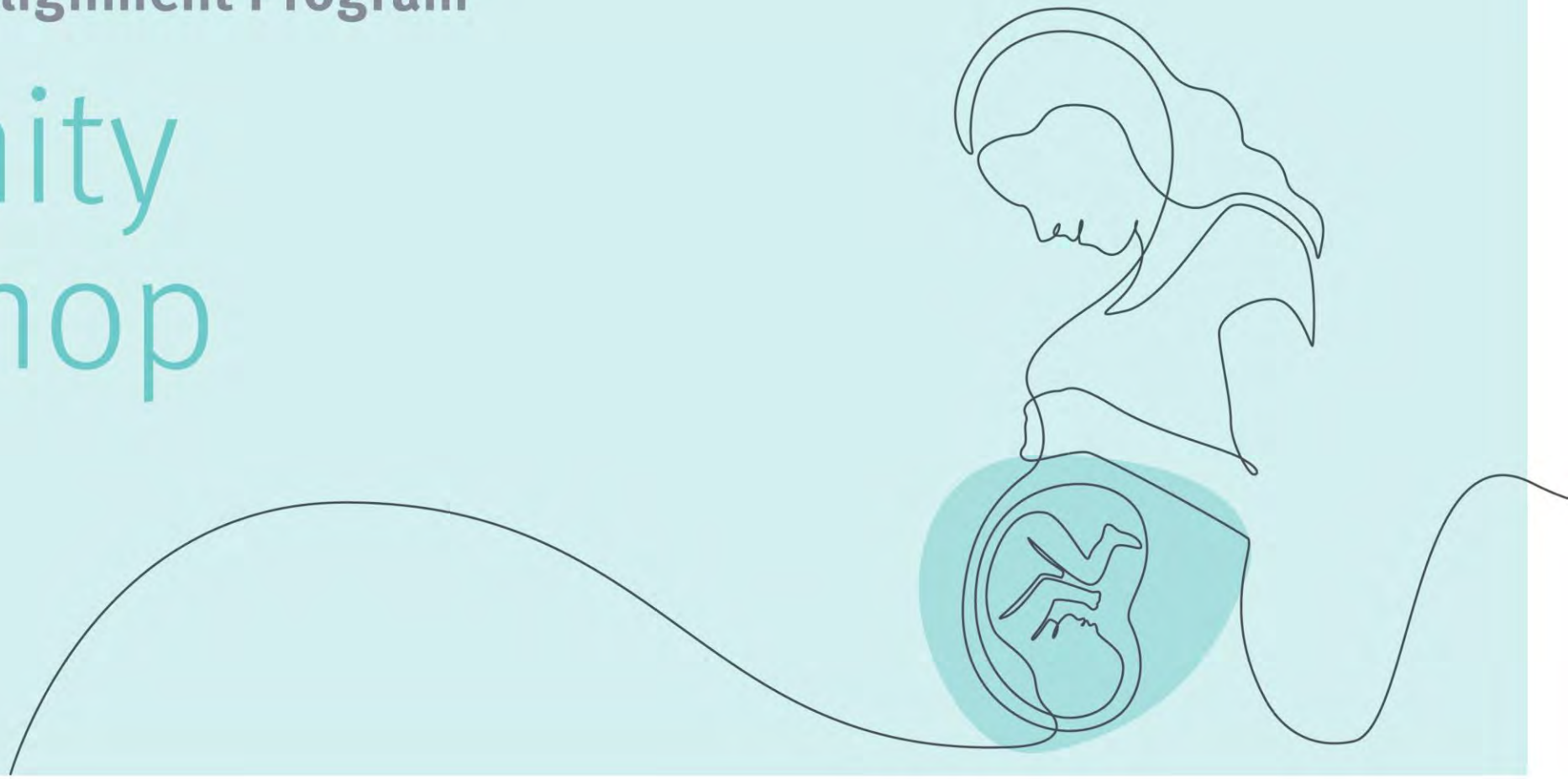
Metro North **GP Alignment Program**

Maternity Workshop



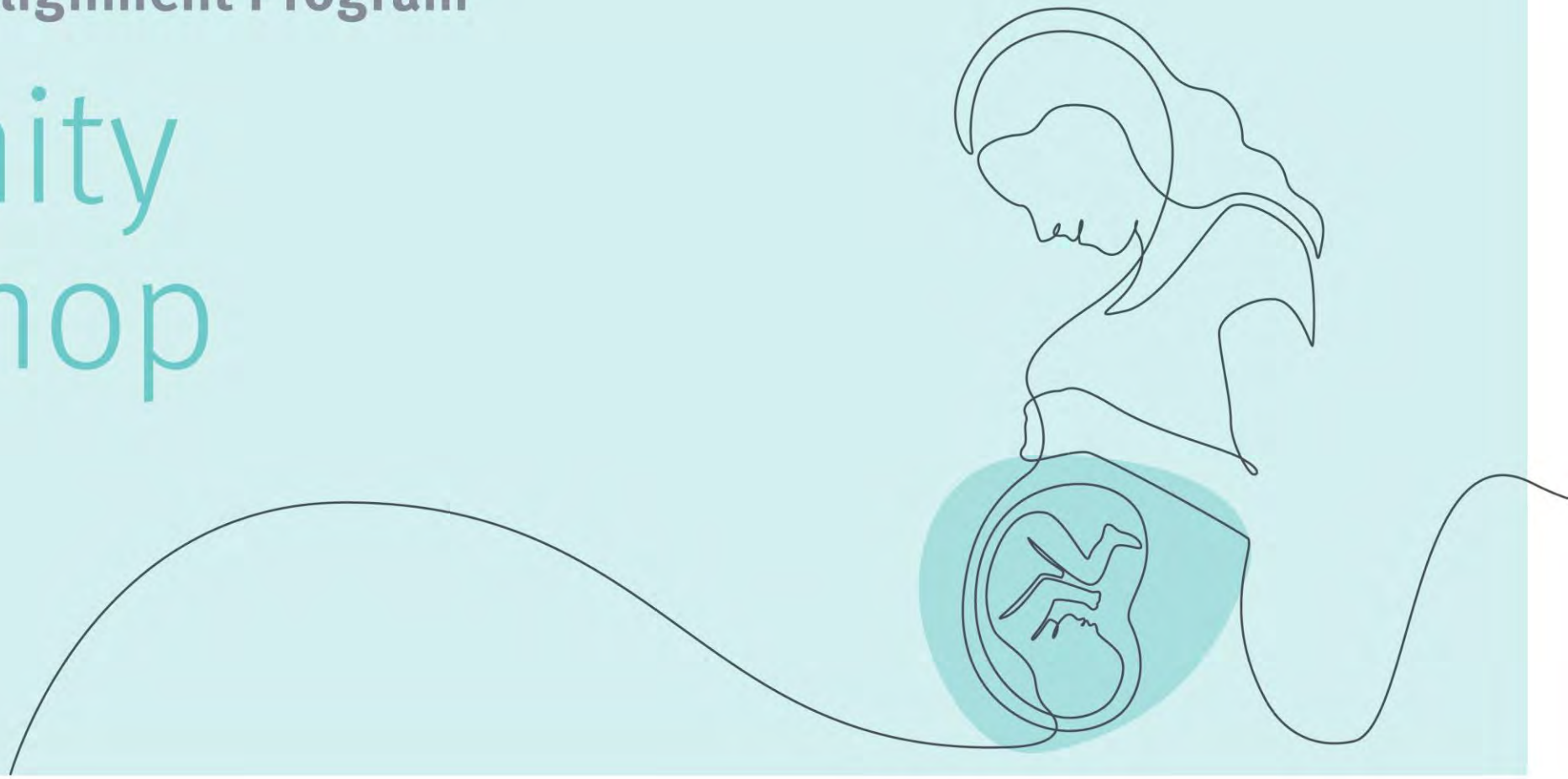
CASE STUDIES: First Trimester

phn BRISBANE NORTH
An Australian Government Initiative

Queensland Government
Metro North Health

Metro North **GP Alignment Program**

Maternity Workshop



CASE STUDY

JESSICA – FIRST TRIMESTER

phn BRISBANE NORTH
An Australian Government Initiative

Queensland Government
Metro North Health

CASE STUDY: JESSICA

FIRST TRIMESTER

- Jessica – a 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

- 15 min appointment booked
- 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**

Iodine supplementation for Pregnant and Breastfeeding Women | NHMRC

Iodine supplementation

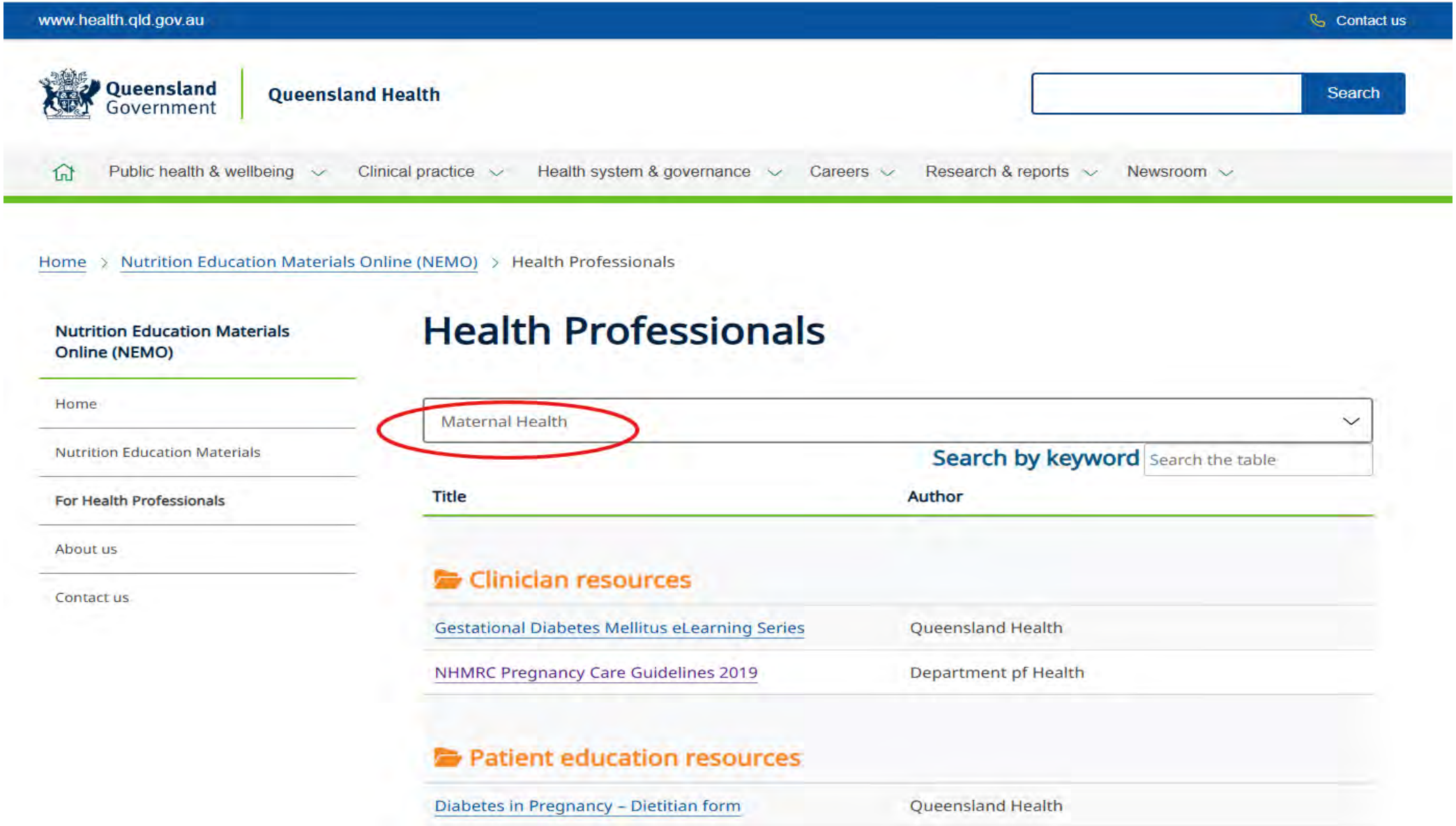
- **Iodine and folic acid fortification of bread mandatory since 2009 but not high enough levels for pregnancy – supplementation recommended**
- **Most pregnancy and breastfeeding multivitamins contain iodine**
- **Iodised salt recommended for women of childbearing age**

Iodine and pregnancy | Food Standards Australia New Zealand

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 Queensland but no MBS rebate and result may be difficult to interpret

Pregnancy Care Guidelines
SAHMRI | Information for Health Professionals



[Health Professionals | Nutrition Education Materials Online (NEMO) | Queensland Health]

Specific STI testing - chlamydia

- **National guidelines recommend routinely offering chlamydia testing at the first antenatal visit to pregnant women younger than 30 years**

- **Urine sample or self-collected vaginal sample**

Pregnancy Care Guidelines

Specific STI testing - syphilis

- **Queensland guidelines recommend testing all women**
  - **Before 10 weeks (at confirmation of pregnancy or at first antenatal visit)**
  - **At 26–28 weeks gestation**
  - **At 36 weeks gestation**
- **If lesions/chancre**
  - **Dry swab syphilis PCR and serology**
- **Opportunistically repeat serology**
  - **If indicated following identification of risk**
  - **Upon request**

Queensland Clinical Guidelines | Queensland Health

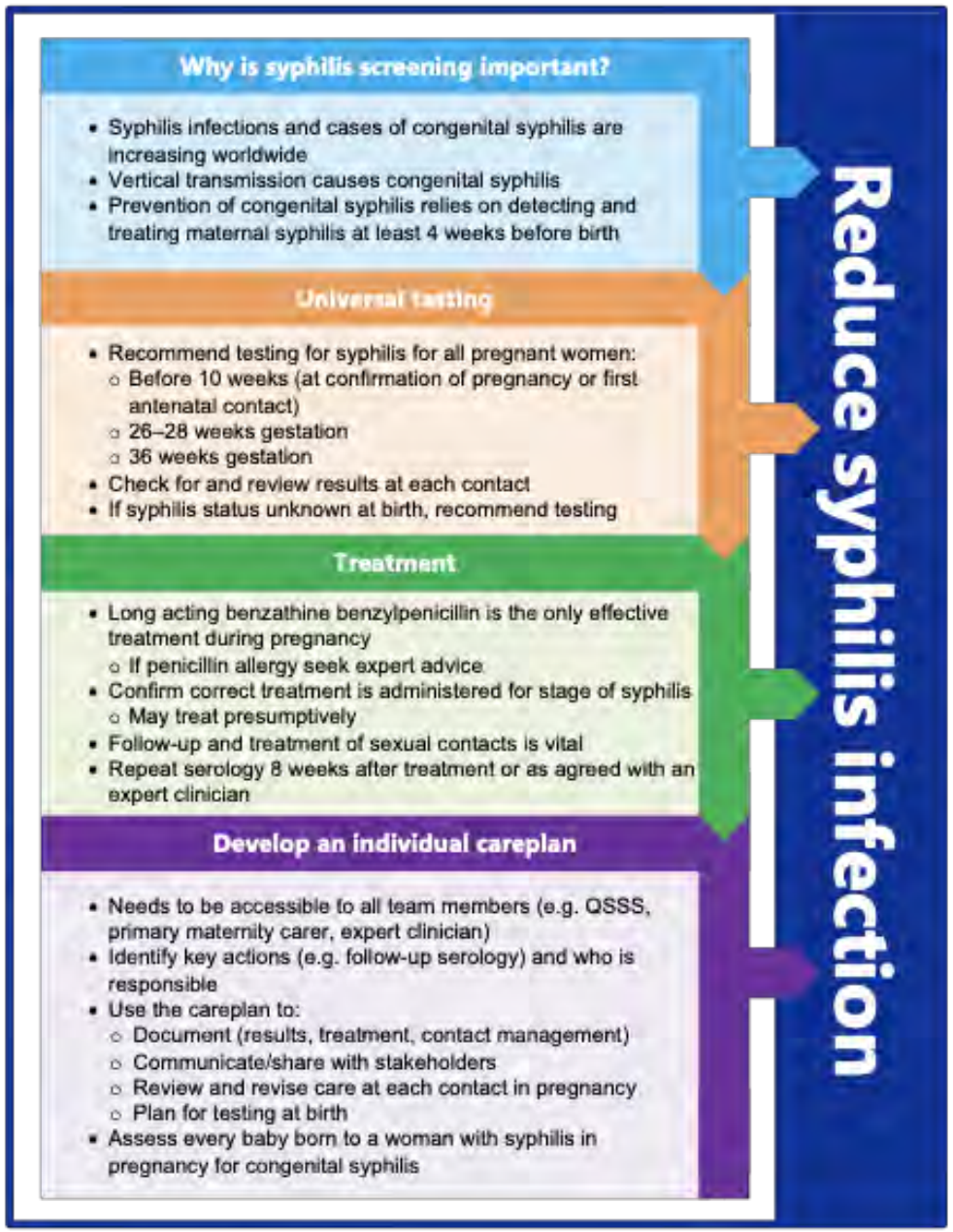
Specific STI testing - syphilis

- **Test mother at birth if any of**
  - **No serology at 36 weeks gestation**
  - **Preterm birth with most recent serology more than 4 weeks before birth**
  - **Indicated following identification of risk**

