-well-pregnancy>



[Home](#) / [Health professionals](#) / Healthy Pregnancy Healthy Baby



## HEALTHY PREGNANCY HEALTHY BABY

### Healthy pregnancy weight gain training



Healthy pregnancy weight gain is an important part of any healthy pregnancy to optimise pregnancy and future health outcomes for mothers and their offspring. Monitoring weight during pregnancy, coupled with a conversation between a woman and her health professional about progress, healthy eating and physical activity is a recommended part of routine care for all women.

This Healthy Pregnancy Healthy Baby, pregnancy weight gain training is designed to prepare health professionals to engage in respectful conversations about weight and lifestyle and equip them to deliver best practice care consistent with current evidence.

The content has been developed in consultation with a reference group of Queensland health professionals. The suite of online professional development resources is broken down into **7 short modules** with a total completion time of **90 minutes**. Each module will take around 10-15 minutes to complete including a knowledge check. The training is flexible, allowing learners to do one module and come back later to complete others. A certificate is available on completion of the post-training questionnaire.

This training package is suitable for any member of the multidisciplinary team caring for pregnant women including, midwives, obstetricians, physicians, general practitioners, practice nurses, dietitians, physiotherapists, and other allied health practitioners.

<https://metronorth.health.qld.gov.au/health-professionals/healthy-pregnancy-healthy-baby>

# Modules



## Introduction

Module

**1**

**Weight - evidence and practice**

Module

**2**

**Achieving a healthy weight gain**

Module

**3**

**Having the conversation**

Module

**4**

**Pregnancy weight gain charts**

Module

**5**

**Brief intervention advice**

Module

**6**

**Managing deviations**

Module

**7**

**Special considerations**



**Assessment**

# First visit to GP

- Women with a BMI > 30
  - Include BMI in referral
  - Routine antenatal bloods plus ELFTs, OGTT or HbA1c, urine protein/creatinine ratio, ferritin, B12, folate, vitamin D, Mg
  - 2.5 - 5 mg folic acid daily
  - First trimester OGTT/HbA1c – if negative, repeat OGTT at 24 – 28/40
  - Early dating USS – confirm gestational age
  - Aneuploidy screening – CFTS, NIPT
  - Detailed anomaly scan & growth and well-being scan
  - Assess risk factors for pre-eclampsia, VTE, OSA
  - Advise on healthy gestational weight gain

# Surveillance for co-morbidities

Table 16. Antenatal surveillance

Aspect	Consideration	
GDM	<ul style="list-style-type: none"><li>• If early screening is normal, repeat at 24–28 weeks gestation</li><li>• Refer to Queensland Clinical Guideline: <i>Gestational diabetes mellitus</i><sup>105</sup></li></ul>	
Hypertension	<ul style="list-style-type: none"><li>• Document the appropriately sized blood pressure cuff</li><li>• If pre-existing hypertension, consider cardiac evaluation (e.g. electrocardiogram), especially if smoking</li><li>• Refer to Queensland Clinical Guideline: <i>Hypertension and pregnancy</i><sup>114</sup></li></ul>	
Pre-eclampsia	<ul style="list-style-type: none"><li>• Assess for clinical risk factors and consider prophylaxis (e.g. aspirin)</li><li>• Refer to Queensland Clinical Guideline: <i>Hypertension and pregnancy</i><sup>114</sup></li></ul>	
Venous thromboembolism (VTE):	<ul style="list-style-type: none"><li>• BMI greater than 30 kg/m<sup>2</sup> is a risk factor for VTE</li><li>• Refer to Queensland Clinical Guideline <i>Venous thromboembolism prophylaxis in pregnancy and the puerperium</i><sup>115</sup></li></ul>	
Obstructive Sleep Apnoea (OSA)	<ul style="list-style-type: none"><li>• OSA in women experiencing obesity (compared to women experiencing obesity without OSA) results in<sup>99</sup>:<ul style="list-style-type: none"><li>○ Higher rates of medical and surgical complications</li><li>○ Longer hospital stays</li><li>○ Higher rates of admission to ICU</li></ul></li><li>• Greater sensitivity to adverse effects of opioids (e.g. respiratory depression)<sup>81</sup></li><li>• If frequent snoring reported, offer screening<sup>87</sup></li><li>• The Australian Sleep Association recommend screening by using the STOP Questionnaire<ul style="list-style-type: none"><li>○ If the answer is yes to two or more of the following questions, refer to a physician/sleep specialist</li></ul></li></ul>	
	S	Do you snore loudly (louder than talking or loud enough to be heard through closed doors)?
	T	Do you often feel tired, fatigued or sleepy during daytime?
	O	Has anyone observed you stop breathing during your sleep?
	P	Do you have or are you being treated for high blood pressure?
Depression and anxiety	<ul style="list-style-type: none"><li>• If concerns are identified, perform additional psychosocial assessment, and/or refer as required<sup>44</sup></li><li>• Recommend thorough routine and baseline investigations (e.g. to exclude hypothyroidism)</li></ul>	
Eating disorders	<ul style="list-style-type: none"><li>• Increased risk of adverse maternal and neonatal outcomes<sup>116</sup></li><li>• Maintain awareness of history or symptoms suggestive of an eating disorder<sup>25,100</sup> (e.g. binge or purge eating, laxative overuse)</li><li>• Refer to perinatal mental health/mental health services as required</li></ul>	



# Pregnancy weight gain chart for BMI 25kg/m<sup>2</sup> or over

(Affix patient identification label here)

URN:

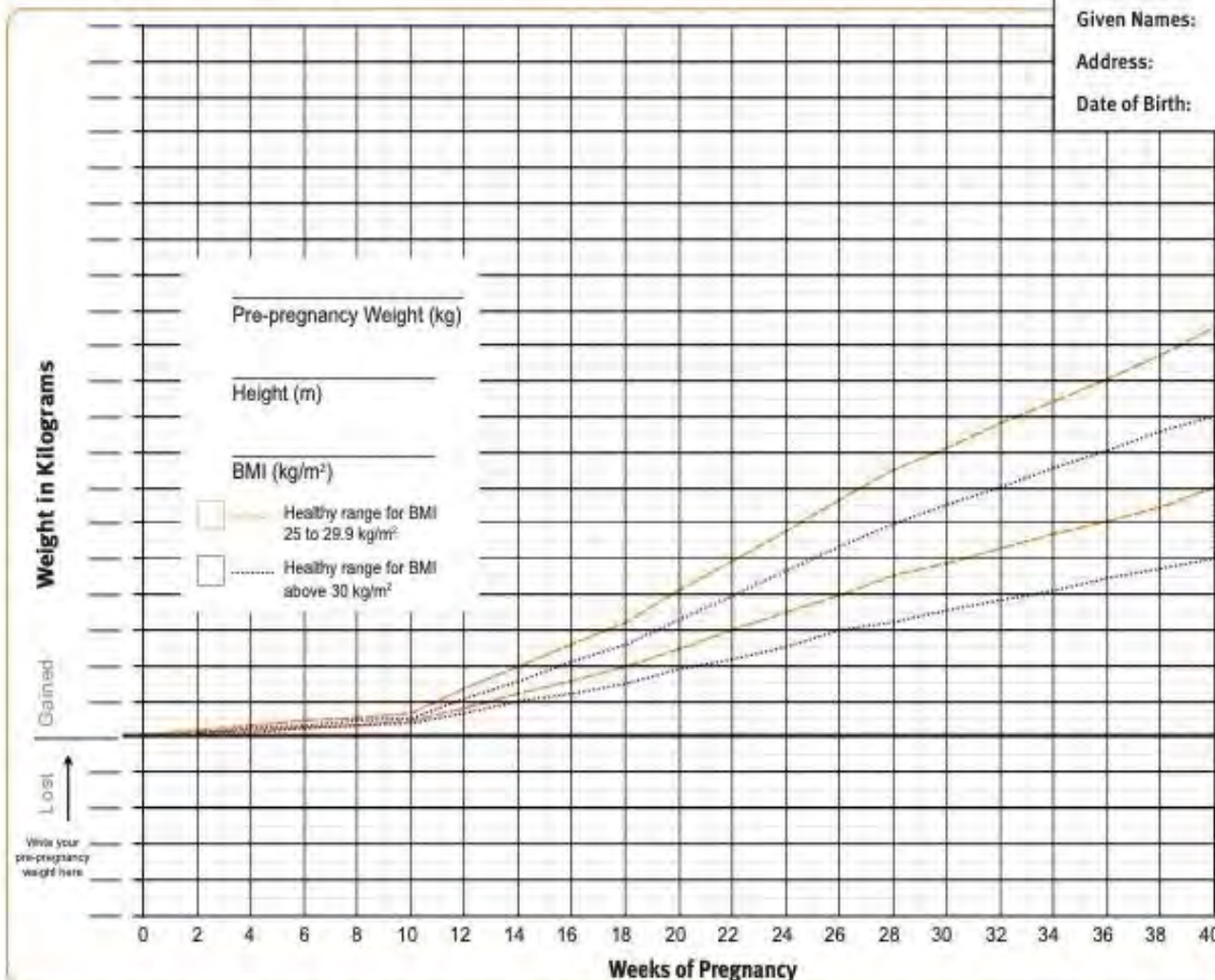
Family Name:

Given Names:

Address:

Date of Birth:

Sex: ☐ M ☐ F ☐ I



## Congratulations on your pregnancy!

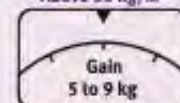
Healthy pregnancy weight gain is important for your health and the health of your baby as you can see on the other side of this page. Almost all women can gain a healthy amount by eating well, being active and monitoring their weight. Bring this pregnancy weight gain chart to your antenatal appointments and ask your maternity health care provider to plot your weight and discuss your progress towards your weight gain goals for this pregnancy.

The amount of weight you should gain depends on your weight (and body mass index - BMI) before you became pregnant. Choose the weight gain range that matches your pre-pregnancy BMI (see below to calculate your BMI).

Pre-pregnancy BMI  
25 to 29.9 kg/m<sup>2</sup>



Pre-pregnancy BMI  
Above 30 kg/m<sup>2</sup>



## How to use this tracker:

- Write down height and weight before pregnancy in the two spaces provided.
- Calculate your pre-pregnancy BMI using the following equation:  $\frac{\text{weight (in kg)}}{\text{height} \times \text{height (in meters)}}$   
Alternatively, you can do so using this online calculator: <http://www.grobaethyols.com.au/healthcare/pregnancy/index.html#bmi-calculator/>
- Starting from pre-pregnancy weight, add 1kg to each space along the left hand line on the graph.
- Weigh yourself each appointment and every week or two between appointments and place a mark on the line where your weight and weeks gestation cross.
- Connect the dots to track your weight gain throughout pregnancy.

Acknowledgement to Royal Brisbane and Women's Hospital Nutrition and Dietetics Department, adapted from Institute of Medicine weight gain recommendations for pregnancy.

Version 4 | Effective Dec 2017 | Review Nov 2021



Queensland  
Government



# First visit to GP

- Consider low dose aspirin 100mg/day, if obese and additional risk factors for preeclampsia
- Antenatal thromboprophylaxis if obese and additional risk factors for VTE
- Queensland Clinical Guidelines
  - *Venous thromboembolism (VTE) prophylaxis in pregnancy and the puerperium*
  - *Hypertension and pregnancy*

# Venous thromboembolism (VTE)

- Leading cause of direct maternal death in Australia 2006 – 2016
- Assess for VTE risk at every antenatal and postnatal visit
- Thromboprophylaxis according to risk

## Queensland Clinical Guidelines

*Translating evidence into best clinical practice*

### Maternity and Neonatal **Clinical Guideline**

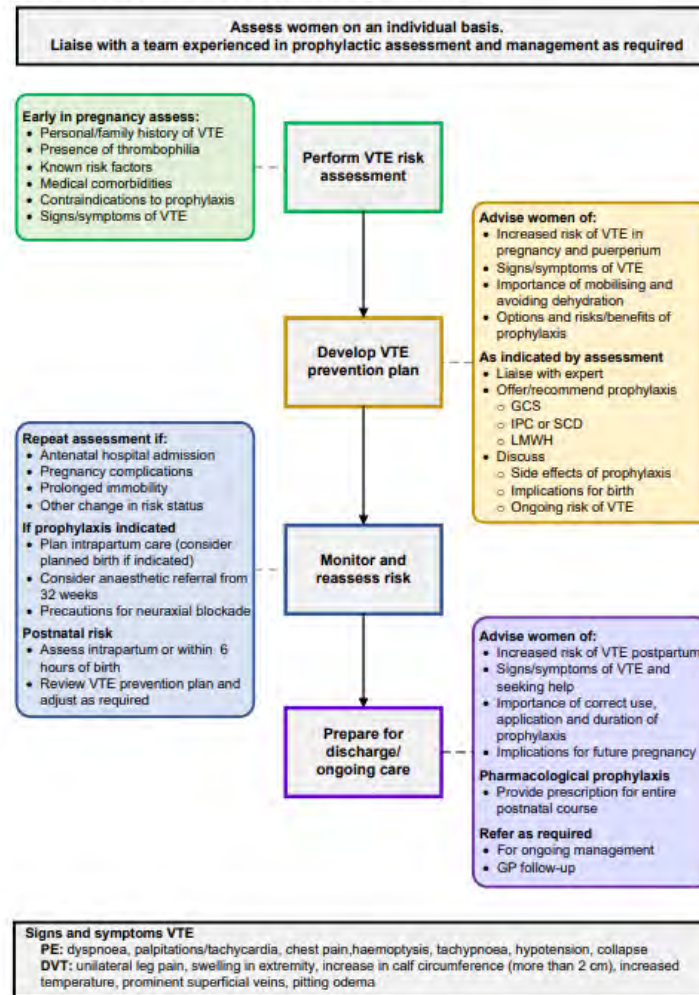
#### Venous thromboembolism (VTE) prophylaxis in pregnancy and the puerperium



# VTE assessment

Queensland Clinical Guideline: VTE prophylaxis in pregnancy and the puerperium

Flow Chart: VTE assessment for pregnant and postpartum women



**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: Antenatal and postnatal thromboprophylaxis according to risk

High risk	1	<b>ANY ONE OF</b> <input type="checkbox"/> Pre-pregnancy therapeutic anticoagulation (any reason) <input type="checkbox"/> Any previous VTE plus high risk thrombophilia* <sup>a</sup> <input type="checkbox"/> Recurrent unprovoked VTE (2 or more) <input type="checkbox"/> VTE in current pregnancy (seek expert advice)	<b>Therapeutic anticoagulation</b> <ul style="list-style-type: none"> <li>Continue/commence antenatal</li> <li>Continue 6 weeks postpartum</li> </ul> <sup>a</sup> High prophylactic dose may be appropriate																																											
	2	<b>ANY ONE OF</b> <input type="checkbox"/> Any single previous VTE not provoked by surgery <input type="checkbox"/> Recurrent provoked VTE (2 or more) <input type="checkbox"/> Active autoimmune or inflammatory disorder <input type="checkbox"/> Medical co-morbidity: (e.g. cancer, nephrotic syndrome, heart failure, sickle cell, type I diabetes with nephropathy)	<b>LMWH standard prophylaxis</b> <ul style="list-style-type: none"> <li>From first trimester</li> <li>Continue 6 weeks postpartum</li> </ul>																																											
	3	<b>IF THROMBOPHILIA</b> <input type="checkbox"/> High or low risk thrombophilia* (no personal history VTE)	<b>Refer to Flowchart:</b> <b>VTE prophylaxis if thrombophilia</b>																																											
	4	<b>ANY ONE OF</b> <input type="checkbox"/> Antenatal hospital admission <input type="checkbox"/> Ovarian hyperstimulation syndrome (first trimester only) <input type="checkbox"/> Any surgery (pregnancy or postpartum) <input type="checkbox"/> Severe hyperemesis or dehydration requiring IV fluid	<b>LMWH Standard prophylaxis</b> <ul style="list-style-type: none"> <li>While in hospital or until resolves</li> </ul>																																											
All risk	5	<b>SELECT ALL THAT APPLY</b> <small>at every assessment (antenatal or postnatal)</small> <b>Risk Score</b>																																												
		<table border="1"> <tr> <td><input type="checkbox"/> Family history (1st degree relative) of unprovoked or estrogen provoked VTE</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Single VTE provoked by surgery</td> <td>3</td> </tr> <tr> <td><input type="checkbox"/> Age &gt; 35 years</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Parity ≥ 3</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Smoking (any amount)</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Gross varicose veins</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Current BMI 30–39 kg/m<sup>2</sup></td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Current BMI ≥ 40 kg/m<sup>2</sup></td> <td>2</td> </tr> <tr> <td><input type="checkbox"/> IVF/ART</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Multiple pregnancy</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Pre-eclampsia in current pregnancy</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Immobility</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Current systemic infection</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Pre-existing diabetes</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Caesarean section in labour</td> <td>3</td> </tr> <tr> <td><input type="checkbox"/> Elective caesarean section</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Prolonged labour &gt; 24 hours</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Operative vaginal birth</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Preterm birth (&lt; 37+0 weeks)</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> PPH &gt; 1 L or transfusion</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Stillbirth in current pregnancy</td> <td>1</td> </tr> <tr> <td><input type="checkbox"/> Caesarean hysterectomy</td> <td>3</td> </tr> </table>		<input type="checkbox"/> Family history (1st degree relative) of unprovoked or estrogen provoked VTE	1	<input type="checkbox"/> Single VTE provoked by surgery	3	<input type="checkbox"/> Age > 35 years	1	<input type="checkbox"/> Parity ≥ 3	1	<input type="checkbox"/> Smoking (any amount)	1	<input type="checkbox"/> Gross varicose veins	1	<input type="checkbox"/> Current BMI 30–39 kg/m <sup>2</sup>	1	<input type="checkbox"/> Current BMI ≥ 40 kg/m <sup>2</sup>	2	<input type="checkbox"/> IVF/ART	1	<input type="checkbox"/> Multiple pregnancy	1	<input type="checkbox"/> Pre-eclampsia in current pregnancy	1	<input type="checkbox"/> Immobility	1	<input type="checkbox"/> Current systemic infection	1	<input type="checkbox"/> Pre-existing diabetes	1	<input type="checkbox"/> Caesarean section in labour	3	<input type="checkbox"/> Elective caesarean section	1	<input type="checkbox"/> Prolonged labour > 24 hours	1	<input type="checkbox"/> Operative vaginal birth	1	<input type="checkbox"/> Preterm birth (< 37+0 weeks)	1	<input type="checkbox"/> PPH > 1 L or transfusion	1	<input type="checkbox"/> Stillbirth in current pregnancy	1	<input type="checkbox"/> Caesarean hysterectomy
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	<b>Sum all risk scores</b>	<table border="1"> <tr> <td colspan="2"><b>Antenatal risk score</b></td> </tr> <tr> <td>ALL</td> <td>Mobilise, avoid dehydration</td> </tr> <tr> <td>3</td> <td>LMWH standard prophylaxis • From 28 weeks</td> </tr> <tr> <td>≥ 4</td> <td>LMWH standard prophylaxis • From time of assessment</td> </tr> </table> <table border="1"> <tr> <td colspan="2"><b>Postnatal risk score</b> = antenatal + postnatal score</td> </tr> <tr> <td>ALL</td> <td>Mobilise early, avoid dehydration</td> </tr> <tr> <td>2</td> <td>LMWH standard prophylaxis • Until discharge</td> </tr> <tr> <td>≥ 3</td> <td>LMWH standard prophylaxis • 7 days (or longer if ongoing risk)</td> </tr> <tr> <td colspan="2"> <b>All caesarean sections</b>            • Recommend IPC or SCD until next day         </td> </tr> </table> <table border="1"> <tr> <td colspan="2"><b>GCS/TED stockings</b></td> </tr> <tr> <td colspan="2">           • Consider for postnatal women until fully mobile            • Recommend if receiving LMWH         </td> </tr> </table> <table border="1"> <tr> <td colspan="2"><b>Enoxaparin: standard prophylaxis (subcut)</b></td> </tr> <tr> <td>• 50–90 kg 40 mg daily</td> <td>• 131–170 kg 80 mg daily</td> </tr> <tr> <td>• 91–130 kg 60 mg daily</td> <td>• &gt; 171 kg 0.5 mg/kg</td> </tr> </table>	<b>Antenatal risk score</b>		ALL	Mobilise, avoid dehydration	3	LMWH standard prophylaxis • From 28 weeks	≥ 4	LMWH standard prophylaxis • From time of assessment	<b>Postnatal risk score</b> = 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)	<b>All caesarean sections</b> • Recommend IPC or SCD until next day		<b>GCS/TED stockings</b>		• Consider for postnatal women until fully mobile • Recommend if receiving LMWH		<b>Enoxaparin: standard prophylaxis (subcut)</b>		• 50–90 kg 40 mg daily	• 131–170 kg 80 mg daily	• 91–130 kg 60 mg daily	• > 171 kg 0.5 mg/kg																
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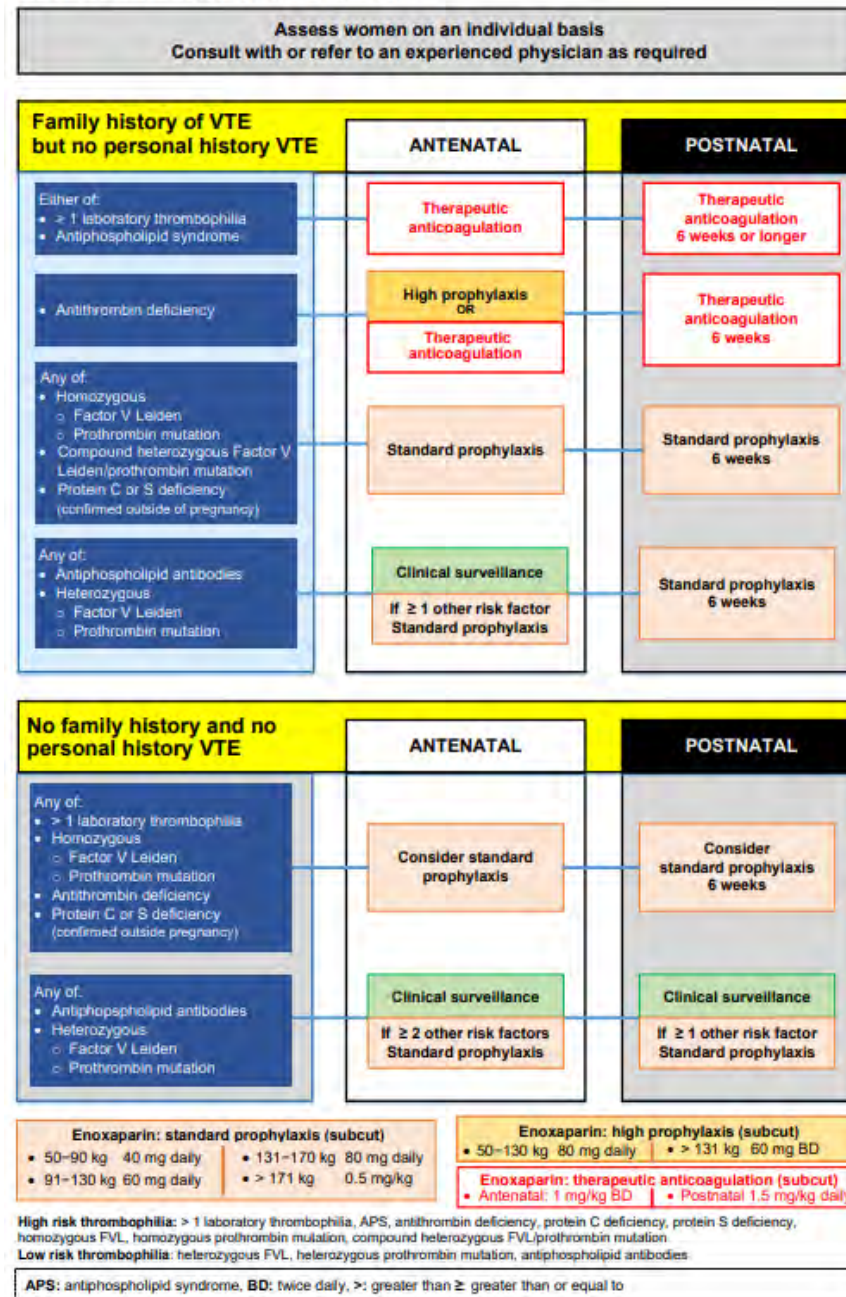
\* High risk thrombophilia: > 1 laboratory thrombophilia, APS, antithrombin deficiency, protein C deficiency, protein S deficiency, homozygous FVL, homozygous prothrombin mutation, compound heterozygous FVL/prothrombin mutation

Low risk thrombophilia: heterozygous FVL, heterozygous prothrombin mutation, antiphospholipid antibodies

APS: antiphospholipid syndrome, 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



## Flowchart: Thromboprophylaxis if thrombophilia



# Pink group – first trimester

- Kate – a 34 year old G3 P2 has an unplanned pregnancy
- It is 6 weeks since her LNMP and she presents with PV bleeding
- She is a blood donor and upon asking, she informs you that her blood group is A Rh negative
- She has a 15 min appointment
- Outline your approach

# First trimester bleed

- Is the woman haemodynamically stable?
- What is her blood group?
- Where is the fetus?
- Is the fetus viable?



