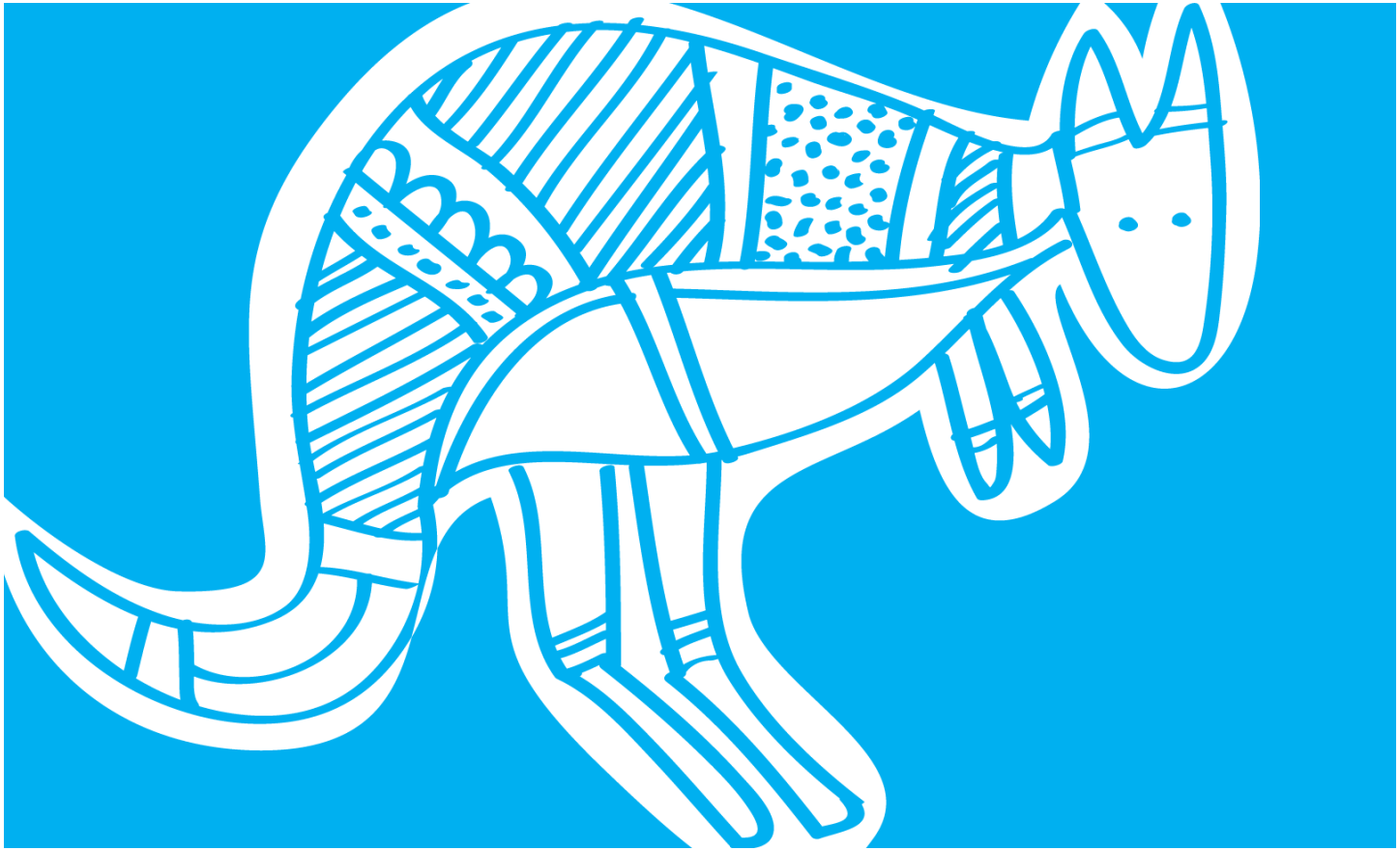
Mater Mothers' Alignment 1

August 10, 2019

Acknowledgement of Traditional Owners



Housekeeping

- Toilets
- Fire exits
- Phones on silent

Acknowledgments

- MMH
- Caroline Nicholson
- Anne Williamson, Nicola Graham, GPLM
- BSPHN
- Our sponsors
- GMSBML, SeaGP and BSDGP

Good morning and welcome

Time	Session	Who
8:30 am	Welcome, housekeeping, learning objectives	Dr Wendy Burton
8:40	Models of care, MGP Presentation	Nicola Graham
8:50	Case work: Task 1	GP groups
9:05	Present Task 1 Feedback/ discussion	Dr Paul Bretz Dr David McIntyre Dr Glenn Gardener
10:10	Gestational Diabetes Thyroid disease	Dr David McIntyre
10:30	Refuel	All
10:50	Obesity Presentation Managing overweight and obesity during pregnancy	Dr Paul Bretz Amy Allia
11:20	Antenatal testing for fetal anomalies	Dr Glenn Gardener
11:50	Recap	Dr Wendy Burton
12:00 12:30 pm	Lunch Tour of MMH	All Optional

Welcome back from lunch

Time	Session	Who
1:00	Physiotherapy in the Child Bearing Years	Kristen Ruhmann
1:20	Pharmacology and pregnancy – general principals	Dr Treasure McGuire
1:30	Case work: Task 2	GP groups
1:40	Case Presentations	Dr Julie Buchanan Dr Wendy Burton
3:00	Afternoon Tea	All
3:30	Introducing our MMH midwives:	Nicola Graham & Erin Hutley GPLM Jan Tyrrell Clinical Midwife

Welcome back—last session

Time	Session	Who
3:30	Communication in 2019	Dr Wendy Burton
3:50	Case Work: Task 3	All
4:00	Present task 3 PAC presentation Feedback/discussion	Dr Julie Buchanan
4:50	Summary	Dr Wendy Burton
5 pm	Close	All

Online resources

Mater Guideline
Mater Brochures
National pregnancy care guidelines
RANZCOG education resources
Queensland Clinical Guidelines
Australian Society of Infectious Diseases
GP Learning (RACGP)
Australasian Diabetes in Pregnancy Society
Brisbane South PHN Maternity Resources
Brisbane North PHN Maternity Resources
Maternity-Matters

Online mental health resources

Beyond Blue

Centre of Perinatal Excellence

Pregnancy, birth & baby

PANDA

Mind the bump

What Were We Thinking

Head to Health

The Marce Society

Goal

- Educate
- Update
- Equip
- Empower

To encourage

- Innovation
- Integration
- Communication

Learning objectives

Increase familiarity with:

- MMH MSC Guideline
- The lines of communication
- Specialized antenatal and postnatal services
- Antenatal screening recommendations
- Management of common antenatal presentations and complications
- Online resources

GP Maternity Shared Care Guideline

March 2019

mater mothers' hospital

mater.org.au

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GP Maternity Shared Care Guideline

This is a 52 page summary of the essential principles underlying GP maternity shared care.

Mater Models of care

Anne Williamson, RM

Mater Models of Care (MOC)

MMH has a number of specialised MOC.

Please assist appropriate triage by identifying risk factors such as:

- indigenous status
- refugee background
- social risk
- drug and alcohol use
- previous pregnancy loss

Women may choose to have GP share care but their booking appointments and assessment will occur in the specialist clinic

Antenatal Clinics, Models of Care

mater

OBSTETRIC

- Obstetrician
- Obstetric registrar
- Midwife
- MMH Monday to Friday

OBSTETRIC MEDICAL

- Midwife and Obstetrician
- Obstetric registrar
- Obstetric physician
- MMH Monday to Friday

GP SHARE CARE

- Midwife history
- Obstetrician/Obstetric registrar at booking appointment
- GP routine visits
- MMH at K36 midwife/obstetrician.Or midwife at Brookwater + obstetrician via telehealth

MIDWIVES CLINIC

- MMH and Inala Monday -Friday
- Coorparoo<21yrs Tuesday+ Wednesday
- Norman Park - Thursday
- Brookwater -Monday
- RPM (Risk Planning Midwife) for women with high psychosocial risk factors MMH Monday and Thursday.

REFUGEE CLINIC

- MMH Tuesday
- Midwife/Obstetrician
  - Obstetric physician
  - Social Worker

BIOC Birthing in Our Community

Midwifery Group Practice for Aboriginal and Torres Strait Islander women or women with partners who identify as ATSI.Midwives + Indigenous health workers Obstetrician/registrar at booking and when required

DIABETIC CLINIC

- MMH Tuesday
  - Obstetrician/Registrar
  - Endocrinologist
  - Diabetes Nurse Educator
  - Midwife
  - Dietician

PREGNANCY AFTER LOSS CLINIC

- MMH early review if last pregnancy IUFD, stillbirth or neonatal death
- **CHAMP**
- Recent or current drug and alcohol use.
- MMH Wednesday

MIDWIFERY GROUP PRACTICE

- Coorparoo +Stones Corner
- Inala + Acacia Ridge
- Coorparoo<21yo
- Refugee background Inala
- Telehealth consult with Obstetrician/ registrar at booking

Choosing your maternity care

Mater Mothers' Hospital acknowledges that pregnancy is an exciting time for you and your family, and offers several options for maternity care to meet your individual needs.

When your GP confirms your pregnancy, they will send a referral to Mater Mothers Hospital's Antenatal Clinic. We aim to process referrals within two weeks; however, this can take several weeks depending on how many weeks pregnant you are at the time of referral and whether or not you have any medical issues.

You will then receive a letter providing details of your first antenatal clinic appointment. At this initial appointment you can discuss your preferred option for maternity care with the midwife. Please continue to see your GP while waiting for your first appointment with us.

Often, due to demand, there can be delays to our processes. Please contact your GP if you have any concerns about your referral.

Your choice of care will be affected by:

- your wishes
- complications that arose in a previous pregnancy
- any medical conditions that you now have
- conditions that may arise in this pregnancy
- where you reside (Antenatal Clinic Catchment Guidelines).

Mater Mothers' Hospital provides the following choices for your maternity care:

- General Practitioner (GP) shared care
- public obstetric care
- midwifery care

Read more information about Mater Mothers' Hospital choices for maternity care.

General Practitioner (GP) shared care

If there are no complications with your pregnancy, your GP can provide your antenatal care from their practice. This is beneficial if your GP will be the main healthcarer for you and your family after your baby is born.

During your pregnancy your GP will be able to get to know you and your family. You will visit the hospital early in your pregnancy and again at 36 weeks. You will then continue care with your GP until the baby's due date. If your baby has not been born one week after this, you will return to the hospital.

Developing a birth plan
Shared Care GPs
Specialists

Visiting Hours

10 am to 1 pm
3 pm to 8 pm
Rest period 1 pm to 3 pm

Contact Details

Raymond Terrace,
South Brisbane QLD 4101

For general enquiries phone:
07 3163 1918

Location & Parking
Virtual Tours

mater

Models of care information

Quick Links

View other services offered by Mater Mothers' Hospital

Pregnancy—Midwifery Group Practice

Mater's Midwifery Group Practice (MGP) is designed to ensure that you receive dedicated, consistent care throughout your pregnancy, labour and birth, and during the early weeks after your baby is born. Your partnership with your 'named' midwife will mean that you will get to know each other very well, along with other MGP midwives

The program cares for women who are generally well, and have little risk of complications. If complications do arise, the midwives liaise with Mater Mothers' Hospital's obstetric team, so that you and your baby will receive the specialist care you need, while still being supported by your midwife.

Midwifery Group Practice brochure

How to book into the program

If you wish to participate in Mater's MGP you should be:

- planning to have a natural birth with no unnecessary interventions
- prepared to go home with your baby between four and six hours after birth, if you are both well
- considered healthy by your General Practitioner (GP).

Your GP will refer you to the Mater Mothers' Hospital Antenatal Clinic, noting that you would like to participate in the MGP Program.

Midwifery Group Practice (MGP)

- This is a midwifery led MOC that works in close collaboration with an obstetrician.
- All risk model, including women suitable for vaginal birth after caesar (VBAC)
- The RBWH has a MGP and also has the birth centre

Midwifery Group Practice

Suitable for women who are:

- Medicare eligible
- Living in catchment
- *Not* requiring an interpreter except….
  - Interpreters available at the Refugee MGP (Inala)
- Planning a vaginal birth

Women have an allocated midwife they can contact by mobile

The booking appointment is held at the woman's home

Antenatal appointments and education are conducted in a group setting

Midwifery Group Practice

- Care will continue with the allocated midwife or one of her colleagues during the birth and postnatally
- Women are usually discharged home on the day they give birth
- Young Mothers Group Practice (YMGP) is for women <21 especially those with complex social needs
- All women including MGP have obstetric input at their booking-in appointment (in person or via telehealth for community clinics)
- MGP midwives work in consultation with an obstetrician

This is a high-demand model of care so get the referrals in EARLY = as soon as the due date is known

Choice of model of care

- Information is available online for women regarding their options for antenatal care
- Please inform women of their options and indicate on the referral form which MOC they have chosen

When your GP confirms your pregnancy, they will send a referral to Mater Mothers Hospital's Antenatal Clinic. We aim to process referrals within two weeks; however, this can take several weeks depending on how many weeks pregnant you are at the time of referral and whether or not you have any medical issues.

You will then receive a letter providing details of your first antenatal clinic appointment. At this initial appointment you can discuss your preferred option for maternity care with the midwife. Please continue to see your GP while waiting for your first appointment with us.

Often, due to demand, there can be delays to our processes. Please contact your GP if you have any concerns about your referral.

Small Group Activity

Red Group – 24 year old, primiparous, uncomplicated

Yellow Group – 22 year old from Somalia, Hb 104, MCV low

Pink Group – 40 year old, history of macrosomic baby

Blue Group – 32 year old, BMI 40, on Levothyroxine, retinoblastoma

Green Group – 38 year old Torres Straight Islander, irregular cycles

Orange Group – 34 year old, unplanned pregnancy, Rh negative

Role of facilitator

Each group will have a facilitator

- To observe
- To assist GPs to stay on task
- To assist GPs to tease out the cases

These cases are deliberately short on detail.

Focus on the process not the particulars.

Consider, as GPs do, the probable outcome but also the possible, more risky ones.

Task 1

- You need a scribe and a presenter.
- You have 15 minutes!
- Good luck!

Red Group

Task 1 - 1st trimester pregnancy

Julie is a healthy 24 year old whose LNMP was 4 weeks ago and whose uHCG is positive. This is her first pregnancy, she has no private health insurance and she wants to know what comes next.

She has a 15 min appointment. Outline your approach.