- **Test mother and baby in parallel at birth if**
  - **Syphilis treated in this pregnancy (irrespective of treatment history)**

Queensland Clinical Guidelines | Queensland Health

Flowchart: Syphilis and pregnancy approach to care



[Queensland Clinical Guidelines | Queensland Health]

Flowchart: Antenatal assessment for syphilis

UNIVERSAL testing for syphilis

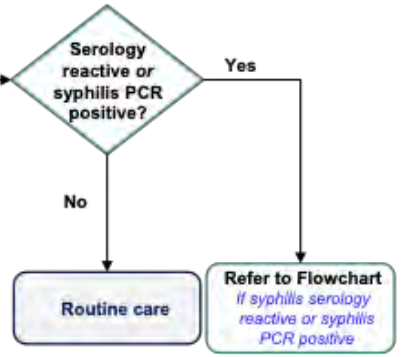
During pregnancy (all women):
- Before 10 weeks (at confirmation of pregnancy or at first antenatal visit)
- 26–28 weeks gestation
- 36 weeks gestation

If lesions/chancre
- Dry swab syphilis PCR and serology

Opportunistically repeat serology
- If indicated following identification of risk
- Upon request

Test mother at birth if (any of):
- No serology at 36 weeks gestation
- Preterm birth with most recent serology more than 4 weeks before birth
- Indicated following identification of risk

Test mother and baby in parallel at birth if:
- Syphilis treated in this pregnancy (irrespective of treatment history)



Assess all pregnant women for risk of syphilis infection

At each contact during pregnancy
- Check syphilis serology results
  - ❑ Offered as per recommendations?
  - ❑ Results reviewed and actioned?
- Actively consider risk of syphilis infection
  - ❑ Normalise discussions (i.e. discuss STI with everyone)
  - ❑ Offer opportunistic testing if indicated
- Consider discussion about:
  - ❑ Importance for own and baby's health
  - ❑ Prevention (safe sex practices)
  - ❑ Partner testing
  - ❑ Testing at birth
  - ❑ Culturally appropriate care

Increased risk of syphilis
- High risk sexual activity*
- History of STI in last 12 months
- Complex social circumstances– may include (but not limited to):
  - Limited healthcare engagement
  - Adolescent pregnancy
  - Drug or alcohol use impacting health
  - Domestic and family violence
  - Financial hardship (e.g. poverty, homelessness, coercion)
  - Discrimination/intergenerational trauma
  - Incarceration (of woman or sexual partner)
  - Concern for mental health

***High risk sexual activity:** *Oral, anal or vaginal intercourse without a condom or other barrier method with new, multiple or anonymous people or with a sexual partner who has other concurrent sexual contacts*

PCR: polymerase chain reaction, **STI:** sexually transmissible infection

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 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)
Who should register?	Clinicians who provide antenatal care. This may include but is not limited to GPs, GP registrars, nurse practitioners, general practice nurses, registered nurses, registered midwives, and Aboriginal and Torres Strait Islander health practitioners.

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

The Australian Immunisation Handbook

Influenza

- **pregnant women are recommended to receive influenza vaccine each pregnancy**
- **can be given during any stage of pregnancy**
- **can be given in breast feeding**

The Australian Immunisation Handbook

COVID-19

- Unvaccinated pregnant women are recommended to receive a primary course of COVID-19 vaccine
- Vaccinated pregnant women may consider a further dose during pregnancy based on an individual risk-benefit assessment
- Women who are breastfeeding can receive COVID-19 vaccine at any time

The Australian Immunisation Handbook

RSV vaccination for pregnant women

- A single dose of RSV vaccine Abrysvo is recommended for pregnant women at 28–36 weeks gestation - funded through the NIP
- Reduces risk of severe RSV in infants < 6 mo. by about 70% as the result of passive protection by transplacental transfer of antibodies
- Can be given at the same time as, or separate to, dTpa, influenza and COVID-19 vaccines

The Australian Immunisation Handbook
Queensland Paediatric Respiratory Syncytial Virus Prevention Program | Queensland Health

RSV for infants < 8 months

Nirsevimab (long-acting RSV-specific monoclonal antibody) recommended for all infants where

- **Abrysvo was not administered during pregnancy or**
- **Infant was delivered within 14 days of Abrysvo administration or**
- **where Abrysvo immunisation status is unknown or**
- **the infant has a condition associated with increased risk of severe RSV disease or**
- **the infant may have suboptimal RSV antibodies**

The Australian Immunisation Handbook

Queensland Paediatric Respiratory Syncytial Virus Prevention Program | Queensland Health

Pregnancy Health Record

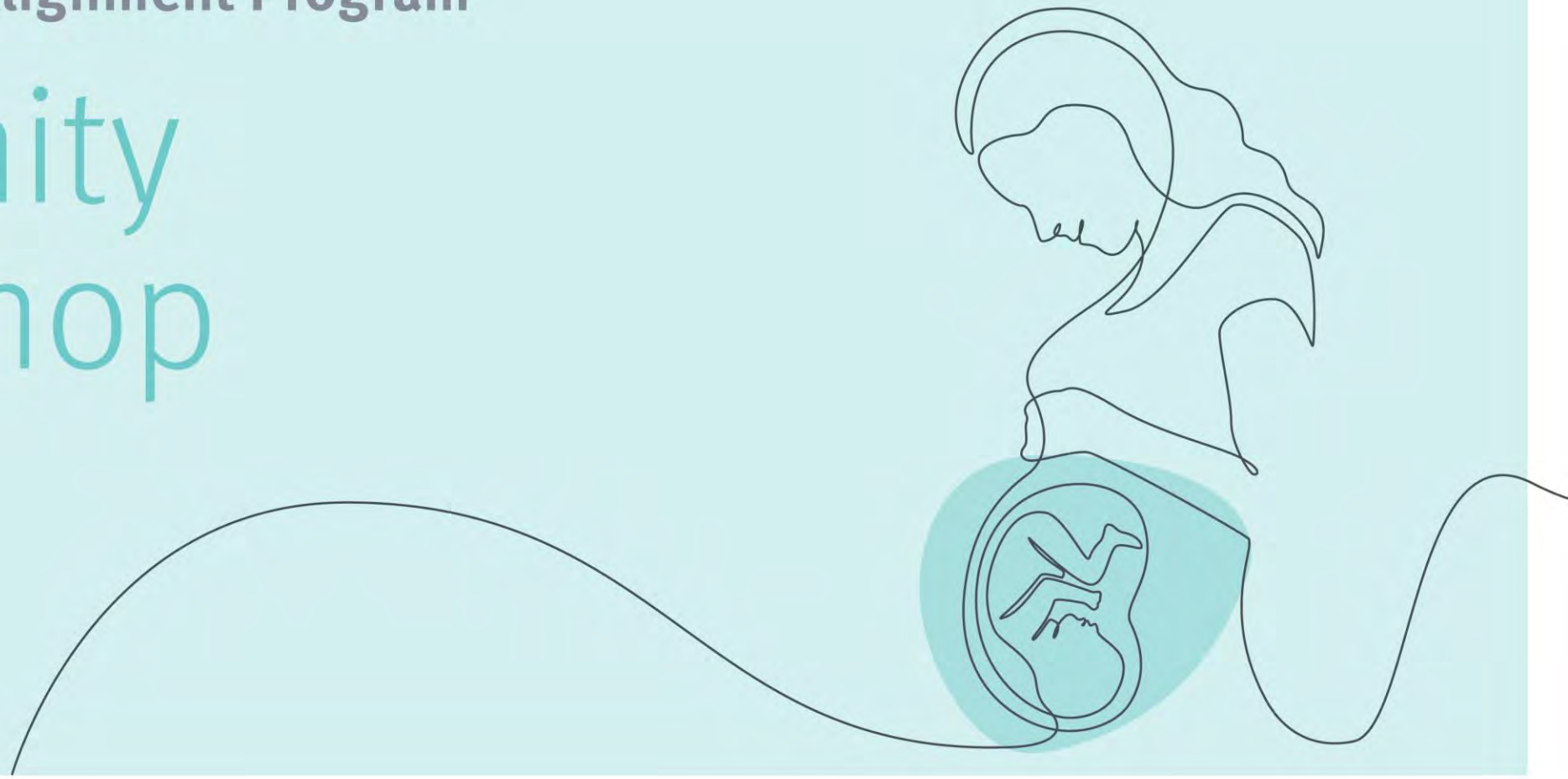
Immunisation

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) Blood group:	☐ 28 weeks If *no*, reason:		Initials:
	Date given: ... / ... / ...	Batch number:	
	☐ 34–36 weeks If *no*, reason:		Initials:
	Date given: ... / ... / ...	Batch number:	
dTpa (diphtheria, tetanus and pertussis) vaccine *(recommended 20–32 weeks)*	☐ Discussed ☐ Declined	Gestation: weeks	Initials:
	Date given: ... / ... / ...	Batch number:	
COVID-19 vaccination	☐ Declined ☐ Yes ☐ Up-to-date	Date last given: ... / ... / ...	Initials:
Influenza vaccine *(recommended at any gestation)*	☐ Declined ☐ Yes ☐ No	Gestation: weeks	Initials:
	Date given: ... / ... / ...	Batch number:	
Other	Specify:	Gestation: weeks	Initials:
	Date given: ... / ... / ...	Batch number:	

Metro North **GP Alignment Program**

Maternity Workshop



CASE STUDY

NICOLE – FIRST TRIMESTER

phn BRISBANE NORTH
An Australian Government Initiative

Queensland Government
Metro North Health

CASE STUDY: NICOLE

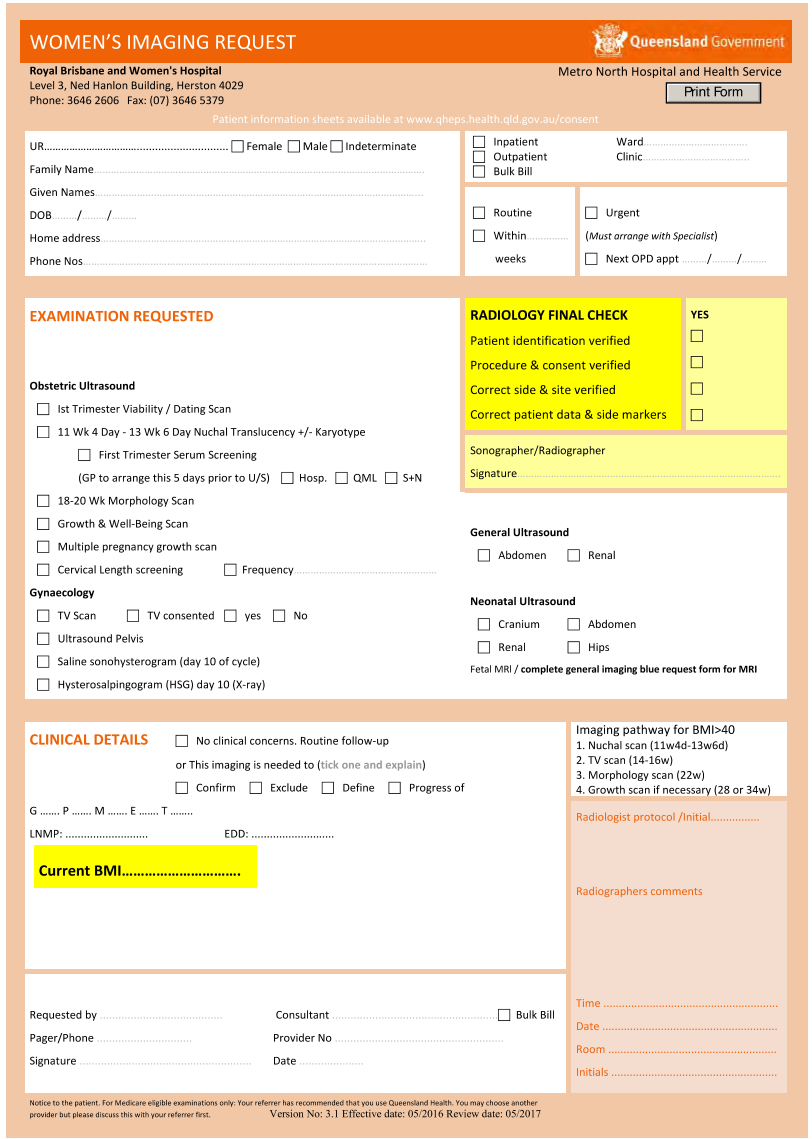
FIRST TRIMESTER

- Nicole – a healthy 39-year-old has a positive home pregnancy test
- Nicole is unsure when she fell pregnant as her periods are irregular and her LNMP was 7 weeks ago
- Her first child, now 20 years old was born at term weighing 4500g
- 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

- 30 min appointment booked
- Outline your approach

Women >35 y.o.

- **Risks include:**
  - **GDM**
  - **Preeclampsia**
  - **VTE**
  - **Miscarriage**
  - **Multiple pregnancy**
  - **Chromosomal abnormality**
  - **Preterm birth**
  - **Low birth weight**
  - **Caesarean birth**



WOMEN'S IMAGING REQUEST

Queensland Government

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

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

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

☐ Routine
☐ Within..... weeks

☐ Urgent
(*Must arrange with Specialist*)
☐ Next OPD appt...../...../.....

EXAMINATION REQUESTED

Obstetric Ultrasound
☐ Ist 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	YES
Patient identification verified	☐
Procedure & consent verified	☐
Correct side & site verified	☐
Correct patient data & side markers	☐

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.....