# Queensland Clinical Guidelines

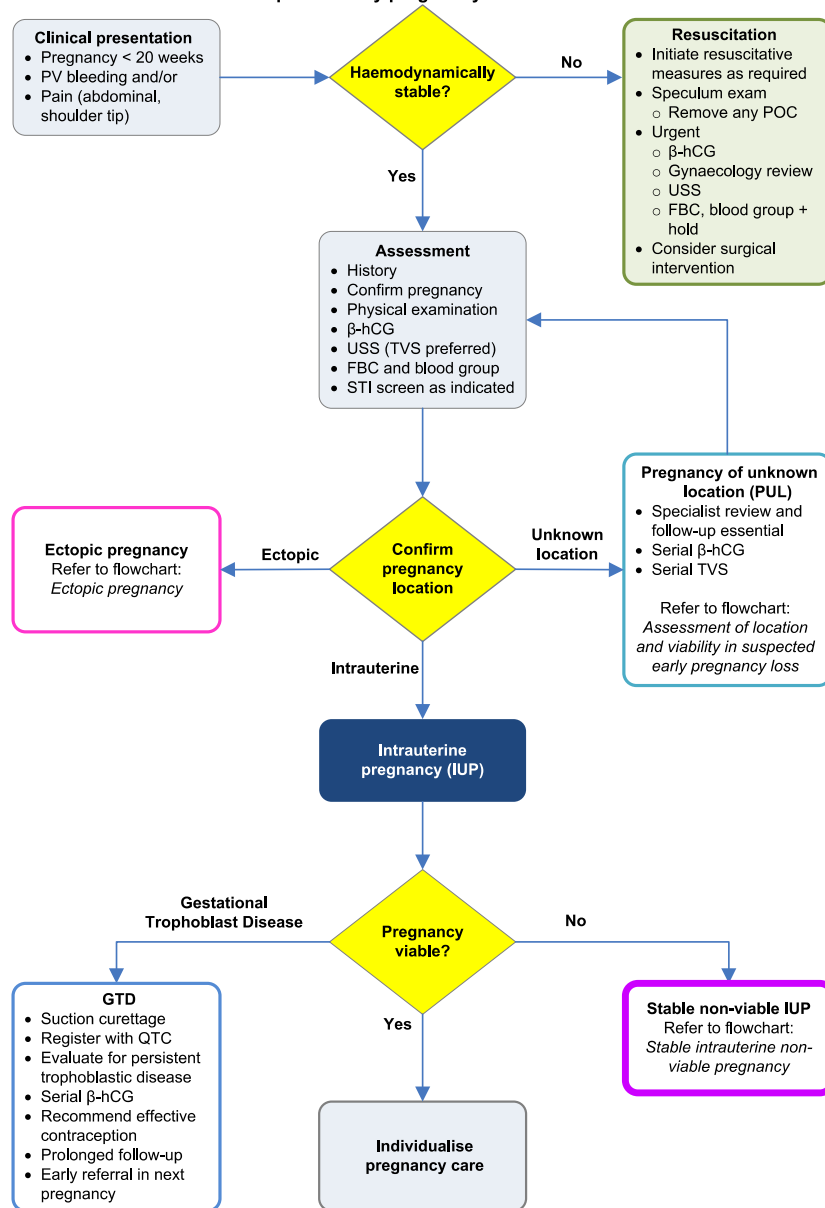
Translating evidence into best clinical practice

## Maternity and Neonatal Clinical Guideline

### Early pregnancy loss



#### Flowchart: Assessment of suspected early pregnancy loss



β-hCG: human chorionic gonadotropin, FBC: full blood count, GP: General practitioner, GTD: gestational trophoblast disease, IUP: intrauterine pregnancy, POC: products of conception, PUL: pregnancy of unknown location, PV: per vaginam, QTC: Queensland Trophoblast Centre, STI: sexually transmitted infection, TVS: transvaginal scan, USS: ultrasound scan, >: greater than

# Queensland Clinical Guidelines

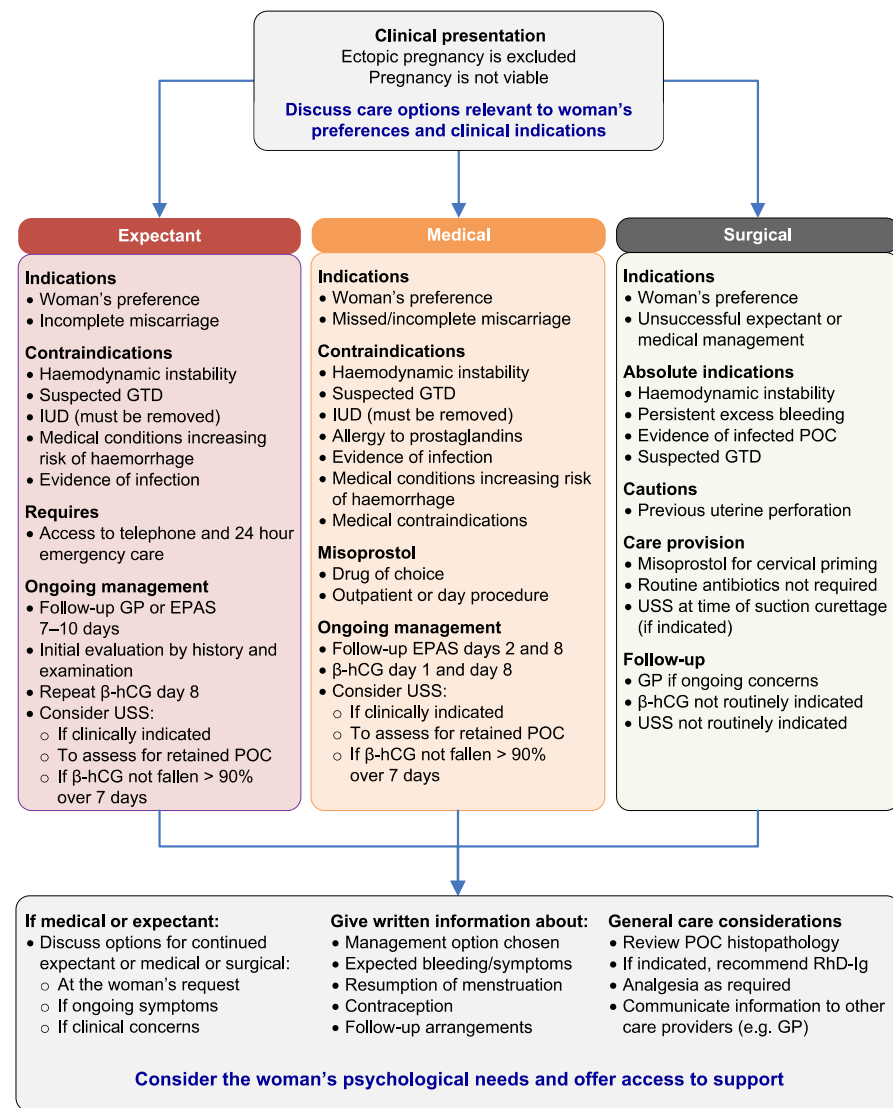
Translating evidence into best clinical practice

## Maternity and Neonatal Clinical Guideline

### Early pregnancy loss



#### Flowchart: Stable intrauterine non-viable pregnancy



**$\beta$ -hCG:** human chorionic gonadotropin (all  $\beta$ -hCG measurements in International units/L (IU/L)), **EPAS:** early pregnancy assessment service, **FBC:** full blood count, **GP:** General Practitioner, **GTD:** gestational trophoblast disease, **IUD:** intrauterine device, **IUP:** Intrauterine pregnancy, **POC:** products of conception, **PUL:** pregnancy of unknown location, **PV:** per vaginam, **QTC:** Queensland Trophoblast Centre, **RhD-Ig:** RhD immunoglobulin, **TVS:** transvaginal scan, **USS:** ultrasound scan, **>:** greater than

# Non-viable intrauterine pregnancy loss management

- no significant differences between expectant, medical and surgical management
- woman's individual preferences and values as well as clinical situation determine choice of management

# Non-viable intrauterine pregnancy loss management

- Expectant
  - Repeat B-hCG day 8
  - Consider USS if clinically indicated (symptomatic), to assess for retained POC, or if B-hCG not fallen >90% over 7 days
  - Refer if ongoing heavy bleeding, pain, persistent gestational sac on USS, or if infection suspected
  - Urine hCG at 3-6 weeks if no POC histopathology, failure to return to normal menstruation by 4-6 weeks, ongoing abnormal bleeding

# Non-viable intrauterine pregnancy loss management

- Medical management – refer to EPAU
  - Misoprostol for incomplete miscarriage < 13 weeks
  - administered PV, oral or sublingual Day 1 and repeated Day 2 or 3
  - Mifepristone & Misoprostol combined may be more effective than misoprostol alone in missed miscarriage
  - Bleeding heavier than menses likely
  - Pain, diarrhoea, vomiting may occur
  - B-hCG Day 1 and day 8
  - Consider USS if clinically indicated (symptomatic), to assess for retained POC, or if B-hCG not fallen >90% over 7 days
  - Refer if ongoing heavy bleeding, pain, or if infection suspected
  - Urine hCG at 3-6 weeks if no POC histopathology, failure to return to normal menstruation by 4-6 weeks, ongoing abnormal bleeding

# Non-viable intrauterine pregnancy loss management

- Surgical management
  - Follow up B-hCG not routinely indicated
  - Follow up USS not routinely recommended
  - Check histology
  - Rh D negative
    - 12+6 weeks or less 250 IU
    - > 13 weeks 625 IU

# Pregnancy of unknown location (PUL)

- An Intrauterine pregnancy (IUP) is one where a yolk sac is seen – no yolk sac = a PUL
- If there is no yolk sac, especially if the B-hCG is  $> 800-1000$  mIU/mL, be cautious

# Queensland Clinical Guidelines

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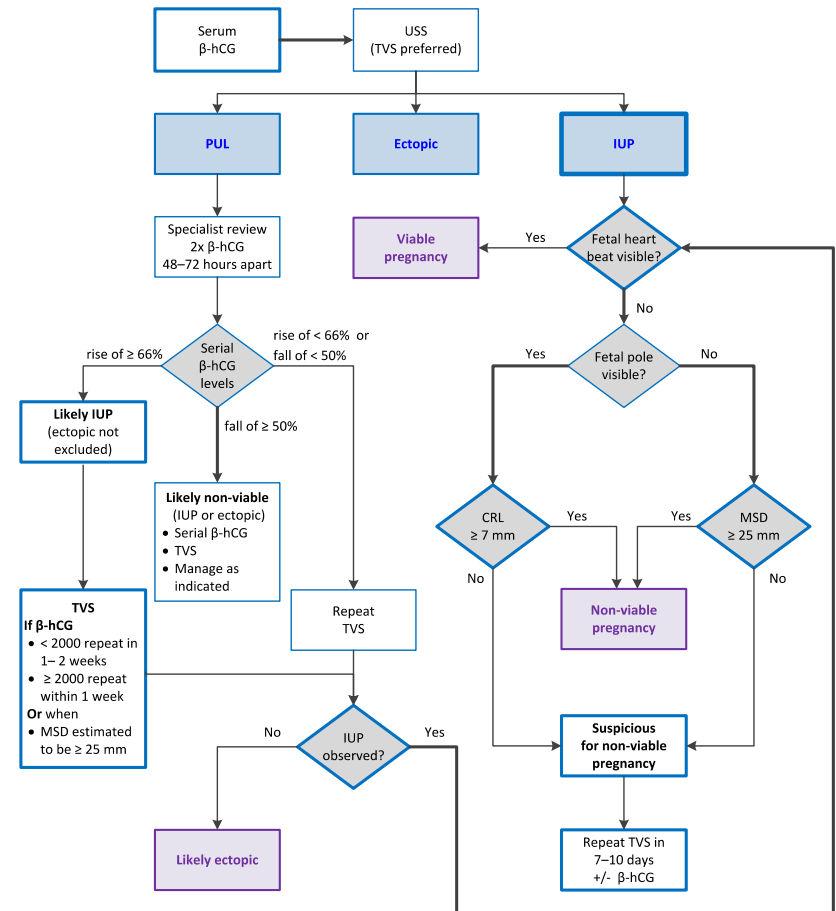
## Maternity and Neonatal Clinical Guideline

### Early pregnancy loss



#### Flowchart: Assessment of location and viability in suspected early pregnancy loss

Use clinical judgement and consider the woman's individual circumstances when recommending management and the need for specialist referral



#### Non viable diagnostic criteria (TVS)

- MSD  $\geq$  25 mm and no fetus present
- Fetus with CRL  $\geq$  7 mm is visible, but no fetal heart movements demonstrated after observation of  $\geq$  30 seconds
- Absence of embryo with heartbeat  $\geq$  2 weeks after a scan that showed a gestational sac without a yolk sac
- Absence of embryo with heartbeat  $\geq$  11 days after a scan that showed a gestational sac with a yolk sac

#### TVS interval

- Estimate repeat TVS interval based on expected normal gestational sac growth rate of 1 mm/day

#### Worked example

- If MSD = 12 mm, repeat TVS in 13 days or more (12 mm MSD + 13 mm growth over 13 days equals expected MSD of 25 mm)

**beta-hCG:** human chorionic gonadotropin (all beta-hCG measurements in international units/L (IU/L)), **CRL:** crown rump length, **IUP:** intrauterine pregnancy, **MSD:** mean sac diameter, **PUL:** pregnancy of unknown location, **TVS:** transvaginal scan, **USS:** ultrasound scan, **>:** greater than, **<:** less than, **≥:** greater than or equal to, **≤:** less than or equal to



# Pregnancy of unknown location (PUL)

- Serial B-hCG 48 – 72 hours apart
- B-hCG usually doubles every 48hrs between 5-8 weeks gestation in a viable IUP
- TVS as clinically indicated
- B-hCG  $> 66\%$  rise – IUP more likely but ectopic can't be excluded
- B-hCG fall of 50% or greater – non-viable pregnancy more likely (IUP or ectopic)
- B-hCG  $< 66\%$  rise or  $< 50\%$  fall – if no IUP on repeat TVS, suspect ectopic

# Ectopic pregnancy

- Triad:
  - **Amenorrhea**, 6-8 weeks post LNMP
  - **Abdominal pain**/shoulder tip/rectal
  - Irregular vaginal **bleeding**
- Risk factors include:
  - previous ectopic pregnancy
  - sterilisation
  - pregnancy associated with emergency contraception/POP/IUDs
  - tubal surgery/tubal pathology/infection/PID
  - **1/2 women diagnosed with ectopic pregnancy will have no known risk factors**

# Ultrasound: Correlation with B-hCG

- IUP can usually be seen on TVS with B-hCG levels above 800 - 1000 mIU/mL
- A threshold of 1500 mIU/mL will detect 98% IUPs
- Pitfall - multiple pregnancy
- Higher thresholds will result in more missed ectopics
- IUP almost always excludes ectopic (consider heterotopic pregnancy if risk factors)

# Appropriate rise in B-hCG

- B-hCG usually doubles every 48hrs between 5-8 weeks gestation in a viable IUP
- If the B-hCG is slowly rising by  $<50\%$ , it is usually a non-viable IUP or ectopic
- Consider multiple or molar pregnancy in rapidly rising levels
- Single B-hCG value
  - does not differentiate between viable and nonviable pregnancy
  - cannot be used to exclude IUP

# Queensland Clinical Guidelines

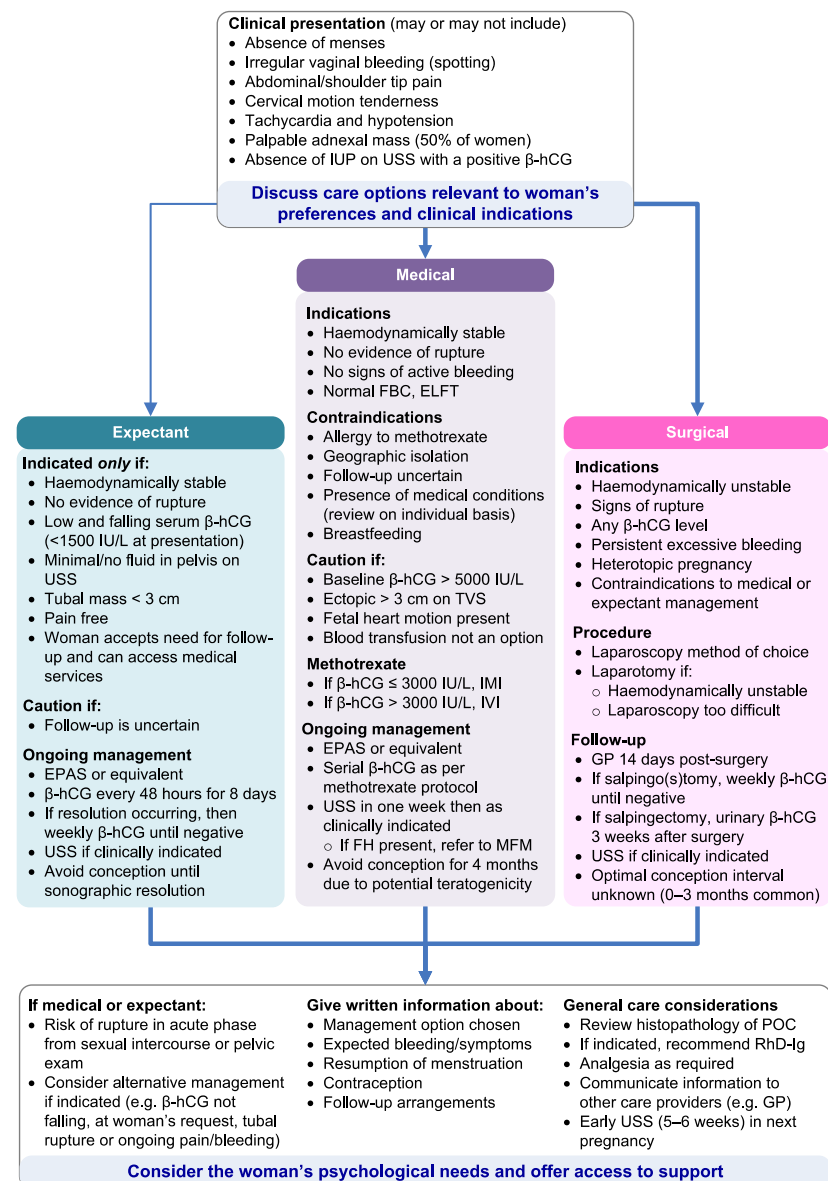
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## Maternity and Neonatal Clinical Guideline

### Early pregnancy loss



## Flowchart: Ectopic pregnancy



$\beta$ -hCG: human chorionic gonadotropin, ELFT: electrolyte & liver function test, EPAS: Early Pregnancy Assessment Service, FBC: full blood count, GP: General Practitioner, GTD: gestational trophoblast disease, IMI: intramuscular injection, IU/L: international units per litre, IUP: intrauterine pregnancy, IVI: intravenous injection, MFM: maternal fetal medicine, POC: products of conception, PUL: pregnancy of unknown location, PV: per vaginam, QTC: Queensland Trophoblast Centre, RhD-Ig: RhD immunoglobulin, TVS: transvaginal scan, USS: ultrasound scan, >: greater than

# Termination of pregnancy (ToP)

In Queensland, as of 3 December 2018:

- Women may request ToP up to a gestational limit of 22 weeks
- For women who are more than 22 weeks, a medical practitioner can perform ToP if they consider that, in all the circumstances, ToP should be performed **and**
- They have consulted with another medical practitioner who also considers that, in all the circumstances, ToP should be performed