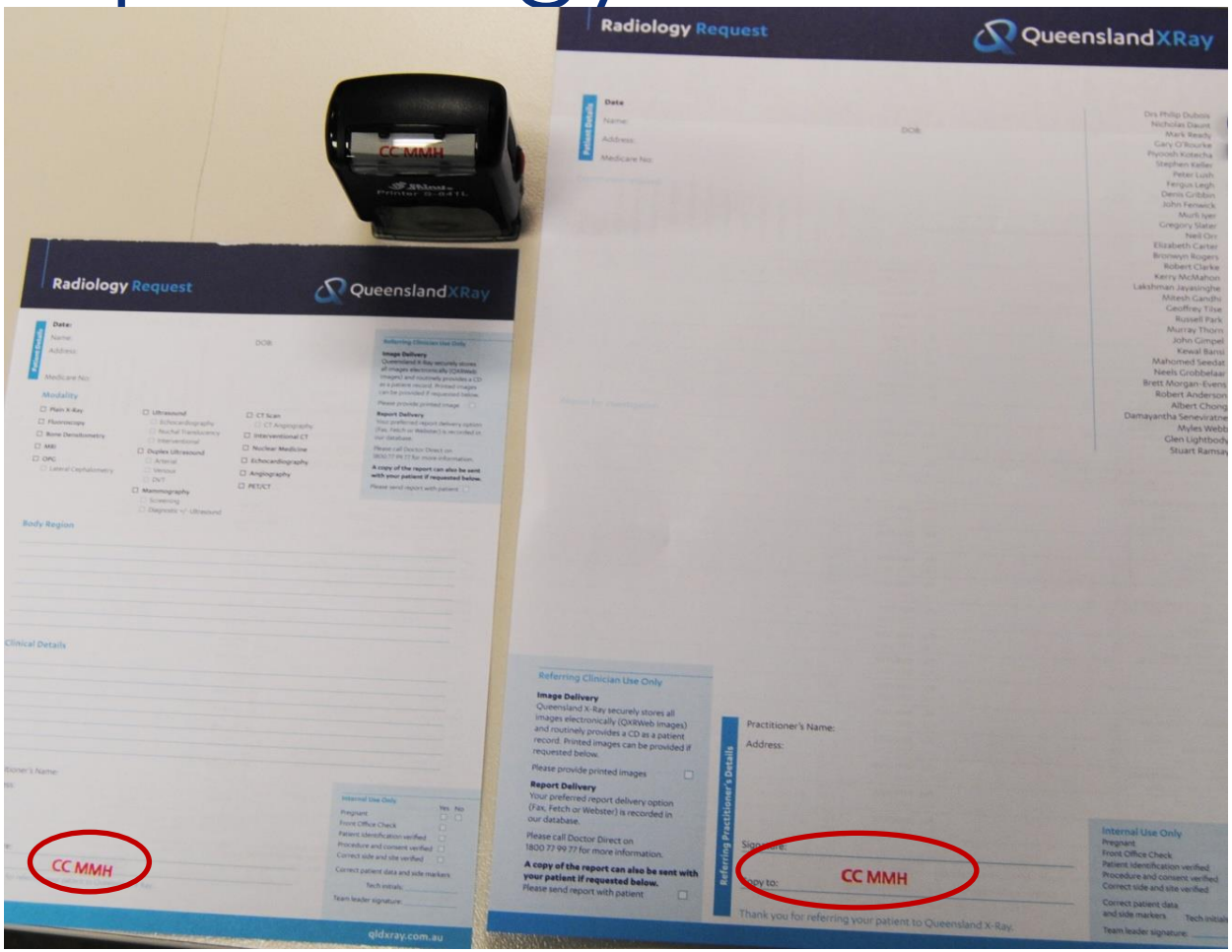
NHMRC Iodine recommendation 2010

- **All women who are pregnant, breastfeeding or considering pregnancy, take an iodine supplement of 150 micrograms (µg) each day**.
- Except women who are thyrotoxic, have Graves disease or a multinodular goitre!

Iodine supplementation

- Mandatory iodine and folate fortification of bread since 09
- This is not enough for pregnancy
- Pregnancy and Breastfeeding formulas contain Iodine
- I-Folic has 500 mcg of Folic Acid and 250 mcg of Iodine @ ~ $16-20 for 150 tablets

Please cc MMH ANC on all pathology and radiology



Specific STI testing

- National guidelines: test *all* women under the age of 25 for Chlamydia
- Statewide PHR: test all *high risk* women for syphilis at 26-28 and 34 weeks and post birth *as well as* with the first trimester bloods
- **Seven** congenital syphilis deaths since January 2011
- **15** congenital syphilis cases since the outbreak began, among about 2400 cases in total.
- **11** deaths in 10 years from Pertussis

Sixth infant dies from congenital syphilis amid outbreak in northern Queensland

By political reporter Dan Conifer

Updated 3 Mar 2018, 11:24am

A sixth infant has died from congenital syphilis amid a devastating outbreak of the disease in parts of remote Australia.

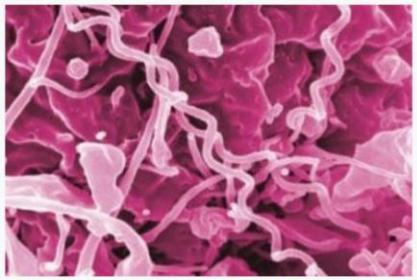


PHOTO: Treponema pallidum, the bacteria that cause syphilis, can cause miscarriages and stillbirths. (Flickr: NIAID)

The young children have all died in Queensland, where the spate of cases emerged in 2011.

Department of Health official Sharon Appleyard told Senate Estimates that six of 13 infants with reported cases of congenital syphilis had died.

The latest death occurred in northern Queensland in January.

The sexually transmitted infection can be passed from a mother to her baby during pregnancy.

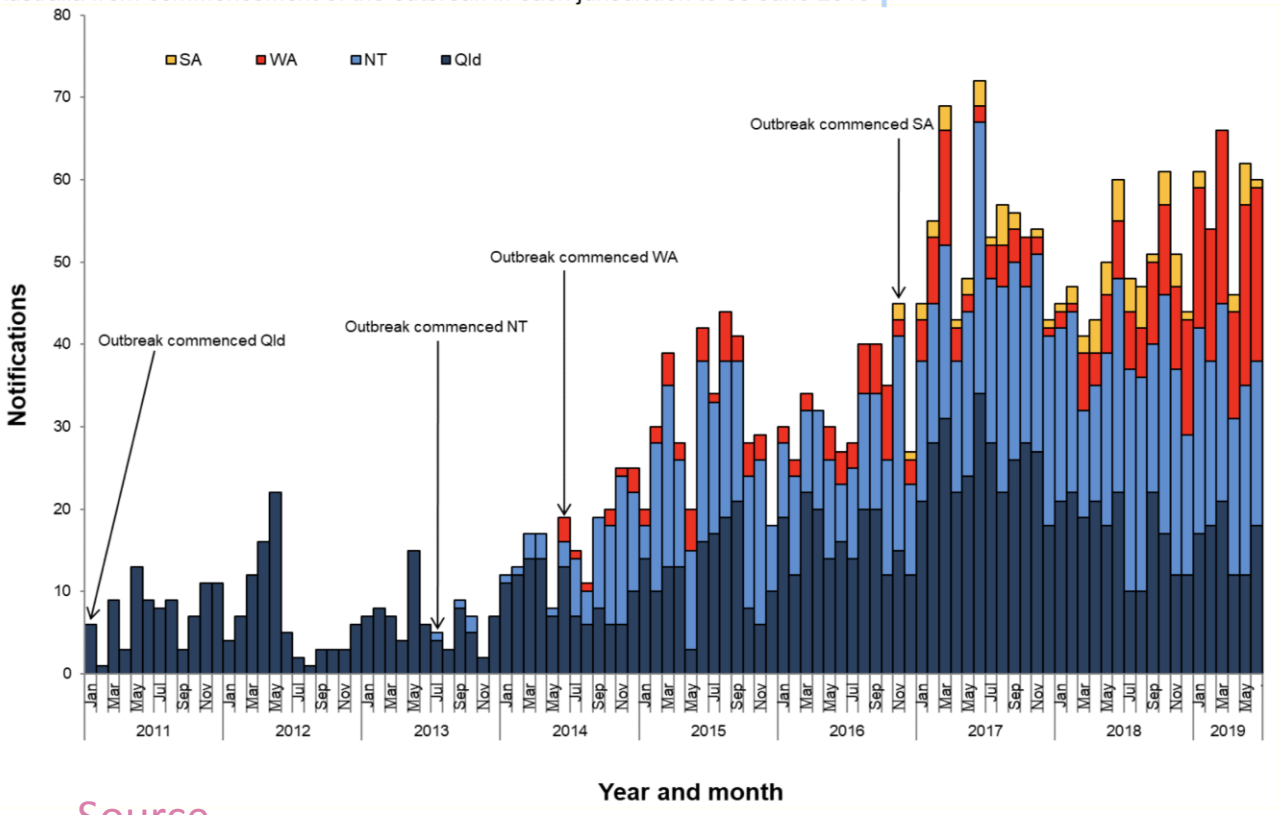
Congenital syphilis can cause miscarriages and stillbirths, or problems with a baby's brain, blood, eyes, and ears.

The bacterial outbreak is severely impacting Indigenous communities and has now spread to Western Australia, South Australia, and the Northern Territory.

The Commonwealth is coordinating a national response and has committed $8.8 million over three years for testing, treatment, and additional health workers.

Syphilis is back

Figure 1. Epidemic curve showing category 1 infectious syphilis [α] outbreak cases notified in Aboriginal and Torres Strait Islander people residing in affected regions[β] of Queensland, the Northern Territory, Western Australia and South Australia from commencement of the outbreak in each jurisdiction to 30 June 2019[δ,γ]



Source

Preconception/early pregnancy genetic testing

Prepair test (Victorian Clinical Genetics Service)

- CF/SMA/Fragile X
  cost = ~ $400 (no rebate)
  SNP/QML also offer
- Combined incidence similar to T21

Preconception screen

- Tests for 590 separate genetic conditions
- $750 per person or $1400 for a couple (no rebate)

PDF available for downloading at BSPHN Maternity-Matters or page 48 of the Mater Guideline

Pregnancy Checklist

- ☐ Decide on where and how you wish to have your child—do you wish to be looked after privately or publicly? Do you wish to be looked after by a midwife, general practitioner (GP) or obstetrician?
- ☐ Screening for depression during and after pregnancy is recommended for all women. Depression is a common, significant complication both during pregnancy and after baby is born. ☐ Do you feel safe at home and work?
- ☐ When was your last Cervical Screening Test or Pap Smear? It is recommended that it is up to date.
- ☐ The following tests are recommended: Full Blood Count; Blood Group and antibodies; Rubella immunity, Hepatitis B, Hepatitis C, HIV and Syphilis serology and a urine test for kidney disease and infections. If you have a high risk of diabetes, you are advised to have a first trimester glucose tolerance test or HbA1c.
- ☐ Chicken Pox, thyroid, chlamydia, iron stores or vitamin D levels may be recommended, depending upon your history.
- ☐ Supplements of folic acid and iodine are recommended.
- ☐ Reliable information on safe use of drugs and alcohol, diet, exercise and lifestyle activities in pregnancy can be found on www.matermothers.org.au/journey www.pregnancybirthbaby.org.au www.raisingchildren.net.au/pregnancy
- ☐ Smoking during pregnancy is associated with significant health problems and if you are a smoker, we would like to work with you to help you to stop during this pregnancy. www.quitnow.gov.au
- ☐ It is recommended that alcohol be stopped as it is known to cause problems for you and/or your baby. If you are having difficulty stopping, we would like to work with you to help you to stop drinking alcohol.
- ☐ It is recommended that you have a free* influenza vaccine from your GP as soon as they are available. They can be safely given at any time in your pregnancy.
- ☐ If you are not sure when you fell pregnant, a scan is recommended to confirm how many weeks pregnant you are.
- ☐ There is a blood test (B HCG and PAPPA-A) and an ultrasound test (the Nuchal translucency scan) that can be done between 11 and 13 weeks of pregnancy. This test assists to determine your chance of having a child with genetic conditions including Down Syndrome, as well as confirming how many weeks pregnant you are and baby's anatomy.
- ☐ The noninvasive prenatal test (NIPT, cost ~ $400) gives information about a limited range of chromosomal abnormalities, including Down Syndrome and there are tests for chromosomal conditions including cystic fibrosis, spinal muscular atrophy and fragile X syndrome (~$400 for these 3 tests). These blood tests do not have any Medicare funding.
- ☐ An ultrasound test, the morphology scan, is recommended and usually done between 18 and 20 weeks of pregnancy to check on the position of the placenta, anatomy and development of the baby.
- ☐ It is recommended that you have a visit with your midwife or doctor to follow up the results of any blood tests or ultrasound scans as soon as practical after the test. Don't just assume everything is OK if you have not been contacted.
- ☐ If you have a Rhesus negative blood group, it is recommended that you have an injection, commonly called AntiD, if you have vaginal bleeding during pregnancy and routinely at 28 and 34 weeks. If you have any vaginal bleeding, it's very important that you let us know as soon as possible. Most Rh-negative women who bleed in pregnancy will require an injection within 72 hours of the bleeding starting. This significantly reduces the risk of you developing antibodies which could harm your baby.
- ☐ It is recommended that you have a free* whooping cough booster from 20 weeks' gestation in each and every pregnancy, even if the pregnancies are less than two years apart.
- ☐ At 26-28 weeks of pregnancy, your blood count and blood group antibodies are checked again and a glucose tolerance test is recommended, unless it is already known that you have diabetes.
- ☐ Visits are generally recommended every four weeks from week 12 until 28 weeks, every three weeks until 34 weeks and every two weeks until 40 weeks, with follow up at 41 weeks if you have not yet had your baby. If you have special needs or other health concerns, you may be asked to come in more often or you can choose to be seen more often.
- ☐ A blood test for anaemia is recommended at 36 weeks of pregnancy.
- ☐ If you choose to have Shared Antenatal Care with your GP, you will usually be seen at the hospital for a booking in appointment at 16-20 weeks (earlier if you are at higher risk) and 36 weeks.
- ☐ How do you plan to feed your baby?