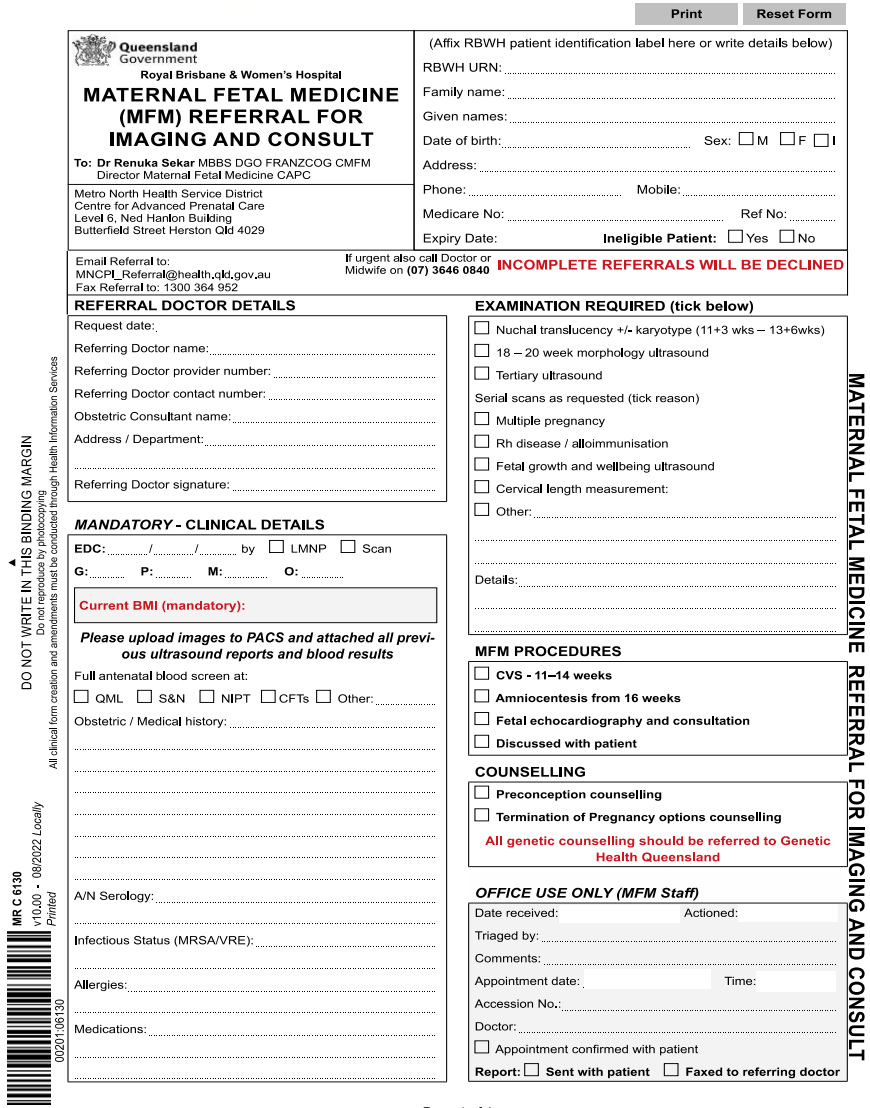
Radiographers comments

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



Print Reset Form

Queensland Government
Royal Brisbane & Women's Hospital

MATERNAL FETAL MEDICINE (MFM) REFERRAL FOR IMAGING AND CONSULT

To: Dr Renuka Sekar MBBS DGO FRANZCOG CMFM
Director Maternal Fetal Medicine CAPC

Metro North Health Service District
Centre for Advanced Prenatal Care
Level 6, Ned Hanlon Building
Butterfield Street Herston Qld 4029

(Affix RBWH patient identification label here or write details below)
RBWH URN:
Family name:
Given names:
Date of birth: Sex: ☐ M ☐ F ☐ I
Address:
Phone: Mobile:
Medicare No: Ref No:
Expiry Date: **Ineligible Patient:** ☐ Yes ☐ No

Email Referral to:
MNCPI_Referral@health.qld.gov.au
Fax Referral to: 1300 364 952

If urgent also call Doctor or Midwife on **(07) 3646 0840**

INCOMPLETE REFERRALS WILL BE DECLINED

REFERRAL DOCTOR DETAILS

Request date:
Referring Doctor name:
Referring Doctor provider number:
Referring Doctor contact number:
Obstetric Consultant name:
Address / Department:
Referring Doctor signature:

***MANDATORY* - CLINICAL DETAILS**

EDC: ...../...../..... by ☐ LMNP ☐ Scan
G: ..... **P:** ..... **M:** ..... **O:** .....

Current BMI (mandatory):

Please upload images to PACS and attached all previous ultrasound reports and blood results

Full antenatal blood screen at:
☐ QML ☐ S&N ☐ NIPT ☐ CFTs ☐ Other:
Obstetric / Medical history:
A/N Serology:
Infectious Status (MRSA/VRE):
Allergies:
Medications:

EXAMINATION REQUIRED (tick below)

☐ Nuchal translucency +/- karyotype (11+3 wks – 13+6wks)
☐ 18 – 20 week morphology ultrasound
☐ Tertiary ultrasound
Serial scans as requested (tick reason)
☐ Multiple pregnancy
☐ Rh disease / alloimmunisation
☐ Fetal growth and wellbeing ultrasound
☐ Cervical length measurement:
☐ Other:
Details:

MFM PROCEDURES

☐ **CVS - 11–14 weeks**
☐ **Amniocentesis from 16 weeks**
☐ **Fetal echocardiography and consultation**
☐ **Discussed with patient**

COUNSELLING

☐ **Preconception counselling**
☐ **Termination of Pregnancy options counselling**

All genetic counselling should be referred to Genetic Health Queensland

OFFICE USE ONLY (MFM Staff)

Date received: Actioned:
Triaged by:
Comments:
Appointment date: Time:
Accession No.:
Doctor:
☐ Appointment confirmed with patient
Report: ☐ **Sent with patient** ☐ **Faxed to referring doctor**

DO NOT WRITE IN THIS BINDING MARGIN
Do not reproduce by photocopying
All clinical form creation and amendments must be conducted through Health Information Services

MR C 6130 v10.00 - 08/2022 *Locally Printed*
00201:06130

MATERNAL FETAL MEDICINE REFERRAL FOR IMAGING AND CONSULT

Page 1 of 1

[Antenatal and Maternity | Metro North Health]

[Maternal Fetal Medicine | Metro North Health]

Women's and Newborn Services, Centre for Advanced Prenatal Care

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

Metro North Health | Queensland Government

Maternal Fetal Medicine | Metro North Health

Obesity guidelines

[Queensland Clinical Guidelines | Queensland Health]

Obesity guidelines

Flowchart: Obesity and pregnancy (including post bariatric surgery)

Principles of care

- Sensitive language to reduce weight stigma
- Sufficient resources (human and equipment)
- Local criteria for safe care provision
- Audit care

BMI classification (kg/m²)	
• Underweight	< 18.5
• Normal	18.5–24.9*
• Overweight	25.0–29.9*
• Obese I	30.0–34.9*
• Obese II	35.0–39.9
• Obese III	> 40

*Variations for Asian background

GWG	
Trimester 1	kg
• All women	0.5–2.0
Trimester 2+3	kg/week
• Underweight	0.5
• Normal	0.4
• Overweight	0.3
• Obese	0.2

Total GWG	
Singleton	kg
• Normal	11.5–16
• Overweight	7–11.5
• Obese	5–9
Twin/triplet	kg
• Normal	17–25
• Overweight	14–23
• Obese	11–19

Pre and inter-conception

- Comprehensive health assessment
- Discuss health impacts and options
- Consider referral to dietitian
- Aim to normalise weight
- Higher dose folic acid daily
- Personalised approach to weight concern and lifestyle
- Post BS: micronutrient supplements and monitoring
- Identify/optimise comorbidities (e.g. diabetes mellitus)

Antenatal

Assessment
- Comprehensive history (including past BS)
- Early antenatal booking-in
- Measure BMI pre-pregnancy and at 36 weeks
- Use correctly sized BP cuff
- If BS: micronutrient supplements/monitoring

Refer as required
- Psychosocial wellbeing
- Mental health

Discuss
- Lifestyle options, healthy eating and physical activity
- GWG and consider weight gain chart use
- Implications for care (e.g. transfer of care)
- Greater inaccuracy early pregnancy screening

Consider risk of
- Pre-eclampsia – low dose aspirin
- VTE and need for thromboprophylaxis

Elements | BMI (kg/m²)	25–29.9	30–34.9	35–39.9	> 40	BS
Higher dose folic acid		✓	✓	✓	✓
Multidisciplinary	✓	✓	✓	✓	✓
Additional bloods		✓	✓	✓	✓
Early GDM screen		✓	✓	✓	✓ Casual/OGTT
Additional USS			✓	✓	✓
Referrals					
Dietitian	✓	✓	✓	✓	✓
Obstetrician			Consult	✓	✓
Anaesthetic				✓	✓
Obstetric medicine					✓

Labour and birth

- If BMI > 40 kg/m²
  - Early assessment of IV access
  - Recommend CFM
- If prophylactic antibiotics, consider higher dosage
- Surveillance for shoulder dystocia/PPH
- Active third stage management

Postpartum

- Surveillance for airway compromise
- Early mobilisation
- Assess risk of VTE and consider thromboprophylaxis
- Additional support for breastfeeding
- Referral for ongoing healthy lifestyle support

BMI: body mass index, BP: blood pressure, BS: bariatric surgery, CFM: continuous fetal monitoring, GDM: gestational diabetes mellitus, GWG: gestational weight gain, IV intravenous, OGTT: oral glucose tolerance test, PPH: postpartum haemorrhage, USS: ultrasound scan, VTE: venous thromboembolism, > greater than, < less than

[Queensland Clinical Guidelines | Queensland Health]

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

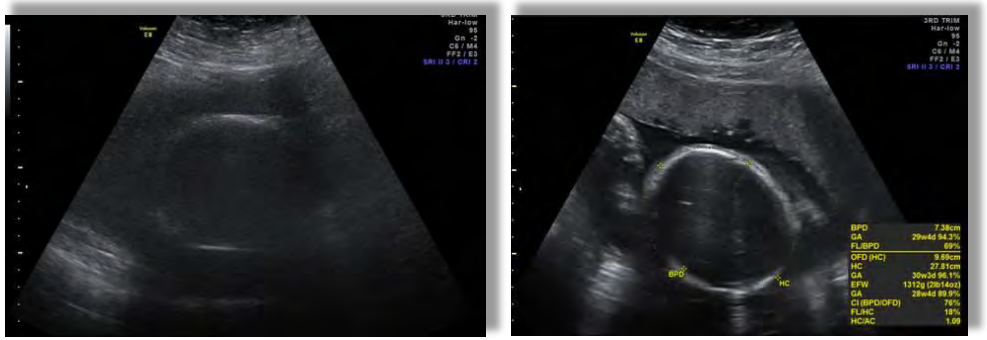


Image source: Donna Traves Sonographer, RBWH

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 a8 PHR*)
- Refer all women with BMI ≥ 25 to a dietician

Target Weight Gains (to be completed by health provider)

*Calculations assume a 0.5–2kg weight gain in the first trimester for single babies.

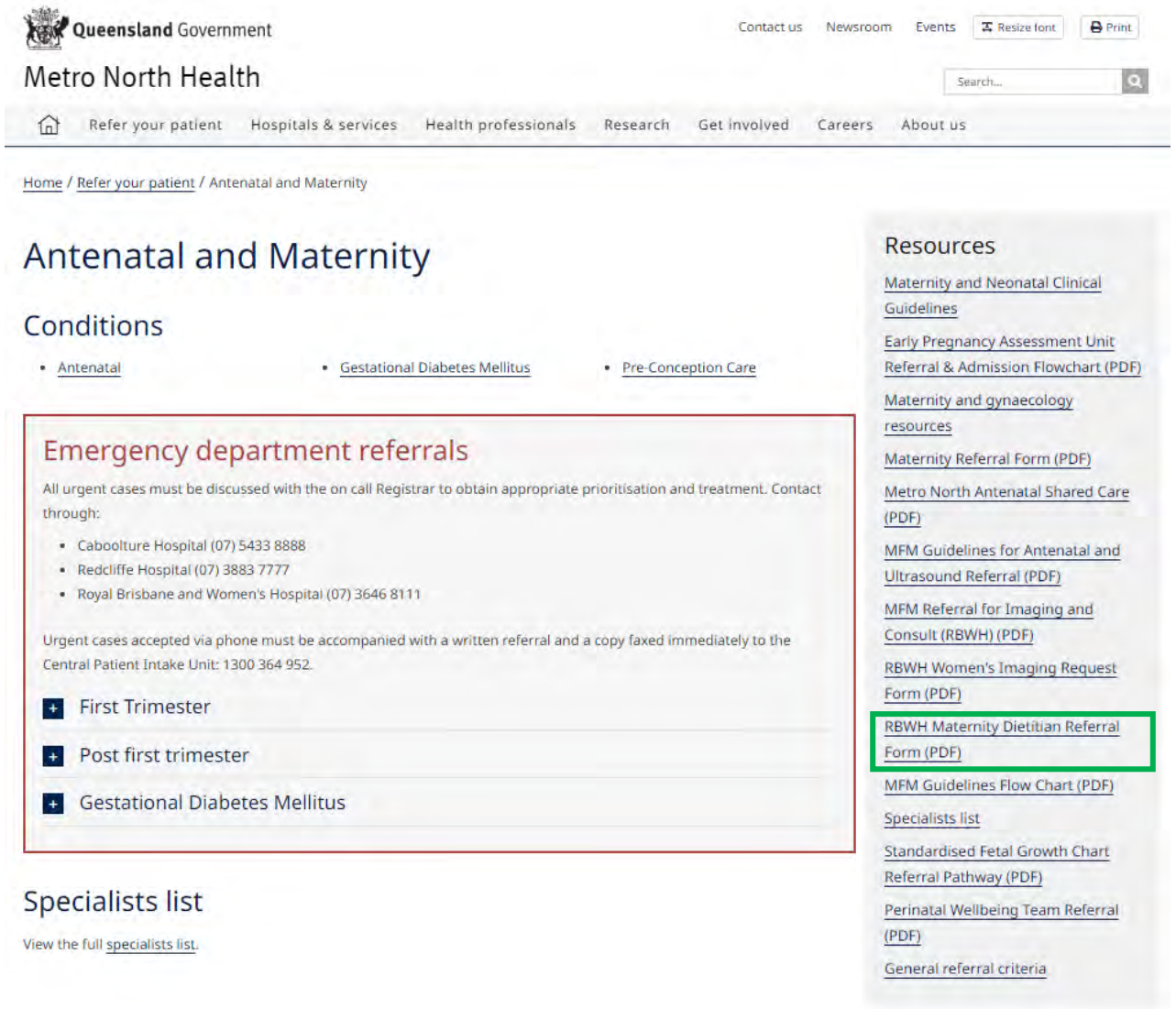
Refer to dietitian if multiple pregnancies, as different goals required. Dietary and physical activity requirements discussed.
Refer to Queensland Clinical Guideline: *Obesity and pregnancy (including post bariatric surgery)* for further information.

Pre-pregnancy BMI (kg/m²)	Singleton pregnancy weight gain		
Non-Asian background	**1st trimester total weight gain** (kg)	**2nd and 3rd trimester** (kg/week)	**Total** (kg)
Less than 18.5	0.5–2 kg	0.5	12.5–18
18.5 to 24.9		0.4	11.5–16
25.0 to 29.9		0.3	7–11.5
Greater than or equal to 30.0		0.2	5–9
Asian background			
Less than 18.5	0.5–2 kg	0.5	12.5–18
18.5 to 22.9		0.4	11.5–16
23.0 to 27.5		0.3	7–11.5
Greater than 27.5			7
Twin and triplet pregnancy	**Twin or triplet pregnancy weight gain**		
18.5 to 24.9	—		17–25
25.0 to 29.9			14–23
Greater than or equal to 30.0			11–19

Page a8 of 20

Pregnancy Health Record

RBWH Maternity Dietitian Referral



Queensland Government

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Metro North Health

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Home / Refer your patient / Antenatal and Maternity

Antenatal and Maternity

Conditions

- Antenatal
- Gestational Diabetes Mellitus
- Pre-Conception Care

Emergency department referrals

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

- Caboolture Hospital (07) 5433 8888
- Redcliffe Hospital (07) 3883 7777
- Royal Brisbane and Women's Hospital (07) 3646 8111

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.