# Queensland Clinical Guidelines

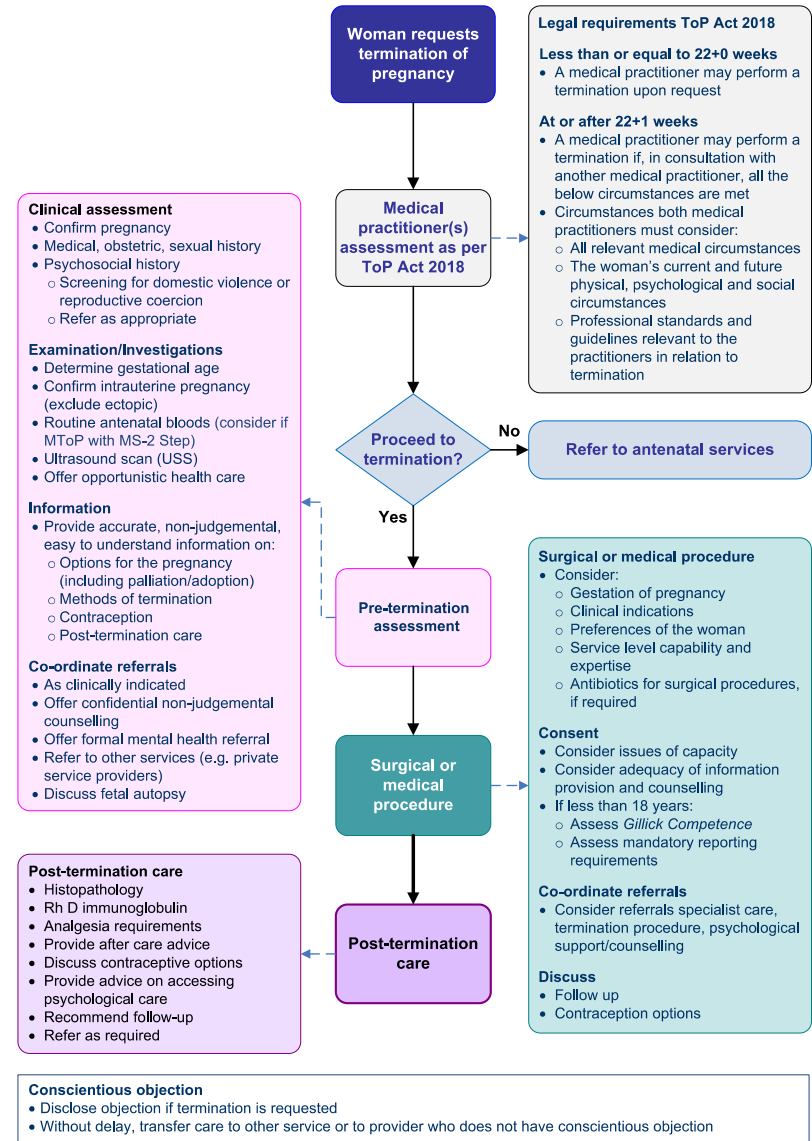
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## Maternity and Neonatal Clinical Guideline

### Termination of pregnancy



#### Flow Chart: Summary of termination of pregnancy



ToP: termination of pregnancy, Rh D: rhesus D



## Brisbane North


- Contraception ▼
- Gynaecology ▲
  - Abnormal Vaginal Bleeding
  - Amenorrhoea
  - Cervical Cancer Screening
  - Cervical Polyps
  - Cervical Shock
  - Dysmenorrhoea
  - Endometrial Cancer Low Risk Follow-up
  - Female Genital Mutilation (FGM)
  - Fibroids
  - Hysteroscopy
  - Menopause ▼
  - Ovarian Cancer Symptoms
  - Ovarian Cyst or Pelvic Mass
  - Prolapse
  - Chronic Pelvic Pain in Females ▼
  - Perineal Tear Follow-up
  - Polycystic Ovarian Syndrome (PCOS)
  - Premenstrual Syndrome (PMS)
  - Vaginal Pessaries
  - Termination of Pregnancy (TOP) ▲
    - Follow-up (TOP)
    - Urinary Incontinence in Women ▼
    - Vulvodynia
- Pregnancy ▼
- Women's Health Requests ▼
- Our Health System ▼

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## Termination of Pregnancy (TOP)

### Clinical editor's note



From 1 August 2023, restrictions on prescribing MS-2 Step have been lifted. There is no longer a requirement for doctors to undertake additional certification, or for pharmacists to be specifically registered to dispense.

Australian general practitioners can still complete the [online training](#)  for upskilling if required. This takes 3 to 4 hours.

Although the TGA changes will also apply to other prescribers (such as Nurse Practitioners) this will require legislative changes in Queensland before they will be able to legally prescribe MS-2 Step.

For more information, see TGA – [Amendments to Restrictions for Prescribing of MS-2 Step](#) .

### Red flags

-  **Pregnancy in a minor**
-  **Ectopic pregnancy**

## Background

[About termination of pregnancy \(TOP\)](#) ▼

## Assessment

1. If you are not comfortable dealing with requests for TOP (e.g., conscientious objector) you are legally required to:
  - disclose your position to the patient.
  - arrange timely transfer of care to another service or medical practitioner who is not a conscientious objector and who can provide the service.
2. Take a history and check for:
  - [symptoms](#) ▼.
  - [gynaecological and obstetric history](#) ▼.



## About this website

**This website and its content are intended for viewing and use only by healthcare professionals in Australia.**

If you are a consumer and would like information on termination of pregnancy, please contact your healthcare practitioner.

The following website may also provide you with information on family planning, including termination of pregnancy: [msiaustralia.org.au](https://www.msiaustralia.org.au)

## Login

Email

Password

☐ Remember Me

Log In

[Forgot Password?](#)

## Register

If you are an Australian healthcare professional and would like to become a prescriber or dispenser of MS-2 Step (mifepristone, misoprostol) register online here. Registration is simple. Once registered you will have access to training and resources to support you. All prescribers are strongly encouraged to complete the MS-2 Step Medical Education Program.

**Please note that amendments to State and Territory regulations and legislation may be required to enable prescribing of MS-2 Step by healthcare professionals other than medical practitioners.**

[– Register –](#)

<https://www.ms2step.com.au/>

# Termination of pregnancy

## Emergency department referrals

All urgent cases must be discussed with the on call Registrar to obtain appropriate prioritisation and treatment. Contact through:

- Royal Brisbane and Women's Hospital (07) 3646 8111
- The Prince Charles Hospital (07) 3139 4000
- Redcliffe Hospital (07) 3883 7777
- Caboolture Hospital (07) 5433 8888

Urgent cases accepted via phone must be accompanied with a written referral and a copy faxed immediately to the Central Patient Intake Unit: 1300 364 952.

*From 3 December 2018 the Termination of Pregnancy Act 2018 ensures a termination of pregnancy is treated as a health issue rather than a criminal issue in Queensland. The Act supports a woman's right to health and autonomy, provides clarity for health practitioners, and brings Queensland in line with other Australian jurisdictions. Information for health practitioners can be found on the [Clinical Excellence website](#) or by contacting 13HEALTH.*

*The Queensland Clinical Guideline – Termination of Pregnancy has been updated and Termination of Pregnancy Clinical Prioritisation Criteria have been developed.*

Registered medical practitioners may perform a lawful termination of pregnancy on request up to a gestational limit of 22 weeks.

For a woman who is more than 22 weeks pregnant, a termination may be performed by a medical practitioner if they consider that, in all the circumstances, the termination should be performed and they have consulted with another medical practitioner who also considers that, in all the circumstances, the termination should be performed.

Most terminations of pregnancy are performed in the private sector, sometimes supported with financial grants.

[+ Other Gynaecology conditions](#)

## Send referral

**Hotline: 1300 364 938**

### Electronic:

[GP Smart Referrals \(preferred\)](#)  
[eReferral system templates](#)

**Medical Objects ID:** MQ40290004P

**HealthLink EDI:** qldmnhhs

### Mail:

Metro North Central Patient Intake  
Aspley Community Centre  
776 Zillmere Road  
ASPLEY QLD 4034

## Health pathways ?

Access to Health Pathways is free for clinicians in Metro North Brisbane.

For login details email:

[healthpathways@brisbanenorthphn.or  
g.au](mailto:healthpathways@brisbanenorthphn.or<br/>g.au)

Login to Brisbane North Health  
Pathways:

# Metro North ToP Nurse Navigator

- **Clinical Advice Line (GPs only)**
  - Monday – Friday 08:30 – 15:30
  - Phone: 1800 569 099
  - Email: [http://metronorthtop@health.qld.gov.au](mailto:http://metronorthtop@health.qld.gov.au)
  - <https://metronorth.health.qld.gov.au/refer-your-patient/clinic-advice-line>




# Metro North ToP Nurse Navigator

Referrals for RBWH, Redcliffe and Caboolture triaged by MN ToP Nurse Navigator

- GPSR (preferred)
  - mark urgent
  - *Condition and Specialty* Gynecology - Termination of pregnancy (Gynecology) (Adult)
  - *Service/Location* - Termination of Pregnancy - ROYAL BRISBANE & WOMEN'S HOSPITAL (for ToP referrals to RBWH, Redcliffe & Caboolture)
- eReferral
  - mark urgent and clearly state for ToP
  - Gynaecology RBWH, Redcliffe, Caboolture
- Include
  - ultrasound confirming viable intrauterine pregnancy including fetal heart rate
  - pathology including quantitative B-HCG, blood group and Rh status, current CST

# Metro North ToP Nurse Navigator

Referral information																
Referral date	11 Oct 2022															
* Priority	<input checked="" type="radio"/> Urgent <input type="radio"/> Routine															
* Provider	<input checked="" type="radio"/> QHSR <input type="radio"/> Private															
Consents																
* Date patient consented to referral	11 Oct 2022 															
* Patient is willing to have surgery if required?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not applicable															
* Condition and Specialty	Gynaecology - Termination of pregnancy (Gynaecology) (Adult) <a href="#">HealthPathways</a>															
* Referral type	<input checked="" type="radio"/> New Referral <input type="radio"/> Continuing care															
* Reason for referral	<input checked="" type="radio"/> New condition requiring specialist consultation <input type="radio"/> Deterioration in condition, recently discharged from outpatients < 12 months <input type="radio"/> Other															
Suitable for Telehealth?	<input type="radio"/> Yes <input type="radio"/> No															
* Are you the patient's usual GP?	<input checked="" type="radio"/> Yes <input type="radio"/> No															
Referral recipient																
* Service/Location	Termination of Pregnancy - ROYAL BRISBANE & WOMEN'S HOSPITAL - 7.4 km															
Service/Location information	<div><div></div><table><tr><td>Gynaecology</td><td>ROYAL BRISBANE &amp; WOMEN'S HOSPITAL</td><td>7.4 km</td></tr><tr><td>Termination of Pregnancy</td><td>ROYAL BRISBANE &amp; WOMEN'S HOSPITAL</td><td>7.4 km</td></tr><tr><td>Gynaecology</td><td>REDCLIFFE HOSPITAL</td><td>25.2 km</td></tr><tr><td>Gynaecology</td><td>CABOOLTURE HOSPITAL</td><td>37.2 km</td></tr><tr><td>Gynaecology</td><td>IPSWICH HOSPITAL</td><td>30.2 km</td></tr></table><div>Out of catchment</div></div>	Gynaecology	ROYAL BRISBANE & WOMEN'S HOSPITAL	7.4 km	Termination of Pregnancy	ROYAL BRISBANE & WOMEN'S HOSPITAL	7.4 km	Gynaecology	REDCLIFFE HOSPITAL	25.2 km	Gynaecology	CABOOLTURE HOSPITAL	37.2 km	Gynaecology	IPSWICH HOSPITAL	30.2 km
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Gynaecology	IPSWICH HOSPITAL	30.2 km														
Specialist name	Please select															
Organisation details																

# Rh D negative women

- Pregnant women who are Rh D negative fall into two categories: those with and those without Anti-D antibodies
- **Women with Rh D (or any other) antibodies are not suitable for shared care**

#### Management of woman with Rh D negative blood group (including NIPA)



APH: antepartum haemorrhage CVS: chorionic villus sampling ECV: external cephalic version  
FMH: feto-maternal haemorrhage Ig: immunoglobulin IM: intramuscular IUFD: intrauterine fetal death IV intravenous NIPA: non-invasive prenatal analysis Rh D Ia: Rh (D) immunoglobulin-VF ToP: termination of pregnancy > greater than or equal to



# Fetal RHD Non-invasive prenatal analysis (NIPA)

- funded for women who :
  - are Rh D alloimmunised
  - have previous obstetric indications e.g., FMH, IUFD
  - are non-sensitised and have a relative contraindication to anti-D e.g., allergy; cultural/religious belief
- performed from 12 weeks

<http://www.health.qld.gov.au/qcg/>

<https://www.blood.gov.au/testing-maternal-blood-determine-fetal-rhd-genotype>

# Anti-D administration

- Routine prophylaxis at 28 and 34/40
  - 625 IU (125µg) IM
- Sensitising events – within 72 hours
  - First 12+6 weeks 250 IU (50µg) IM
  - From 13+0 weeks 625 IU (125µg) IM
  - From 20 weeks
    - quantify fetomaternal haemorrhage (FMH)
    - 625 IU (125µg) IM
    - if FMH  $\geq 6$  mL, give additional anti-D as advised by laboratory/Obstetrician/MFM Specialist
- Postnatal if Rh D positive baby
  - Mother - quantify fetomaternal haemorrhage (FMH)
  - 625 IU (125µg) IM
  - if FMH  $\geq 6$  mL, give additional anti-D as advised by laboratory/Obstetrician/MFM Specialist
  - Baby – Direct Antiglobulin Test (DAT)

# Routine anti-D prophylaxis

Immunisation			
All vaccinations are required to be reported to the Australian Immunisation Register.			Complete signature log on page a1.
Rh D immunoglobulin (Rh D negative women only)	<input type="checkbox"/> 28 weeks If no, reason: .....		Initials:
	Date given: ..... / ..... / .....	Batch number:	
Blood group:	<input type="checkbox"/> 34–36 weeks If no, reason: .....		Initials:
	Date given: ..... / ..... / .....	Batch number:	
dTpa (diphtheria, tetanus and pertussis) vaccine (recommended 20–32 weeks)	<input type="checkbox"/> Discussed <input type="checkbox"/> Declined		Gestation: ..... weeks Initials:
	Date given: ..... / ..... / .....	Batch number:	
COVID-19 vaccination	<input type="checkbox"/> Declined <input type="checkbox"/> Yes <input type="checkbox"/> Up-to-date		Date last given: ..... / ..... / ..... Initials:
Influenza vaccine (recommended at any gestation)	<input type="checkbox"/> Declined <input type="checkbox"/> Yes <input type="checkbox"/> No		Gestation: ..... weeks Initials:
	Date given: ..... / ..... / .....	Batch number:	
Other	Specify:		Gestation: ..... weeks Initials:
	Date given: ..... / ..... / .....	Batch number:	

Anti-D can be ordered from Red Cross or QML Blood Bank. **Please record the routine administration at 28 and 34-36 weeks on page a10 of the Pregnancy Health Record (PHR).** 625 IU (125 µg) is recommended for ALL Rh negative women unless they are antibody positive.

<https://clinicalexcellence.qld.gov.au/sites/default/files/docs/clinical-pathways/pregnancy-health-record.pdf>

# Anti-D prophylaxis for sensitising events

Any situation in which there is a risk of fetomaternal haemorrhage

- Miscarriage
- ToP (mToP after 10/40 or sToP)
- Ectopic pregnancy
- Molar pregnancy
- CVS, amniocentesis, cordocentesis
- External cephalic version
- Abdominal trauma
- Antepartum haemorrhage

# Anti D use in miscarriage and ToP

- Insufficient evidence to support use of Rh D immunoglobulin in bleeding prior to 12+6 weeks gestation in an ongoing pregnancy unless bleeding is repeated, heavy or associated with abdominal pain or significant pelvic trauma
- If pregnancy requires curettage or spontaneous miscarriage occurs, 250 IU (50µg) Rh D immunoglobulin should be given
- If miscarriage or termination after 13 weeks gestation, 625 IU (125 µg) Rh D immunoglobulin should be offered

<https://www.blood.gov.au/anti-d-0>

<https://ranzcog.edu.au/resources/statements-and-guidelines-directory/>

# Anti-D administration

- Order via QML blood bank
  - <https://www.qml.com.au/>
  - download and complete Anti-D request form
  - email completed form to [http://QML\\_BriBBLab@qml.com.au](mailto:http://QML_BriBBLab@qml.com.au)
  - Anti D delivered within 3 business days
  - Enquiries 07 3146 5122

# Request for Anti-D Immunoglobulin Injection

Please email completed form to QML Pathology Blood Bank on [qml\\_bribblab@qml.com.au](mailto:qml_bribblab@qml.com.au).  
For further information, please call QML Pathology Blood Bank on (07) 3146 5122.

Date: \_\_\_\_\_

Name of person requesting: \_\_\_\_\_

Contact Phone No.: \_\_\_\_\_

Delivery Address: \_\_\_\_\_

Requesting Doctor: \_\_\_\_\_

## Patient Details

Patient Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

☐ Mini Dose Anti-D 250 IU  
Quantity: \_\_\_\_\_

☐ Standard Dose Anti-D 625 IU  
Quantity: \_\_\_\_\_

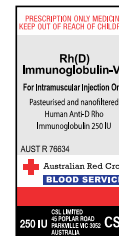
## Stock

☐ Mini Dose Anti-D 250 IU  
Quantity: \_\_\_\_\_

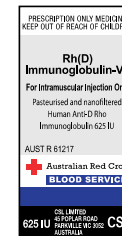
☐ Standard Dose Anti-D 625 IU  
Quantity: \_\_\_\_\_

Email completed form to:  
[QML\\_BriBBLab@qml.com.au](mailto:QML_BriBBLab@qml.com.au)

Please allow up to 3 business  
days for delivery.



Mini-Dose  
Anti-D 250 IU



Standard Dose  
Anti-D 625 IU

## Office use only

Packaged by: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

# Anti-D administration

- If you do not have a QML service, Anti-D can be ordered via Red Cross
  - register to order Anti-D
  - [https://www.lifeblood.com.au/contact - health-professionals](https://www.lifeblood.com.au/contact-health-professionals)
  - phone 07 3838 9010



# Anti-D administration

- If you *don't* have access to anti-D, please contact and refer the woman to:
  - Hospital ED for early pregnancy bleeding
  - Maternity Assessment Unit for routine prophylaxis
- If bleeding or this is 28/40 injection, send with copy of recent blood group and antibody result
- Blood group & antibody test not required for 34/40 injection if done at 28/40



**MATERNITY WORKSHOP**

Saturday 2nd September 2023

## Perinatal Mental Health

Dr Anastasia Braun Perinatal Psychiatrist  
Shubhashree Moktan Nurse Practitioner  
Metro North Perinatal Mental Health



# **TEARS, FEARS and BABY DEARS**

## Perinatal Mental Health

**Dr Anastasia N Braun**

- Consultation Liaison Psychiatrist, Perinatal Psychiatrist, e-PIMH Consultant
- RBWH, StVNS, NWPH, PRPH

**Shubhashree Moktan**

- Nurse Practitioner
- Perinatal Wellbeing Team







## Acknowledgement to Country

- *We would like to acknowledge that we are meeting on Turrbul country, and I want to pay my respects to the Elders past, present and emerging.*
- *We would like to acknowledge the important work we can do in the perinatal wellbeing space, as we support families to grow up the next generations of Elders and leaders and support Aboriginal and Torres Strait Islander ways of being, doing and knowing.*





## Acknowledgments

- *Perinatal Wellbeing team (Metro North)*
- *Perinatal Pharmacy Department, RBWH*
- *Dr Meg Cairns*
- *Naomi Kikkawa e-PIMH Telehealth Coordinator / Service Development Leader (Social Worker) Strategy Unit Queensland Centre for Perinatal and Infant Mental Health (QCPIMH) Child and Youth Mental Health Service (CYMHS)*
- *Kate Dunn – Librarian QCPIMH*
- *Jane Whitford CNC and the Consultation Liaison (CL) Psychiatry team RBWH*
- *Dr George Bruxner – CL Lead RCH*



*"The beginning of something is  
ways important, especially when  
it is young and needs time to  
grow"*

Plato





**18 yr**

**G4P0M2T1**

**K17**

*“I just found that I was pregnant  
two weeks ago, I’m just so  
anxious about it all, I’m not sure  
if want to do this”*



**G2P1**

***Planned pregnancy***

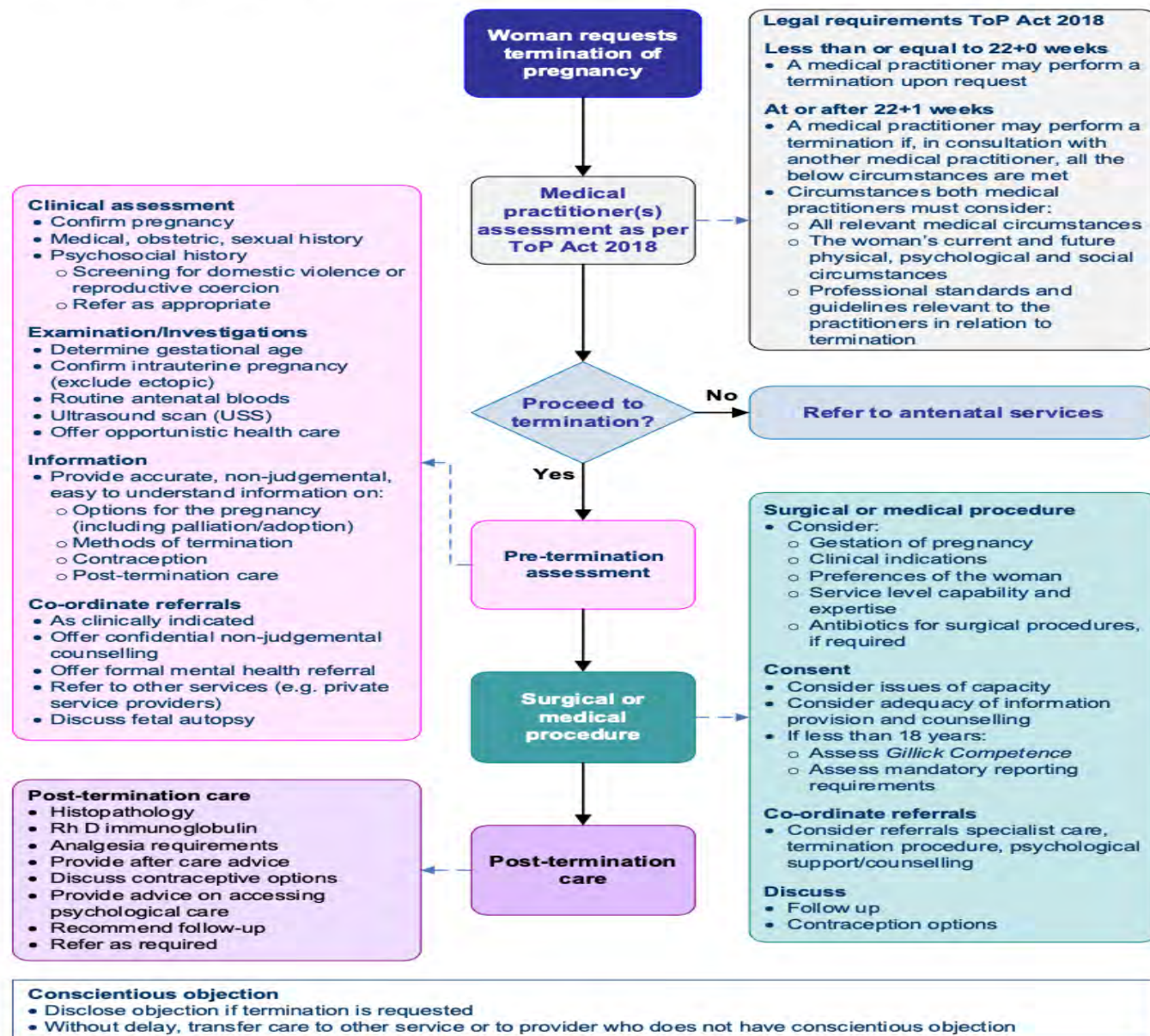
**9/40**

*“I am so sick, I can’t function,  
nobody understands how bad it is, I  
just want to die, I don’t want this  
baby...”*