**There may be a fee to see your GP*

Dr Wendy Burton

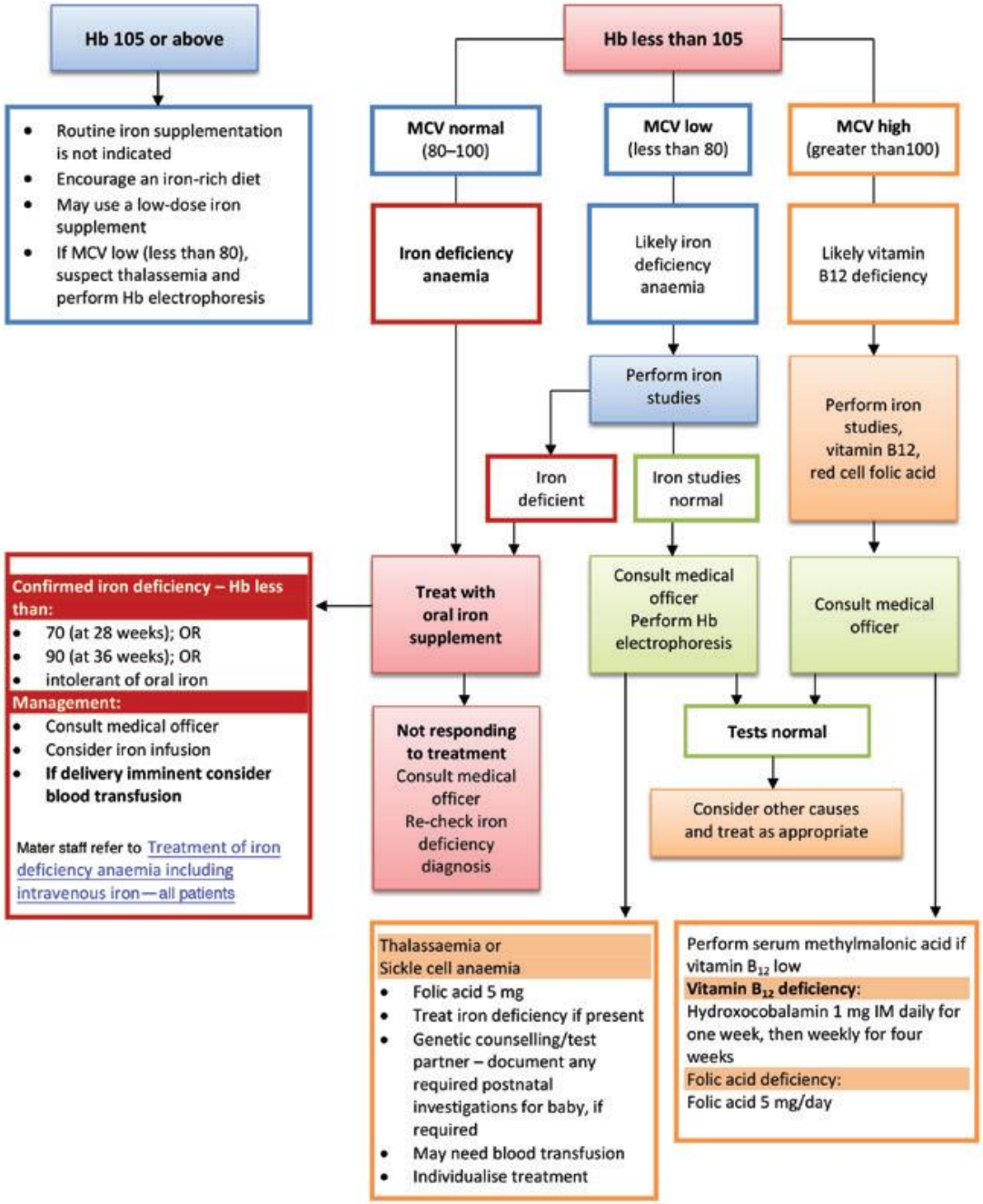
May 2019

Yellow Group
Task 1 - 1st trimester pregnancy

Amina is a 22 year old from Somalia who wears the hijab and has lived in Brisbane for a year. Her LNMP was 5 weeks ago, her uHCG is positive and she wants to know what to do next.

A FBC from last year shows a Hb of 104 and a low MCV.

- She has a 15 min appointment. Outline your approach.



Management of anaemia in pregnancy flowchart

Source: page 29, Mater Shared Care Guideline

Communicating the Concept of Antenatal Care

- Be **culturally sensitive**
- An on-site interpreter is preferred
- **TIS Ph. 13 14 50**
- Explain our MOC
- **Communicate clearly**
- Traditional beliefs?
- Refugees usually have full Medicare access
- Asylum Seekers generally have limited health and financial support. Asylum seekers can access free care via the Mater Refugee Complex Care Clinic. Think about the price of medication as they can't access the PBS

Assessment of Specific Risk Factors:

Obstetric History

- Multiple spontaneous or elective abortions
- Previous stillbirth
- Female Genital Cutting (FGM)
- Multigravida
- Short spacing intervals between pregnancies
- Cephalopelvic disproportion (higher incidence in women from Africa)
- Neonatal death

Assessment of Specific Risk Factors

Diseases

- Vitamin D Deficiency (dark-skin, Hijab)
- Anaemia: Thalassaemia, sickle-cell
- Pelvic infections (previous sexual assault, FGM)
- Recurrent UTIs (FGM)

Infectious Diseases:

- Latent TB
- Hepatitis B &C
- HIV
- Parasites (eg. Schistosomiasis)
- Rubella

Ethnicities at increased risk of thalassaemia or sickle cell anaemia

- Middle Eastern
- Southern European
- Indian subcontinent
- Central and Southeast Asian
- African

Mater brochures

mater mothers' hospital

Patient information

You are here: Home > Mater Mothers' Hospital > Pregnancy—refugee maternity service

Quick Links

- Eligibility
- Who can refer
- How to refer
- Urgent referrals
- Complex pregnancies
- Contact details

View other services offered by

Mater Mothers' Hospital

Pregnancy—refugee maternity service

The Refugee Maternity Service is based on a best practice model to support appropriate health care, psycho-social support and resources for women of a refugee background birthing at Mater Mothers' Hospital.

The Refugee Maternity Service provides:

- continuity of care as well as continuity of carer
- female carers within the antenatal period
- continuity of interpreters
- care suited to the unique needs of the individuals and their families
- education of staff to ensure cultural sensitivity for refugee women birthing at Mater Mothers' Hospitals.

The Refugee Maternity Clinic is staffed by a dedicated multidisciplinary team including obstetricians, midwives, interpreters and a social worker, who will provide continuity of care. This approach will also facilitate the development of social support networks for these women and their families.

Eligibility

Any woman who has experience as a refugee is eligible for care within the Mater Mothers' Hospital Refugee Maternity Service. This includes permanent residency status as well as current asylum seekers. We also accept women on a spousal visa who are married to a person of refugee experience or who have had refugee experience themselves.

Who can refer

Although any health professional can refer a woman to our service, we prefer that a referral comes from the women's family doctor through Mater Mothers' Hospitals' antenatal clinic.

In this way, the family also becomes aware of who their family doctor is and begins their relationship with them.

Refugee maternity service

Vitamin D

Routine supplementation not recommended

Test or simply supplement high risk women

- veiled women
- dark skinned women
- obese women
- those who use sunscreen regularly
- those who get little sunlight exposure

National Guideline

Recommendation

Evidence-based | 53

Do not routinely recommend testing for vitamin D status to pregnant women in the absence of a specific indication.

Approved by NHMRC in October 2017; expires October 2022

Recommendation

Consensus-based | XLVII

If testing is performed, only recommend vitamin D supplementation for women with vitamin D levels lower than 50 nmol/L.

Approved by NHMRC in October 2017; expires October 2022

Medicare changes to Vitamin D billing

January 27, 2015

Mater Pathology provides one of very few mass spectrometry Vitamin D assays in Australia. Vitamin D measurement by mass spectrometry is widely acknowledged to be superior to immunoassay, especially in patients with low Vitamin D levels[i].

In November 2014, Medicare introduced changes to the Medicare Billing Schedule for Vitamin D testing, restricting funding for Vitamin D measurement to patients who fulfil Medicare's eligibility criteria.

Due to this restriction, pathology laboratories can now only bulk bill patients who are eligible to be funded.

To ensure Mater Pathology is able to bulk-bill appropriate requests for Vitamin D, it is important to note eligibility criteria clearly in the clinical notes on the request form.

Suggested notes include:

- Lack of sun
- Deeply pigmented
- Malabsorption
- CRF or Renal transplant
- Hypercalcaemia, hypocalcaemia, hypophosphataemia or hyperparathyroidism
- Osteoporosis or osteomalacia
- Anticonvulsant treatment
- Infant of mother with Vit D deficiency
- If one of these simple notes is on the request form the laboratory can bulk bill the patient.

From 1 February 2015, patients who are not eligible for Medicare-funded Vitamin D measurement will be sent a bill from the laboratory for the Medicare Schedule Fee for the test, currently $30.

For more information on Mater Pathology's billing policies, visit our Accounts and Billing page or telephone 07 3163 8500.

What to do with these recommendations?

RANZCOG statement

Pregnant women with Vitamin D level below 50nmol/L

- levels 30–49 nmol/L, commence 1,000 IU/day
- levels < 30 nmol/L, commence 2,000 IU /day
- Repeat the Vitamin D level at 28 weeks gestation.

Pregnant women with Vitamin D level above 50nmol/L

- These women should take 400 iu Vitamin D daily as part of a pregnancy multivitamin

2012 MJA Position statement on Vit D

- 3000-5000 IU per day for at least 6-12 weeks is required to treat moderate to severe deficiency for most people. Check levels after 3 months, with ongoing treatment with 1000-2000 IU per day and adequate calcium intake.

Vit D comes in a 7 000 IU formulation, for once weekly use

RANZCOG education resources

RANZCOG has a wealth of resources freely available online

Pink Group
Task 1 - 1st trimester pregnancy

Carol, a healthy 40 year old presents with a positive pregnancy test. Her first child, now 23 years old was born naturally at term weighing 10lb7oz (4734g). Her BMI is 24, her blood tests from 2 years ago were all normal and her family are all well and healthy. She would like to have an ultrasound scan, "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.

US/S costs—clinics compared

Accurate as of May 2019—not an exhaustive list, not Mater endorsed!

Practice	NTS *($60 rebate)*	Morphology *($85 rebate)*
City Scan	$220 Scans under 16 weeks, other than NTS $120.50 ($51 rebate)	$180 (HCC rebate at Acacia Ridge, BB viability, dating and follow up scans if HCC)
Exact Radiology	$180 (available at Sunnybank, Inala, Chapel Hill, Ipswich Riverlink and Underwood)*	$175 Follow up scan post morphology $145 (rebate $85)
Oz Radiology	$200 (Morningside and Carina)*	$180*
Qld Xray	$235 Women's Diagnostic $220 at Wynnum, Cleveland. Under 12 weeks $171 ($51 rebate)	$230/$220 BB viability, dating and single follow up scan if HCC
Qscan	$220	$245 ($161 - rebate $51 for all other pregnancy scans, even HCC)
QDI	$200 not available at all sites (book well in advance, prefer 12 weeks)	$170* (20-22 weeks)
So + Gi (4D)	$355 ($571 for NIPT + dating scan, $60 rebate, $865 NIPT + NTS rebate $102)	$355 ($90-$100 rebate)

viability, dating scans and a single third trimester/follow up scans BB

Eligibility

MEDICARE REQUIREMENTS

General Practitioners are limited to one pregnancy ultrasound request for services performed from 17 to 22 weeks and one request for scans performed on patients over 22 weeks gestation. To attract a Medicare rebate any additional scans required must be referred by a Member or Fellow of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists or Medical Practitioners who have a Diploma of Obstetrics.

If ordered by a GP, a Medicare rebate is payable for an ultrasound of the pelvis related to pregnancy or a complication thereof, for a gestational age of less than 16 weeks (as determined by ultrasound), so long as one or more of the following conditions is present and noted on the referral:

Eligibility list

1. THE PATIENT IS REFERRED BY A MEDICAL PRACTITIONER OR MIDWIFE, AND
2. ONE OR MORE OF THE FOLLOWING CONDITIONS ARE PRESENT:

- Hyperemesis gravidarum
- Risk of fetal abnormality
- Previous post dates delivery
- Abdominal wall scarring
- Inflammatory bowel disease
- Advanced maternal age
- Toxaemia of pregnancy
- Significant maternal obesity
- Previous caesarean section
- Suspicion of ectopic pregnancy
- Previous spinal or pelvic trauma or disease
- Pregnancy after assisted reproduction
- Suspected or known uterine abnormality
- Suspected or known cervical incompetence
- Diabetes mellitus
- Hypertension
- Autoimmune disease
- Alloimmunisation
- Maternal infection
- Bowel stoma
- Drug dependency
- Thrombophilia
- Abdominal pain or mass
- Liver or renal disease
- Poor obstetric history
- Risk of miscarriage
- High risk pregnancy
- Uncertain dates
- Cardiac disease

NTS/first trimester US/S rebate list

Lots of clinical indications including

- Maternal age > 35
- Risk of miscarriage
- **Risk of fetal abnormality**
- Uncertain dates
- Previous LSCS
- Pregnancy after assisted reproduction

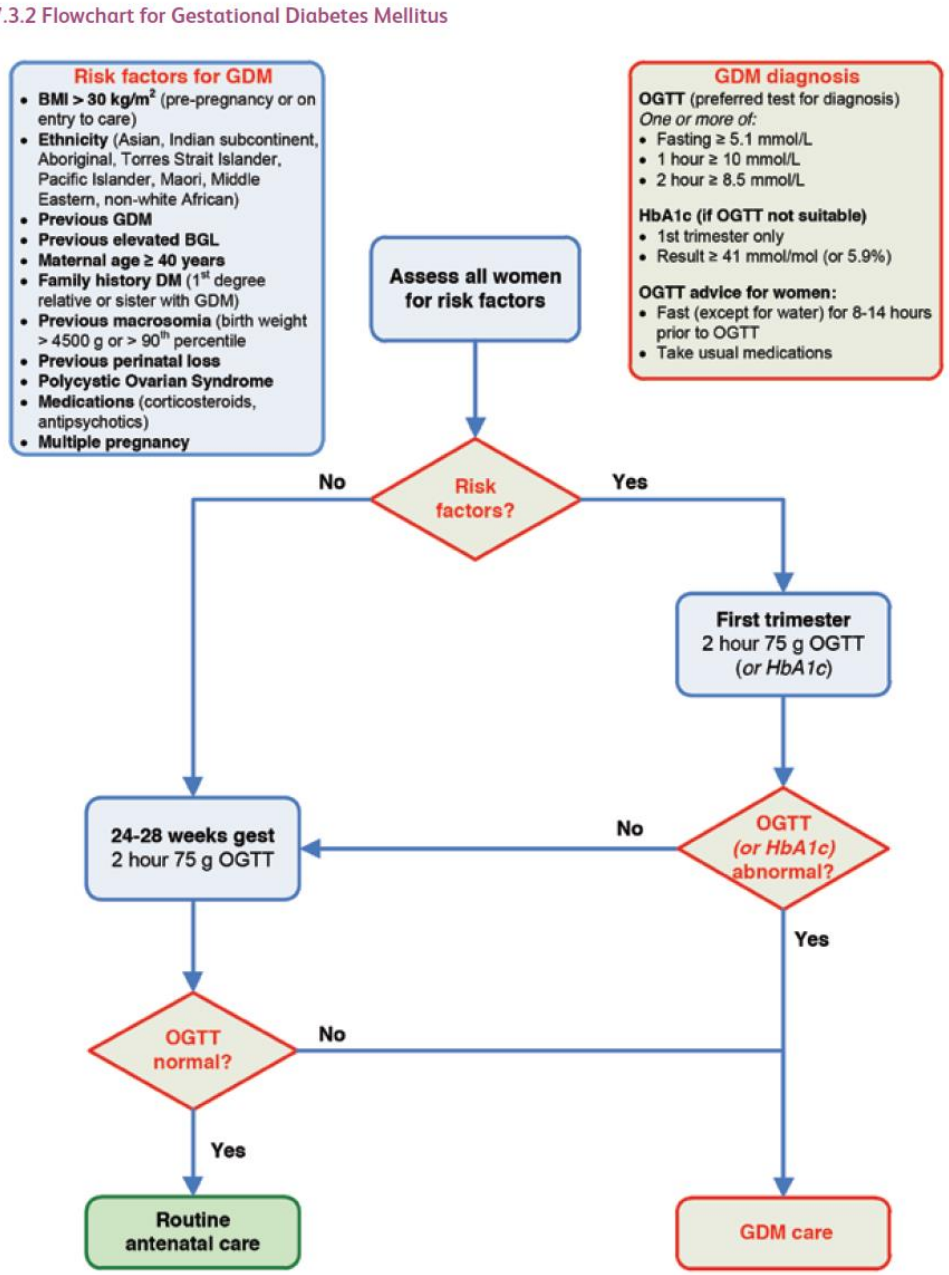
Testing for Diabetes during Pregnancy

- First trimester HbA1c (or early OGTT if k>12) for women at high risk of GDM
- **No** random or fasting BSLs
- **No** glucose challenge testing
- Routine OGTT (24 – 28 weeks) for all women not previously noted as abnormal (HbA1c NOT suitable)
- OGTT diagnostic criteria changed in 2015

HbA1c

- HbA1c can be used as a diagnostic test for diabetes in *first trimester*
- HbA1c of **≥5.9%** (41mmol/mol) required for a diagnosis of GDM
- **>6.5%** (48mmol/mol) to diagnose type 2 diabetes
- This DOES NOT replace the GTT for women after first trimester, or in the 6-8 weeks postpartum
- HbA1c can be used for long term follow up of women with a past history of GDM, for early pregnancy or preconception testing in a high risk woman.