+ First Trimester

+ Post first trimester

+ Gestational Diabetes Mellitus

Specialists list

View the full specialists list.

Resources

Maternity and Neonatal Clinical Guidelines

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)

MFM Guidelines Flow Chart (PDF)

Specialists list

Standardised Fetal Growth Chart Referral Pathway (PDF)

Perinatal Wellbeing Team Referral (PDF)

General referral criteria

[Antenatal and Maternity | Metro North Health]

Personal Healthy Lifestyle Phone Coaching

Is this program for you?

- Did you start pregnancy above a healthy weight (BMI above 25kgm/^{2})? 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

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

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/m2 (Healthy weight) (PDF)
- BMI more than 25kg/m2 (Above healthy weight) (PDF)

If pregnant with twins or triplets:

- BMI less than 25kg/m^2 (Healthy weight) (PDF)
- BMI more than 25kg/m^2 (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/m2)
- Low gestional weight gain

Refer your patient > (PDF)

RBWH | Maternity | Available Programs

[Healthy Pregnancy Healthy Baby | Metro North Health]

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	• If early screening is normal, repeat at 24–28 weeks gestation • Refer to Queensland Clinical Guideline: *Gestational diabetes mellitus*[105]
Hypertension	• Document the appropriately sized blood pressure cuff • If pre-existing hypertension, consider cardiac evaluation (e.g. electrocardiogram), especially if smoking • Refer to Queensland Clinical Guideline: *Hypertension and pregnancy*[114]
Pre-eclampsia	• Assess for clinical risk factors and consider prophylaxis (e.g. aspirin) • Refer to Queensland Clinical Guideline: *Hypertension and pregnancy*[114]
Venous thromboembolism (VTE):	• BMI greater than 30 kg/m^2 is a risk factor for VTE • Refer to Queensland Clinical Guideline *Venous thromboembolism prophylaxis in pregnancy and the puerperium*[115]
Obstructive Sleep Apnoea (OSA)	• OSA in women experiencing obesity (compared to women experiencing obesity without OSA) results in[99]: ○ Higher rates of medical and surgical complications ○ Longer hospital stays ○ Higher rates of admission to ICU • Greater sensitivity to adverse effects of opioids (e.g. respiratory depression)[81] • If frequent snoring reported, offer screening[87] • The Australian Sleep Association recommend screening by using the STOP Questionnaire ○ If the answer is yes to two or more of the following questions, refer to a physician/sleep specialist
	S: Do you **s**nore loudly (**l**ouder than talking or **l**oud enough to be heard through **c**losed doors)?
	T: Do you often feel **t**ired, fatigued or sleepy during daytime?
	O: Has anyone **o**bserved you stop breathing during your sleep?
	P: Do you have or are you being treated for high blood **p**ressure?
Depression and anxiety	• If concerns are identified, perform additional psychosocial assessment, and/or refer as required[44] • Recommend thorough routine and baseline investigations (e.g. to exclude hypothyroidism)
Eating disorders	• Increased risk of adverse maternal and neonatal outcomes[116] • Maintain awareness of history or symptoms suggestive of an eating disorder[25,100] (e.g. binge or purge eating, laxative overuse) • Refer to perinatal mental health/mental health services as required

Pregnancy weight gain chart for BMI 25kg/m² or over

(Affix patient identification label here)

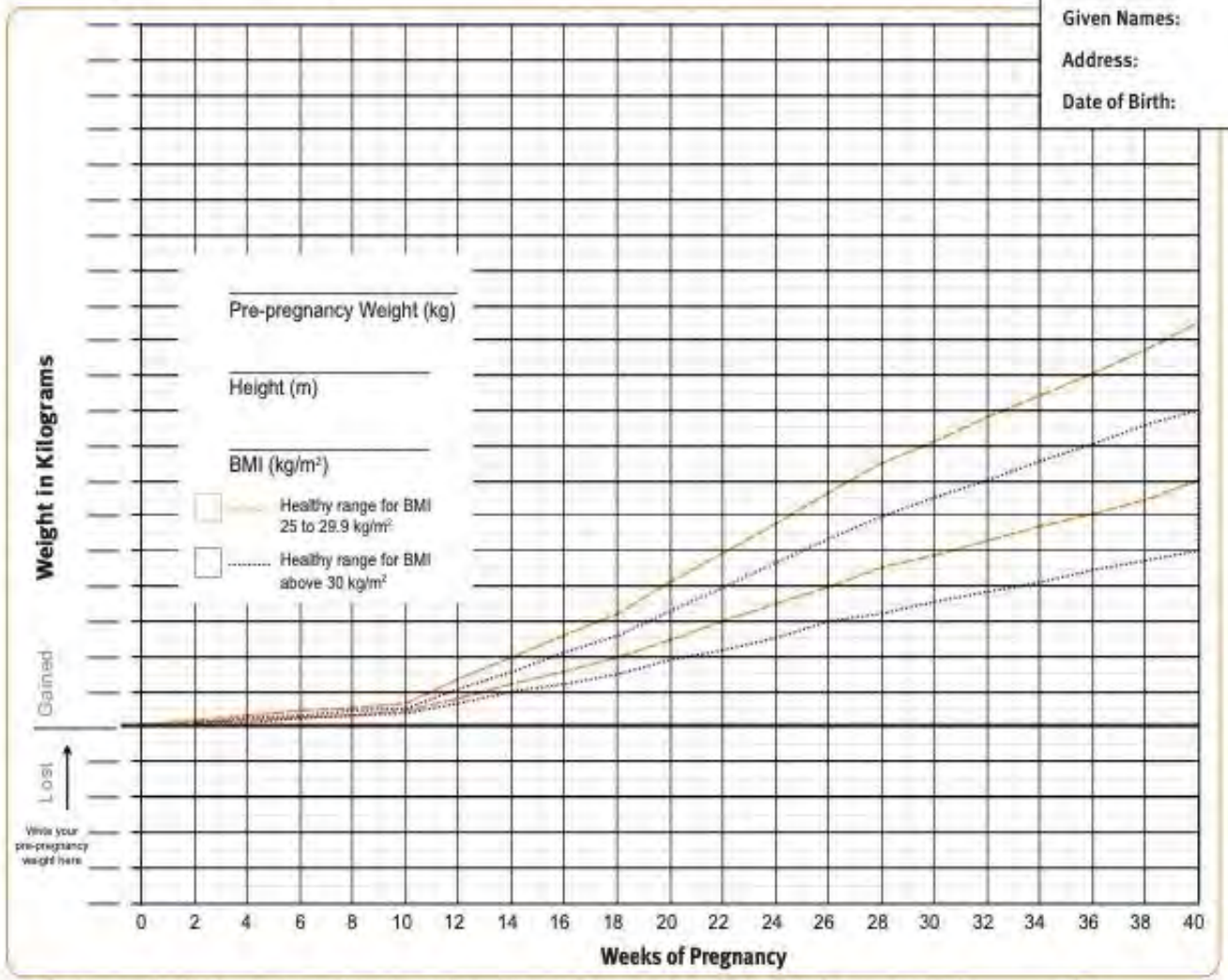
URN:

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/m²	Pre-pregnancy BMI Above 30 kg/m²
Gain 7 to 11.5 kg	Gain 5 to 9 kg

How to use this tracker:

1. Write down height and weight before pregnancy in the two spaces provided.
2. Calculate your pre-pregnancy BMI using the following equation: $\frac{\text{weight (in kg)}}{\text{height x height (in meters)}}$
   Alternatively, you can do so using this online calculator: http://www.goldenhypo8.com.au/healthier-you/tools-and-calculators/bmi-calculator/
3. Starting from pre-pregnancy weight, add 1kg to each space along the left hand line on the graph.
4. 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.
5. 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 x | Effective Dec 2017 | Review Nov 2021

Queensland Government

First visit to GP

- **Consider low dose aspirin 100 - 150mg/day, if obese and additional risk factors for pre-eclampsia**
- **Antenatal thromboprophylaxis if obese and additional risk factors for VTE**
- **Queensland Clinical Guidelines**
  - Guideline: Venous thromboembolism (VTE) in pregnancy and the puerperium
  - Guideline: Hypertension and pregnancy

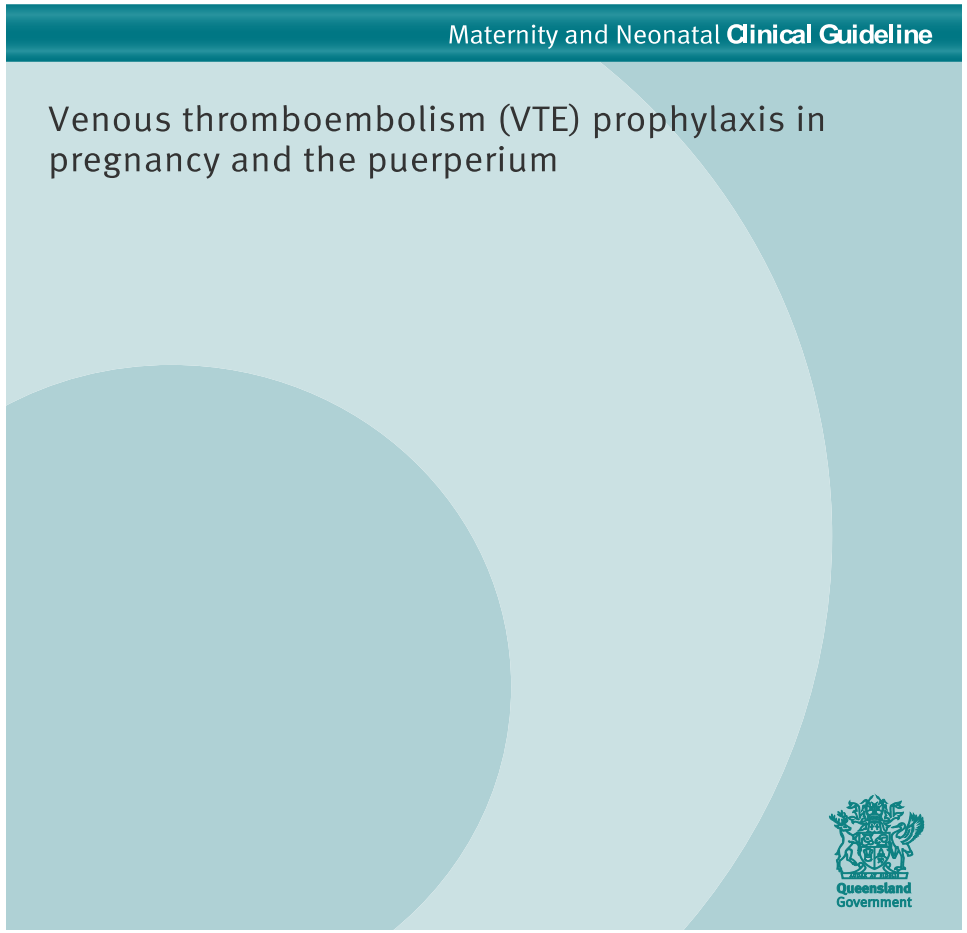
Venous thromboembolism (VTE)

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

Guideline: Venous thromboembolism (VTE) in pregnancy and the puerperium

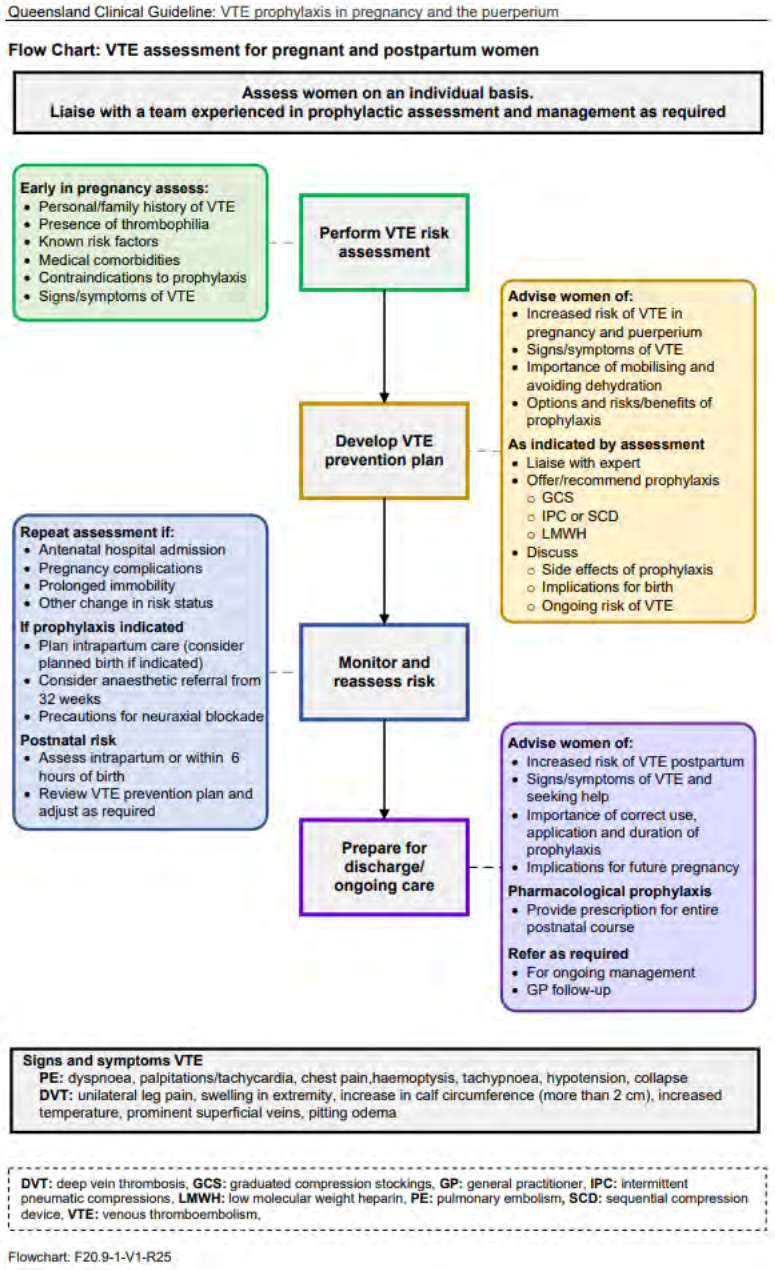
Queensland Health
Clinical Excellence Queensland

Queensland Clinical Guidelines
Translating evidence into best clinical practice



[Queensland Clinical Guidelines | Queensland Health]