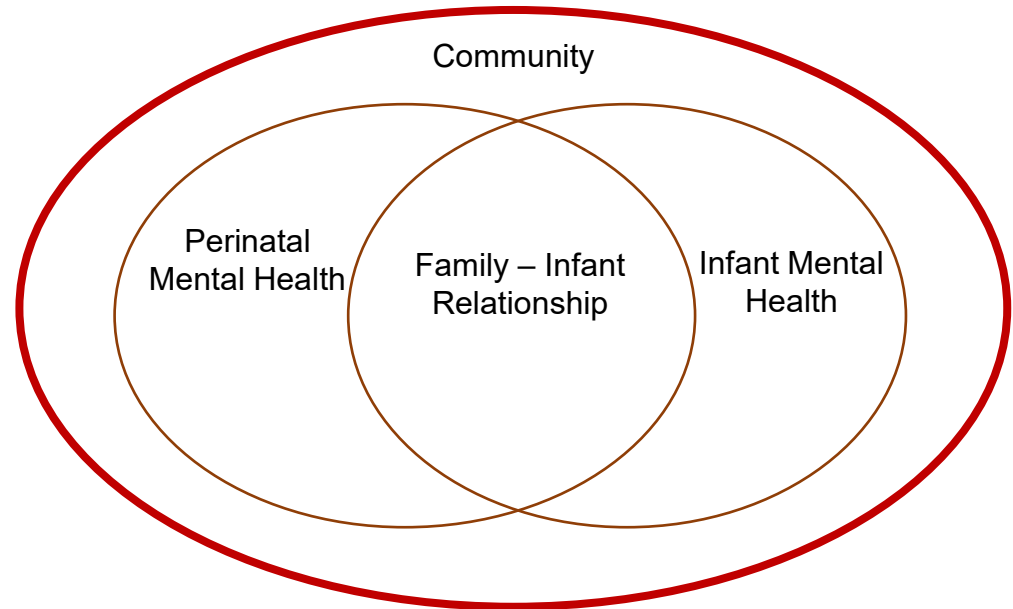
## Flow Chart: Summary of termination of pregnancy



**ToP:** termination of pregnancy, Rh D: rhesus D

# What is Infant Mental Health?

*Refers to the mental health and emotional wellbeing of the baby from birth until 4 years*



- Refers to the capacity of the infant to form close and secure relationships
- Is the ability for the infant to express, experience and regulate their emotions



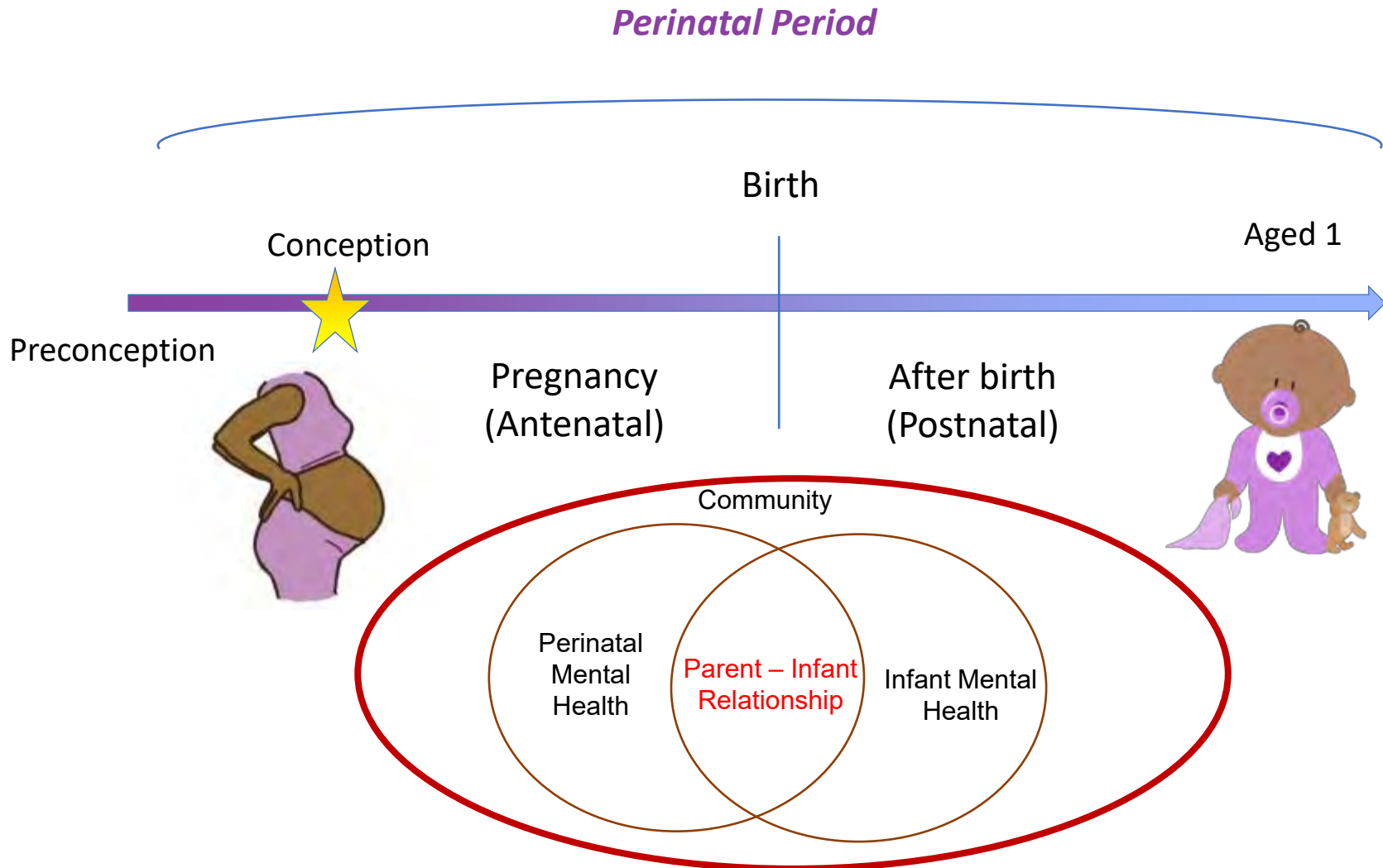
**The importance of an  
attuned relationship  
Still Face Experiment: Dr  
Edward Tronick**



[Still Face Experiment Dr  
Edward Tronick -  
YouTube](#)

# What is Perinatal mental health?

*Perinatal mental health refers to parents' mental health from preconception until 12 months after the end of pregnancy*





**G9P0M8**

**24/40**

*"I have lost so many pregnancies, even though this one was IVF, I just can't stop thinking something is wrong all the time, I'm crying, I can't go to sleep, I wake up all the time, I'm just so emotional, I can't concentrate on my work, I'm exhausted.... I have had a few scans; they help for a few days...I am not even sure if I can keep this pregnancy"*



**26yo**

**G1P0**

**17/40**

*Post Lap Sleeve Gastrectomy  
8/12 ago*

*Current BMI 42 (lost 41kg)*

*“Doctors told me  
I can’t get pregnant. I just  
found out I am pregnant, I  
am in shock, I always wanted  
to have a baby,  
but its too soon, I am not  
ready...”*





# Screening

## EPDS

Name: \_\_\_\_\_ Date: \_\_\_\_\_

We would like to know how you have been feeling in the past week. Please indicate which of the following comes closest to how you have been feeling over the past seven days, not just how you feel today. Please tick one circle for each question that comes closest to how you have felt in the **last seven days**.

Here is an example already completed.

I have felt happy:

- ☐ Yes, all of the time  
☒ 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.

1. I have been able to laugh and see the funny side of things

- ☐ As much as I always could  
☐ Not quite so much now  
☐ Definitely not so much now  
☐ Not at all

2. I have looked forward with enjoyment to things

- ☐ As much as I ever 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 very 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

- Not a diagnostic tool – validated screening tool – avail in 50 languages
- Previous 7 days
- Implemented as a tool in all maternity and child health settings so widely understood (vs K10)
- All women should complete the EPDS at least once, preferably twice, in both the antenatal period and the postnatal period (not validated prior to 6 weeks postpartum to allow for expected adjustments)
- A score of 13 and above indicates the need for further exploration of current symptoms +/- referral for specialist assessment
- High scores in Q 3,4 and 5 suggest possible symptoms of anxiety
- Positive score to Q 10 - further exploration to assess risk for self harm and safety management

# *What is a perinatal mental health assessment?*

## Assessment

Ability to undertake a comprehensive perinatal specific biopsychosocial assessment

Ability to undertake risk assessment and management including safeguarding

## Formulation

Ability to use the formulation to plan treatment, incorporating the baby and the perinatal context

Knowledge of pregnancy, childbirth and the postnatal period

Knowledge of mental health during the perinatal period

Knowledge of psychotropic medication in the perinatal period.

Knowledge of models of intervention and their employment in practice



# *What do we consider in a perinatal assessment ?*

## **Organic:**

knowledge of common perinatal comorbidities: GDM, deficiencies, foetal growth, abnormalities, birth complications, pregnancy/birth trauma, impacts of protracted labour on BF, medications (oxytocin) HG/NVP, sleep deprivation

## **Substance use :**

Risk of use/relapse in pregnancy and postpartum, medication use in pregnancy and BF and impacts on foetus

## **Psychotic spectrum :**

Puerperal psychosis has unique features. Obsessional guilt, hypochondriacal, mixed features, overvalued ideation

## **Affective Disorders:**

Highest risk for first presentation manic features in early postpartum, wired and tired, rage, irritability – ability to push through/care for infant minimises identification of depressive features

## **Anxiety, trauma, eating disorder, OCD:**

Impact of past childhood trauma (ACE) on pregnancy and entering parenting: Impact of restriction/bulimia on pregnancy, likelihood feeding difficulties, birth complications, frequent presentations – impact on infant from exposure to anxious/dysregulated mother/caregivers – unnecessary medical intervention for baby

## **Personality Factors:**

**Always accentuated under high stress for any person this equates to the entire perinatal period.**

additional support required in the perinatal period (suicide risk being minimised because there was hx suicide/DSH behaviours and emotional dysregulation);

Social Support/ family structure (previous knowledge of MI, witnessing relapse by partner, family)

**26 yo**

**G1P1 SVD**

**5 days postpartum**

*“ I’m crying all the time and feel  
so worried about everything, I  
am so tired, I can’t do this,  
I can’t think, I can’t eat, I can’t stop  
this baby crying, I don’t know  
what I’m doing, I think they’d be  
better off without me”*



# Common perinatal psychiatric complications

from "Infanticide and Filicide: Foundations in Maternal Mental Health Forensics, Wong & Parnham, 2021

Disorder	Prevalence	Symptoms	Onset	Duration	Usual treatment
"Baby blues"	30%–75% <sup>a</sup>	Sadness, emotional lability, irritability	Hours to days following delivery	2 weeks	Reassurance
Major depressive disorder (MDD)	10%–20% <sup>b</sup>	Insomnia, loss of energy, guilt, poor concentration, appetite changes, suicidal ideation	During pregnancy through up to 1 year postpartum	> 2 weeks	Psychotherapy and/or psychiatric medications, including antidepressants
Anxiety (including OCD)	15%–18% <sup>c</sup>	Anxiety, worry, intrusive thoughts, obsessions, compulsions	During pregnancy through up to 1 year postpartum	Typically weeks to months	Psychotherapy and/or psychiatric medications, including antidepressants
Bipolar disorder	2%–8% <sup>d</sup>	Features of MDD and mania or hypomania: grandiosity, decreased need for sleep, pressured speech, flight of ideas, distractibility, increase in activity, increased impulsivity	During pregnancy through up to 1 year postpartum	Several days or weeks up to months	Same as MDD; for severe illness (such as mania), hospitalization and/or psychiatric medications are required (e.g., lithium or other mood stabilizers, including antipsychotics)
Postpartum psychosis	0.1%–0.2% <sup>a</sup>	Hallucinations, delusions, disorganized thoughts or speech, fluctuating consciousness, cognitive impairment, severe insomnia, severe mood changes	Usually ≤ 2 weeks of delivery	Several days to weeks to months	Emergent psychiatric hospitalization; psychiatric medication typically required, such as lithium or other mood stabilizers including antipsychotics



**G3P2M1**

**2 weeks postpartum**

*"The first 2 weeks were okay, I felt good but then I wasn't sure, I kept checking the red book"...*

*"Something is wrong with her, and doctors and nurses tell me she is fine.."*

*"now I can't look at her without analysing what is wrong"*

*"I just can't sleep"*

*"She is not mine – I think they have changed the baby"*

*"I can't trust anyone – nurse came to our house for a check..."*



*Can women  
take  
psychotropics  
in pregnancy  
and  
breastfeeding?*

The simple answer is

**YES**

- Most psychotropics are Category C medications
- Research shows low risk for foetal abnormality and well-established clinical evidence base.
- CAT B – not better – less info
- Avoid CAT D

**We need to balance the risk to maternal mental health and the unborn baby**



## *Challenges and Dilemmas*

- 50-75% of depressed women relapse if cease medication (Marcus 2005, Cohen 2006)
- 90% BPAD relapse if cease medication antenatally
- Yet, 50% women are advised to or self-cease medication without supervision
- Potential complications for mother/baby no matter what you do with the medication





***26 years old***

***G1P0***

***Unplanned pregnancy***

***7/40***

***Schizoaffective Disorder***

***Cluster B personality traits***

Substance use, recently closed from the community mental health team into GP care.

Medications:

Abilify 10mg nocte  
Zuclopenthixol Depot 200mg IMI 2 weekly  
Fluoxetine 30mg







**Table 8.26 Potential benefits and harms to the patient and fetus associated with psychotropic use during pregnancy**

[NB1] [NB2]

	Fetus	Patient
Potential harms of psychotropic use	<ul style="list-style-type: none"> <li>▪ miscarriage</li> <li>▪ fetal death <i>in utero</i></li> <li>▪ stillbirth</li> <li>▪ preterm birth</li> <li>▪ congenital abnormality [NB3]</li> <li>▪ growth restriction</li> <li>▪ poor neonatal adaptation</li> <li>▪ long-term neurodevelopmental effects [NB4]</li> </ul>	<ul style="list-style-type: none"> <li>▪ stress and worry about potential for harms from drug exposure</li> </ul>
Potential benefits of psychotropic use	<ul style="list-style-type: none"> <li>▪ reduced: <ul style="list-style-type: none"> <li>• abuse and neglect</li> <li>• adverse outcomes from an active psychiatric disorder during pregnancy [NB5]</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ reduced: <ul style="list-style-type: none"> <li>• relapse of psychiatric disorder</li> <li>• suicide</li> <li>• self-harm</li> <li>• relationship deterioration</li> <li>• use of harmful substitutes (eg alcohol)</li> </ul> </li> </ul>

Source: <https://tgldcdp.tg.org.au/>

# *Meds in pregnancy*

- Selective serotonin reuptake inhibitors or serotonin–norepinephrine reuptake inhibitor medications are not associated with higher rates of birth defects or long-term changes in mental development after adjustment for confounding factors associated with underlying psychiatric illness.
- Lithium exposure is associated with an increased risk for fetal cardiac malformations, but this risk is lower than previously thought (absolute risk of Ebstein's anomaly 6/1,000).
- Antipsychotics, other than risperidone and potentially paliperidone, have not been associated with an increase in birth defects; olanzapine and quetiapine have been linked with an elevated risk of gestational diabetes.



- Untreated maternal psychiatric illness also carries substantial risks for the mother, fetus, infant, and family.
- The goal of perinatal mental health treatment is to optimally provide pharmacotherapy to mitigate the somatic and psychosocial burdens of maternal psychiatric disorders.
- Regular symptom monitoring during pregnancy and postpartum and medication dose adjustments to sustain efficacy constitutes good practice.
- Due to the dramatic physiological changes of pregnancy and enhanced hepatic metabolism, drug doses may need to be adjusted during pregnancy to sustain efficacy.

Betcher, H. K. and K. L. Wisner (2020). "**Psychotropic treatment during pregnancy: Research synthesis and clinical care principles.**" Journal of Women's Health **29**(3): 310-318.

# ***SSRI Neonatal “withdrawal” symptoms = serotonin discontinuation syndrome***

- Central nervous system (motor restlessness, jittery baby, yawning, tremors, poor sleep, crying, convulsions)
- Respiratory (respiratory distress)
- Gastrointestinal (diarrhoea, feeding problems, reflux and sneezing, vomiting, jaundice)
- Onset within 3-4 days post-partum (half life of meds)
- Usually last a few days

## **BUT**

- 10% control babies have similar symptoms
- 30/100 may experience and dose related
- Babies of depressed women exhibit greater neonatal irritability and poorer neonatal adaptation



# *Effects of untreated antenatal anxiety and depression on the developing foetus*

- Effects on fetus's developing HPA axis (? transplacental passage of stress hormones)
- Decreased serotonin and dopamine
- Increased cortisol and noradrenaline
- Foetal neurological development (neural tube defects/ birth weight/head circumference)
- Newborns – decreased motor tone/increased irritability/decreased alertness
- Relationship between antenatal anxiety and “difficult” or “negative” infant behaviors in first few months of life controlling for postnatal mood, SES etc

\* *Changes in the Maternal Hypothalamic-Pituitary-Adrenal Axis in Pregnancy and Postpartum: Influences on Maternal and Fetal Outcomes, Duthie L, Reynolds R, Neuroendocrinology (2013) 98 (2): 106–11*



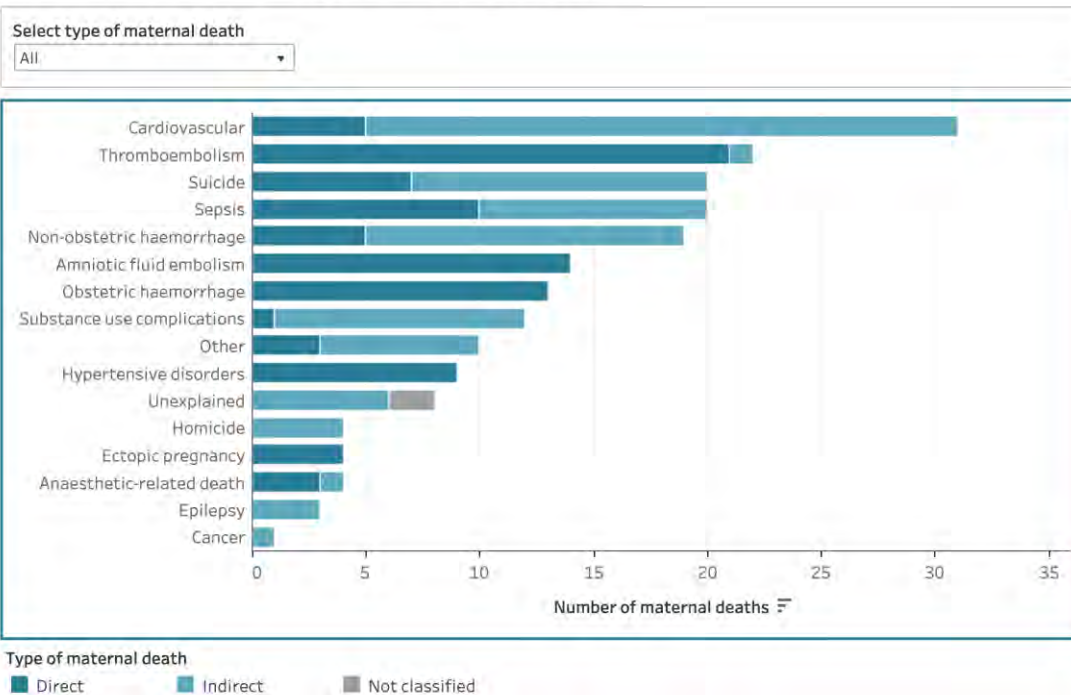


# *Adverse outcomes of untreated mental illness on mothers*

- **Bonding with infant**
- Risk factors for impaired maternal-infant bonding may include negative thoughts about the pregnancy during the antenatal period and primiparity
- **Marital discord**
- **Suicidality** • **Suicidal ideation** – • **Suicide attempts** - **Suicide deaths**
- **Harming the baby** — Postpartum depression may lead to thoughts of harming the baby, but is rarely associated with infanticide.
- **Thoughts of harming the baby** – Rumination about harming the baby can occur in postpartum depression
- Patients may describe these thoughts as “scary” or frightening, and typically express no intent of wanting to harm their infant
- Thoughts of harming the baby are generally experienced as unwanted, unacceptable (ego dystonic), and intrusive, and are usually not revealed unless patients are questioned directly
- Rumination about harming the baby may be due to postpartum psychosis and should prompt an evaluation for psychotic symptoms such as delusions or hallucinations. As part of the assessment, clinicians need to distinguish rumination about harming the baby without intent (an unwanted intrusive thought), from rumination with intent, which is often seen in postpartum psychosis.
- **Infanticide** – Infanticide is a rare event. 2 to 7 per 100,000 infants
- Neonaticide, infanticide, filicide
- **Recurrent depression**



## Number of maternal deaths, by cause of death, 2011-2020



### Notes:

1. Anaesthetic-related deaths were not classified prior to 2012.
2. Deaths 'not classified' are those considered to be related to the pregnancy or its management, but could not be further classified as either 'direct' or 'indirect'. These deaths are included in the maternal deaths total.

Source: AIHW analysis of National Maternal Mortality Data Collection and National Perinatal Data Collection data.