Qld Clinical Guidelines GDM Flowchart (page 41 MMH MSC Guideline)



Queensland Clinical Guideline: Gestational diabetes mellitus. Guideline No: MN15.33-V1-R20

Medical conditions in pregnancy

But what if…

Carol presents for her regular visit at 28 weeks

Her OGTT is positive

Gestational Diabetes

Professor David McIntyre MB BS FRACP MD

Director of Obstetric Medicine
Head of Mater Clinical School
Mater Health Services | University of Queensland
Head of Mothers and Babies Research Theme
Mater Medical Research Institute

Gestational Diabetes Mellitus

- **Notify** GPLM or ANC ***ASAP*** once a diagnosis is made
- Women with gestational diabetes currently require obstetric care in the antenatal clinic
- Appointments will be scheduled within 1-2 weeks with a Diabetes Nurse Educator and a dietitian
- BGL monitoring and dietary control is commenced
- Endocrinologists work within the antenatal clinic team so a separate referral is not required
- The main treatment is diet and BGL monitoring
- Medication, including metformin or insulin, may be required

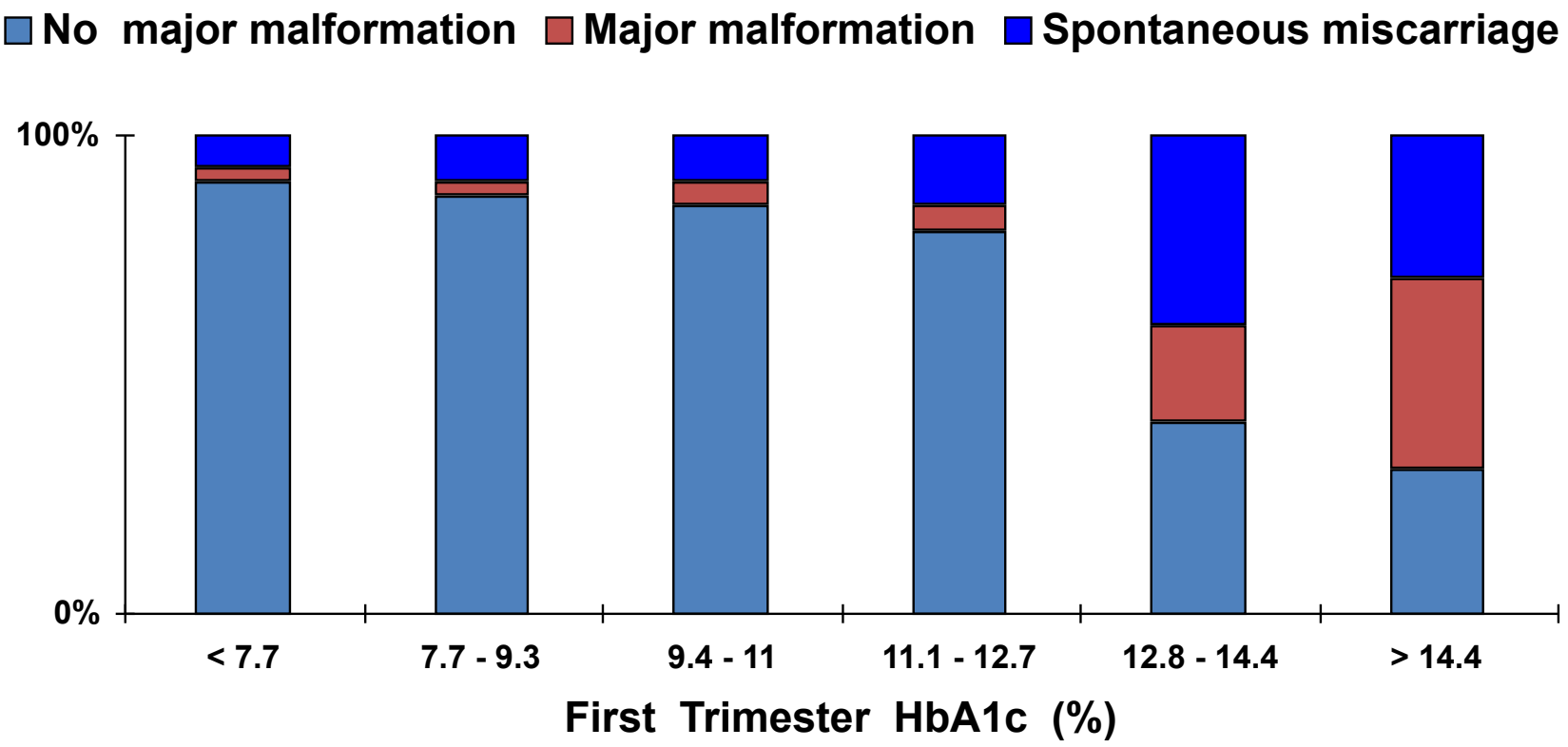
Testing for Diabetes in Pregnancy

There are two main issues:

1. Does a woman have undiagnosed diabetes? Test high risk women preconception or first trimester e.g. BMI > 35, past history of gestational diabetes (GDM), PCOS or macrosomic baby
2. Does a woman have GDM?

Why Bother testing?
Pre-gestational Diabetes

Fetal / Neonatal Considerations Greene MF et al Teratology 1989: 39; 224-231
Major Malformations / Spontaneous miscarriage



Potential Adverse Pregnancy Outcomes

Maternal

- Trauma – related to macrosomia
- Increased caesarean section rate
- Preterm delivery
- Pre-eclampsia
- Polyhydramnios

Potential Adverse Pregnancy Outcomes

Fetal

- Congenital Malformations
- Miscarriage
- Macrosomia (birth weight > 4500g)
- Shoulder dystocia
- Preterm birth
- Respiratory distress
- Hypoglycaemia of neonate
- Polycythemia
- Hyperbilirubinemia
- Cardiomyopathy

Gestational Diabetes Mellitus

Tight sugar control is recommended;

- fasting BSLs of < 5.0
- 1 hour post prandial of < 8.0
- 2 hour post prandial of < 7.0

Gestational Diabetes Mellitus

Women with GDM have a very high risk of developing Type 2 DM in the next 10 years, hence

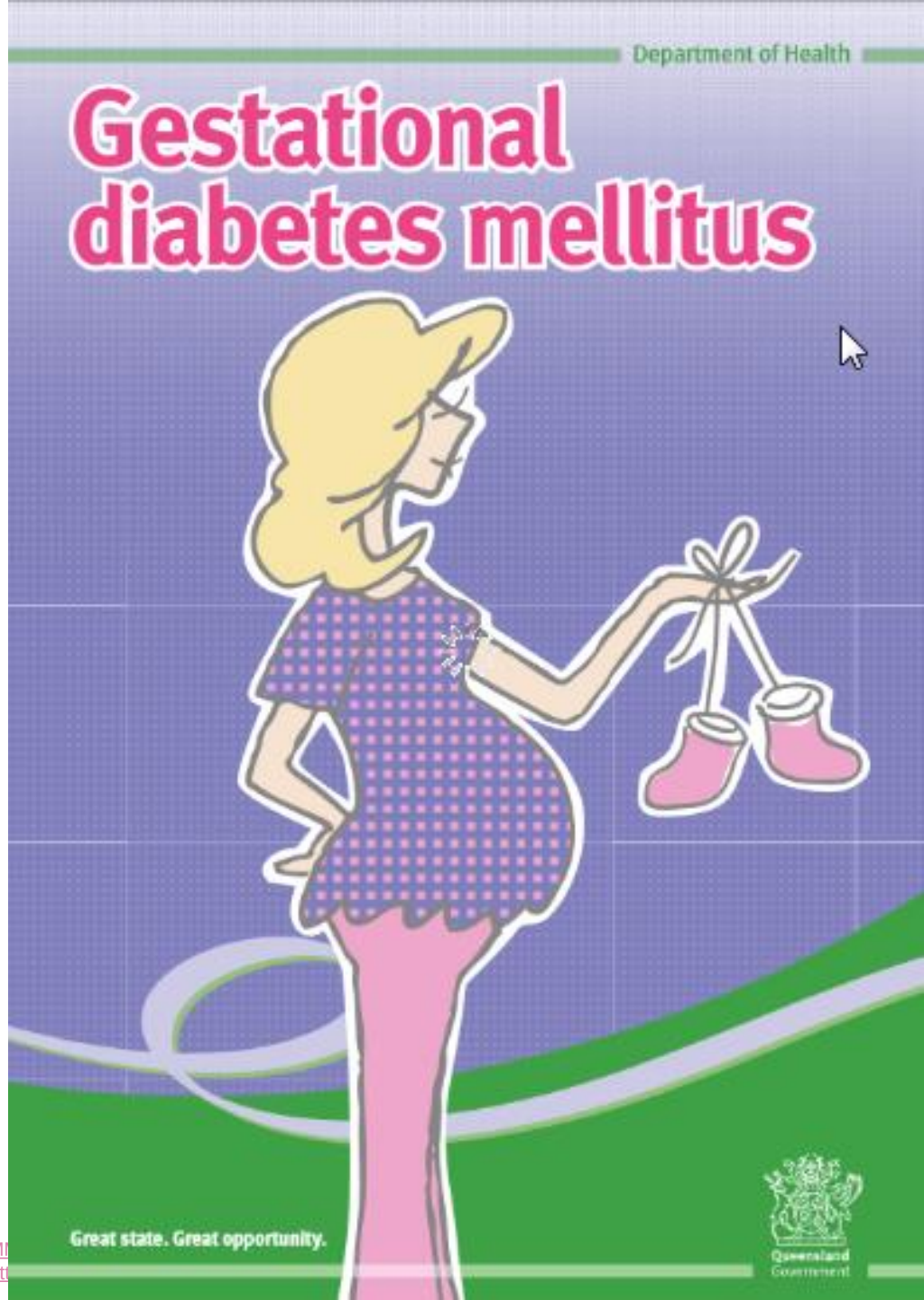
- OGTT 6-12/52 postpartum
- HbA1c every 1-3 years
- Repeat HbA1c prior to or early in next pregnancy
- Follow up other risk factors for macrovascular disease

Education Resources

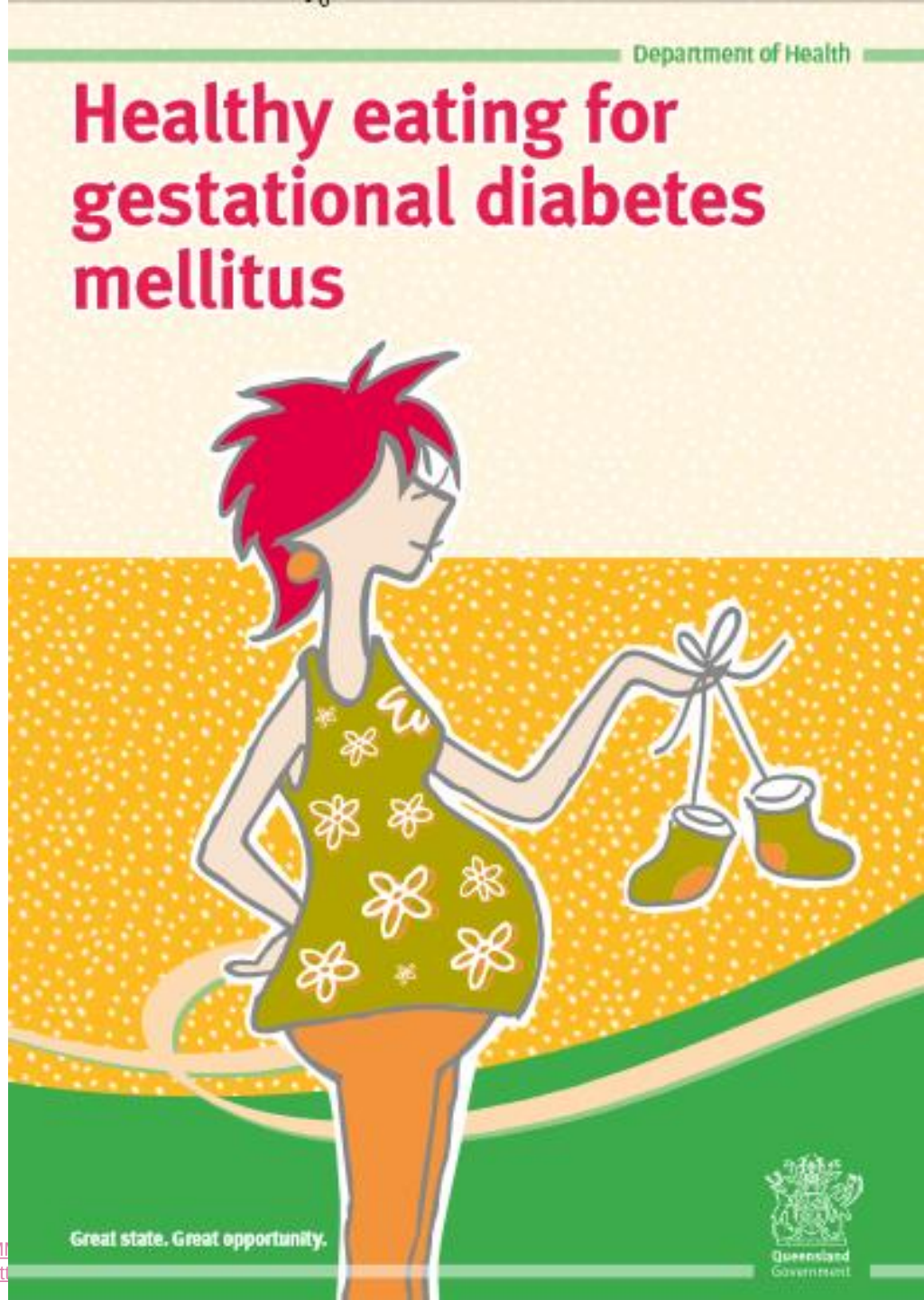
Booklets /Pamphlets
Demonstrations (e.g. food models, glucometer)
Useful websites

- Diabetes Australia
- Australian Diabetes Educators Association
- Australasian Diabetes in Pregnancy Society
- Queensland Clinical Guidelines Videoconference

[QHealth GDM booklet]



[QHealth Healthy Eating booklet]



To find, go to ‘Your Journey’ on the Mater Mothers page or Google ‘nine months of nutrition’ and ‘GDM’

Nine months of nutrition: An introduction to gestational diabetes

If you have recently been diagnosed with gestational diabetes, also known as GDM, you probably have a lot of questions.