VTE assessment



Queensland Clinical Guideline: VTE prophylaxis in pregnancy and the puerperium

Flow Chart: VTE assessment for pregnant and postpartum women

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

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

Perform VTE risk assessment

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

Develop VTE prevention plan

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

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

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

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

Monitor and reassess risk

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

Pharmacological prophylaxis
- Provide prescription for entire postnatal course

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

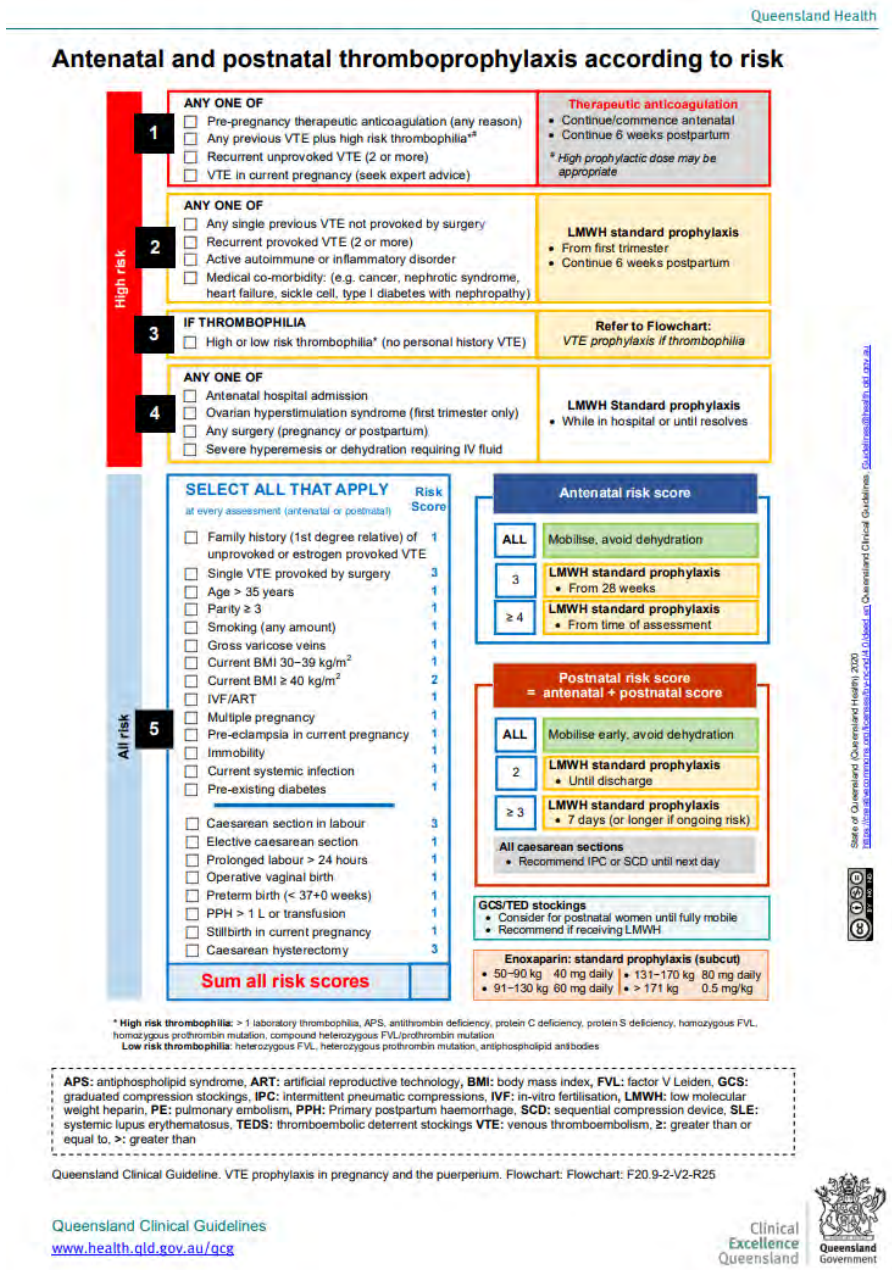
Prepare for discharge/ ongoing care

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

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

Flowchart: F20.9-1-V1-R25

[Queensland Clinical Guidelines | Queensland Health]



Queensland Health

Antenatal and postnatal thromboprophylaxis according to risk

High risk

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

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

 # High prophylactic dose may be appropriate

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

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

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

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

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

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

All risk

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

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

Antenatal risk score

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

Postnatal risk score = antenatal + postnatal score

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

All caesarean sections
- Recommend IPC or SCD until next day

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

Enoxaparin: standard prophylaxis (subcut)
- 50–90 kg 40 mg daily
- 91–130 kg 60 mg daily
- 131–170 kg 80 mg daily
- > 171 kg 0.5 mg/kg

* **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

State of Queensland (Queensland Health) 2020
https://creativecommons.org/licenses/by-nc-nd/4.0/deed.en Queensland Clinical Guidelines. Guidelines@health.qld.gov.au

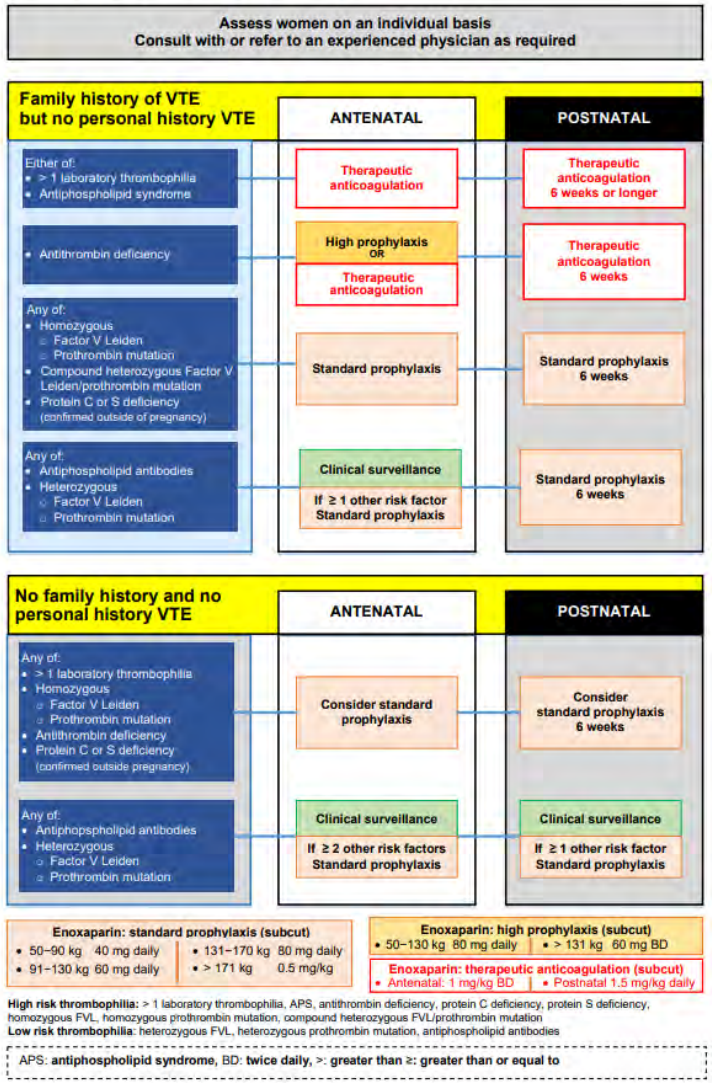
Queensland Clinical Guideline. VTE prophylaxis in pregnancy and the puerperium. Flowchart: Flowchart: F20.9-2-V2-R25

Queensland Clinical Guidelines
www.health.qld.gov.au/qcg

Clinical Excellence Queensland | Queensland Government

[Queensland Clinical Guidelines | Queensland Health]

Thromboprophylaxis if thrombophilia

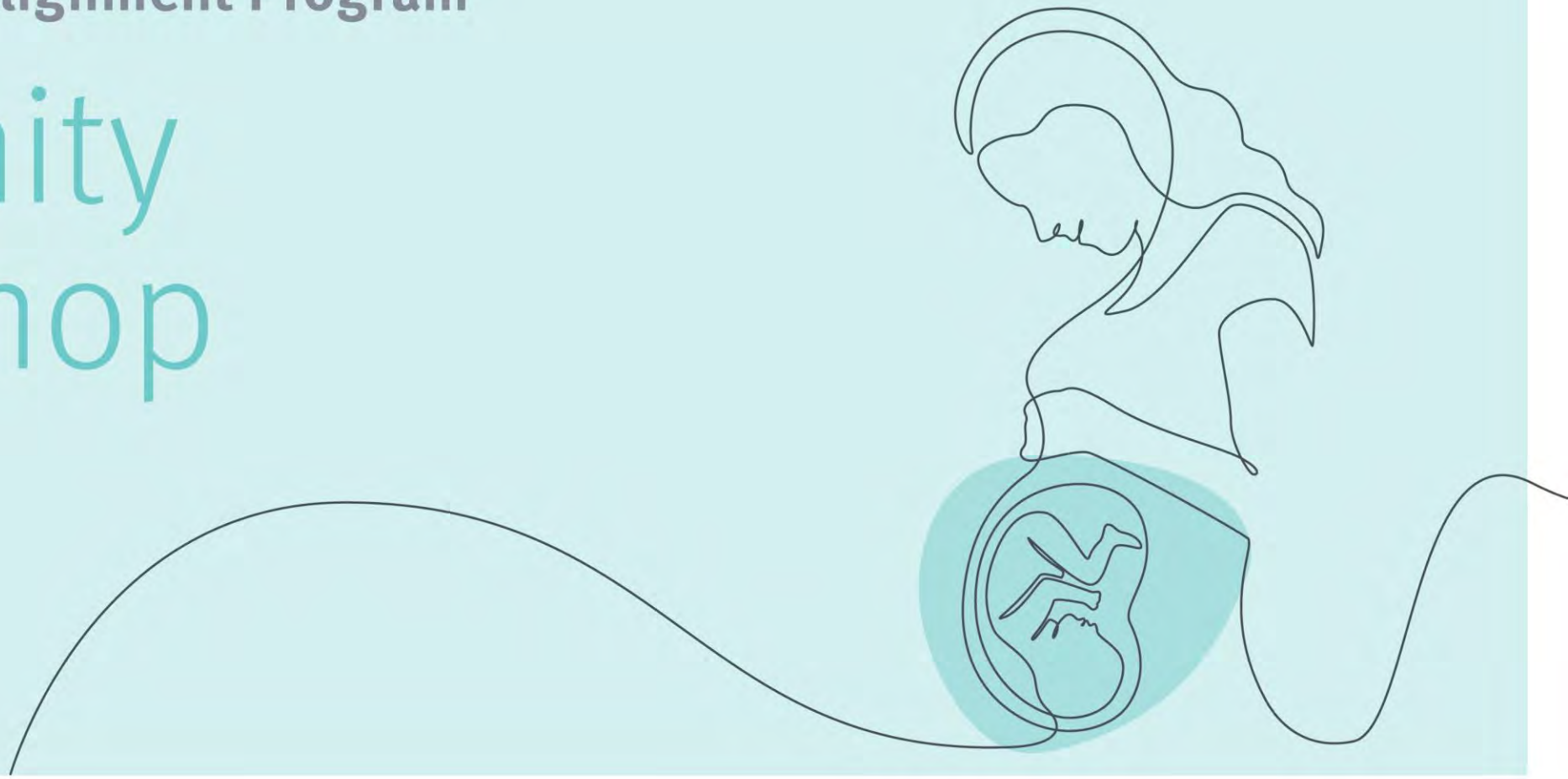


Queensland Clinical Guideline. VTE prophylaxis in pregnancy and the puerperium. Flowchart: F20.9-3-V1-R25

[Queensland Clinical Guidelines | Queensland Health]

Metro North **GP Alignment Program**

Maternity Workshop



CASE STUDY

KYLIE – FIRST TRIMESTER

phn BRISBANE NORTH
An Australian Government Initiative

Queensland Government
Metro North Health

CASE STUDY: KYLIE

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**
- **Birthing in Our Community (BiOC) - Strathpine and Caboolture**

phn BRISBANE NORTH
An Australian Government Initiative

About us Media centre Contact

Programs for our community | Primary care support | News & events | COVID-19

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.

[Aboriginal and Torres Strait Islander health and wellbeing - Brisbane North PHN]

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

Thyroid disorders in pregnancy, Women's and Newborn Services, Royal Brisbane and Women's Hospital

Pre-gestational hyperthyroidism – management in pregnancy

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

Thyroid disorders in pregnancy, Women's and Newborn Services, Royal Brisbane and Women's Hospital

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**

Thyroid disorders in pregnancy, Women's and Newborn Services, Royal Brisbane and Women's Hospital

Subclinical hypothyroidism diagnosed in pregnancy

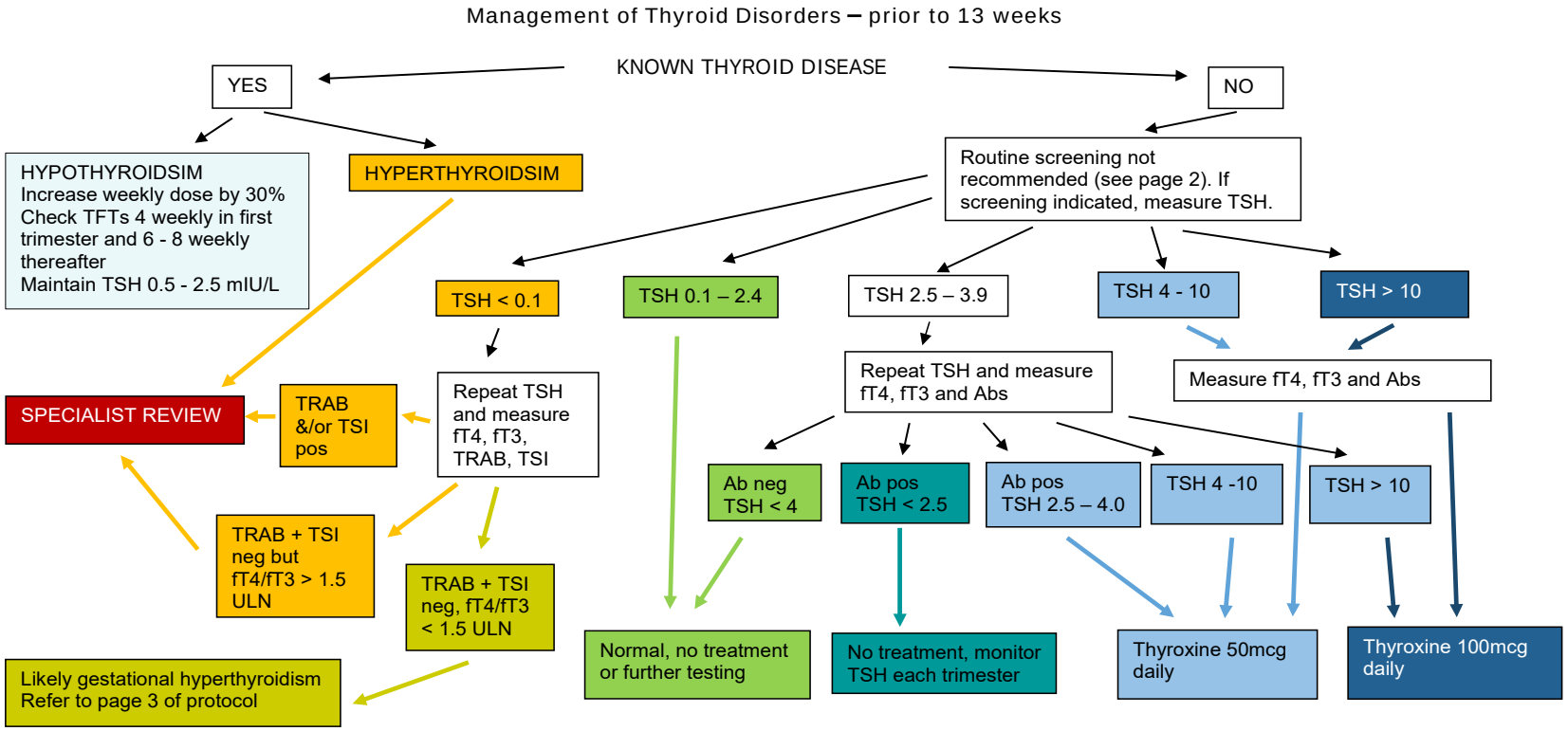
- **TSH 2.5 - 4.0, repeat TSH, measure fT4, fT3 & anti-thyroid antibody titres**
- **4.0 - 10, measure anti-thyroid antibody titres and commence thyroxine 50mcg daily**
- **If TSH > 10.0, measure anti-thyroid antibody titres and commence thyroxine 100mcg daily**