<https://www.aihw.gov.au>

## *Maternal Deaths - AIHW*

3x risk new onset cases depression in first few weeks post-partum

30x risk of 1<sup>st</sup> psychotic episode in 1<sup>st</sup> month postpartum

Suicide leading cause of maternal perinatal morbidity c/w cardiac and other causes;

**39 yo**  
**G1P1**  
**12 weeks post elective CS**

*“I wanted this baby so badly for so long... I was going to do it on my own, I am so tired and feel so guilty that every-time he breast feeds I feel this rage and resent towards him... I feel like throwing him against the wall...I am a terrible mother, I did not even give him a normal birth”*





# *Adverse Outcomes of untreated maternal MH for the baby*

- Breastfeeding
- Abnormal development
- Physical health
- Growth
- Brain structure — Based upon magnetic resonance imaging, maternal postpartum depression is associated with smaller total grey matter volumes in infants, including thinner cortices in the frontal and temporal lobes
- Temperament — difficult infant and childhood temperament with inconsolability, irritability, fussiness, demanding behaviour, problems regulating negative affect, and unusual sensory sensitivities
- Sleep — Mothers with postpartum depression may be less likely to properly position their infants for sleep (babies should be placed on their backs) ; problematic sleeping patterns in the infant, such as night-time awakenings and disorganized sleep





# *Adverse Outcomes of untreated maternal MH for the baby*

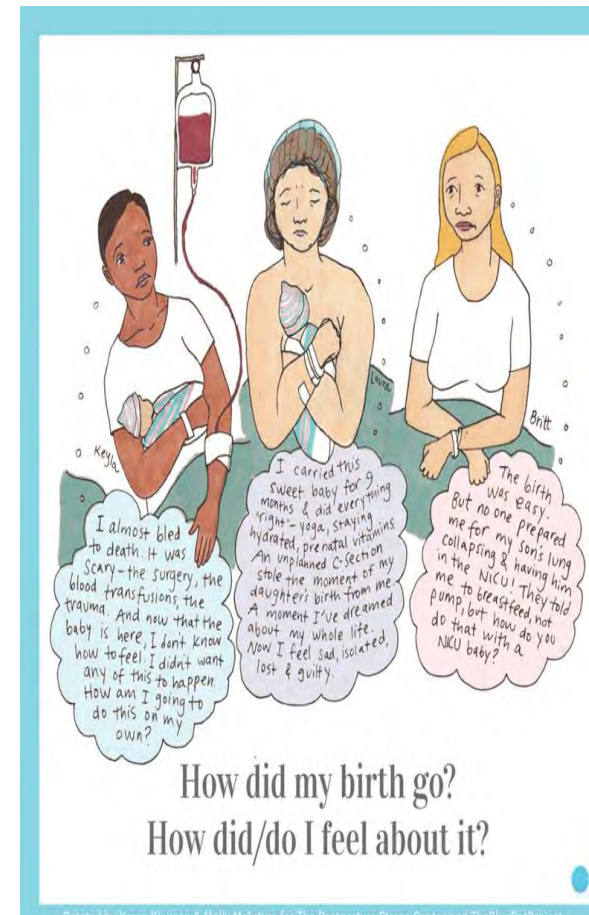
- Bonding with mother
- Motor functioning
- Vaccinations — It is not known whether children of depressed mothers are less likely to receive vaccinations, due to conflicting results across studies
- Maternal safety practices — Postpartum depression may be associated with decreased use of infant car seats and electrical outlet covers, and thus compromise infant safety
- Cognitive impairment — Postpartum maternal depression is associated with cognitive impairment in the offspring, including general cognitive performance, as well as executive functioning, intelligence, and language development
- Executive functioning —Intelligence
- Language development
- Academic achievement - As an example, failing to achieve a passing grade in mathematics was 1.5 times more likely in the adolescent offspring of mothers with postpartum depression than the offspring of nondepressed mothers
- Psychopathology
- Externalizing problems – Symptoms of oppositional defiant disorder, conduct disorder, and/or attention deficit hyperactivity disorder
- Internalizing problems – Symptoms of anxiety disorders and depressive disorders



# Perinatal / Birth Trauma

- Infertility and perinatal loss exacerbate anxiety in the pregnancy
- History of Adverse Childhood experiences (>4) increases the risk of women reporting perinatal trauma
- Societal expectation that their baby is okay so they should be too
- The injuries cant be seen but the impact on emotional health can be significant
- Not always an injury....feeling out of control, not being heard, being dismissed/shamed equally traumatising
- 1 in 3 women find their birth traumatic
- 5% will develop PTSD
- Not always “screened in” on EPDS

Mackle, T., Colodro-Conde, L., Braun, A *et al.* “Echoes of a dark past” is a history of maternal childhood maltreatment a perinatal risk factor for pregnancy and postpartum trauma experiences? A longitudinal study. *BMC Pregnancy Childbirth* **23**, 397 (2023). <https://doi.org/10.1186/s12884-023-05714-2>



**G1P1**

**9 weeks postpartum**

*“Everyone expects me to be happy as I have a healthy baby, no-one wants to talk about that this baby nearly killed me.... I remember the panic and them sending him out...and seeing the blood everywhere...I was so sick I don’t remember seeing her till she was about 5 days old, I just feel so sad, everyone else had held my baby but me....you don’t expect to be told at 24 that you were given a hysterectomy”*





# SUMMARY

- Assessment (maternal-infant relationship, Obs Hx, Family support)
- Diagnostic criteria
- Red flags, Risk assessment - broad
- Treatment
- Referrals, Liaison
- Resources



Table 2      Indications of potential difficulties in the mother-infant interaction

PSYCHOSOCIAL RISK FACTORS	RELATIONSHIP FACTORS (OBSERVED OR REPORTED)
<ul style="list-style-type: none"><li>• Unresolved family of origin issues</li></ul>	<ul style="list-style-type: none"><li>• Is the mother thoughtful about her baby?</li></ul>
<ul style="list-style-type: none"><li>• History of emotional/physical/sexual abuse, family violence, childhood neglect</li></ul>	<ul style="list-style-type: none"><li>• Can the mother describe the baby's daily routine?</li></ul>
<ul style="list-style-type: none"><li>• Past pregnancy loss or excess pregnancy concern</li></ul>	<ul style="list-style-type: none"><li>• Is the mother able to reflect on the baby's needs?</li></ul>
<ul style="list-style-type: none"><li>• Unplanned or unwanted pregnancy</li></ul>	<ul style="list-style-type: none"><li>• Does the mother express empathy for the baby?</li></ul>
<ul style="list-style-type: none"><li>• Did the mother receive a prenatal diagnosis of fetal anomaly?</li></ul>	<ul style="list-style-type: none"><li>• Does the mother engage in enjoyable activities with the baby?</li></ul>
<ul style="list-style-type: none"><li>• Fertility issues or assisted reproduction</li></ul>	<ul style="list-style-type: none"><li>• Does the mother play/talk appropriately to the baby?</li></ul>
<ul style="list-style-type: none"><li>• Did the women experience birth trauma?</li></ul>	<ul style="list-style-type: none"><li>• Does she delight in her baby?</li></ul>
<ul style="list-style-type: none"><li>• Was the mother able to touch the baby on the day of birth?</li></ul>	<ul style="list-style-type: none"><li>• Does the baby ever make her feel uncomfortable, unhappy or enraged?</li></ul>
<ul style="list-style-type: none"><li>• Did the mother have responsibility for infant care during the first week of life?</li></ul>	<ul style="list-style-type: none"><li>• Is the mother excessively worried about the baby?</li></ul>
<ul style="list-style-type: none"><li>• Who is involved in the baby's care?</li></ul>	<ul style="list-style-type: none"><li>• Does the mother cope with the baby's distress?</li></ul>
<ul style="list-style-type: none"><li>• Availability of emotional/social/practical support</li></ul>	<ul style="list-style-type: none"><li>• Does she respond and attend appropriately to the baby's cues?</li></ul>
<ul style="list-style-type: none"><li>• How much time does the mother spend away from the baby?</li></ul>	<ul style="list-style-type: none"><li>• Are her responses consistent?</li></ul>
	<ul style="list-style-type: none"><li>• Is she protective of the baby?</li></ul>
	<ul style="list-style-type: none"><li>• How does she refer to the baby?</li></ul>
	<ul style="list-style-type: none"><li>• Does she show/share photos of the baby?</li></ul>
	<ul style="list-style-type: none"><li>• Has she set up a room for the baby?</li></ul>
	<ul style="list-style-type: none"><li>• Does she buy baby clothes?</li></ul>

Source: COPE Guidelines  
([COPE 2023 Perinatal Mental Health Practice Guideline.pdf](#))

INFANT FACTORS	MATERNAL FACTORS
<ul style="list-style-type: none"><li>• Is the baby achieving normal developmental milestones?</li></ul>	<ul style="list-style-type: none"><li>• Current maternal personality disorder</li></ul>
<ul style="list-style-type: none"><li>• Is the baby growing adequately?</li></ul>	<ul style="list-style-type: none"><li>• Antenatal or postnatal mood disorder</li></ul>
<ul style="list-style-type: none"><li>• Are there feeding difficulties, reflux, gastric distress, sleep difficulties?</li></ul>	<ul style="list-style-type: none"><li>• Psychosis</li></ul>
<ul style="list-style-type: none"><li>• Does the infant have other health concerns (e.g. eczema, allergies, congenital anomalies)?</li></ul>	<ul style="list-style-type: none"><li>• Diagnosed personality disorder</li></ul>
INFANT BEHAVIOUR OF CONCERN (OBSERVED OR REPORTED)	<ul style="list-style-type: none"><li>• Suicidal or homicidal ideation</li></ul>
<ul style="list-style-type: none"><li>• Gaze avoidance</li></ul>	<ul style="list-style-type: none"><li>• Negative symptoms (low motivation, anhedonia, blunted affect, poverty of thought/speech)</li></ul>
<ul style="list-style-type: none"><li>• Flat affect</li></ul>	<ul style="list-style-type: none"><li>• Medication side-effects (e.g. causing sedation)</li></ul>
<ul style="list-style-type: none"><li>• Lack of crying</li></ul>	<ul style="list-style-type: none"><li>• Substance abuse</li></ul>
<ul style="list-style-type: none"><li>• Limited vocalising</li></ul>	<ul style="list-style-type: none"><li>• Engaging in dangerous or risk-taking behaviours (e.g. alcohol or drug misuse)</li></ul>
<ul style="list-style-type: none"><li>• Emotionally under-responsive</li></ul>	
<ul style="list-style-type: none"><li>• Interacts too easily with strangers (age dependent)</li></ul>	
<ul style="list-style-type: none"><li>• Unsettled sleep or feeding</li></ul>	
<ul style="list-style-type: none"><li>• Difficult to console when distressed</li></ul>	
<ul style="list-style-type: none"><li>• Irritable, constant crying</li></ul>	
<ul style="list-style-type: none"><li>• Difficulty separating from parent (age dependent)</li></ul>	



## Brisbane Centre for Postnatal Disorders - accepting inpatient referrals

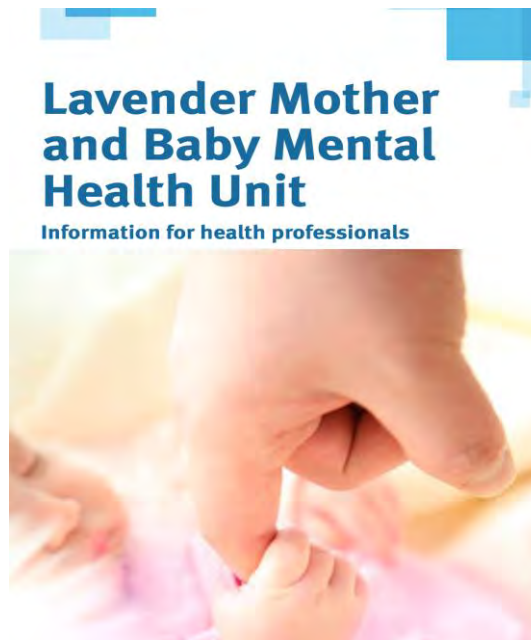
**Admission Criteria**  
Patients can be admitted to our unit if they have a mood disorder occurring in pregnancy, or postnatally (up to two years) and/or related disorders including:

- Antenatal depression
- Anxiety disorder
- Acute stress disorder
- Attachment difficulties
- Anxiety related to the care of their infant
- Infant related problems impacting on the mother's wellbeing
- Difficulties inherent in adjusting to the transition to parenthood
- Depression with postnatal onset (mild to severe)
- Unresolved grief issues
- Psychotic illnesses

Please contact us or visit our website for further information on the referral process

T: 1800 700 274  
E: [belmont.admissions@aurorahealth.com.au](mailto:belmont.admissions@aurorahealth.com.au)  
W: [belmontprivate.com.au](http://belmontprivate.com.au)

**Aurora**  
Belmont  
Private Hospital

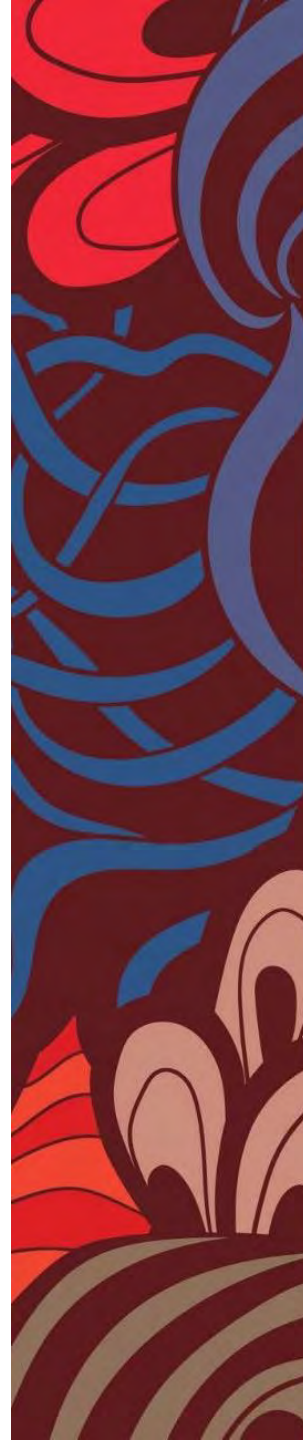


# QLD Inpatient Mother Baby Units

- Lavender Mother and Baby Unit, GCUH
- Belmont Private Hospital (treatment for perinatal disorders)
- Catherine's House for Mothers, Babies and Families – Mater Health



- Therapeutic Guidelines, Psychotropic, 2021  
<https://tgldcdp.tg.org.au/>
- Health Care Professionals - MGH Center for Women's Mental Health [Center for Women's Mental Health at MGH \(womensmentalhealth.org\)](https://www.womensmentalhealth.org)
- Pregnancy and Breastfeeding Medication Guide [thewomenspbmg.org.au](https://thewomenspbmg.org.au). Subscription required.
- Printable leaflets [Printable leaflets \(choiceandmedication.org\)](https://www.choiceandmedication.org). Subscription required.
- Lactmed [Drugs and Lactation Database \(LactMed®\) - NCBI Bookshelf \(nih.gov\)](https://www.ncbi.nlm.nih.gov/books/NBK114121/)



# Resources for Dads

- SMS4DAD
- Peach tree
- Men with a Pram
- Beyond Blue
- PANDA
- DadBooster [DadBooster - DadSpace](#)
- A guide for dads: Caring for everyone during perinatal mental illness [A guide for dads: Caring for everyone during perinatal mental illness \(nsw.gov.au\)](#)



# Perinatal Wellbeing Team

## Metro North

- Intake Officer Mon- Fri 0830-4pm:

**07 3146 2525**

- Email:

[Perinatal-Mental-Health@health.qld.gov.au](mailto:Perinatal-Mental-Health@health.qld.gov.au)

- Website and referral form:

[Perinatal Mental Health - Metro North Health](#)



## *Some Useful Resources*

- For children:
- [www.zerotothree.org](http://www.zerotothree.org)
- [www.raisingchildren.net.au](http://www.raisingchildren.net.au)
- [www.whatwerewethinking.org.au](http://www.whatwerewethinking.org.au)
- [www.circleofsecurity.net](http://www.circleofsecurity.net)
- <https://territoryfamilies.nt.gov.au/children-and-families/tune-in-to-little-ones>



## *cont*

- [COPE: Centre of Perinatal Excellence](#)
- [www.panda.org.au](http://www.panda.org.au)
- [www.beyondblue.org.au](http://www.beyondblue.org.au)
- [www.blackdoginstitute.org.au](http://www.blackdoginstitute.org.au)
- <http://mothersmatter.co.nz/>
- <https://stayinontrack.com/>
- Pregnancy and Infant loss support [Bears of Hope](#)
- [SANDS - MISCARRIAGE STILLBIRTH NEWBORN DEATH SUPPORT](#)
- <http://www.birthtrauma.org.au>
- [Rainbow Families](#)
- Louis Theroux: Mothers on the Edge





## Metro North GP Alignment Program



**MATERNITY WORKSHOP**

Saturday 2nd September 2023

# Complex Case Studies

# Red group - complex

- **Jessica** is now 9 weeks pregnant with twins. She looks pale and ill at ease as she walks into the consulting room
- Her partner, Luke is with her, looking agitated. *“She’s been spewing her guts up doc; you’ve got to help! The chemist gave her some vitamins, which haven’t helped at all”*
- Her BP is 90/60 sitting, 80/55 standing, her PR is 104 and she reports that she isn’t passing much urine. You notice a suspicious bruise as you take her blood pressure
- **Outline your approach**

# Nausea and vomiting of pregnancy

- Nausea - most common GI symptom of pregnancy, occurring in 80 - 85% of pregnancies
- Associated with vomiting in approx. 52%
- ~ 90% report cessation of symptoms by 16 - 20 weeks

# Nausea and vomiting in pregnancy

- Only 11 - 18% of women report having nausea & vomiting confined to the mornings
- Hyperemesis gravidarum is ***not*** common, affecting 0.3 - 1.5% of women
- Discontinuing iron supplementation/multivitamin may improve symptoms
- Continue iodine and folate if possible

<https://www.health.gov.au/resources/pregnancy-care-guidelines>

## Nutrition Education Materials Online (NEMO)

Home

Nutrition Education Materials

For Health Professionals

FEEDS

About us

Contact us



## Nutrition Education Materials Online (NEMO)

### Nutrition Education Materials

These nutrition education materials are designed for members of the public and provide nutritional information about a range of topics. The information contained within the NEMO resources is general in nature, and should be used in conjunction with individualised dietary advice from a Dietitian or other qualified health professional.

You can find the information you need by either using the "filter by category" drop-down menu, or the search bar

Maternal Health

Search by keyword

Title	Author	Description
<b>Patient education resources</b>		
<a href="#">Antenatal and infant feeding resources for Aboriginal and Torres Strait Islander people</a>	NEMO Aboriginal and Torres Strait Islander group	
<a href="#">GDM Webinar 1: What is GDM and why carbohydrate matters</a>	RBWH Nutrition and Dietetics	
<a href="#">GDM Webinar 2: Counting your carbohydrates</a>	RBWH Nutrition and Dietetics	
<a href="#">GDM Webinar 3: Glycemic index, healthy eating and activity in pregnancy</a>	RBWH Nutrition and Dietetics	
<a href="#">GDM Webinar Translation</a> Instructions for the GDM webinars for the user to access translated subtitles	NEMO Maternal Health Group	
<a href="#">Gestation Diabetes – Sample Meal Plan</a>	NEMO Maternal Health Group	
<a href="#">Gestational Diabetes: caring for yourself and your baby (NDSS booklet)</a>	NEMO Maternal Health Group	

NEMO Maternal Health > *'Managing morning sickness'* fact sheet  
<https://www.health.qld.gov.au/nutrition/patients>



# GUIDELINE FOR THE MANAGEMENT OF NAUSEA AND VOMITING IN PREGNANCY AND HYPEREMESIS GRAVIDARUM

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2019

Lowe SA, Bowyer L, Beech A, Robinson H, Armstrong G,  
Marnoch C, Grzeskowiak L.

These are the recommendations of a multidisciplinary working party convened by the Society of Obstetric Medicine of Australia and New Zealand. They reflect current medical literature and the clinical experience of members of the working party. The accompanying Executive Summary and Treatment Algorithms (1 and 2) summarise the key recommendations. These should be read in conjunction with this complete guideline which also includes a Patient Information Leaflet and a template for an Individual Patient Management Plan.

The authors declare there are no conflicts of interest.