This short video by Mater Mothers' dietitians will step you through the most up-to-date information about diet and GDM before you see the dietitian and diabetes educator.

Digital preconception tool

- Mater are working on the development of a digital preconception tool for women with diabetes.
- Testing has begun on a platform which collates patient data and generates a digital referral. Treatment guidelines, graphic representation for patients and alerts for clinicians are included. The aim of this "platform" will be to provide GPs with tools to prepare/track and refer patients, digitally, for specialist review.
- The initial beta testing will occur in the Mater preconception clinic
- If you are interested in doing some beta testing (with dummy or de-identified data) from the referrers perspective, please contact Dr Jo Laurie on Josephine.Laurie@mater.org.au There would some remuneration for your time.
- The eventual aim is to pair the Auxita system with our electronic medical records to allow automated population of data fields.

Blue Group
Task 1 - 1st trimester pregnancy

Anna is a generally healthy 32 year old with a BMI of 40 who is very pleased as her period is overdue and her home pregnancy test is positive! She has been stable on 100 mcg of thyroxine o.d. for several years and is taking no other medication. Her medical history is otherwise unremarkable, except for a personal history of retinoblastoma.

She has a 15 min appointment. Outline your approach.

Why is thyroid disease important?

Hyperthyroidism

Fetal / neonatal hyperthyroidism

Increased perinatal mortality

Pulmonary Hypertension (uncontrolled)

Preeclampsia

Miscarriage

Premature labour

Placental abruption

Infection

Hypothyroidism

Infertility

Risk miscarriage

Reduced IQ children

Increased risk of hypertensive disorders of pregnancy

Placental abruption

Preterm delivery

Perinatal morbidity and mortality

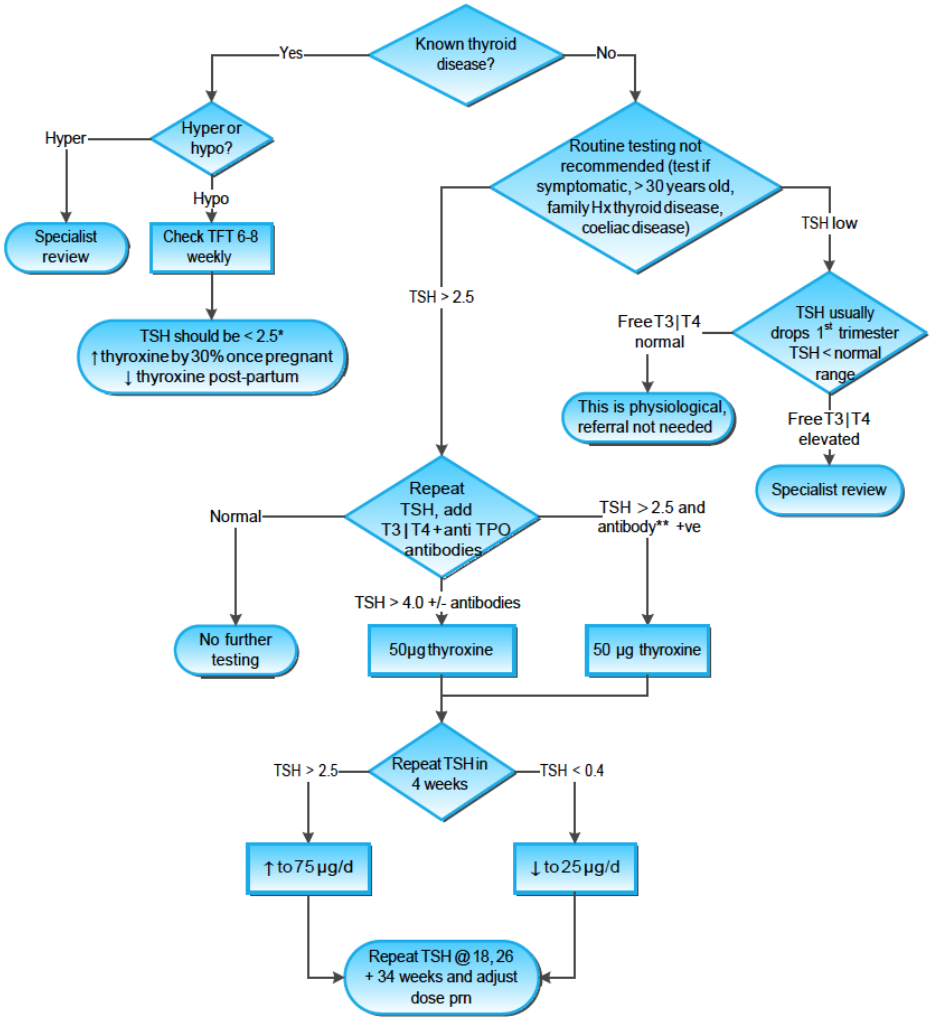
PPH

Hypothyroidism

- Overt hypothyroidism – increase thyroxine dose by 30% at conception. TSH >10? Commence thyroxine & refer urgently
- Measure TSH at first visit; 6/52 later; then end 2nd and 3rd trimester if normal
- Reduce back to preconception dose postpartum
- Aiming for TSH < 2.5 first trimester, < 3 second trimester, < 3.5 third trimester
- 24 % of Australian women are positive for thyroid antibodies
- Studies regarding treatment of euthyroid anti-TPO antibody women with thyroxine are inconclusive with respect to reduction in miscarriage and adverse pregnancy outcomes – so don't routinely test!

PDF available for downloading at BSPHN or page 28 of the Mater Guideline

Thyroid Management in Pregnancy



** If TSH >10 and/or Free T4 below the pregnancy reference range, arrange urgent referral to specialist in addition to commencing/ increasing thyroxine*

***Anti-thyroid peroxidase antibodies*

The NHMRC recommends that all women who are pregnant, breastfeeding or considering pregnancy, take an iodine supplement of 150 micrograms each day (available in most pregnancy multivitamins or in combination with folate) V20171205

Thyroid tips

- *Don't ro* … risk women!
- Most co … nester is hCG n … en
- Occasic … ed
- Differen … e TSH recepto … Doppler
- Don't tre …

RANZCOG …

News > Medscape Medical News

Debate Continues Over Universal Thyroid Screening in Pregnancy

Kristin Jenkins

November 06, 2018

3 Read Comments

Add to Email Alerts

Although universal thyroid screening in early pregnancy holds promise for improving fetal and maternal outcomes, achieving consensus on its merits is unlikely without more controlled trials to address "areas of uncertainty," experts say.

Results from a literature review on the risks and benefits of universal thyroid screening during pregnancy confirm that there is a lack of high-quality evidence for screening and management of asymptomatic borderline abnormalities that make up the bulk of thyroid dysfunction cases seen in pregnancy.

"A universal screening strategy is likely to predominantly identify women with subclinical thyroid disease for whom the benefits of systematic screening and correction remain controversial," write Peter N. Taylor, MBChB, of the Thyroid Research Group, Systems Immunity Research Institute, Cardiff University School of Medicine, Wales, United Kingdom, and colleagues.

Their findings were published online on October 25 in *Frontiers in Endocrinology.*

Hyperthyroidism

- Graves most common cause throughout pregnancy
- Rx with propylthiouracil 1st trimester; carbimazole 2nd and 3rd trimester
- ~ 60 % women able to have medications weaned by end 2nd trimester – need to watch for postpartum flare
- Check TFTs every 4-6 weeks
- TSH receptor antibody titre predicts risk fetal / neonatal thyrotoxicosis
- Our Obstetric Medicine colleagues will sort this out!

Obesity in pregnancy

For women with a BMI > 30

- Routine scheduled bloods are recommended ***plus* E/LFT, HbA1c** (or early OGTT if k>12), **and urine protein/creatinine ratio.**
- Advise women to take **5 mg of Folate** daily preconception and in the first trimester as they have a higher risk of impaired glucose tolerance.
- **Advise the hospital of the woman's BMI** so they can organise appropriate internal referrals, such as referral to an anaesthetist; consider her suitability for a modified model of care.
- **U/A with each visit**
- If the first trimester diabetes testing is negative, an OGTT is to be performed at 26-28 weeks

Obesity in pregnancy

- It is recommended that all women are weighed each visit
- Advise women of their target weight gain (see page 6 PHR) or use the MMH weight tracker

Target Weight Gains

*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 page b2).
Refer to Queensland Clinical Guideline: *Obesity in pregnancy* for further information.

Pre-pregnancy BMI (kg/m^2)	Rate of gain 2nd and 3rd trimester (kg/week)*	Recommended total gain range (kg)
Less than 18.5	0.45	12.5 to 18
18.5 to 24.9	0.45	11.5 to 16
25.0 to 29.9	0.28	7 to 11.5
≥30.0	0.22	5 to 9

Obesity guidelines

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

Queensland Clinical Guidelines

Translating evidence into best clinical practice

Maternity and Neonatal **Clinical Guideline**

Obesity in pregnancy

Retinoblastoma

- 40% of cases have a germinal defect in their faulty RB1 gene
- Potential for autosomal dominant inheritance pattern
- 2/3 are unilateral, 1/3 bilateral
- If diagnosed early, they are often treatable
- When germinal, often associated with other cancers
- These families need genetic counselling and close follow up

Good history + good handover (both ways) = better outcomes

So MMH expects GPs to be geneticists?

- No!
- The point of the retinoblastoma history is to encourage all of the maternity team to take a thorough history and to be inclusive in referrals/communication with other team members
- If in doubt, look it up or phone a friend….

Early discharge for suitable women post caesarean section

Enhanced recovery from caesarean section project has commenced

Public women will be able to transfer home 24 hours post Caesarean

Eligibility criteria

- maternal interest
- women who don't need an interpreter
- PHx of previous Caesarean birth
- no history of diabetes
- BMI < 40
- homecare eligible
- adult support at home.

Differences in routine postpartum care for these women include earlier intake of fluids and discontinuation of IV, earlier mobilisation and removal of IDC when full return of sensitivity and movement to legs.

Time to refuel!

Time	Task	Who
8:30 am	Welcome, housekeeping, learning objectives	Dr Wendy Burton
8:40	Models of care, MGP Presentation	Anne Williamson
8:50	Case work: Task 1	GP groups
9:05	Present Task 1 Feedback/ discussion	Dr Vincent Loh Dr Adam Morton Dr Glenn Gardener
10:10	Gestational Diabetes Thyroid disease	Dr Adam Morton
10:30	Refuel	All
10:50	Obesity Presentation Managing overweight and obesity during pregnancy	Dr Vincent Loh Debbie Tolcher
11:20	Antenatal testing for fetal anomalies	Dr Glenn Gardener
11:50	Recap	Dr Wendy Burton
12:00 **12:30 pm**	Lunch Tour of MMH	All Optional

MATERNAL OBESITY
Guidelines for management

Dr Paul Bretz

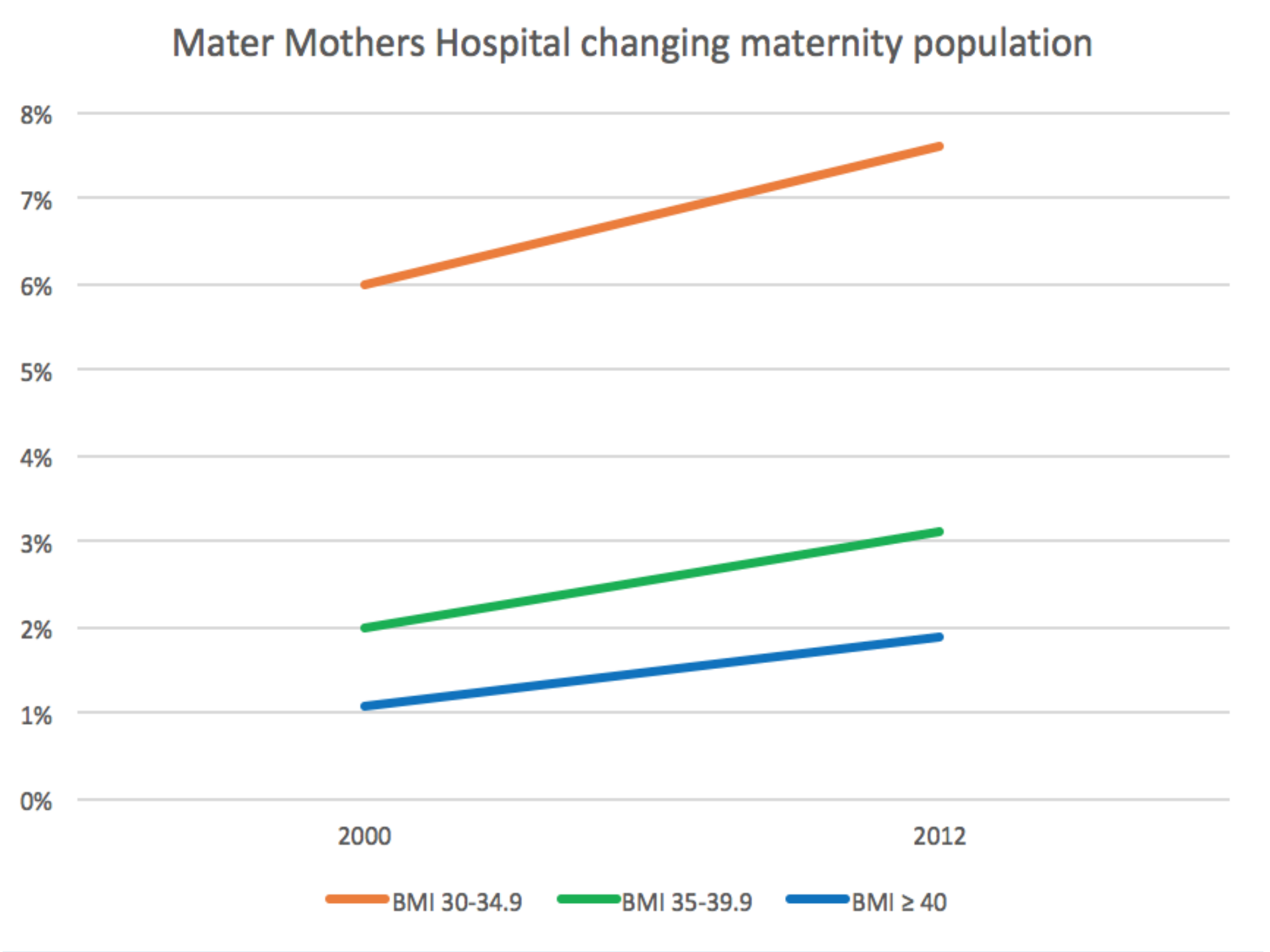
Director of Obstetrics and Gynaecology

Mater Health Services

Mater's changing maternity population

	Overweight	Obese 1	Obese 2	Obese 3
BMI	25-29.9	30-34.9	35-39.9	≥ 40
2000	16.5%	6%	2%	1.1%
2012	19.7%	7.6%	3.1%	1.9%