Thyroid disorders in pregnancy, Women's and Newborn Services, Royal Brisbane and Women's Hospital

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**

Thyroid disorders in pregnancy, Women's and Newborn Services, Royal Brisbane and Women's Hospital



Version 3.0 Effective: August 2022 Review: August 2025

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Butterfield Street
Herston QLD 4029

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

Metro North Health | Queensland Government

Thyroid disorders in pregnancy, Women's and Newborn Services, Royal Brisbane and Women's Hospital

Vitamin D

- Routine Vitamin D testing not recommended in the absence of a specific indication

- Evidence on the harms and benefits of vitamin D supplementation in pregnancy remains unclear and guidelines differ

Australian Pregnancy Care Guidelines
Statements and guidelines directory – RANZCOG
Vitamin D and health in adults in Australia and New Zealand: a position statement | The Medical Journal of Australia

Vitamin D

- **Australian Pregnancy Care Guidelines recommend, if Vitamin D testing performed, supplementation only in women with vitamin D <50nmol/L**

- **RANZCOG recommends 400 IU Vitamin D daily for all women as part of a pregnancy multivitamin (RANZCOG)**
  - **Pregnancy multivitamins currently available in Australia contain between 200-1000IU daily**

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

MBS Online - MBS Online

Vitamin D deficiency

- Vitamin D adequacy: ≥ 50 nmol/L at the end of winter (level may need to be 10–20 nmol/L higher at the end of summer, to allow for seasonal decrease)

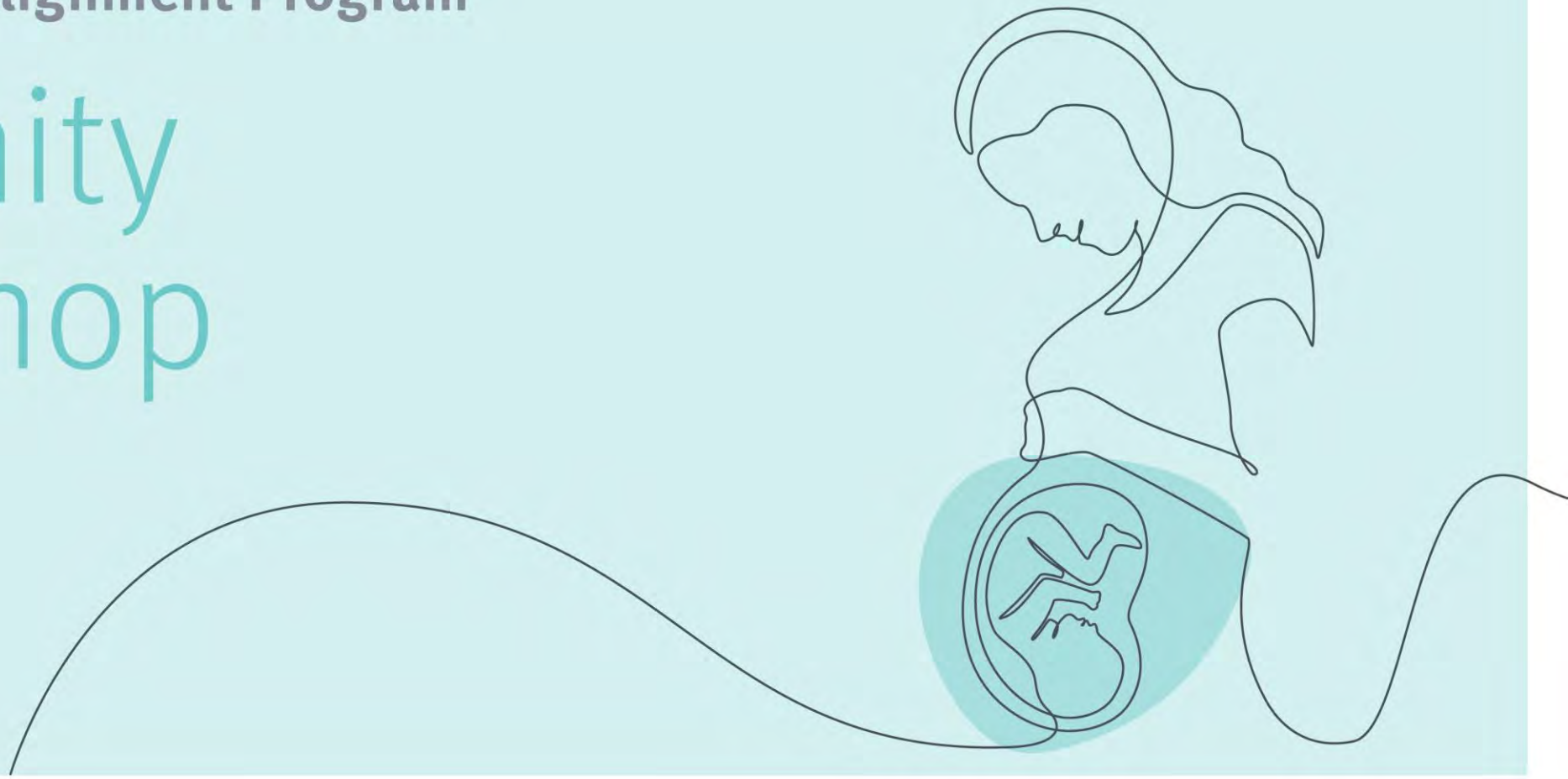
- Mild deficiency: 30 - 49 nmol/L - 1000 IU daily

- Moderate – severe deficiency: < 30 nmol/L - 3000 – 5000 IU daily for 6 -12 weeks then check vitamin D; continue 1000 – 2000 IU daily maintenance dose

Vitamin D and health in adults in Australia and New Zealand: a position statement | The Medical Journal of Australia

Metro North **GP Alignment Program**

Maternity Workshop



CASE STUDY

KATE – FIRST TRIMESTER

phn BRISBANE NORTH
An Australian Government Initiative

Queensland Government
Metro North Health

CASE STUDY: KATE
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 Health

Queensland Clinical Guidelines

Translating evidence into best clinical practice

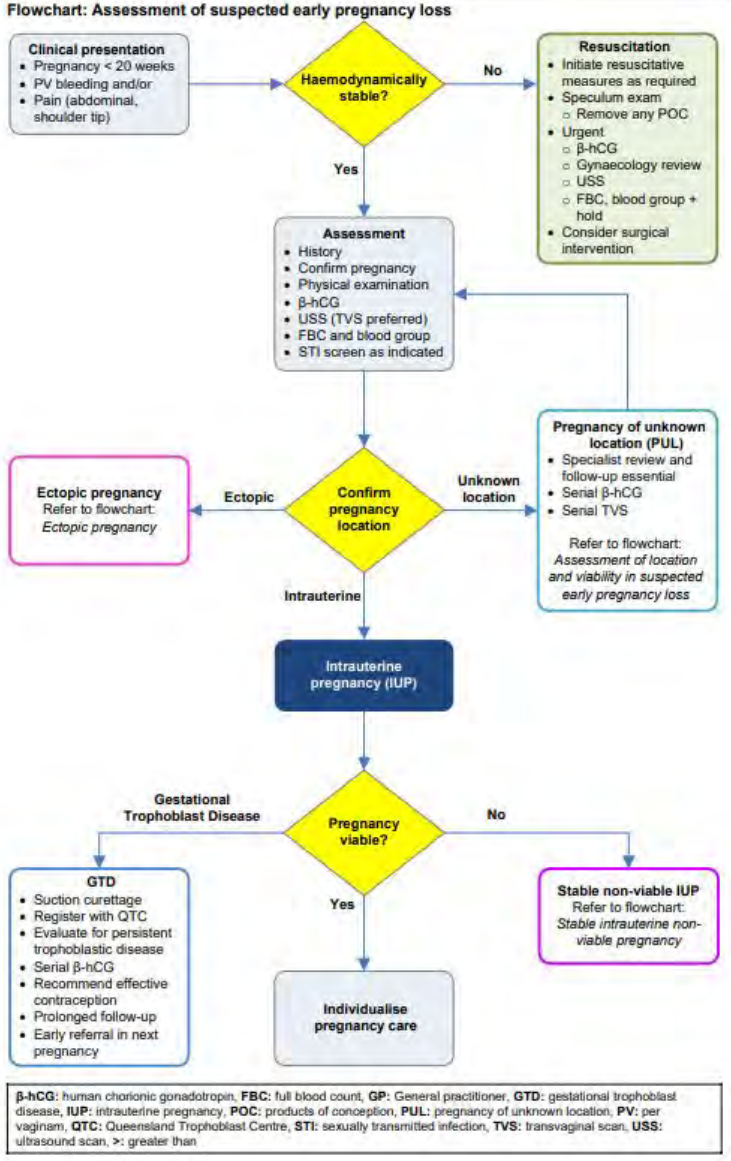
Maternity and Neonatal **Clinical Guideline**

Early pregnancy loss

Queensland Government

Queensland Clinical Guideline: Early pregnancy loss

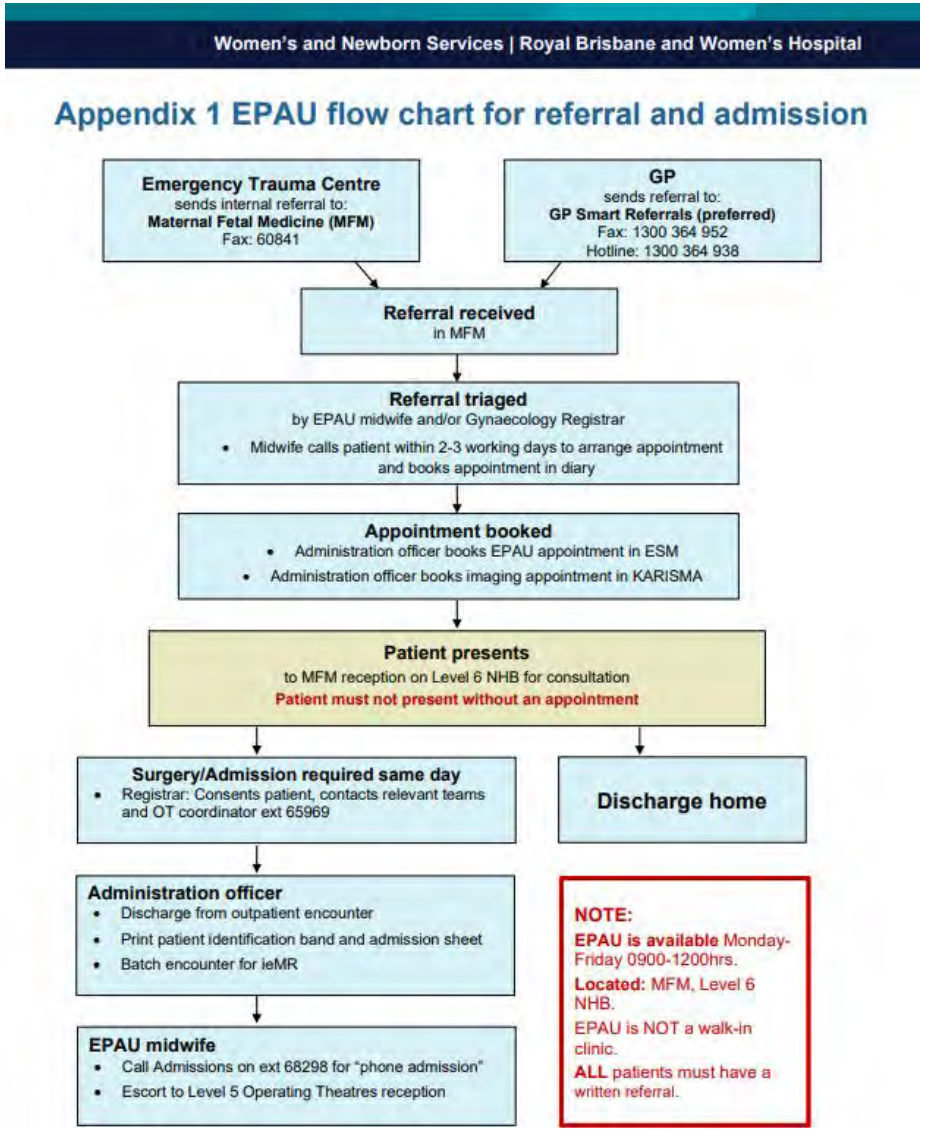
Flowchart: Assessment of suspected early pregnancy loss



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

Flowchart: F22.29-2-V5-R27

[Queensland Clinical Guidelines | Queensland Health]



Women's and Newborn Services | Royal Brisbane and Women's Hospital

Appendix 1 EPAU flow chart for referral and admission

Emergency Trauma Centre
sends internal referral to:
Maternal Fetal Medicine (MFM)
Fax: 60841

GP
sends referral to:
GP Smart Referrals (preferred)
Fax: 1300 364 952
Hotline: 1300 364 938

Referral received
in MFM

Referral triaged
by EPAU midwife and/or Gynaecology Registrar
- Midwife calls patient within 2-3 working days to arrange appointment and books appointment in diary

Appointment booked
- Administration officer books EPAU appointment in ESM
- Administration officer books imaging appointment in KARISMA

Patient presents
to MFM reception on Level 6 NHB for consultation
Patient must not present without an appointment

Surgery/Admission required same day
- Registrar: Consents patient, contacts relevant teams and OT coordinator ext 65969

Discharge home

Administration officer
- Discharge from outpatient encounter
- Print patient identification band and admission sheet
- Batch encounter for ieMR

EPAU midwife
- Call Admissions on ext 68298 for "phone admission"
- Escort to Level 5 Operating Theatres reception

NOTE:
EPAU is available Monday-Friday 0900-1200hrs.
Located: MFM, Level 6 NHB.
EPAU is NOT a walk-in clinic.
ALL patients must have a written referral.