This guideline has been endorsed by the following organisations:

- *Royal Australian and New Zealand College of Obstetrics and Gynaecology (RANZCOG)*
- *Royal Australasian College of Physicians (RACP)*
- *Royal Australasian College of General Practitioners (RACGP)*
- *Australasian College for Emergency Medicine (ACEM)*
- *Society of Hospital Pharmacists' Association (SHPA)*
- *New Zealand Hospital Pharmacists' Association (NZHPA)*


Table 2. Motherisk PUQE-24 scoring system


Total score: mild  $\leq 6$ ; moderate 7 to 12; severe  $\geq 13$  (Scores in brackets)

1. In the last 24 hours, for how long have you felt nauseated or sick to your stomach?				
Not at all (1)	1 hour or less (2)	2-3 hours (3)	4 to 6 hours (4)	More than 6 hours (5)
2. In the last 24 hours, have you vomited or thrown up?				
I did not throw up (1)	1 to 2 (2)	3 to 4 (3)	5 to 6 (4)	7 or more times (5)
3. In the last 24 hours, how many times have you had retching or dry heaves without throwing up?				
None (1)	1 to 2 (2)	3 to 4 (3)	5 to 6 (4)	7 or more times (5)

# Nausea and vomiting in pregnancy

- Anti-emetics
  - ginger 250mg QID
  - vitamin B6 (Pyridoxine) 10 - 25mg TDS – QID
  - doxylamine, metoclopramide, prochlorperazine
  - ondansetron (second-line)
- Acid suppression
  - famotidine, nizatadine or omeprazole
- Manage/prevent constipation
  - docusate sodium

 <b>Queensland Government</b>	(Affix patient identification label here)				
Royal Brisbane and Women's Hospital Emergency & Trauma Centre (ETC)					
<b>VOMITING IN EARLY PREGNANCY (VEP) CLINICAL PATHWAY</b>					
<b>INCLUSION CRITERIA</b>			<b>EXCLUSION CRITERIA</b>		
<input type="checkbox"/> <14 weeks pregnant with nausea & vomiting <input type="checkbox"/> >14 weeks pregnant documented history of Hyperemesis this pregnancy			<input type="checkbox"/> Per Vaginal (PV) bleeding <input type="checkbox"/> Lower abdominal pain without USS confirmed location of pregnancy		
<b>Respiratory Rate (RR):</b> ...../min	<b>Blood pressure (BP):</b> ...../.....	<b>% Weight loss</b> - ..... [(Pre-pregnancy weight – current weight) ÷ pre-pregnancy weight] x 100			
<b>RED FLAGS – If present for Consultant review &amp; consider early referral to Obstetric Medicine</b>					
<input type="checkbox"/> HR <50 or >120		<input type="checkbox"/> Ataxia		<input type="checkbox"/> Altered consciousness	
<input type="checkbox"/> Systolic BP <80 or >130		<input type="checkbox"/> Headache		<input type="checkbox"/> Visual disturbance	
<input type="checkbox"/> <b>HISTORY &amp; EXAMINATION:</b> Documentation of <input type="checkbox"/> Gestation <input type="checkbox"/> USS findings this pregnancy <input type="checkbox"/> Medical conditions					
<input type="checkbox"/> Previous pregnancies with hyperemesis <input type="checkbox"/> Current treatment for Early Pregnancy Vomiting <input type="checkbox"/> Complete PUQE tool and record score					
<b>Pregnancy Unique Quantification of Emesis (PUQE) index</b>					
Total score is sum of replies to each of the three questions. PUQE 24 score: Mild ≤ 6; Moderate = 7-12; Severe= 13-15					
<b>Motherisk PUQE – 24 scoring system:</b>					
In the last 24 hours, how long have you felt nauseated or sick to your stomach?	Not at all (1)	1 hour or less (2)	2-3 hours (3)	4-6 hours (4)	More than 6 hours (5)
In the last 24 hours have you vomited or thrown up?	7 or more time (5)	5-6 times (4)	3-4 times (3)	1-2 times (2)	I did not throw up (1)
In the last 24 hours how many times have you had retching or dry heaves without bringing anything up?	No time (1)	1-2 times (2)	3-4 times (3)	5-6 times (4)	7 or more times (5)
How many hours have you slept out of 24 hours?..... Why?.....					
On a scale of 0 to 10, how would you rate your wellbeing?..... (0 worst possible ≤ 10 the best you felt before pregnancy)					
Can you tell me what causes you to feel that way?.....					
<b>Initial management in the ETC</b>					
<input type="checkbox"/> <b>Urine</b> – Dipstick and ketones; M/C/S - if indicated					
<input type="checkbox"/> <b>Bloods</b> – FBC, CHEM20, BHCG if no previous level (TFTs if representation & not completed this pregnancy) consider antenatal screen for complex social patient if not done.					
<input type="checkbox"/> <b>IVC</b> – 1L Normal Saline STAT then 1L Normal Saline 250 ml/hr or as clinically appropriate					
<input type="checkbox"/> <b>Stat medications</b> (as appropriate in clinical context and with allergies)					
<input type="checkbox"/> <b>Pyridoxine 25 mg PO</b>					
<input type="checkbox"/> <b>Antiemetic – one or both of Metoclopramide 10 mg IV/PO; Ondansetron 4 – 8 mg IV/PO</b>					
<input type="checkbox"/> <b>Thiamine 300 mg IV/PO</b>					
<input type="checkbox"/> <b>Refer to SSU</b> – If no oral intake or symptom resolution after 1 hour of treatment					
<input type="checkbox"/> <b>Consider USS Pelvis &amp; Transvaginal</b> – If there is another clinical indication					
<b>Indications for referral to obstetric medicine (one or more of)</b>					
<input type="checkbox"/> Severe electrolyte disturbance					
<input type="checkbox"/> Excess weight loss (5% or more)					
<input type="checkbox"/> Not tolerating oral medication or adequate intake within SSU after trial of IV fluids & medication					
<input type="checkbox"/> 3rd presentation to ED within 2 weeks whilst on maximal medical management					
<input type="checkbox"/> Significant Comorbidity – Insulin Dependent Diabetes, Eating Disorder, BMI <18					

 <b>Queensland Government</b>	(Affix patient identification label here)				
Royal Brisbane and Women's Hospital Emergency & Trauma Centre					
<b>VOMITING IN EARLY PREGNANCY (VEP) CLINICAL PATHWAY</b>					
<b>Ongoing management in short stay unit (ssu)</b>					
<input type="checkbox"/> Review investigations & treat identified issues – eg: <i>Electrolyte derangement, UTI</i>					
<input type="checkbox"/> Regular medications on arrival (as appropriate in clinical context and with allergies)					
<input type="checkbox"/> Pyridoxine 25 mg PO TDS		<input type="checkbox"/> Metoclopramide 10 mg PO/IV TDS			
<input type="checkbox"/> Ondansetron 4–8 mg PO/IV TDS		<input type="checkbox"/> Thiamine 100 mg PO/IV TDS			
<input type="checkbox"/> Doxylamine 12.5 mg PO Nocte (night and early morning vomiting) If tolerated and severe symptoms, consider increasing to 25 mg nocte + 12.5 mg midday					
<input type="checkbox"/> Additional medications to consider:.....					
<input type="checkbox"/> Pantoprazole 40 mg daily prn if symptomatic of reflux (epigastric burning, burping etc)					
<input type="checkbox"/> Doxylamine 25 mg PO Nocte and 12.5 mg midday for sever case.					
<input type="checkbox"/> Coloxyl 120 mg - 2 tabs PO Nocte PRN for constipation					
<input type="checkbox"/> IV Fluids - Titrate to encourage oral intake. , Normal Saline or Hartmann's 125 ml/hr or as clinically appropriate					
<input type="checkbox"/> Weight & strict fluid balance					
<input type="checkbox"/> <b>Patient to complete</b> - MR 61079 Scoring Template for Edinburgh Postnatal Depression Scale (EPDS)					
Score of 13 and above please refer to Perinatal MH Service: <a href="mailto:Perinatal-Mental-Health@health.qld.gov.au">Perinatal-Mental-Health@health.qld.gov.au</a>					
<b>Indications for discharge</b>					
<input type="checkbox"/> Adequate oral intake					
<input type="checkbox"/> All abnormalities addressed and corrected (electrolyte derangement, dehydration)					
<input type="checkbox"/> Planned follow-up with GP or obstetrician within 72hrs					
<input type="checkbox"/> Discharge pack with <b>Script, Early Pregnancy Vomiting Handout and medication advice</b>					
<b>Discharge script: Ensure the discharge medications reflects admission medications.</b>					
<input type="checkbox"/> Metoclopramide 10 mg PO TDS PRN; Qty 30					
<input type="checkbox"/> Ondansetron 4 mg tablet (not wafer) 1-2 PO TDS PRN; Qty 30					
<input type="checkbox"/> Pantoprazole 40 mg PO daily prn Qty 30					
<input type="checkbox"/> Coloxyl 120 mg 2 tabs PO, Nocte, PRN; Qty 100					
<input type="checkbox"/> Pyridoxine 25 mg PO TDS; Qty 100					
<input type="checkbox"/> Doxylamine 25 mg ½ to 1 PO Nocte +/- 12.5 mg Midday PRN; Qty 20					
<b>Must be accompanied by EPV Handout with medication titration advice</b>					
<b>Short Stay Clinician to complete</b>					
Name:.....			Designation:.....		
Signature:.....			Date:...../...../.....		

## Differential diagnosis of NVP in pregnancy [more common causes in bold]

### Gastrointestinal

- Infectious gastroenteritis
- Gastro-oesophageal reflux disease-Helicobacter Pylori
- Infectious hepatitis
- Pancreatitis
- Biliary tract disease
- Peptic ulcer disease
- Bowel obstruction
- Gastroparesis
- Appendicitis
- Peritonitis

### Genitourinary

- Urinary tract infection including pyelonephritis
- Ovarian Torsion
- Nephrolithiasis

### Metabolic/Toxic

- Drugs-including pregnancy vitamins
- Use and/or withdrawal of cannabinoids or other illicit drugs
- Diabetic ketoacidosis
- Addison's disease
- Thyrotoxicosis
- Non-infectious hepatitis
- Hypercalcemia
- Eating Disorders

### Central-nervous system disease

- Migraine
- Infection
- Tumours
- Raised intracranial pressure
- Vestibular system pathology: labyrinthitis, Meniere's



# Hyperemesis gravidarum

- Examination
  - PR, BP, temperature, weight, any signs of dehydration
  - abdomen
  - other e.g. CNS
- Investigations:
  - FBC, BHCG, ELFTs, Mg, TFTs, HbA1c, lipase, urine M/C/S, USS to assess for multiple gestation and gestational trophoblastic disease
- Admission
  - IV rehydration +/- enteral/parenteral nutrition
  - IV/SC anti-emetics
  - consider corticosteroids
  - monitor weight and fluid balance

# Recognising Domestic and Family Violence

- **Coercive control**
  - behaviours which instil fear and aim to control a person; can encompass many of the forms of abuse listed below
- **Emotional**
  - constant put downs; ridiculing; name calling; humiliation; insults
- **Sexual**
  - any forced or unwanted sexual activity
- **Reproductive**
  - making decisions about another person's body or coercing a person into making certain reproductive decisions
- **Social**
  - Isolating a person from their support networks; controlling who they see, who they speak to
- **Financial/economic**
  - restricting access to money, employment

# Recognising Domestic and Family Violence

- Psychological
  - behaviour aimed at undermining person's sense of self
- Physical abuse including property damage; pet abuse
  - use of violence or threat of violence
- Tech/cyber
  - using technology to bully, harass, intimidate; controlling who you can or cannot be friends with on social media; sending insulting messages online or over the phone
- Systemic
  - using systems such as the courts to continue to control, manipulate and abuse
- Spiritual/Cultural
  - not allowing you to practise your religion or cultural practices; attempting to justify violence or abuse with religious or spiritual practices
- Stalking
  - includes monitoring, watching, following; outside home or workplace

<https://www.dvconnect.org/mensline/what-is-domestic-family-violence/>

# Management

- Organise a follow up appointment without partner if possible
- Indicate concerns on Maternity booking in referral

# Mandatory reporting responsibilities

If a doctor or registered nurse forms:

- a reportable suspicion a child has suffered, is suffering, or is at unacceptable risk of suffering, significant harm caused by physical or sexual abuse and may not have a parent able and willing to protect the child from the harm. *s13E Child Protection Act 1999*
- a reasonable suspicion a child may be in need of protection; or an unborn child may be in need of protection after he or she is born. *s13A Child Protection Act 1999*

Child Safety Services' Regional Intake Brisbane 1300 682 254 (business hours)

Child Safety After Hours Service Centre Queensland 1800 177 135

<https://www.dcssds.qld.gov.au/our-work/child-safety/protecting-children/report-child-abuse>



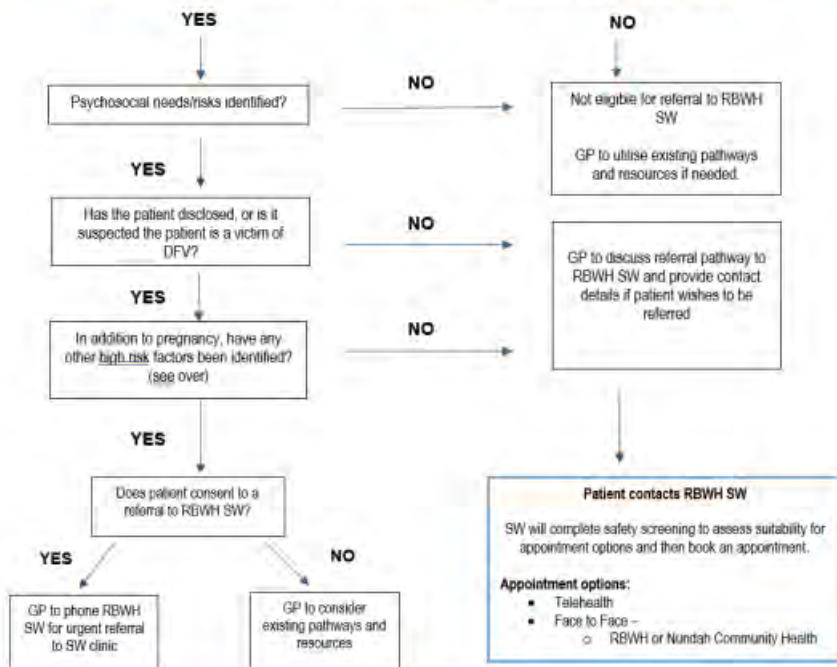
## Domestic Violence Services List – GP's

- Brisbane Domestic Violence Service (BDVS) – **(07) 3217 2544**
  - BDVS provides support to any adult (regardless of gender), young person or child to reach a stage where they are safe and free from fear of DFV in the Brisbane Local Government Area. BDVS provide a range of services including information and referral, crisis support, practical assistance, advocacy and counselling and emotional support  
<https://www.bdvs.org.au>
- DVConnect (Womensline) – **1800 811 811**
  - 24/7 telephone crisis response for anyone identifying as a female, including the LGBTQ+ community. They provide emergency transport and safe accommodation (including for pets), safety planning, crisis counselling, information and referrals.  
<http://www.dvconnect.org/womensline/>
- DVConnect (Mensline) – **1800 600 636**
  - 9am – midnight, 7 days telephone crisis counselling and support for anyone identifying as male, including the LGBTQ+ community who may be experiencing or using domestic and family violence; information and referral to men's behavioural change programs  
<http://www.dvconnect.org/mensline/>
- 1800 RESPECT - **1800 737 732**
  - Open 24 hours to support people impacted by sexual assault, domestic or family violence and abuse.  
<https://www.1800respect.org.au>
- CADA Inc. – Centre for Domestic Abuse Inc.
  - Servicing Moreton Bay Region and surrounds  
<https://www.cada.org.au>
  - **Caboolture (07) 5498 9533, Redcliffe (07) 3283 6930, Pine Rivers (07) 3205 5457**
- WWILD – **(07) 3262 9877**
  - Supports people with intellectual or learning disabilities who have experienced sexual abuse or have been victims of crime  
<https://wwild.org.au>
- Immigrant Women's Support Service (IWSS) – **(07) 3846 3490**
  - Practical and emotional support to immigrant and refugee women from non-English speaking backgrounds who have experienced domestic and/or sexual violence  
<http://www.iwss.org.au>
- Victim Assist Queensland (VAQ) – **1300 546 587**
  - Access to support services and financial assistance to help victims of violent crime – including DFV – to recover  
<https://www.qld.gov.au/law/crime-and-police/victims-and-witnesses-of-crime>
- Q Life – **1800 184 527**
  - Counselling and referrals focussed on the well-being of LGBTIQ people  
<https://qlife.org.au>
- Men's Information and Support Association Inc. (MISA) – **(07) 3889 7312**
  - Men's information and support services <https://misa.org.au>
- Women's Legal Service – **1800 957 957**
  - Free legal assistance for women in Queensland  
<https://wlsq.org.au>
- Brisbane North Health Pathways has a localised Domestic and Family Violence Support Services health pathway
  - <https://brisbanenorth.communityhealthpathways.org>  
Username: Brisbane  
Password: North

<https://metronorth.health.qld.gov.au/refer-your-patient-page/gp-events/education-resources>

## Royal Brisbane & Women's Hospital (RBWH) Social Work Referral Flowchart – GP

### Is the patient receiving antenatal care at the RBWH?



If high risk DFV factors have been identified and the patient does not consent to SW or other referrals, GP can consider the following options during BUSINESS HOURS (without consent):

1. Phone consultation with RBWH SW for discussion and advice.
2. Indicate need for SW referral on RBWH antenatal referral letter for opportunistic review at next face to face appointment at RBWH

#### AFTER HOURS EMERGENCY:

- Contact 000 for imminent safety concerns
- Patient to present to the RBWH emergency department, or
- Contact DV Connect (24hr) for crisis accommodation 1800 811 811 or
- 1800 RESPECT for (24hr) for advice and support)

### Identification of high risk factors

#### Has the person using violence ever:

- threatened to kill or seriously harm the victim-survivor? (can include threats to incinerate or commit arson).
- tried to choke or strangle the victim-survivor? (includes attempts to smother or drown) (If yes, note whether consciousness was lost, difficulty in breathing, etc.)
- threatened to or used a weapon against the victim-survivor? (noting a weapon could be anything used to harm)
- used violence against the victim-survivor during pregnancy?
- harmed or threatened to harm a pet or animal?
- forced the victim-survivor to participate in sexual acts when they did not consent? (including the presence of intimidation, threats, force, being asleep and/ or persistent and relentless demands for sex.)
- used coercive control? (including using isolation or deprivation tactics; degraded, harassed or threatened; monitored or surveilled; manipulated the victim survivor; used the children against the victim survivor).

#### Where there are children has the person using violence ever:

- tried or threatened to harm the children? (including physical, emotional and other harms)
- attempted to take the children when visiting under parenting arrangements?

[Domestic and family violence common risk and safety framework - End domestic and family violence reform program - Publications | Queensland Government](#)

<https://metronorth.health.qld.gov.au/refer-your-patient-page/gp-events/education-resources>

**RBWH Department of Social Work Services  
Women's & Newborns Team**

**Reception: (07) 3646 8268 | Fax: (07) 3646 5256**

**Email: [SWS\\_Mat-Neo@health.qld.gov.au](mailto:SWS_Mat-Neo@health.qld.gov.au)**

**Business Hours: 8:00am – 4.30pm Monday to Friday**

# Blue group - complex

- **Kylie** - age 32, presents anxiously for advice.  
Her 11 year old step-daughter, who stayed with her last weekend, has just been diagnosed with Chicken Pox. Kylie is 17 weeks pregnant.
- **Outline your approach**
- **What are current Australian recommendations for preconception, antenatal and postnatal vaccinations, not just Varicella?**



AUSTRALASIAN SOCIETY FOR INFECTIOUS DISEASES 2022

# Management of Perinatal Infections

THIRD EDITION

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GROUP B STREPTOCOCCUS  
HEPATITIS B VIRUS  
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HERPES SIMPLEX VIRUS  
HUMAN IMMUNODEFICIENCY VIRUS  
LISTERIA  
MYCOBACTERIUM TUBERCULOSIS  
NEISSERIA GONORRHOEAE  
PARVOVIRUS  
RUBELLA  
SYPHILIS (TREPONEMA PALLIDUM)  
TOXOPLASMA GONDII  
VARICELLA ZOSTER VIRUS  
ZIKA VIRUS

<https://asid.net.au/publications>

# Varicella – exposure in pregnancy

- ‘Exposure’
  - sharing home
  - face to face > 5 minutes
  - same room > 1 hour
- Check serology if uncertain past history of chicken pox or VZV immunisation
- If negative IgG, and
  - Exposure < 96hrs earlier, give ZIG (order through Red Cross 07 3838 9010)
  - Exposure > 96hrs but < 10 days, give ZIG
  - Exposure > 10 days no ZIG; give aciclovir if risk factors for maternal complications (> 20/40, lung disease, immunocompromised, smoker)

# Varicella in pregnancy

- At risk times for baby:
  - 12-28 weeks 1.4% risk of Fetal Varicella Syndrome (scarring of skin, low birth weight, prematurity, problems affecting limbs, brain and eyes)
  - 7 days before birth to 2 days after delivery
  - >2 – 28 days after delivery in infants < 28 week gestation or < 1000g
- At risk times for mother:
  - risk of maternal complications throughout pregnancy
  - give aciclovir if seen within 24 hours of onset of rash
  - Risk higher if > 20 weeks gestation



# Varicella in pregnancy

- Refer all women with Varicella in pregnancy
- Liaise by phone with the GP Liaison Midwife to reduce risk to other pregnant women (isolation will be required)

# Vaccination before, during, after...

- Preconception
  - MMR, Varicella, Influenza, COVID-19
  - Pneumococcus (for at risk women including smokers)
- During pregnancy
  - Influenza, COVID-19
  - dTpa at 20 - 32 weeks in **each** pregnancy
  - Other inactivated vaccines if benefits of protection from vaccination outweigh the risks; avoid fever
  - Only **absolute C/I** = smallpox, although all **live attenuated vaccines are C/I** because of hypothetical risk of harm
- Post partum
  - MMR as required
  - dTpa, Influenza, COVID-19 if not vaccinated during pregnancy

<https://immunisationhandbook.health.gov.au/>

# Cytomegalovirus (CMV)

- May be transmitted to baby and can have serious consequences
- Limited evidence to support screening for CMV during pregnancy
- Advise hygiene measures that reduce risk of infection including avoiding contact with children's saliva or urine and hand washing after such exposure

<https://www.health.gov.au/resources/publications/pregnancy-care-guidelines>

# Cytomegalovirus (CMV)

- Offer screening to pregnant women who have frequent contact with large numbers of very young children (e.g., childcare workers) – CMV IgG
- Offer testing to pregnant women if they have symptoms suggestive of cytomegalovirus that are not attributable to another specific infection or when imaging findings suggest fetal infection

<https://www.health.gov.au/resources/pregnancy-care-guidelines>

# Zika Virus

- Management of pregnant women
  - inquire about travel history
  - if history of travel to a Zika virus affected country during/immediately prior to pregnancy → evaluate
- Remind travellers to all areas where mosquito borne diseases are present to use mosquito bite prevention measures

<https://www.health.gov.au/diseases/flavivirus-infection-including-zika-virus>  
<https://www.healthdirect.gov.au/zika-virus>

# Zika Virus - Preventing sexual transmission

- Men who have travelled to Zika virus affected areas whose partner **is** pregnant:
  - avoid unprotected sex for duration of pregnancy
- Men who have travelled to a high or moderate risk country whose partner is **not** pregnant:
  - avoid pregnancy and unprotected sex for at least six months

<https://www.health.gov.au/diseases/flavivirus-infection-including-zika-virus>

<https://www.healthdirect.gov.au/zika-virus>



# COVID-19

Queensland Health  
Clinical Excellence Queensland

## Queensland Clinical Guidelines

*Translating evidence into best clinical practice*

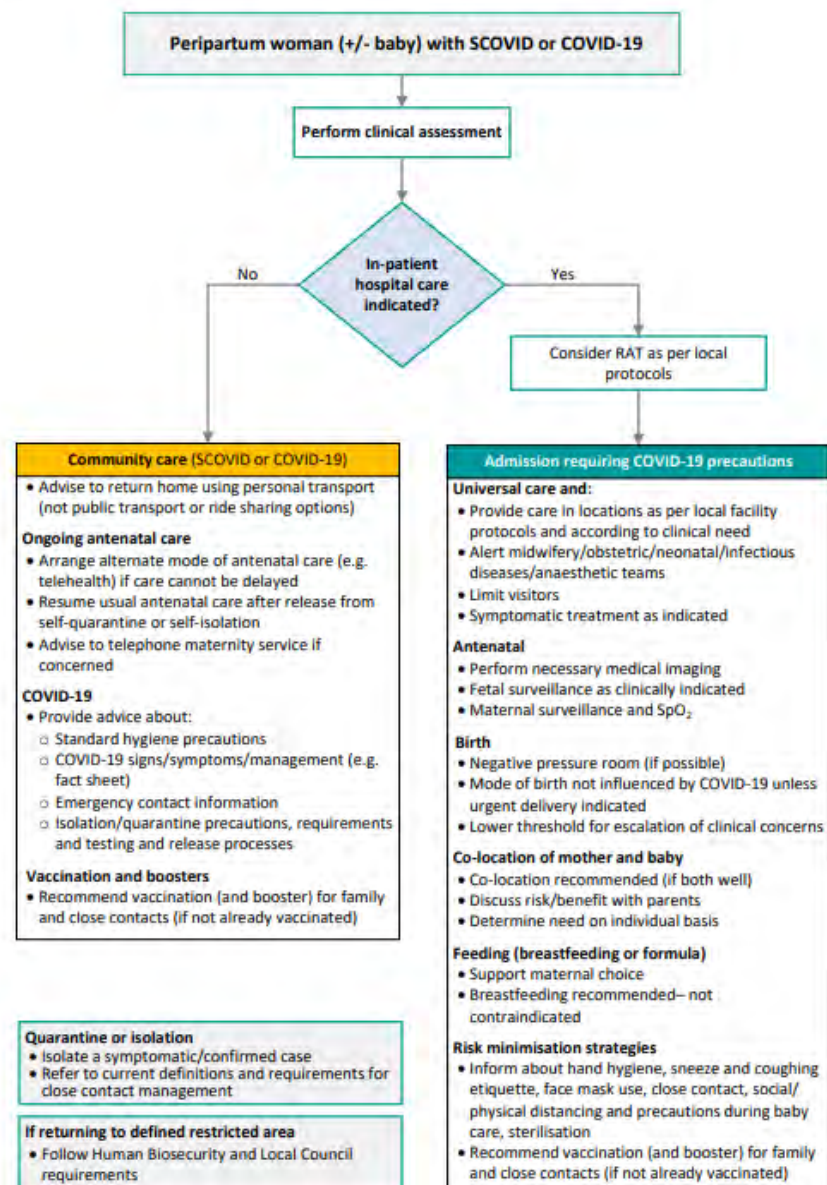
### Maternity and Neonatal Clinical Guideline