Percentage overweight or obese in
2000 was 25%
2012 was 32.3%


Mater Mothers Hospital changing maternity population
8%
7%
6%
5%
4%
3%
2%
1%
0%
2000
2012
BMI 30-34.9
BMI 35-39.9
BMI ≥ 40

Principle

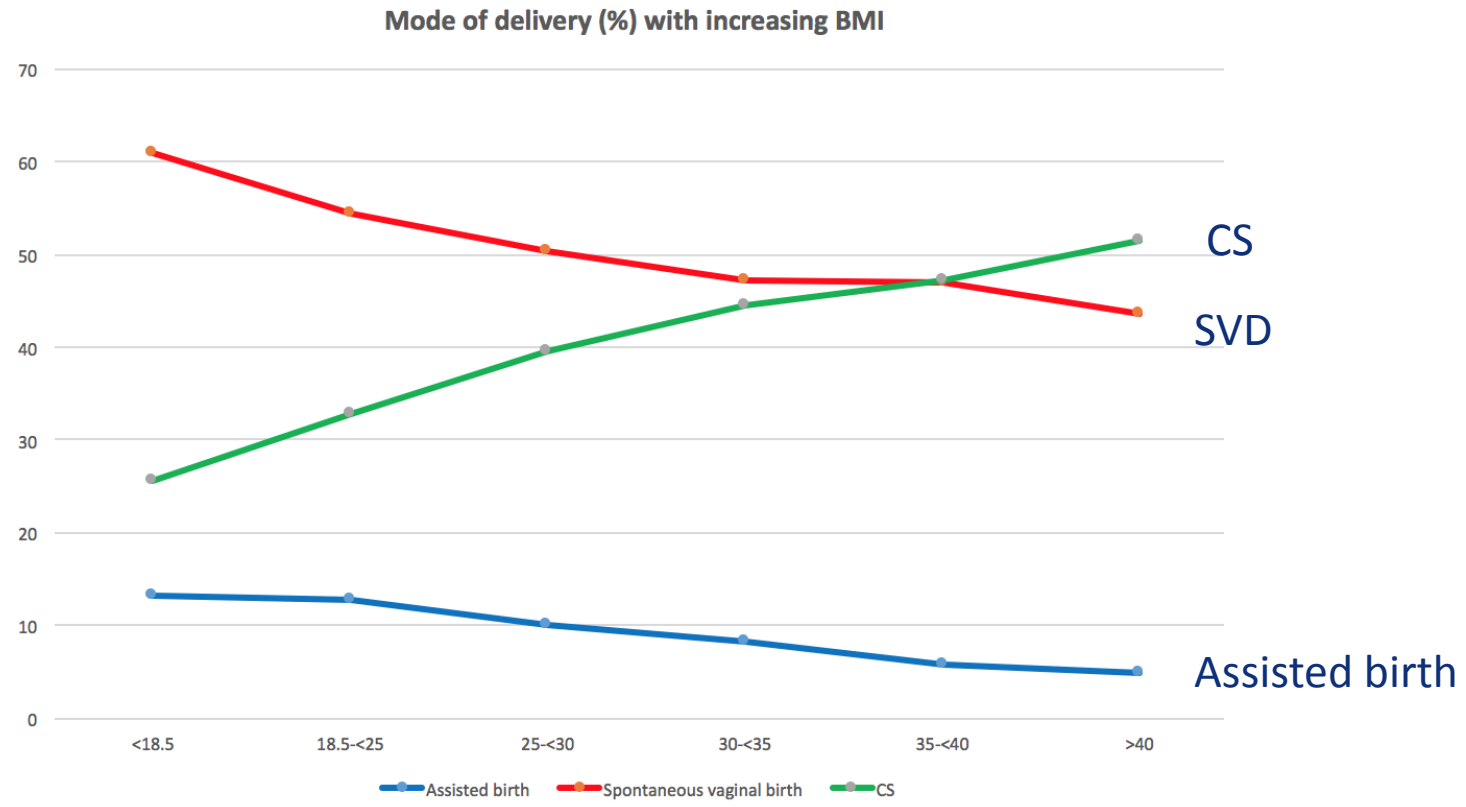
- Maternal obesity is associated with a range of complications which can have a negative impact on both the mother and her baby
- These include an increased incidence of the following:

Maternal Obesity
Risks For the Mother

- Type 2 diabetes and it's associated sequelae
- Hypertensive related disorders
- Thromboembolism
- Obstructive sleep apnoea
- Conditions which lead to induction of labour
- Complications in labour resulting in operative birth
- Anaesthetic complications
- Post operative complications
- Postnatal complications i.e. lactation, thromboembolism

The frequency of adverse outcome increases with increasing BMI. The following charts are based on analysis of 75,432 women birthing at Mater Mothers Hospital Brisbane 1998-2009

McIntyre HD, Gibbons KS, Flenady VJ, Callaway LK. Overweight and obesity in Australian mothers: epidemic or endemic? Med J Aust. 2012; 196(3):184-8.



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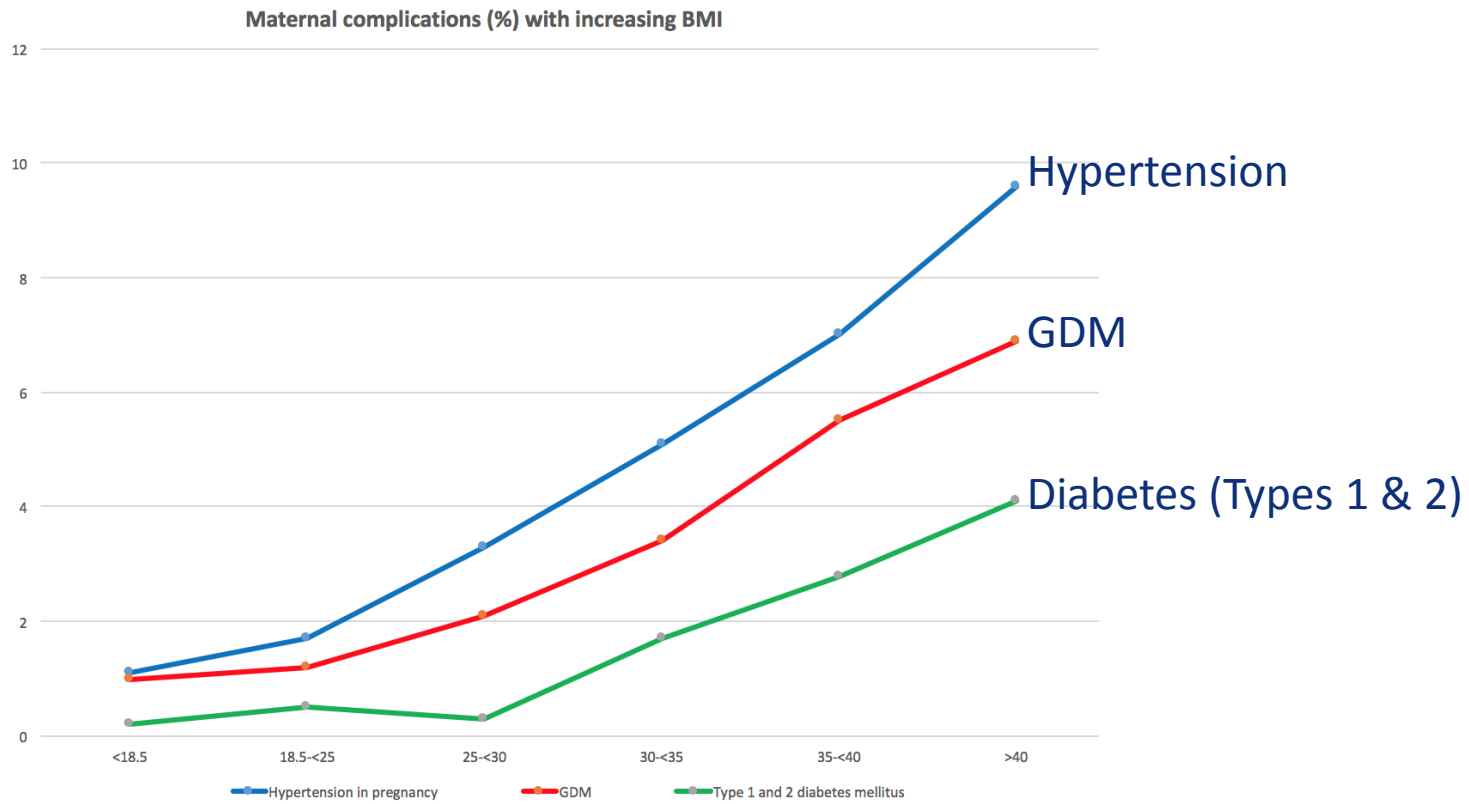

Maternal Obesity
Risks For the Baby

- Congenital anomaly
- Undiagnosed anomaly antenatally
- Undiagnosed small for gestational age
- Macrosomia
- Stillbirth

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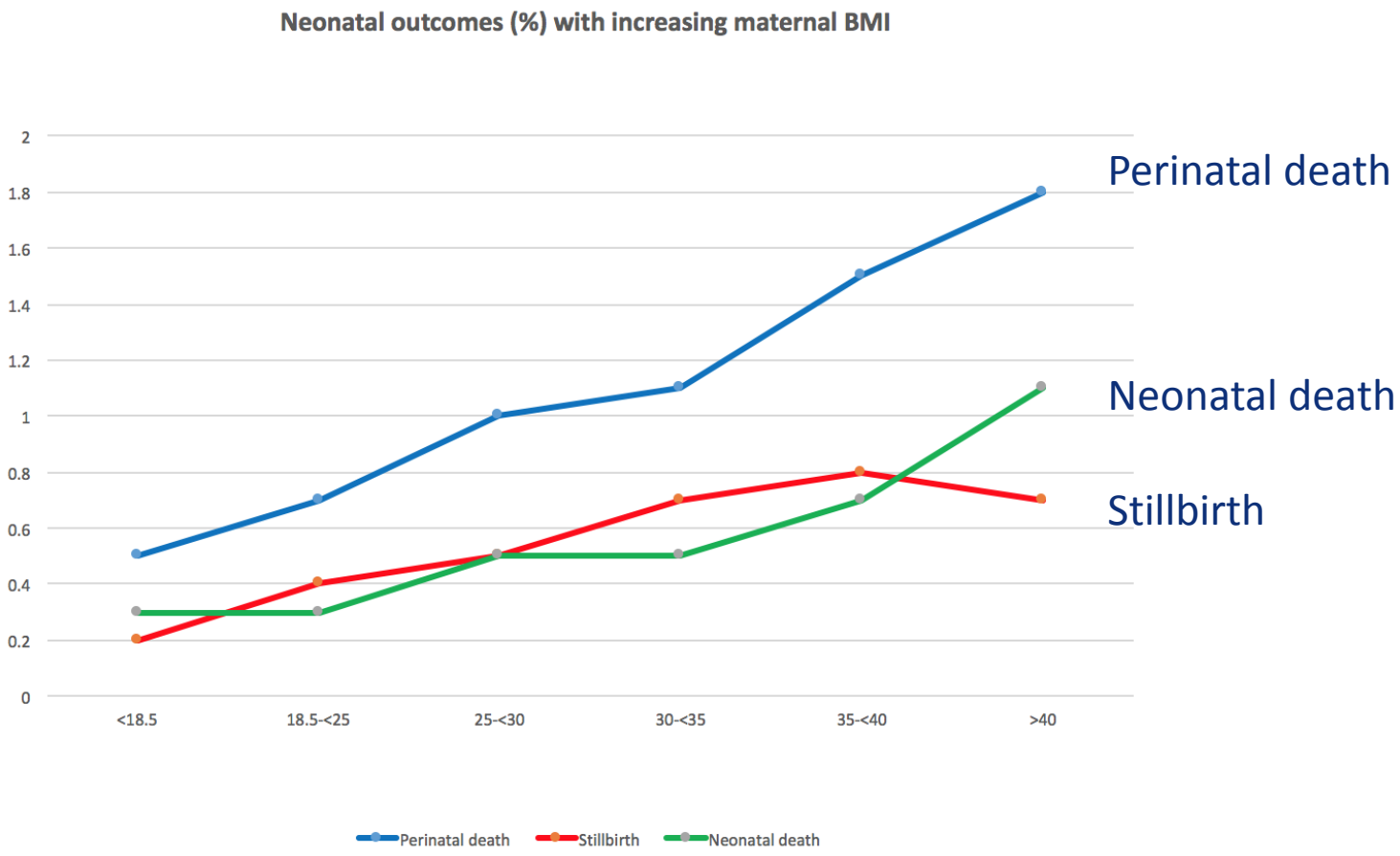

Perinatal death

Neonatal death

Stillbirth

The frequency of adverse outcome increases with increasing BMI. The following charts are based on analysis of 75,432 women birthing at Mater Mothers Hospital Brisbane 1998-2009

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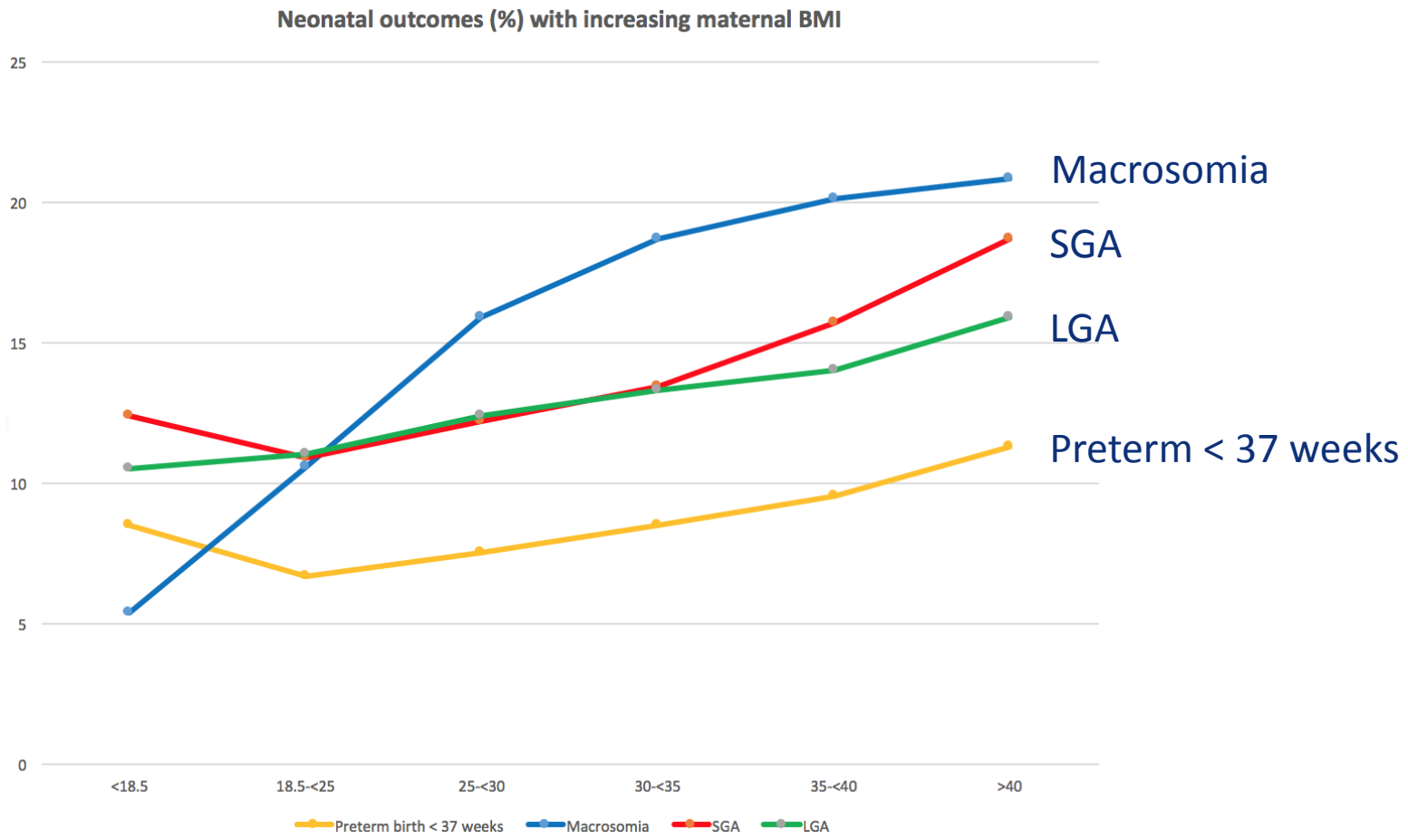