EXTRACTED FROM - 007959: Early Pregnancy Assessment Unit - Work Instruction
V1.0 Effective: September 2023 Review: September 2026

Metro North Health | Queensland Government

EPAU flow chart for referral and admission

Queensland Health

Queensland Clinical Guidelines

Translating evidence into best clinical practice

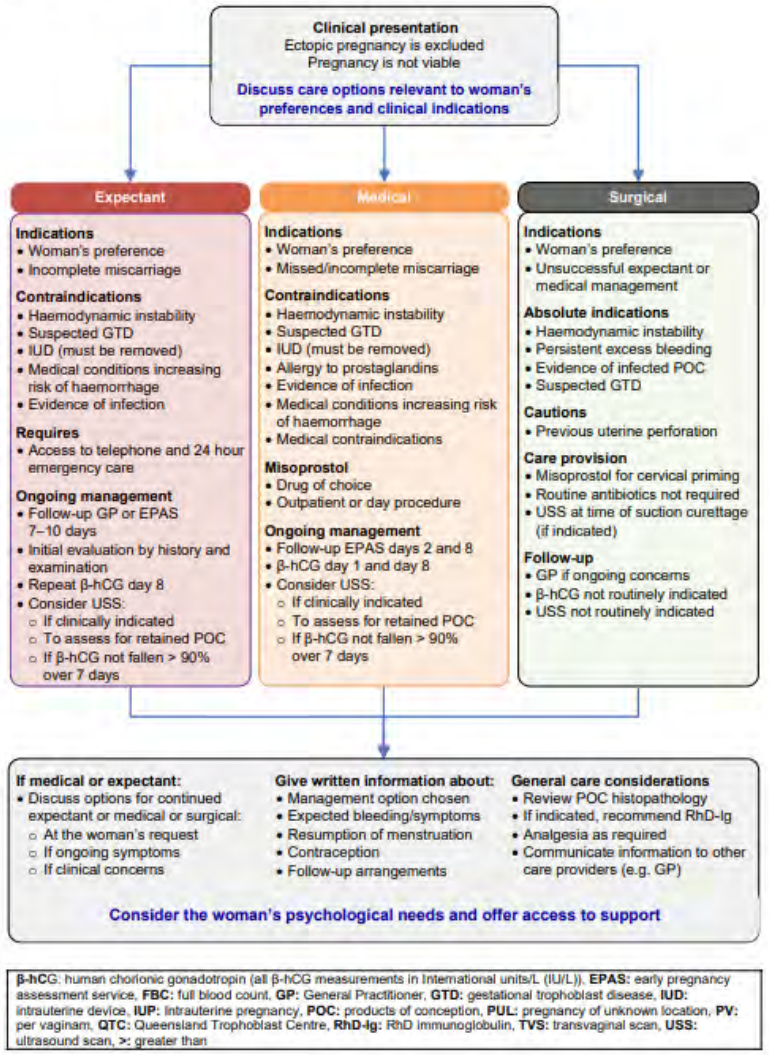
Maternity and Neonatal **Clinical Guideline**

Early pregnancy loss

Queensland Government

Queensland Clinical Guideline: Early pregnancy loss

Flowchart: Stable intrauterine non-viable pregnancy



β-hCG: human chorionic gonadotropin (all β-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

Flowchart: F22.29-1-V5-R27

[Queensland Clinical Guidelines | Queensland Health]

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 Health

Queensland Clinical Guidelines
Translating evidence into best clinical practice

Maternity and Neonatal **Clinical Guideline**

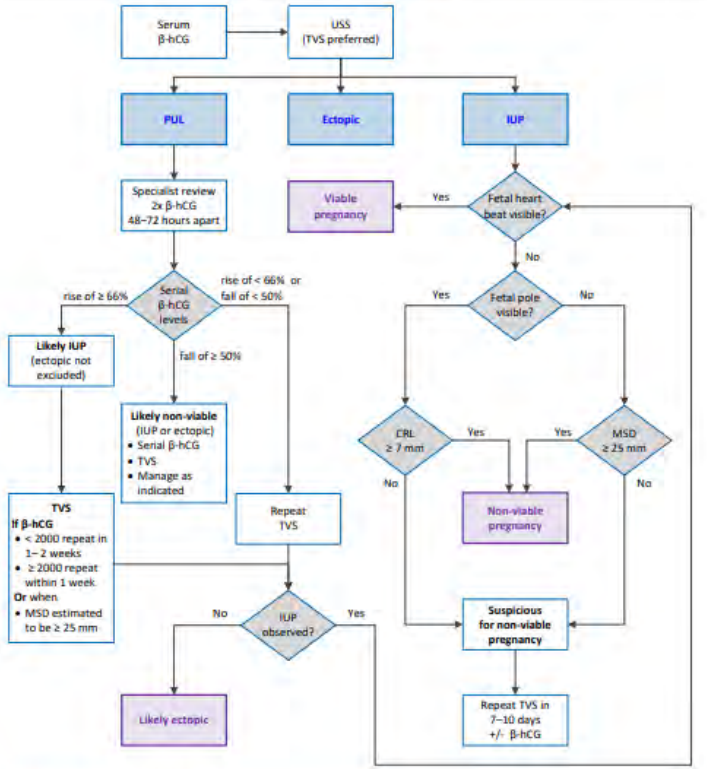
Early pregnancy loss

Queensland Government

Queensland 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 ≥ 25 mm and no fetus present
- Fetus with CRL ≥ 7 mm is visible, but no fetal heart movements demonstrated after observation of ≥ 30 seconds
- Absence of embryo with heartbeat ≥ 2 weeks after a scan that showed a gestational sac without a yolk sac
- Absence of embryo with heartbeat ≥ 11 days after a scan that showed a gestational sac with a yolk sac
- Absence of embryo with heartbeat 7 days or more after USS that showed a fetal pole less than 7 mm with no cardiac activity

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)

β-hCG: human chorionic gonadotropin (all β-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

Flowchart: F22.29-4-V3-R27

[Queensland Clinical Guidelines | Queensland Health]

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**

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Queensland Clinical Guidelines
Translating evidence into best clinical practice

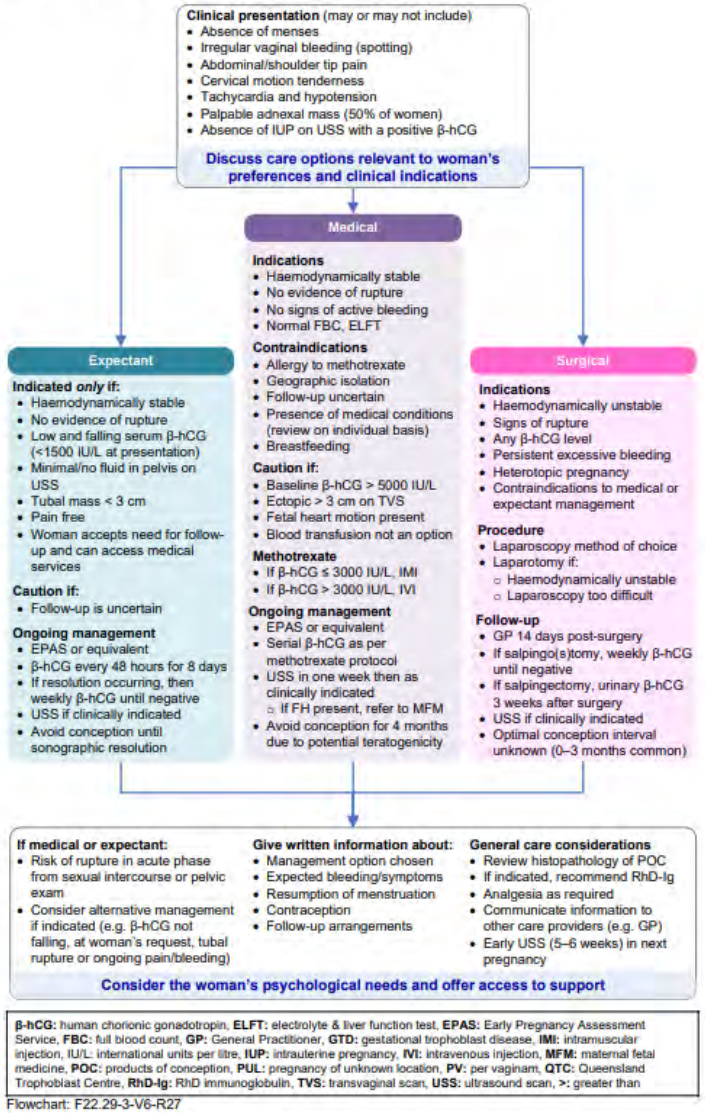
Maternity and Neonatal **Clinical Guideline**

Early pregnancy loss

Queensland Government

Queensland Clinical Guideline: Early pregnancy loss

Flowchart: Ectopic pregnancy



Flowchart: F22.29-3-V6-R27

[Queensland Clinical Guidelines | Queensland Health]

Threatened miscarriage and progesterone

- **Progesterone supplementation in an unselected population does not reduce the incidence of miscarriage**
- **Progesterone may improve live birth outcome in women with one or more previous miscarriages and early pregnancy bleeding**
- **Offer vaginal micronised progesterone 400 mg twice daily to women with an intrauterine pregnancy confirmed by a scan, if they have vaginal bleeding and have previously had a miscarriage**
- **Continue progesterone until 16 completed weeks of pregnancy**

Progesterone Support of the Luteal Phase and in the First Trimester (C-Obs 29a)
Recommendations | Ectopic pregnancy and miscarriage: diagnosis and initial management | Guidance | NICE

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**

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Queensland Clinical Guidelines

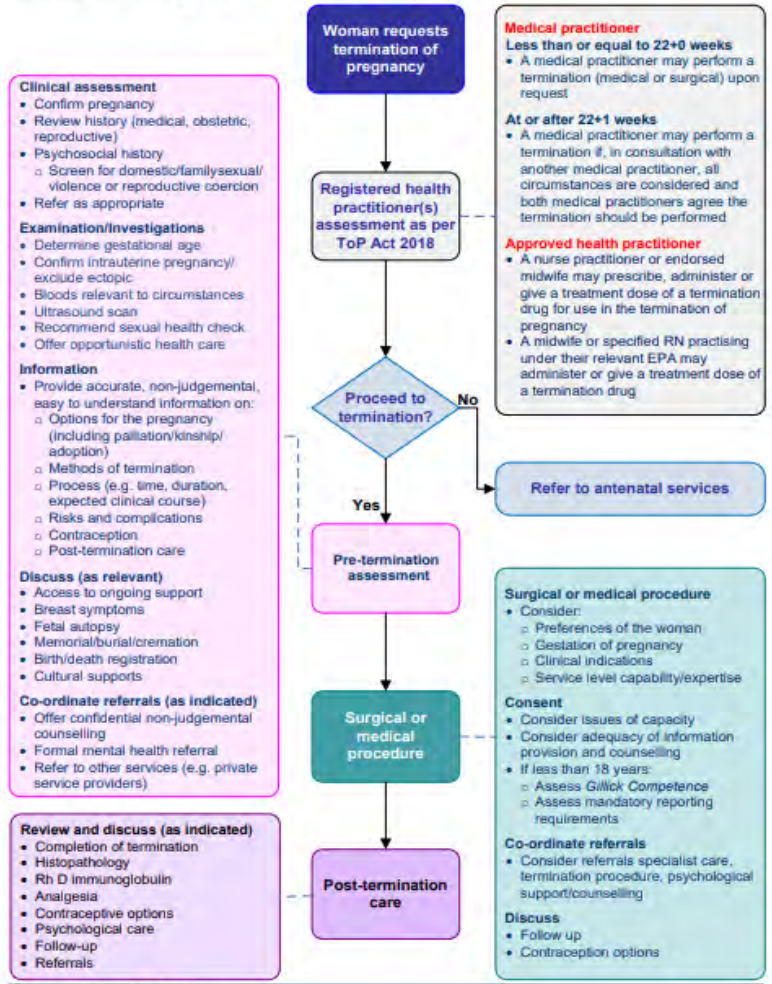
Translating evidence into best clinical practice

Maternity and Neonatal **Clinical Guideline**

Termination of pregnancy

Queensland Government

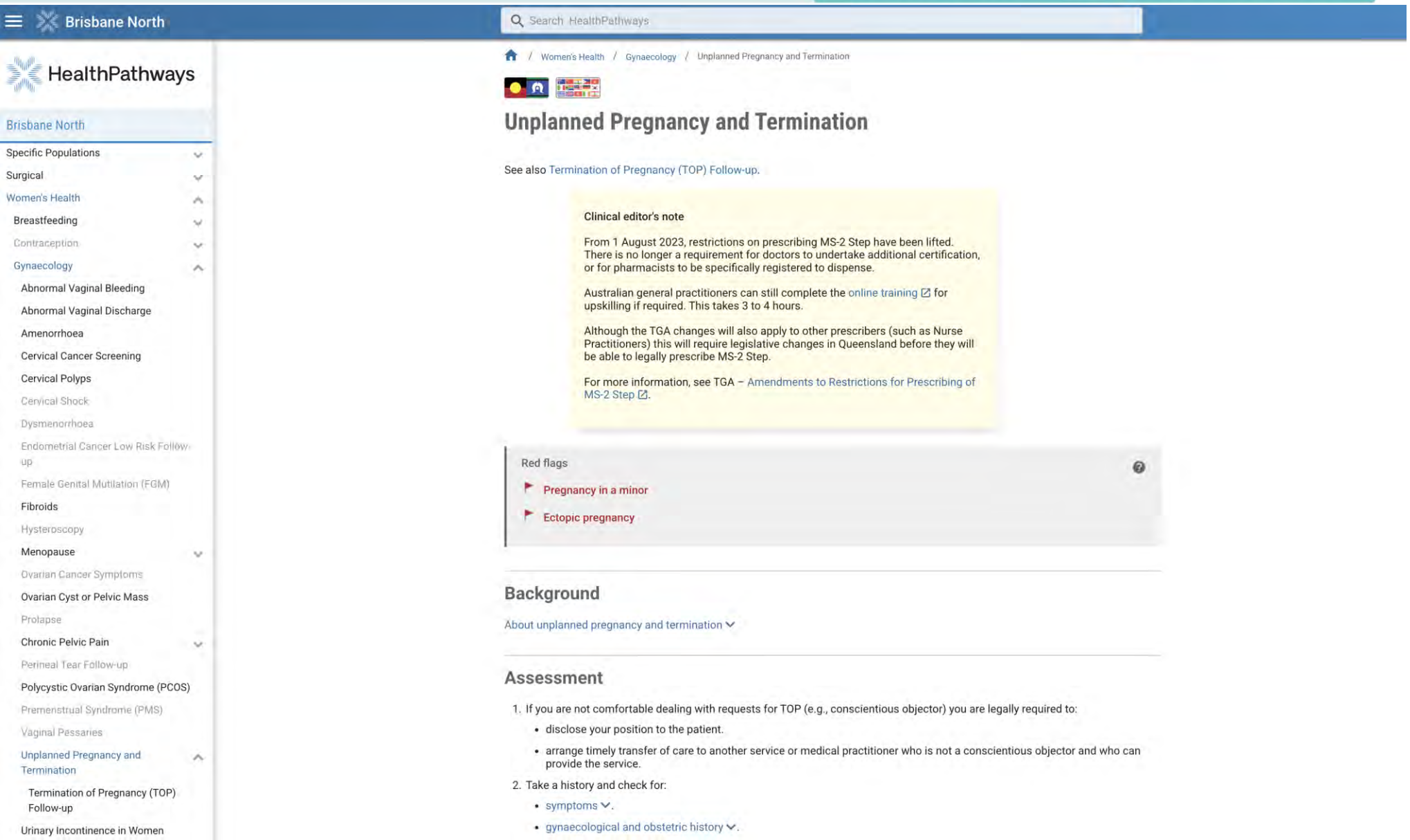
Flow Chart: Summary of termination of pregnancy



EPA: extended practice authority, **Rh D**:Rhesus D, **RN:** Registered Nurse **ToP:** termination of pregnancy

Flowchart: F24.21-1-V6-R29

[Queensland Clinical Guidelines | Queensland Health]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Gynaecology
Abnormal Vaginal Bleeding
Abnormal Vaginal Discharge
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
Perineal Tear Follow-up
Polycystic Ovarian Syndrome (PCOS)
Premenstrual Syndrome (PMS)
Vaginal Pessaries
Unplanned Pregnancy and Termination
Termination of Pregnancy (TOP) Follow-up
Urinary Incontinence in Women
Women's Health / Gynaecology / Unplanned Pregnancy and Termination
Unplanned Pregnancy and Termination
See also Termination of Pregnancy (TOP) Follow-up.
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 unplanned pregnancy and termination
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.

MS2Step
mifepristone, misoprostol

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**

Login

Email

Password

☐ **Remember Me**

Log In

Forgot Password?