#### Maternity care for mothers and babies during the COVID-19 pandemic

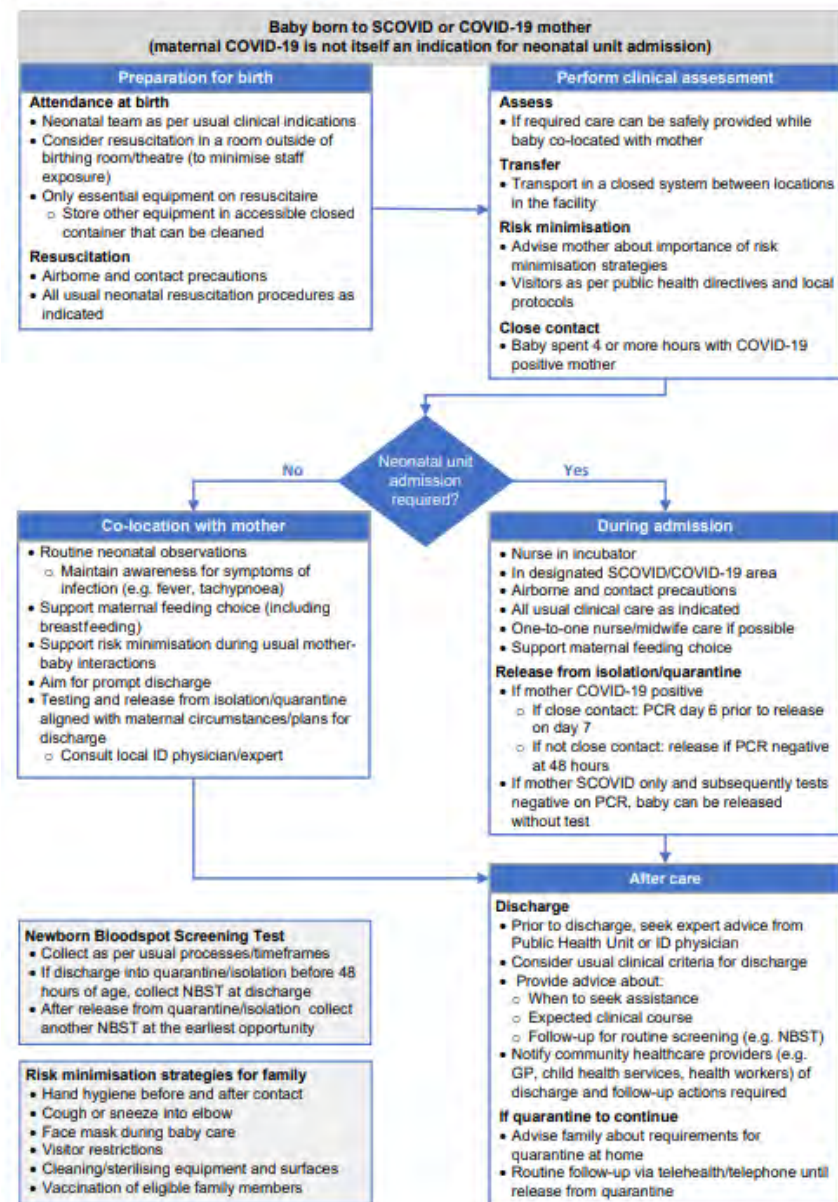


<https://www.health.qld.gov.au/qcg>

## Flowchart: Care of SCOVID or COVID-19 peripartum woman

RAT: rapid antigen test, SCOVID: suspected COVID-19 positive, SpO<sub>2</sub>: peripheral capillary oxygen saturation

## Flowchart: Neonate of SCOVID or COVID-19 mother



AGP: aerosol generating procedure, GP: general practitioner, ID: infectious diseases, NBST: newborn bloodspot screening test, PPE: personal protective equipment, SCOVID: suspected COVID-19 positive

# Green group – complex

- **Amanda** suffered postnatal depression in her first pregnancy which responded well to sertraline
- Despite several attempts at weaning her antidepressant medication, she copes much better when she is on it
- She has delayed having a second child due to fear of a return of depression
- **Does she need to stop the sertraline?**
- **Outline your care during and after pregnancy**
- **What resources are available to assist in care planning?**

# Perinatal Mental Illness

- Perinatal mental illness is a significant cause of morbidity and mortality, affecting maternal and neonatal outcomes, health of families and the community
- Early identification & appropriate intervention essential
- Suicide is a leading cause of maternal death in the developed world

*In Qld in 2018 and 2019, suicide was the leading cause of death of women during pregnancy and within a year of the end of pregnancy*

Source: Queensland Maternal and Perinatal Quality Council Report 2021



**COPE**  
Centre of Perinatal Excellence

# Mental Health Care in the Perinatal Period

Australian Clinical  
Practice Guideline

**2023 REVISION**



# Perinatal depression and anxiety

- affects 1 in 5 mothers in Australia
- depression & anxiety comorbidity common
- may be associated with nicotine, alcohol and substance use and poorer engagement in antenatal care



# Severe Mental Illness

- schizophrenia & bipolar disorder prevalence in general population: 1 in 100
- post-partum psychosis prevalence: 1 in 1000 pregnancies
- increased risk of new onset psychosis post partum
- risk of relapse of pre-existing mood disorders increases across the perinatal period

# Borderline personality disorder (and emotional dysregulation)

- estimated prevalence in women  $\geq 25$  years: 2.7%
- often associated with history of childhood trauma (including sexual abuse), &/or experience of dysfunctional parenting
- comorbidity with substance use common

# Perinatal Mental Illness

## Risk factors

- PHx/FHx mental illness/perinatal mental illness
- psychosocial risk factors
- Aboriginal and/or Torres Strait Islander peoples, migrants, refugees, asylum seekers, LGBTIQ+, rural and remote, adolescents
- isolation
- lack of support
- life stressors
- DFV
- trauma
- advanced maternal age, IVF, body image & obesity, hyperemesis gravidarum, birth trauma, IUFD

# Perinatal Mental Illness

## Consequences - Mother

- smoking, alcohol, unhealthy eating
- increased pregnancy symptoms e.g., nausea & vomiting
- gestational diabetes
- gestational hypertension
- pre-eclampsia
- intrauterine fetal growth restriction
- antepartum haemorrhage
- preterm labour
- Caesarian section
- postnatal depression & mood disorders
- maternal death

# Perinatal Mental Illness

## Consequences – Baby

- preterm birth
- low birth weight
- fetal distress
- decreased Apgars
- increased NICU admission
- decreased breast feeding
- failure to thrive
- adverse neurodevelopmental outcomes
- perinatal death

# Perinatal Mental Illness

- Perinatal mental illness in non-birthing parents more prevalent than in general population
- Birthing and non-birthing parents may experience psychological birth trauma



# Perinatal Mental Illness

- Screen for depression – EPDS
  - as early as practical in pregnancy
  - repeat at least once later in pregnancy
  - 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

# Perinatal Mental Illness

- Offer non-birthing parents mental health and psychosocial screening in the perinatal period
  - EPDS (with a lower cut-off score of 10 or more) or K10
  - original or amended ANRQ

# Perinatal Mental Illness

- Screen for anxiety
  - use anxiety items from other screening tools e.g., EPDS, DASS, K10, ANRQ
- Assess psychosocial risk factors
  - as early as practical in pregnancy and 6-12 weeks postpartum
  - SAFE Start Tool
  - ANRQ with domestic and family violence items
- Consider language and cultural appropriateness of tools in Aboriginal and/or Torres Strait Islander women and women from culturally diverse backgrounds

# Management of perinatal depressive and anxiety disorders

- Individual structured psychological interventions
  - cognitive behavioural therapy (CBT)
  - interpersonal psychotherapy (IPT)

# Medication for perinatal depressive and anxiety disorders

- **SSRIs** first line
- consider short-term use **benzodiazepines** while awaiting onset of action of SSRI
- use caution with long-acting benzodiazepines around time of birth
- use caution with “z-drugs” for insomnia
- Doxylamine first line hypnotic for insomnia
- St John’s Wort and Ginkgo biloba not recommended
- omega-3 fatty acids may be used in pregnancy but not as sole treatment for depression

# Medication for severe mental illness

- use caution with antipsychotics with metabolic effects – consider earlier screening and monitoring for GDM
- **clozapine** - seek Psychiatrist advice
- **clozapine in breast feeding** - monitor infant's WCC weekly for first 6 mo.



# Medication for severe mental illness

- use caution with anticonvulsants as mood stabilisers in pregnancy and breast feeding
- **sodium valproate** associated with major & cardiac malformations and adverse cognitive outcomes
- **do not prescribe sodium valproate** in pregnancy
- **carbamazepine & lamotrogine** may be associated with major malformations
- avoid **lamotrogine** in breast feeding

# Medication for severe mental illness

- **lithium** may be associated with increased risk of malformations
- closely monitor blood levels
- adjust individual dose prior to and after birth
- avoid **lithium** in breast feeding

# Medication for Perinatal Mental Illness

- choose medication with lowest risk profile for woman, fetus and baby
- consider previous response to medication
- lowest effective dose
- single drug if possible
- dosages may need to be adjusted due to changes in pharmacodynamics in pregnancy

# Medication for Perinatal Mental Illness

- detailed morphology USS at 13 and 18 - 20 weeks if exposure to psychoactive medications in first trimester
- pharmacological review early post partum in women who cease psychoactive medications during pregnancy
- observe infants exposed to psychoactive medications for first 3 days post partum

# Medication for Perinatal Mental Illness

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

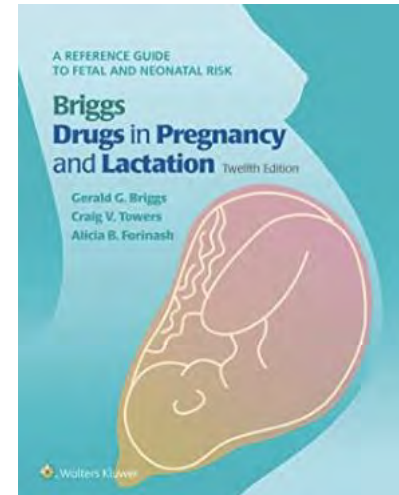
# Medication for Perinatal Mental Illness

- Queensland Medicines Advice & Information Service (QMAIS) for Health Professionals

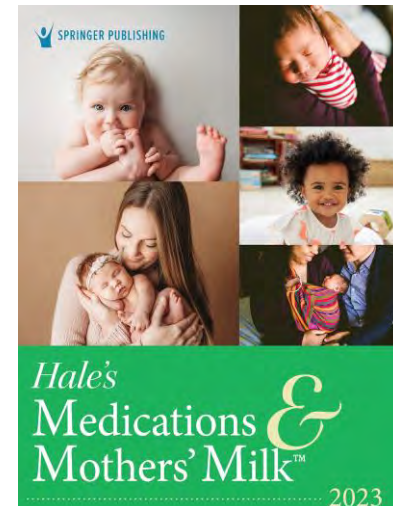
P: 07 3646 7599 or 07 3646 7098

E: [QMAIS@health.qld.gov.au](mailto: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

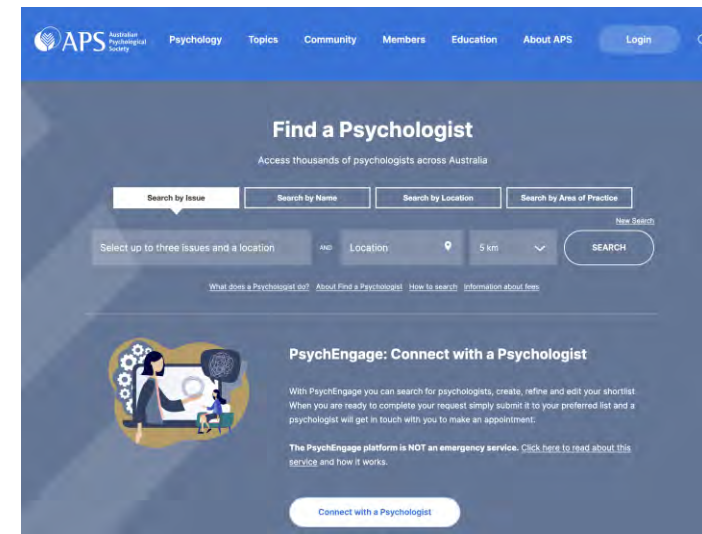


Source: Google images



# Management of Perinatal Mental Illness

- Pregnancy support counselling
  - No Mental Health Treatment Plan required
  - 3 Medicare funded visits.
  - Search for eligible psychologists <https://psychology.org.au/find-a-psychologist>
- Mental health treatment plan (Better Access/Brisbane Mind)



# Metro North Perinatal Mental Health Service

- Metro North HHS Perinatal Mental Health Service - Non-Acute
  - <https://metronorth.health.qld.gov.au/rbwh/healthcare-services/perinatal-mental-health>
  - P: 07 3146 2525
  - F: 07 3146 2314
  - E: [Perinatal-Mental-Health@health.qld.gov.au](mailto:Perinatal-Mental-Health@health.qld.gov.au)
  - Perinatal Psychiatrist – Dr Anastasia Braun – fax referral 07 3646 1821
- 1300 MH CALL (1300 64 2255) - Acute



## Other helpful supports

- Lifeline **13 11 14** – 24 hours
- Beyond Blue 1300 22 46 36 <https://healthfamilies.beyondblue.org.au>
- PANDA [www.panda.org.au](http://www.panda.org.au) or 1300 72 63 06 – mobile app
- Peach Tree Perinatal Wellness 1800 732 249 [www.peachtree.org.au](http://www.peachtree.org.au)
- Mum Space [www.mumspace.com.au](http://www.mumspace.com.au)
- Mums mood booster <https://mummoodbooster.com/public/au>
- iCOPE [www.cope.org.au](http://www.cope.org.au)
- SMS 4 Dads [www.sms4dads.com.au](http://www.sms4dads.com.au) or text 0437 281 215
- DV Connect [www.dvconnect.org.au](http://www.dvconnect.org.au) or 1800 81 18 11



## When and how should I urgently seek medical

If you have acute concerns about your own or another person's mental health and need urgent support - please contact the mental health access team available 24 hours.

**MH CALL 1300 64 22 55**  
**If life is in danger call 000**

## Perinatal Wellbeing Team



**Intake Officer: Mon-Fri 0800-1630**

**P: 07 3146 2525**

**F: 07 3146 2314**

**A: Nundah Community Health Centre, 10 Nellie Street, Nundah Q 4012**

**E: [perinatal-mental-health@health.qld.gov.au](mailto:perinatal-mental-health@health.qld.gov.au)**

*Antenatal Clinics are offered at Caboolture, Royal Brisbane and Women's, Redcliffe Hospital's and the Nundah Community Health Centre.*

*Postnatal appointments are available at Nundah Community Health Centre or at other community locations.*

*Telehealth is also available.*

# About the Perinatal Wellbeing Team

## Who are we?

We are a nurse led service that supports emotional health and wellbeing of women, their partners and families during the perinatal period, conception to a year after the birth of a baby

- Non urgent
- Monday-Friday service 8am-4.30pm

## What is perinatal wellbeing?

The perinatal period is a time of great change in a women's life. Adjusting to pregnancy and parenthood can bring both joy and stress to families. It is not uncommon to feel scared and overwhelmed; focussing on all aspects of your physical, social, emotional and mental health is essential for your overall wellbeing.

Getting support early is key for you, your infant and your family.

## What do we offer?

- Pre-conception medication advice clinic – treatment options
- Specialist perinatal mental health assessment, liaison and education – during the antenatal and postnatal period including telehealth appointments
- Referral to Psychiatry or Nurse Practitioner clinic to review medication in the perinatal period
- Telephone consultation to support GP around medication use in pregnancy and breastfeeding
- Works with you, your family, GP and other services to ensure you have support

## Who can use our service?

- Women 18 years or older
- Antenatal women birthing at a hospital in Metro North Health area
- Postnatal women living in the Metro North Health area
- Partners of perinatal women as above

## Have you considered if?

- Your baby is sleeping but you can't?
- You avoid going out or have withdrawn from friends/family?
- You worry constantly about harm coming to your baby through everyday activities?
- You or others notice that you are more irritable and/or frustrated/angry?
- You think about your birth and get sad/distressed?
- You have stopped looking forward to things or enjoying activities that you used to?
- That you can't put your baby down, or let others help you, or that you need to check the baby more than what is needed?
- You stopped medication before or in early pregnancy and have noticed your mood or anxiety symptoms have got worse?
- You wake up with dread or anxiety?
- You are unable to relax despite being exhausted?
- You are overwhelmed by your usual day to day activities or routine?
- Your pregnancy/body changes have triggered you?

## Referral process

- Self-Referral
- GP or other health care professional involved in your pregnancy or postpartum care



## Children's Health Queensland Hospital and Health Service

[Children's Health Queensland](#)[Queensland Children's Hospital](#)[Research](#)[About us](#) ▾[Our services](#) ▾[Information for families](#) ▾[Health professionals](#) ▾[Work for us](#) ▾[Get involved](#) ▾[Contact us](#)

CHQ > [Our services](#) > [Mental health services](#) > [Queensland Centre for Perinatal and Infant Mental Health](#)

### [Our services](#) >

[Aboriginal and Torres Strait  
Islander children's health  
homepage](#) >

### [Mental health services](#) >

[Babies and young children  
\(aged 0 to 4 years\)](#)

[Kids \(aged 5 to 11 years\)](#)

[Teens \(aged 12+\)](#)

[For parents and carers](#)

[Music and mental health](#)

[Where to get help](#)

[Find your local CYMHS](#)

[Mental Health Act](#)



## Queensland Centre for Perinatal and Infant Mental Health

The Queensland Centre for Perinatal and Infant Mental Health (QCPIMH) aims to support parents, caregivers and communities to have the confidence, knowledge, skills and resources to support their own wellbeing and raise emotionally healthy and resilient children.

QCPIMH brings perinatal and infant mental health needs to the attention of policy-makers, decision-takers and the general community, to improve the emotional wellbeing of all Queensland parents, infants and young children, and families.

### Contact us

31 Robinson Road Nundah  
QLD 4012  
t: 07 3266 0300  
f: 07 3266 0344  
e: [pimh@health.qld.gov.au](mailto:pimh@health.qld.gov.au)

### Useful resources

[QCPIMH brochure](#)  
[QCPIMH Charter](#)



# ForWhen

National perinatal mental health support for expecting and new parents.



ForWhen is a navigation service to support parents in finding the right perinatal mental health service at the right time, for the right care and treatment

Pregnancy and parenthood is a time of big change for new parents. But what's often not spoken about are the mental health challenges that come with it. The personal struggles that can come in the wake of a pregnancy, or when raising an infant are more common than many people realise—and too often, these aspects of parenting can be overlooked.

It's estimated that 1 in every 5 new and expecting mothers, and 1 in every 10 fathers, experience perinatal depression and/or anxiety.

1300 24 23 22

ForWhen is a new national service that connects parents experiencing moderate to severe perinatal mental health issues navigating the complex waters of pregnancy and new parenthood to the critical services they need most.

Giving parents access to critical mental health support when they need it most

ForWhen is a stepped care support service for parents and families experiencing perinatal mental health concerns and challenges. It's designed to provide new parents—mothers, fathers, and carers—with a caring, supporting, and timely mental health navigation service in their local area.

Operating in partnership with local organisations and service providers, we connect parents to the support they need at the right time, in the right place, to improve new and expecting parents experiencing any form of mental health challenges, from conception up until your child is 12 months old.

Parents experience seamless service delivery, feel heard and supported, and are connected to services that best match their needs.

Our goal is to improve access and connection to vital perinatal mental health support services, by providing parents with a support service for when *they* need it.

## How it works

### Step 1

Parents and families experiencing perinatal infant mental health challenges, or health practitioners supporting their clients, can call the national ForWhen helpline number at **1300 24 23 22** between 9.00am and 4.30pm Monday - Friday to speak with a place-based navigator.

### Step 2



They will be connected with a place-based navigator, who has local knowledge of the perinatal mental health services available in their area. These navigators will listen to the parent, talk through presenting issues, help identify the challenges they're facing, and determine their needs.

### Step 3

The navigator conducts a screening assessment to determine the severity and requirements of the parent.

### Step 4

The navigator then endeavours to connect the parent to the right local support service for them, and provides advice and support about the next steps to take.

  @ForWhenHelpline  
ForWhenHelpline.org.au

## ForWhen is the first support line of its kind

### Access to local services

ForWhen is a national service that enables parents to access navigation and guidance to local perinatal mental health services based in their state or territory. The navigator is located in a local partner organisation in their state or territory, who knows the area and can identify and connect the parent to the right service providers, online services, virtual care, resources, and referral pathway that meets their needs.

### Staffed by professionals

ForWhen is staffed by professionally qualified practitioners. This means that new and expecting parents get access to clinically-trained professionals who are available to listen, support, understand, and help define their needs from an experienced professional perspective, and provide a pathway to access the right service provider in their area. An Aboriginal Liaison Officer is also available to support Aboriginal families in accessing the service.

### Support during the crucial first months

With a "no wrong door" and soft entry approach, our key focus is reaching families that may not know how to access these services. This way, parents are able to get critical mental health support early in their child's life, and early in the pathway of emerging issues.

## Who it's for

### New and expecting parents

ForWhen is designed to help parents during pregnancy and in the first year following birth, who are experiencing any form of mental health challenges.

### Families

It's for family members who notice a parent experiencing mental health challenges.

### Health practitioners

If you identify that your perinatal clients need mental health support, you can access ForWhen on their behalf.

## Provided in partnership



ForWhen acknowledges the Aboriginal and Torres Strait Islander people of the many traditional lands and language groups of Australia. It acknowledges the wisdom of traditional custodians both past and present and pays respect to their communities of today.