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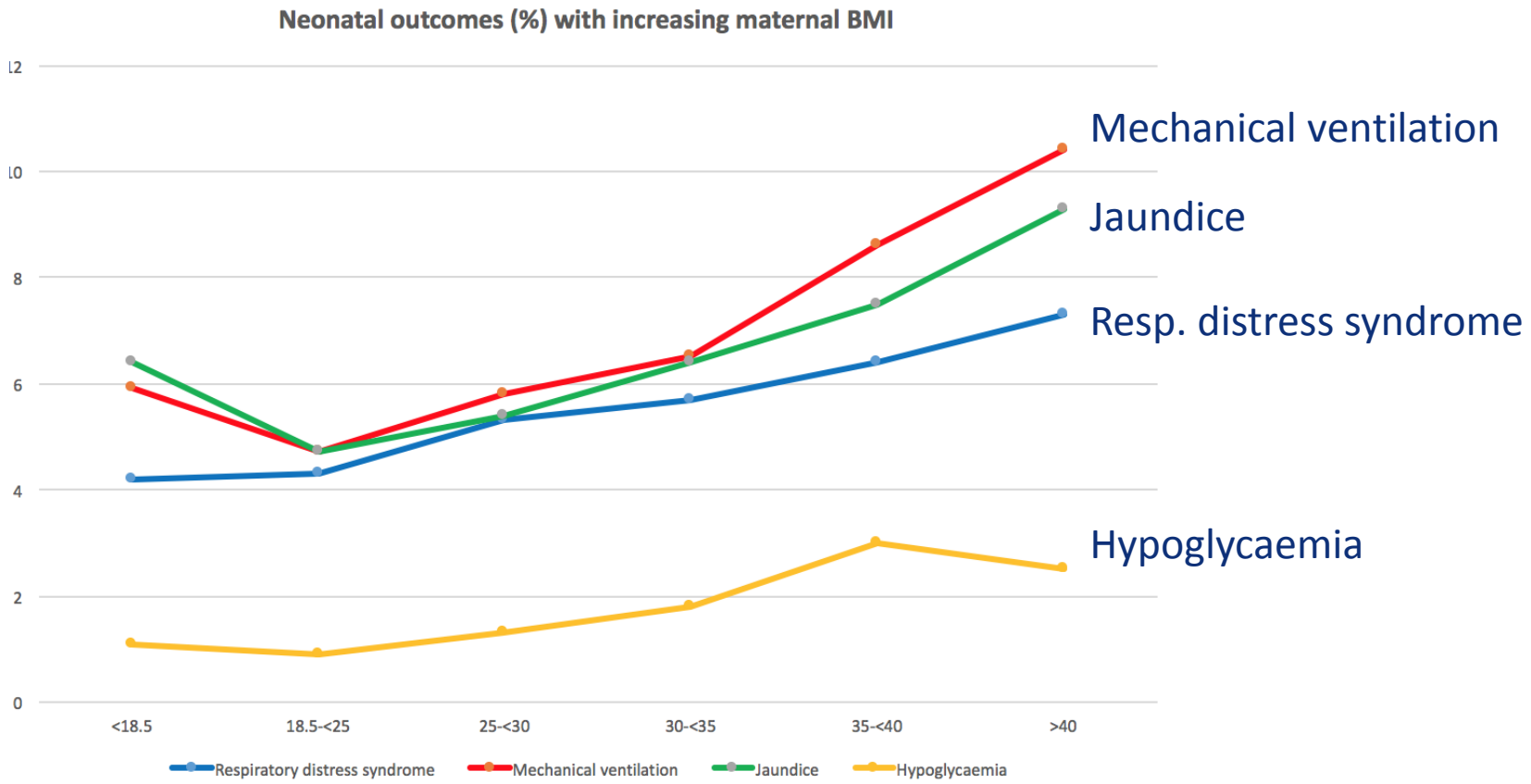
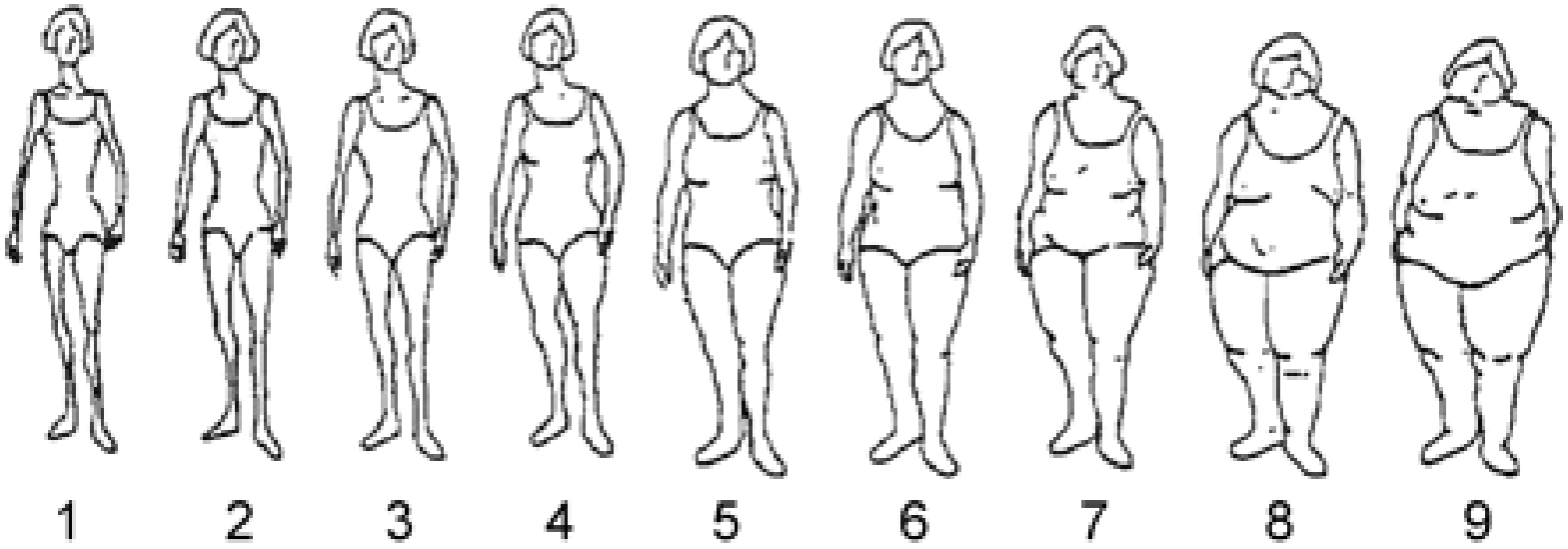


At Booking-in visit

- Measure weight and height – work out Body Mass Index (BMI)
- BMI ≥ 35 is considered high risk and should prompt the following considerations



Talk to women about their weight and increased associated risks

Antenatally

- Limitations on ultrasound screening for fetal anomaly and growth
- "Fetal anomaly screening is incomplete due to maternal body habitus"
- Increased risk of diabetes, hypertension

Intrapartum

- Difficulty with monitoring fetal wellbeing in labour
- Increased likelihood operative birth
- Increased risk of anaesthetic difficulties

Postpartum

- Increased risk of thromboembolism
- Problems with establishing effective lactation

Treat as opportunity for long term behaviour modification and offer dietitian referral

First visit with GP should include

General Practitioner can initiate the following:

- HbA1c in first trimester ? Type 2 DM
- High dose folic acid 5 mg daily
- Screen for cardiovascular disease
- Early dating scan is important to confirm EDC as post dates pregnancy is more common
- Anomaly scan screening for congenital anomaly

Consider initiation of the following

- Low dose aspirin 100 mg/day,
  - if obese and additional risk factor for hypertension
- Antenatal thromboprophylaxis
  - if obese and additional risk factor for DVT

Practical problems

- BP measurement
- Bed weight capacity
- Theatre trolley movement & patient shifting
- Ultrasonography – less reliable and risk of wrist/upper limb injuries for sonographers
- Listening to fetal heart/CTG
- Venous access

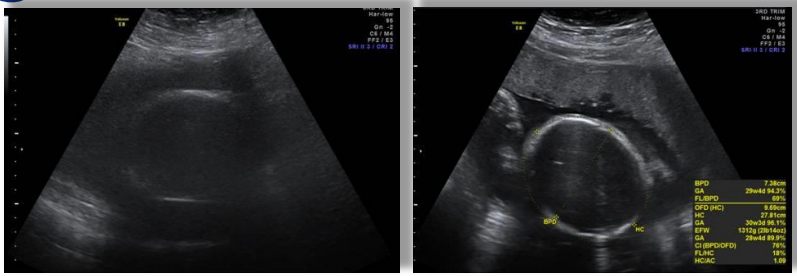
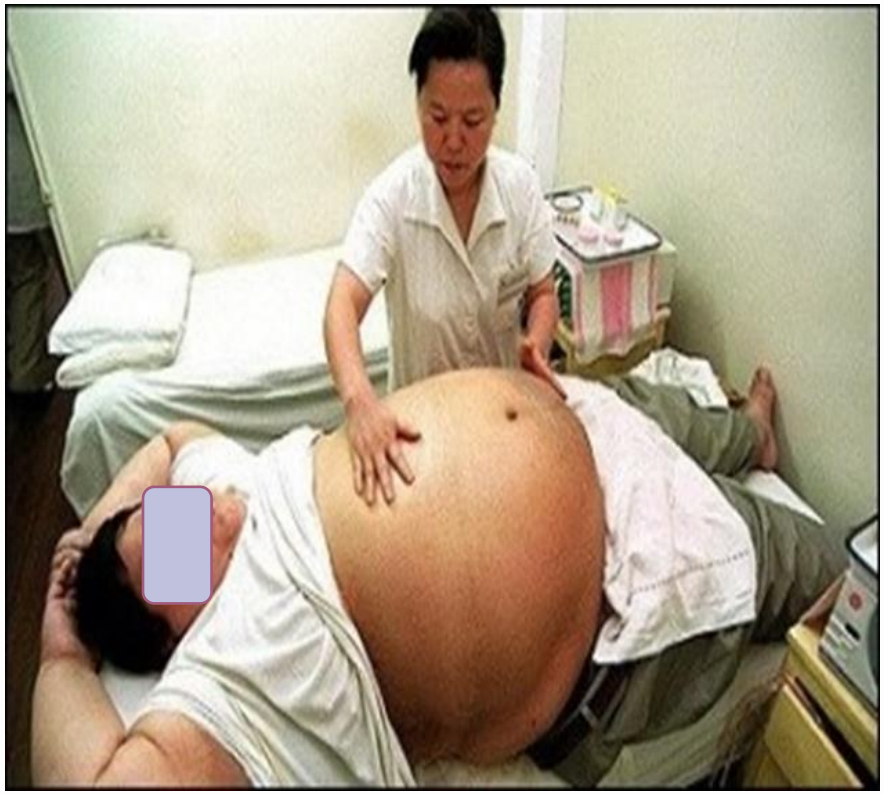


Image source: Donna Traves Sonographer, RBWH

SFH? Lie, presentation?



Each antenatal visit

Throughout antenatal care perform regular:

- Weight estimation
- Urinary protein estimation
- BP measurements with the (?extra) big cuff

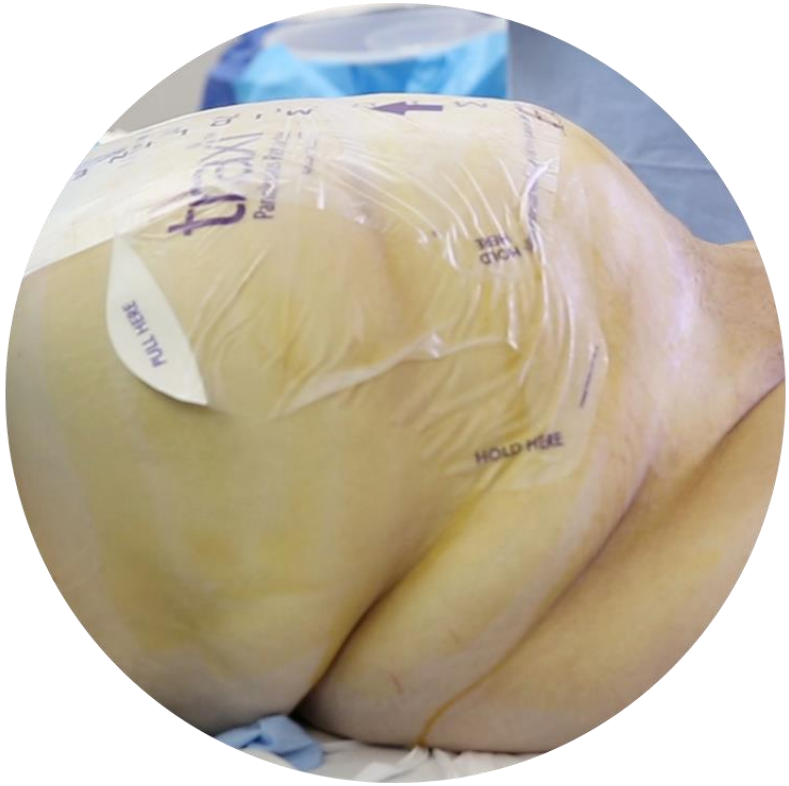
What will the Obstetrician be doing?