Register

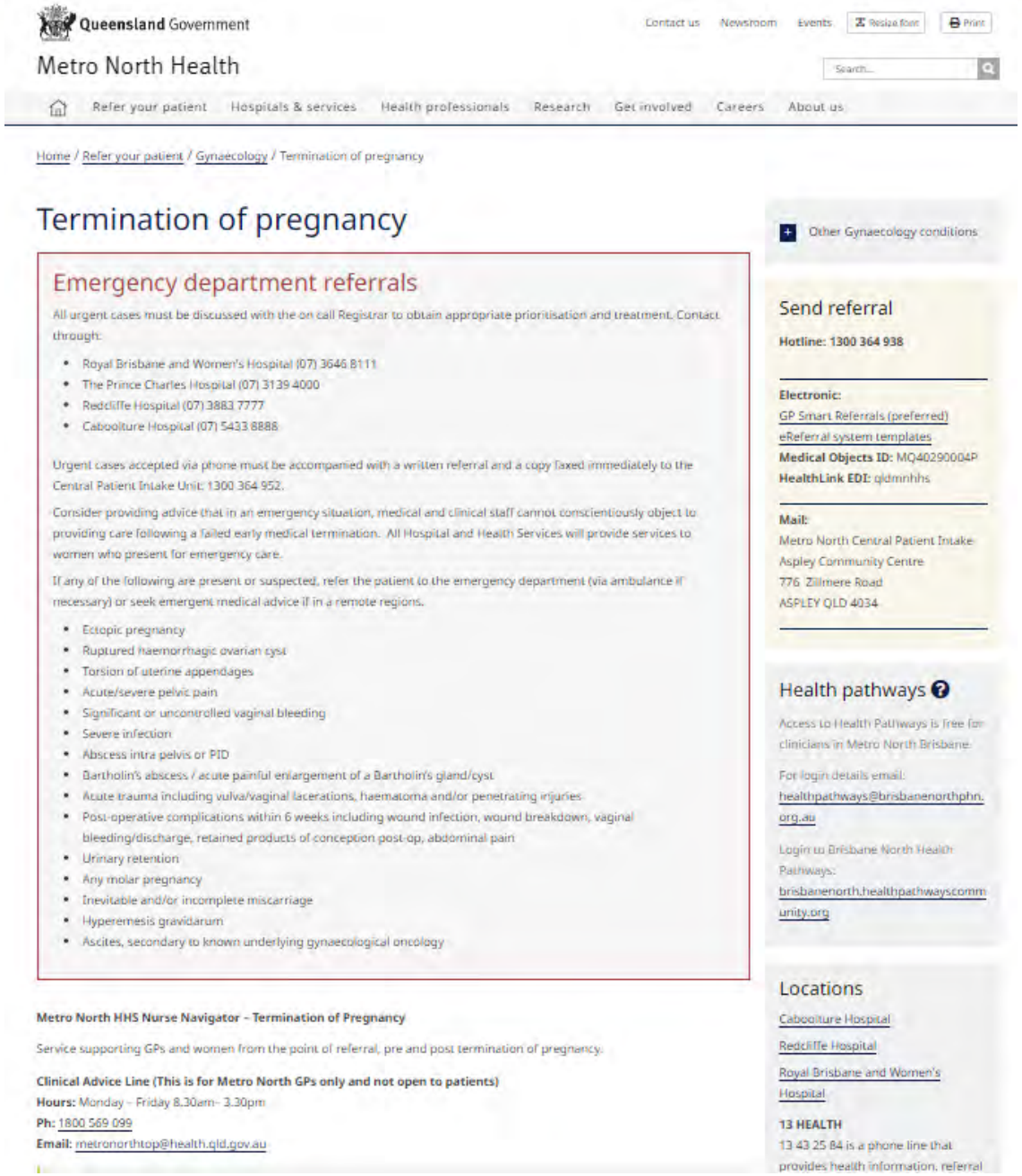
If you are an Australian healthcare professional and would like to become a prescriber or dispenser of MS-2 Step (mifepristone, misoprostol) register online here. Registration is simple. Once registered you will have access to training and resources to support you. All prescribers are strongly encouraged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

- **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**

ms2step



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Home / Refer your patient / Gynaecology / Termination of pregnancy

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.

Consider providing advice that in an emergency situation, medical and clinical staff cannot conscientiously object to providing care following a failed early medical termination. All Hospital and Health Services will provide services to women who present for emergency care.

If any of the following are present or suspected, refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote regions.

- Ectopic pregnancy
- Ruptured haemorrhagic ovarian cyst
- Torsion of uterine appendages
- Acute/severe pelvic pain
- Significant or uncontrolled vaginal bleeding
- Severe infection
- Abscess intra pelvis or PID
- Bartholin's abscess / acute painful enlargement of a Bartholin's gland/cyst
- Acute trauma including vulva/vaginal lacerations, haematoma and/or penetrating injuries
- Post-operative complications within 6 weeks including wound infection, wound breakdown, vaginal bleeding/discharge, retained products of conception post-op, abdominal pain
- Urinary retention
- Any molar pregnancy
- Inevitable and/or incomplete miscarriage
- Hyperemesis gravidarum
- Ascites, secondary to known underlying gynaecological oncology

Metro North HHS Nurse Navigator - Termination of Pregnancy

Service supporting GPs and women from the point of referral, pre and post termination of pregnancy.

Clinical Advice Line (This is for Metro North GPs only and not open to patients)
Hours: Monday - Friday 8.30am- 3.30pm
Ph: 1800 569 099
Email: metronorthtop@health.qld.gov.au

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.org.au

Login to Brisbane North Health Pathways:
brisbanenorth.healthpathways.community.org

Locations

Caboolture Hospital
Redcliffe Hospital
Royal Brisbane and Women's Hospital

13 HEALTH
13 43 25 84 is a phone line that provides health information, referral

[Termination of pregnancy | Metro North Health]

Metro North ToP Nurse Navigator

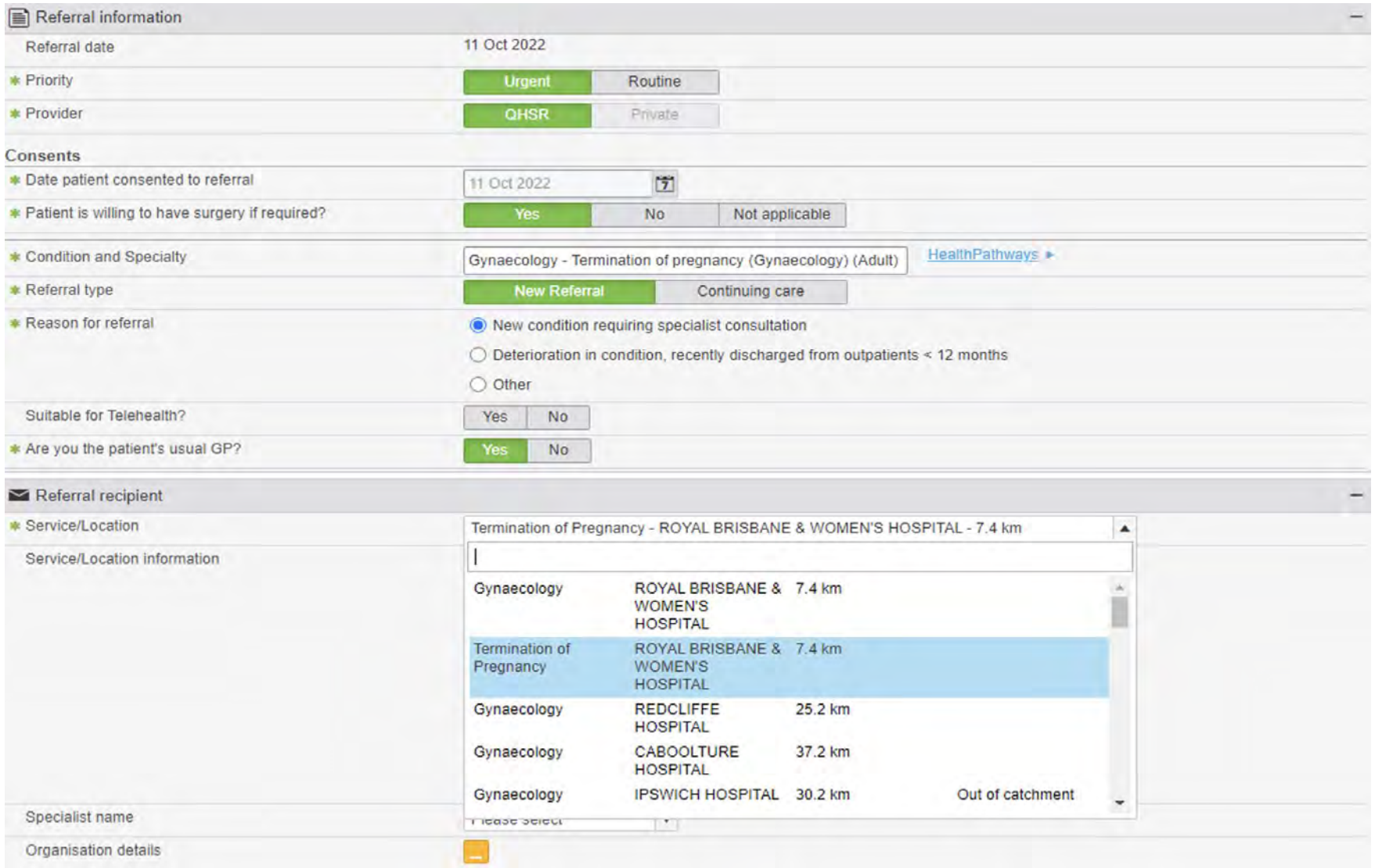
- **Via the Clinical Advice Line (GPs only)**
  - **Monday – Friday 08:30 – 16:00**
  - **Phone: 1800 569 099**
  - **Email: metronorthtop@health.qld.gov.au**
  - **https://metronorth.health.qld.gov.au/refer-your-patient/clinic-advice-line**

Metro North ToP Nurse Navigator

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

- **GPSR (preferred)**
  - **mark urgent**
  - ***Condition and Specialty*** **Gynaecology - Termination of pregnancy (Gynaecology) (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



Rh D negative women

- **Pregnant women who are Rh D negative fall into two categories:**
  - **those with Anti-D antibodies**
  - **those without Anti-D antibodies**

- **<u>Women with Rh D (or any other) antibodies are not suitable for shared care</u>**

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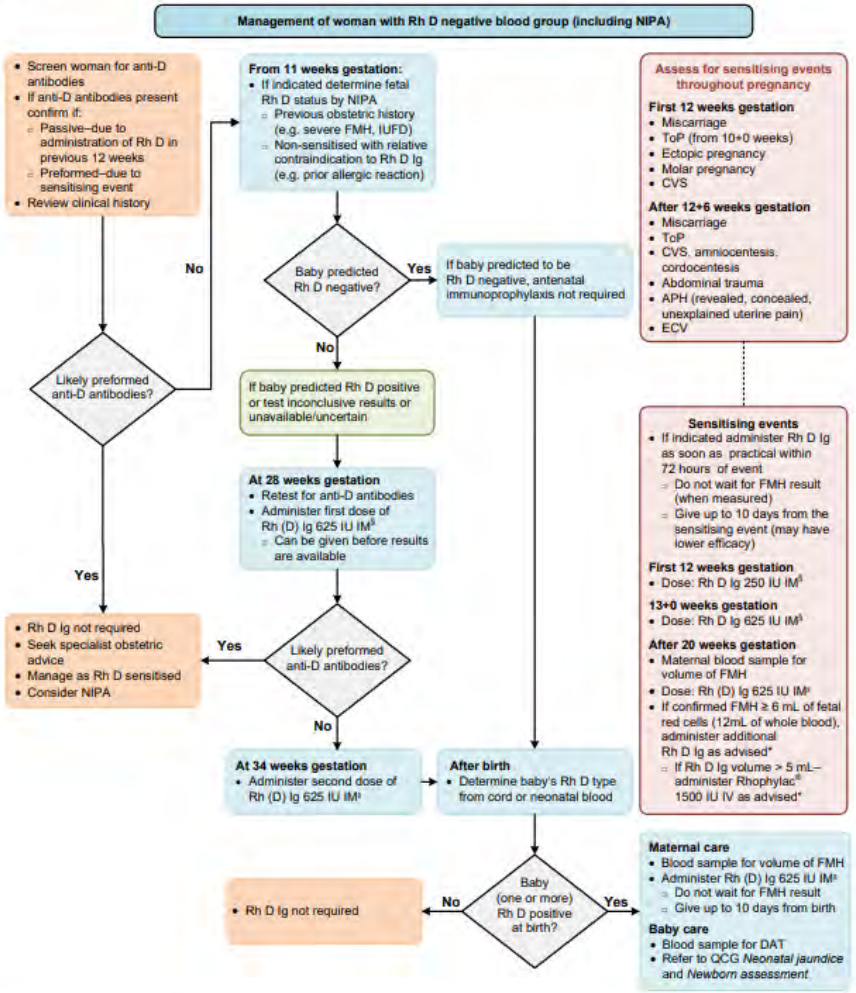
Rh D negative woman and pregnancy (including NIPA)



State of Queensland (Queensland Health) 2024. https://creativecommons.org/licenses/by-nc-nd/4.0/deed.en Queensland Clinical Guidelines. Guideline No: QCG-F23.74-2-V2-R28

*as advised by laboratory or specialist obstetrician/feto-maternal specialist
§ draw back on plunger of syringe before injection to ensure the needle is not in a blood vessel and administer by deep IM injection

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

Queensland Clinical Guideline. *Rh D negative women and pregnancy*. Flowchart: F23.74-2-V2-R28

[Queensland Clinical Guidelines | Queensland Health]

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**

Queensland Clinical Guidelines | Queensland Health
Non-Invasive Prenatal Analysis (NIPA) for RhD now available | Lifeblood

Fetal RHD Non-invasive prenatal test (NIPT)

- **MBS funded for Rh D negative women who are non-alloimmunised**
- **Gestational age for testing depends on the pathology provider**
  - **Sullivan Nicolaides from 11 weeks**
    - **Results within 4 weeks**
  - **Australian Red Cross Lifeblood from 15 weeks**
    - **Results within 10 working days**
- **False negative rate ~ 0.2%**
- **Patient has the option to continue with universal Anti-D administration irrespective of the result**
- **Requires medical practitioner to order the test**

Non-Invasive Prenatal Analysis (NIPA) for RhD now available | Lifeblood | NIPT for Fetal RHD Lifeblood Form
Sonic Genetics – Fetal Rhesus Screening | Sonic Genetics Request Form

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 ≥ 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 ≥ 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) Blood group:	☐ 28 weeks If *no*, reason:		Initials:
	Date given: ... / ... / ...	Batch number:	
	☐ 34–36 weeks If *no*, reason:		Initials:
	Date given: ... / ... / ...	Batch number:	
dTpa (diphtheria, tetanus and pertussis) vaccine *(recommended 20–32 weeks)*	☐ Discussed ☐ Declined	Gestation: weeks	Initials:
	Date given: ... / ... / ...	Batch number:	
COVID-19 vaccination	☐ Declined ☐ Yes ☐ Up-to-date	Date last given: ... / ... / ...	Initials:
Influenza vaccine *(recommended at any gestation)*	☐ Declined ☐ Yes ☐ 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.

Pregnancy Health Record

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**

Guideline for the prophylactic use of Rh D immunoglobulin in pregnancy care | National Blood Authority
Statements and guidelines directory - RANZCOG

Anti-D administration

- Order via QML blood bank
  - Complete the online order form
  - https://www.qml.com.au/clinicians/anti-d-immunoglobulin
  - Needs to be ordered in advance
  - Enquiries: 07 3146 5122

Anti-D administration

Request for Anti-D Immunoglobulin Injection

Please email completed form to QML Pathology Blood Bank on 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: _____

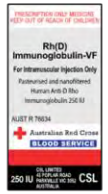
Stock

☐ Mini Dose Anti-D 250 IU
Quantity: _____

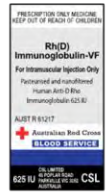
☐ Standard Dose Anti-D 625 IU
Quantity: _____

Email completed form to:
QML_BriBBLab@qml.com.au

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: _____

qml.com.au

qml pathology

Healius Pathology Pty Ltd (ABN 84 007 190 043) t/a QML Pathology PUB/MR/606_V6_May23

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**