# Mother Baby Units and Parenting Support

- Catherine's House for Mothers, Babies and Families  
<https://www.mater.org.au/health/services/catherine-s-house-for-mothers-babies-and-families/catherine-s-house-for-health-professionals>
- Belmont Private Hospital  
<https://belmontprivate.cms.healthcare.net.au/specialties/perinatal-disorders>
- Lavender Mother and Baby Unit Gold Coast University Hospital  
<https://www.goldcoast.health.qld.gov.au/our-services/lavender-mother-and-baby-unit>
- Ellen Barron Family Centre  
<https://www.childrens.health.qld.gov.au/chq/our-services/community-health-services/ellen-barron-family-centre/>
- Brisbane Early Parenting Centre  
<https://www.northwestprivatehospital.com.au/Early-Parenting-Centre/>

# Useful resources

- Centre of Perinatal Excellence  
[cope.org.au](http://cope.org.au)
- beyond blue  
<http://www.beyondblue.org.au/>
- Massachusetts General Hospital Center for Women's Mental Health  
[https://womensmentalhealth.org/?doing\\_wp\\_cron=1482262772.0649859905242919921875](https://womensmentalhealth.org/?doing_wp_cron=1482262772.0649859905242919921875)
- Black Dog Institute  
[blackdoginstitute.org.au](http://blackdoginstitute.org.au)
- Panda Perinatal Anxiety & Depression Australia  
[panda.org.au](http://panda.org.au)
- Queensland Centre for Perinatal and Infant Mental Health Library Service  
<http://qcpimh.libguides.com/Library/home>
- Victorian Government – Better Health Channel  
<https://www.betterhealth.vic.gov.au/health/healthyliving/postnatal-depression-pnd>

# Useful resources

- Just speak up  
<https://healthyfamilies.beyondblue.org.au/pregnancy-and-new-parents>
- MoodGYM Training Program  
<https://moodgym.com.au>
- White Cloud Foundation  
<http://whitecloudfoundation.org>
- AMEND  
<http://betterrelationships.org.au/services/counselling/amend/>
- Smiling Mind App  
<https://www.smilingmind.com.au/smiling-mind-app/>
- Encircle Young Parents Program  
<http://encircle.org.au/young-parents-program/>
- Assistance to Survivors of Torture & Trauma  
<http://qpastt.org.au>
- CALD Mental Health Care & Support  
<https://metrosouth.health.qld.gov.au/qtmhc>

# Useful resources

- Pregnancy Counselling Link *Women talk, we listen...*

<http://www.pcl.org.au/>

- Women's Health and Equality Queensland

<https://wheq.org.au/>

- Lifeline 13 11 44

<https://www.lifeline.org.au>

- Parentline Queensland

<https://parentline.com.au/>

- Peach Tree

<http://peachtree.org.au/>

- Mum Space

<https://www.mumspace.com.au>

- SMS for Dads

[www.sms4dads.com.au](http://www.sms4dads.com.au)

# Australian Perinatal Psychology/Mental Health Professional Facebook group

- closed group for AHPRA registered health professionals interested in perinatal health treatment, prevention, research and training



# Orange group - complex

- **Nicole** - G1P0 K28, GDM, is stressed - running late for appointment (caught in traffic), discovers you are running late anyway; she must leave ASAP to get back to work in time for important meeting
- She's had a “stinker” of a headache all week and is not surprised that her BP is elevated at 162/97. She is certain it will settle once she calms down
- Despite her protests, you take her BP again after 5 minutes and the best you can get is 153/92
- **Outline your approach**

# Hypertension and pregnancy

Queensland Health  
Clinical Excellence Queensland

## Queensland Clinical Guidelines

Translating evidence into best clinical practice

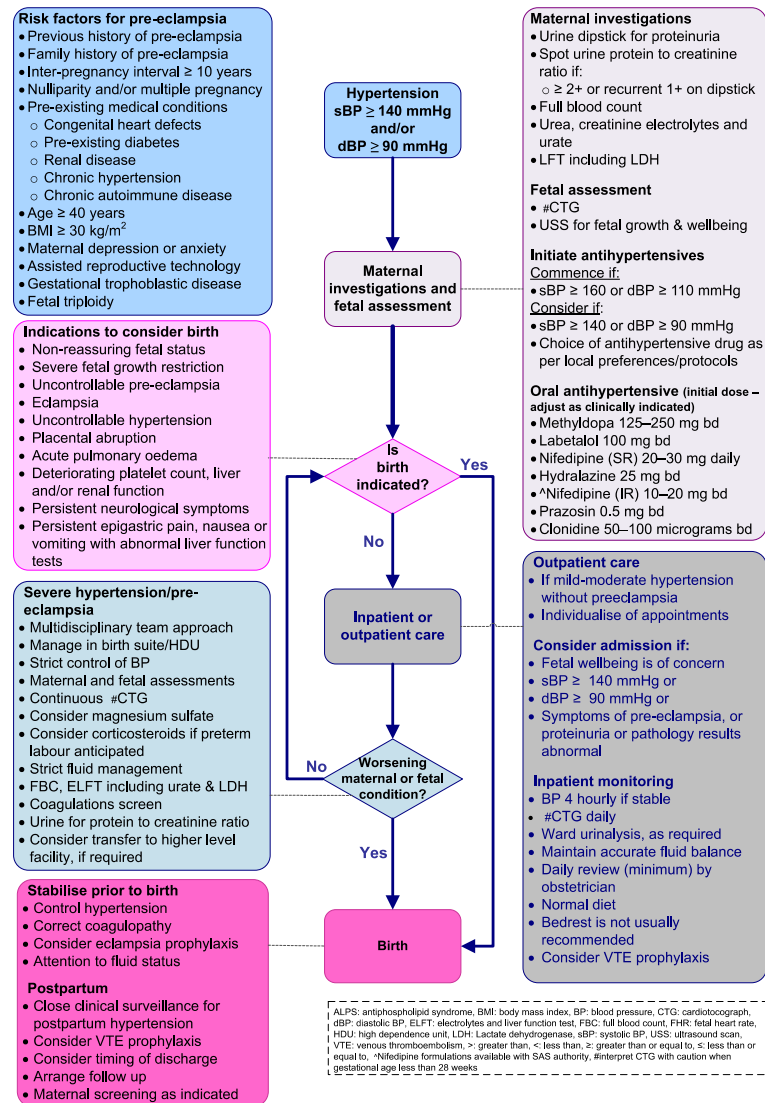
### Maternity and Neonatal Clinical Guideline

## Hypertension and pregnancy



Queensland Clinical Guideline: Hypertension and pregnancy

### Flow Chart: Management of hypertension in pregnancy



Flowchart: F21.13-2-V9-R26

Refer to online version, destroy printed copies after use

Page 3 of 36

# Hypertension of pregnancy



## Guideline for the Management of Hypertensive Disorders of Pregnancy

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2014

Lowe SA, Bowyer L, Lust K, McMahon LP, Morton MR, North RA, Paech MJ, Said JM.

<https://www.somanz.org/approval-of-written-guidelines-by-somanz/>

# Hypertension in pregnancy

**NICE** National Institute for  
Health and Care Excellence



## Hypertension in pregnancy: diagnosis and management

NICE guideline  
Published: 25 June 2019  
Last updated: 17 April 2023  
[www.nice.org.uk/guidance/ng133](https://www.nice.org.uk/guidance/ng133)

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<https://www.nice.org.uk/guidance/ng133>

# Hypertension

- Most common medical problem in pregnancy
- A leading cause of perinatal and maternal morbidity & mortality
- sBP  $\geq 140$  &/or dBP  $\geq 90$  = mild - moderate
- sBP  $\geq 160$  &/or dBP  $\geq 110$  = severe
- sBP  $\geq 170$  = medical emergency

# Classification of hypertension in pregnancy

- Chronic hypertension occurring in pregnancy
- White coat hypertension
- Masked hypertension
- Transient gestational hypertension
- Gestational hypertension
- Pre-eclampsia
- Pre-eclampsia superimposed on chronic hypertension



# Oral antihypertensives

Table 16. Oral antihypertensive drug therapy

Drug	Initial dose	Maintenance Dose	Maximum daily dose
<b>Methyldopa</b> <sup>57</sup>	125–250 mg BD	250–500 mg 2–4 times daily	Maximum/day 2 g
<b>Labetalol</b> <sup>58</sup>	100 mg BD	200–400 mg 2–4 times daily	Maximum daily dose: 2.4 g
<b>Hydralazine</b> <sup>59,60</sup>	25 mg BD	25–100 mg BD	Maximum daily dose: 200 mg
<b>Nifedipine (SR)</b> <sup>61,62</sup>	20–30 mg daily	60–120 mg daily	Maximum daily dose: 120 mg
<b>#Nifedipine (IR)</b> <sup>61,63</sup>	10–20 mg BD	20–40 mg BD	Maximum daily dose: 80 mg
<b>Prazosin</b> <sup>64</sup>	0.5 mg BD	1 mg TDS	Maximum daily dose: 20 mg
<b>Clonidine</b> <sup>65,66</sup>	50–100 microgram BD	150–300 microgram BD	Maximum daily dose: 600 microgram

<sup>#</sup>Special Access Scheme (SAS) authority required. Note: Nifedipine formulations available with SAS authority

# Pre-eclampsia

- Multisystem disorder
- Hypertension & involvement of 1 or more other organ systems and/or fetus
- Resolves within 3 mo. postpartum
- Hypertension may not be the first manifestation
- Proteinuria common but not mandatory to make the clinical diagnosis

# Risk factors for pre-eclampsia

Table 7. Clinical risk factors for pre-eclampsia

Risk factor	Relative risk [95% CI]
Previous history of pre-eclampsia <sup>20</sup>	8.40 [7.10 to 9.90]
*Adolescent pregnancy (10–19 years) <sup>21</sup>	6.70 [5.80 to 7.60]
Systemic lupus erythematosus <sup>22</sup>	5.50 [4.50 to 6.80]
Chronic hypertension <sup>20</sup>	5.10 [4.00 to 6.50]
Assisted reproductive technology (donor oocytes) <sup>20</sup>	4.34 [3.10 to 6.06]
Pre-existing diabetes <sup>20</sup>	3.70 [3.10 to 4.30]
Family history of pre-eclampsia <sup>23</sup>	2.90 [1.70 to 4.93]
Twin pregnancy (increased risk with multiples) <sup>24</sup>	2.93 [2.04 to 4.21]
Body mass index (BMI) before pregnancy ( $> 30 \text{ kg/m}^2$ ) <sup>20</sup>	2.80 [2.60 to 3.60]
Antiphospholipid syndrome <sup>20</sup>	2.80 [1.80 to 4.30]
Nulliparity <sup>20</sup>	2.10 [1.90 to 2.40]
Pre-existing kidney disease <sup>20</sup>	1.80 [1.50 to 2.10]
Assisted reproductive technology (donor sperm) <sup>20</sup>	1.63 [1.36 to 1.95]
Maternal congenital heart defects <sup>25</sup>	1.50 [1.30 to 1.70]
Maternal anxiety or depression <sup>26</sup>	1.27 [1.07 to 1.50]
Inter-pregnancy interval greater than 10 years <sup>20</sup>	1.10 [1.02 to 1.19]
Gestational trophoblastic disease <sup>27</sup>	Unavailable
Fetal triploidy <sup>28</sup>	Unavailable
Fetal aneuploidy <sup>2</sup>	Unavailable

\*Limited data (primarily from low resourced countries) may suggest higher incidence in adolescent pregnancies

# First Trimester Screening for pre-eclampsia

- Maternal risk factors
- Mean arterial pressure
- Sonographic markers
  - uterine artery pulsatility index (UTPI) measured between 11+0 – 13+6 weeks
- Biochemical markers
  - placental growth factor (PIGF)
  - pregnancy associated plasma protein-A (PAPP-A)

# Pre-eclampsia risk reduction

- Aspirin 100 – 150 mg at night - commence before 16+0 weeks
- 1200 – 2500 mg calcium if intake < 600mg/day

# Symptoms of pre-eclampsia

- Severe headache
- Visual disturbance
- Severe upper abdominal pain (epigastric or RUQ)
- Nausea and vomiting
- Sudden or progressive peripheral oedema



# Diagnosis of pre-eclampsia

## 3.3 Diagnosis of pre-eclampsia

A diagnosis of pre-eclampsia requires both<sup>6</sup>:

- Hypertension arising after 20+0 weeks gestation, confirmed on 2 or more occasions AND
  - **One or more** of the organ/system features related to the mother and/or fetus identified in Table 5.
- Diagnosis of pre-eclampsia.

Note:

- Hypertension may not be the first manifestation
- Pre-existing hypertension is a strong risk factor for the development of pre-eclampsia<sup>6</sup> and requires close clinical surveillance
- Proteinuria is common but is not mandatory to make the clinical diagnosis<sup>6,8</sup>

Table 5. Diagnosis of pre-eclampsia

Aspect	Consideration
Renal	<ul style="list-style-type: none"><li>• Random urine protein to creatinine ratio greater than or equal to 30 mg/mmol<sup>14</sup> from an uncontaminated specimen (proteinuria)</li><li>• Serum or plasma creatinine greater than or equal to 90 micromol/L<sup>14</sup> <b>or</b></li><li>• Oliguria (less than 80 mL/4hours or 500 mL/24 hours)</li></ul>
Haematological	<ul style="list-style-type: none"><li>• Thrombocytopenia<sup>14</sup> (platelets under 150 x 10<sup>9</sup>/L)</li><li>• Haemolysis<sup>8</sup> (schistocytes or red cell fragments on blood film, raised bilirubin, raised lactate dehydrogenase (LDH), decreased haptoglobin)</li><li>• Disseminated intravascular coagulation (DIC)<sup>8</sup></li></ul>
Liver	<ul style="list-style-type: none"><li>• New onset of raised transaminases<sup>14</sup> (over 40 IU/L) with or without epigastric or right upper quadrant pain<sup>8,15</sup></li></ul>
Neurological	<ul style="list-style-type: none"><li>• Headache<sup>8</sup></li><li>• Persistent visual disturbances (photopsia, scotomata, cortical blindness, retinal vasospasm)</li><li>• Hyperreflexia with sustained clonus</li><li>• Convulsions (eclampsia)</li><li>• Stroke</li></ul>
Pulmonary	<ul style="list-style-type: none"><li>• Pulmonary oedema<sup>14</sup></li></ul>
Uteroplacental	<ul style="list-style-type: none"><li>• Fetal growth restriction (FGR)<sup>8</sup></li><li>• Suspected fetal compromise<sup>14</sup></li><li>• Abnormal umbilical artery Doppler wave form analysis</li><li>• Stillbirth</li></ul>

# Pink group - complex

- Kate presents at 35 weeks for an unscheduled appointment
- Her pregnancy has been progressing smoothly, but she is clearly anxious. Her baby, who usually “kicks like a world cup soccer player”, has been noticeably quiet since yesterday afternoon. She asks “Is something wrong with my baby?”
- What do you say to her?
- What do you do if you can hear the fetal heart?
- What do you do if you cannot hear the fetal heart?

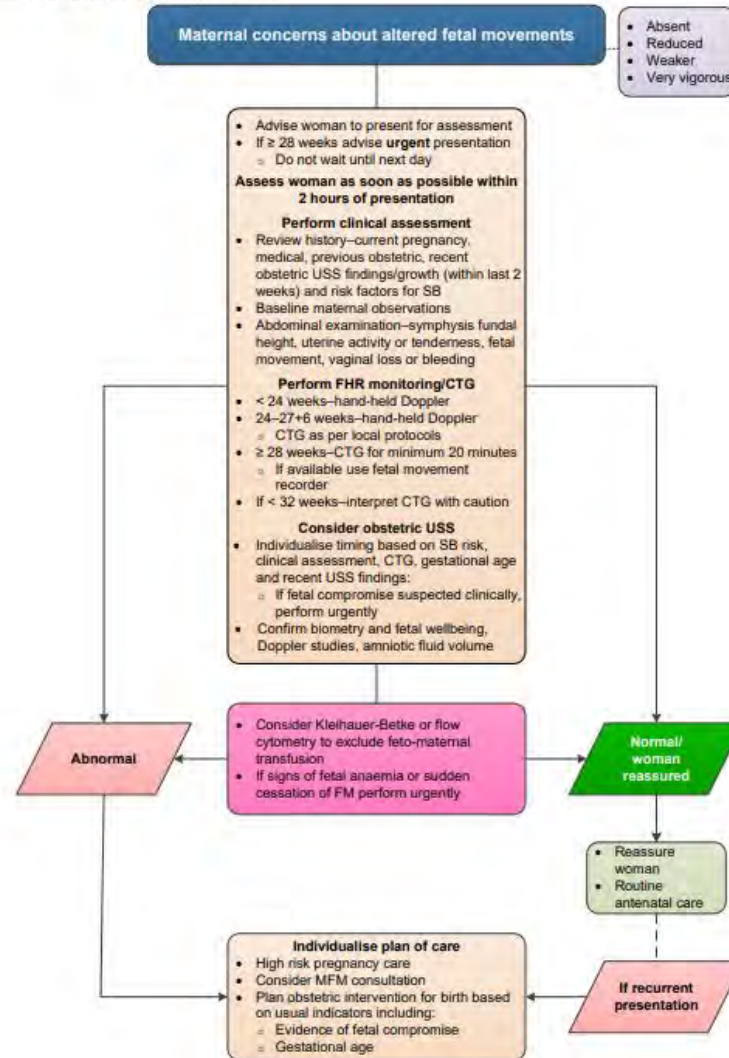
# Decreased fetal movements

- Perceived changed or decreased fetal movements
  - sensitive non-specific indicator of fetal compromise
  - associated with impaired placental function
- Adverse pregnancy outcomes reported after altered fetal movements
  - threatened preterm labour; preterm birth
  - fetal growth restriction (FGR); small for gestational age (SGA)
  - stillbirth and neonatal death; congenital abnormalities, neonatal stroke
  - feto-maternal haemorrhage

# Maternal concern about altered fetal movements

- Advise woman to present for assessment
- If  $\geq 28$  weeks advise urgent presentation
  - do not wait until next day
- Assess woman as soon as possible within 2 hours of presentation
  - perform FHR monitoring/CTG
    - $< 24$  weeks – hand-held Doppler
    - 24–27+6 weeks – hand-held Doppler/CTG as per local protocols
    - $\geq 28$  weeks – CTG
  - consider obstetric USS

## Flowchart: Altered fetal movements



CTG: cardiotocography; FHR: fetal heart rate; FM: fetal movements; MFM: maternal fetal medicine; SB: stillbirth; USS: ultrasound scan;  
 $\geq$ : greater than or equal to;  $<$ : less than

Flowchart: F23.46-1-V3-R28



If you are concerned about your baby's wellbeing, **do not** rely on home fetal doppler monitors to check your baby's heartbeat.

**Even if you hear a heartbeat,  
this does not mean your baby is well.**

If you notice a change in movements or you are concerned about your baby's wellbeing, contact or present to your **closest** health service right away.

# Home fetal dopplers

- may provide false reassurance about baby's well-being
- caution expectant parents about the potential risks of using home fetal dopplers
- advise expectant parents to present immediately to a maternity facility if they are concerned about their baby's well-being



## **Clinical practice guideline for the care of women with decreased fetal movements for women with a singleton pregnancy from 28 weeks' gestation**

Endorsed by:



Australian College of  
Rural & Remote Medicine  
WORKING TOGETHER TO IMPROVE RURAL HEALTH



The Royal Australian  
and New Zealand  
College of Obstetricians  
and Gynaecologists

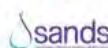


WOMEN'S  
HEALTHCARE  
AUSTRALASIA



Stillbirth  
Foundation  
stillbirth.org.au

STILL  
AWARE  
stillaware.org



Version 2.3  
September 2019

[https://stillbirthcre.org.au/wp-content/uploads/2021/03/Element-3\\_DFM-Clinical-Practice-Guideline-1.pdf](https://stillbirthcre.org.au/wp-content/uploads/2021/03/Element-3_DFM-Clinical-Practice-Guideline-1.pdf)

# Safer Baby Bundle – reducing preventable stillbirth



- Smoking cessation
- Fetal growth restriction (FGR)
- Decreased fetal movement (DFM)
- Side sleeping
- Timing of birth

<https://stillbirthcre.org.au/researchers-clinicians/download-resources/safer-baby-bundle-resources/>

## eLearning



### Safer Baby Bundle eLearning module

The Safer Baby Bundle module provides evidence based information for maternity health care providers on the 5 elements of the bundle: Smoking Cessation, Fetal Growth Restriction (FGR), Decreased Fetal Movements (DFM), Side Sleeping and Timing of Birth.

START MODULE

## IMPROVE

IMproving Perinatal Mortality Review  
and Outcomes Via Education

### IMPROVE eLearning module

IMPROVE – This is a training package of six courses and is designed to support maternity healthcare professionals in responding to women who have experienced stillbirth, and gain crucial learnings. Each course takes approximately 20 minutes to complete and provides essential training for obstetricians, midwives, nurses, general practitioners and antenatal staff.

START MODULE

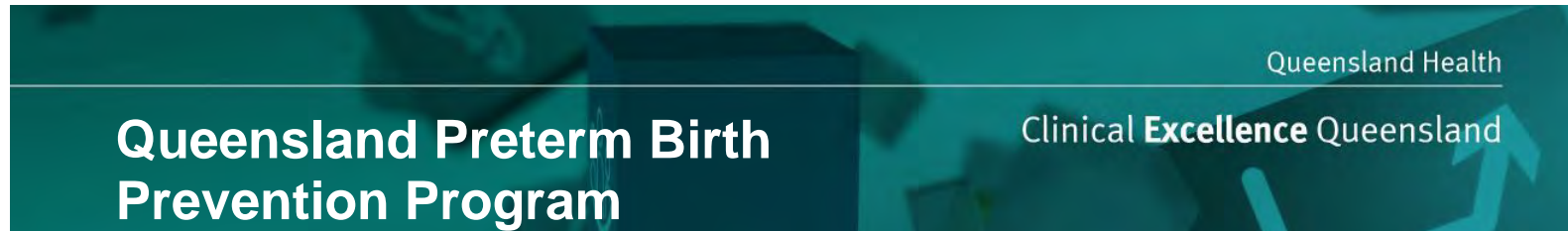
<https://learn.stillbirthcre.org.au/>

# Pre-term birth prevention

Routine transabdominal (TA) cervical length measurement at 20 week morphology scan

- < 35mm (TA) or cannot be clearly seen TA, transvaginal (TV) assessment recommended
- < 25mm TV - commence natural vaginal progesterone pessaries 200mg nocte
- Encourage smoking cessation

# Stillbirth and preterm birth prevention GP education



Saturday 9 March 2024 Education Centre  
Royal Brisbane and Women's Hospital

# Obstetric Review Centre (ORC)

- Common presentations include:
  - Labour/preterm labour
  - Uncertainty about term or preterm pre-labour rupture of membranes
  - Decreased or no fetal movements
  - Review of hypertensive women referred by their GP, obstetrician or midwife
  - Bleeding after 14 weeks
  - Headaches
  - Feeling unwell