Shared antenatal visits with GP if otherwise low risk

Recommend

- GTT repeat at 28 weeks if initial one negative
- Anaesthetic referral BMI >40
- Serial scans if required (BMI > 50) to monitor fetal growth
  - Risk unrecognised IUGR
- Facilitate discussion about timing and mode of birth
  - VBAC/IOL/anaesthetic risks in labour


LIFT/PULL HERE
Pull to anchor point
PULL HERE
PULL HERE
traxi™
Panniculus Retractor
with
Retentus™ Technology
PRS-1030
Patents Pending
MIDLINE
C
C
After manual retraction of the panniculus, remove Tab "A", then affix this line 3-5 cm above incision.
HOLD HERE
HOLD HERE
B
A
B


PULL HERE
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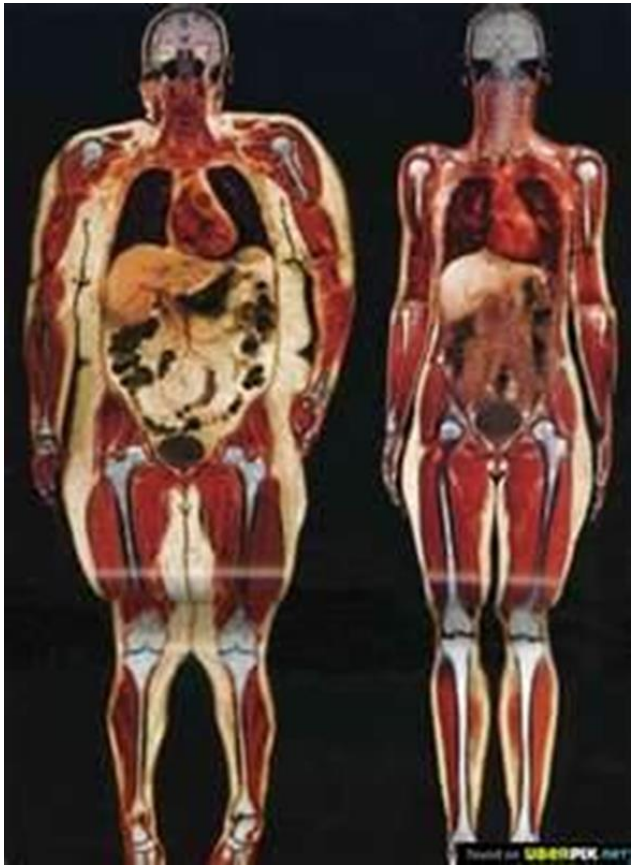
Future?

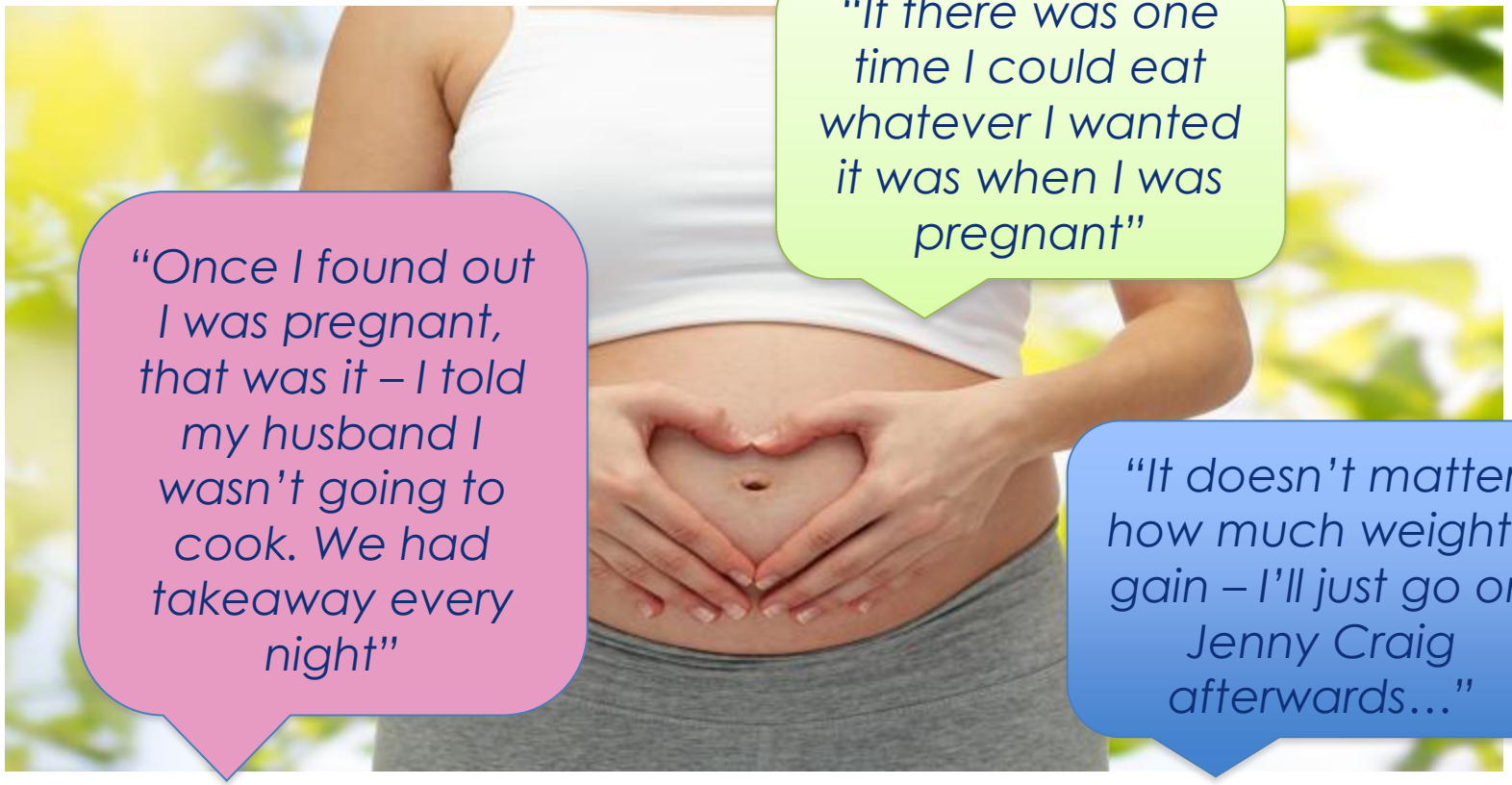
- Prenatal advice the key
  - Bariatric surgery
  - Metformin
  - Inter-pregnancy weight reduction

- Behold the benefits of seeing an enthusiastic dietitian….

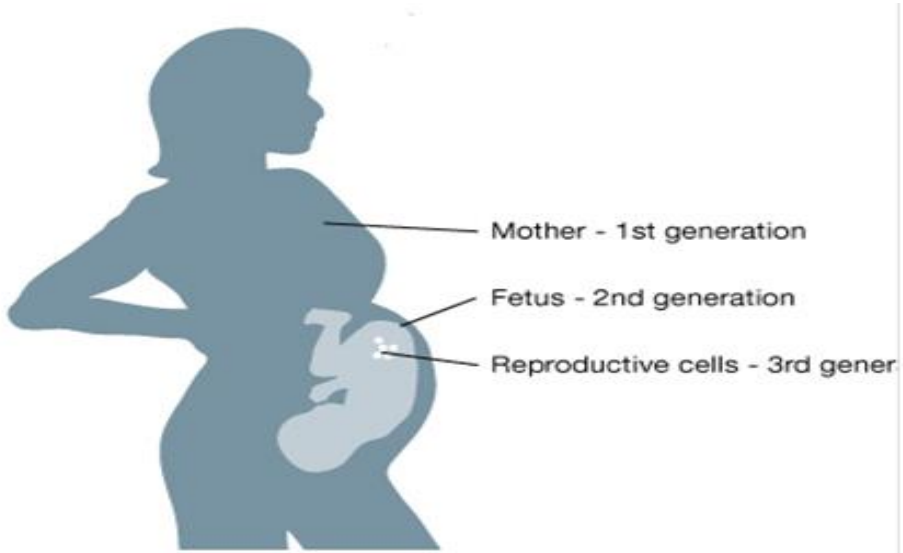


Managing overweight and obesity during pregnancy

Amy Allia
Senior Dietitian
Department of Nutrition & Dietetics



Why is this an issue?



Three generations at once are exposed to the same environmental conditions (diet, toxins, hormones, etc.). In order to provide a convincing case for epigenetic inheritance, an epigenetic change must be observed in the 4th generation.

http://www.beginbeforebirth.org/

History of GWG advice

1930s

1950s

1970s

1990s

2009

Revised AOM guidelines (optimal GWG for best outcomes for mothers and infants

AOM guidelines (optimal GWG for best outcomes for mothers and infants

Average gain 20lbs (9kg) and advised against limiting GWG

Average gain 20lbs (9kg) and advised against limiting GWG

IOM guidelines)

GWG guidelines

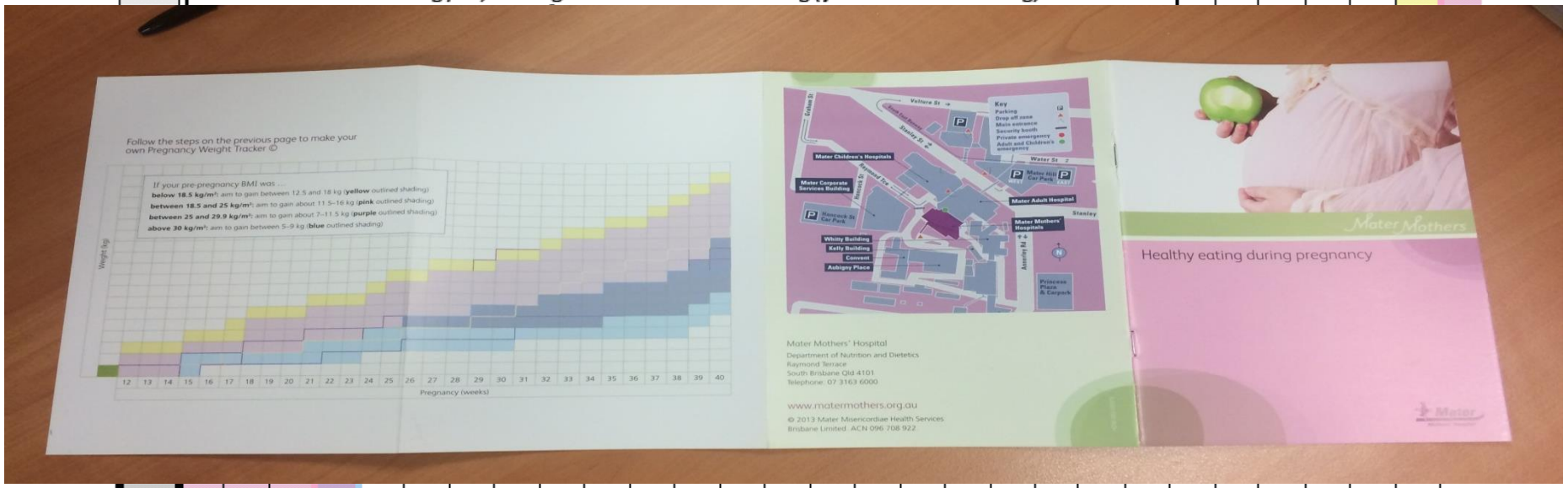
"Based on your weight at the beginning of pregnancy, this weight gain is recommended for the healthiest pregnancy possible"

If pre-pregnancy BMI was…

Below 18.5 kg/m²	12½-18 kg
Between 18.5-25 kg/m²	11½-16 kg
Between 25-29.9 kg/m²	7-11½ kg
Above 30 kg/m²	5-9 kg

Follow the steps on the previous page to make your own Pregnancy Weight Tracker.

If your pre-pregnancy BMI was ...
below 18.5kg /m², aim to gain between 12 ½ and 18 kg (**yellow** outlined shading)



Weight ➢ (kg)	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
pregnancy weeks																													

Mater
Exceptional People. Exceptional Care.

Reference : Institute of Medicine (2009). Weight gain during pregnancy: Re-examining the guidelines. Accessed on 2 June 2009. www.iom.edu/CMS/3788/48191/68004.aspx

The 5As framework

Assess

Assess behavioural health risk and factors

Pre-pregnancy weight and pre-pregnancy BMI

Advise

Give clear, specific, personalised behaviour change advice

GWG guidelines

Agree

Collaboratively select appropriate treatment goals and methods

Agree on GWG 'trajectory'

Assist

Assist patient to achieve goals through skills, confidence and social/ environmental supports

Personalised pregnancy weight tracker

Arrange

Schedule follow-up contacts for ongoing assistance and support, including referral to more intensive or specialised treatments

Arrange dietetic support

Referrals:

Publicly funded women → **Women can self refer for antenatal service, or you can use the referral template available at materonline.org.au ⇨ Quick Referrals ⇨ Allied Health**

***Or* a standard practice referral**

Privately insured women → **Health and Wellness Phone 3163 6000**

Optimal Pregnancy Nutrition workshop 3163 8847

Resources:

- Evidence-based articles http://wellness.mater.org.au/Articles
- Nine months of nutrition videos http://www.matermothers.org.au/diet

Green Group
Task 1 - 1st trimester pregnancy

Nicole is a healthy 38 year old Torres Strait Islander woman who presents for review after having done a home pregnancy test which was positive. She did a pregnancy test 3 weeks ago, but this was negative. She is not sure when she fell pregnant though, as her periods have been irregular and the last one was 7 weeks ago. Nicole mentions that she has been taking Folic Acid 0.5 mg daily and she wants to know what to do next.

She has a 15 min appointment. Outline your approach.

Aboriginal and/or Torres Straight Islander services

- Please complete the indigenous status of the woman and her partner on referral to MMH ANC
- Referrals are triaged to Birthing in Our Community (BIOC) which is Midwifery Group practice or to The Murri Clinic at Mater Mothers
- Care is supported by the Indigenous Liaison service and indigenous health workers

Aboriginal and/or Torres Straight Islander services

Anna can be linked to appropriate allied and social health services e.g.

- mums and bubs centres
- healthy eating
- counselling or culturally appropriate mental health services

Transport can be arranged for appointments

Dads can access support and services also

If the mum is not of Aboriginal and/or Torres Strait Islander origin, but her child is, the family are also able to access culturally appropriate services

Women over 35 years of age

- Have an earlier obstetric booking appointment = K14
- Please send the referral in *before* the FTCS/NT result
- Women 38 and over see obstetrician/registrar at K36 to discuss/plan induction at K39

Orange Group
Task 1 - 1st trimester pregnancy

Kate is a 34 year old who has an unplanned pregnancy. It is 11 weeks since her LNMP. She is not sure how she will proceed and wants to rule out any possible pregnancy complication or abnormality in this child. She is a regular blood donor and upon asking, informs you that her blood group is A Rh neg.

She has a 15 min appointment. Outline your approach.

To congratulate or not?

- 51% of women will have an unplanned pregnancy
- Unplanned ≠ unwanted
- 4001 non directive pregnancy support counselling (at least 20 min)
- If TOP is chosen – local options?
- mTOP < 9 weeks/63 days
- STOP

Pages 27-29, Mater Guideline

13. Care for women who are Rh D negative

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

Women with Rh D antibodies are not suitable for shared care.

Rh negative women

Anti D for:

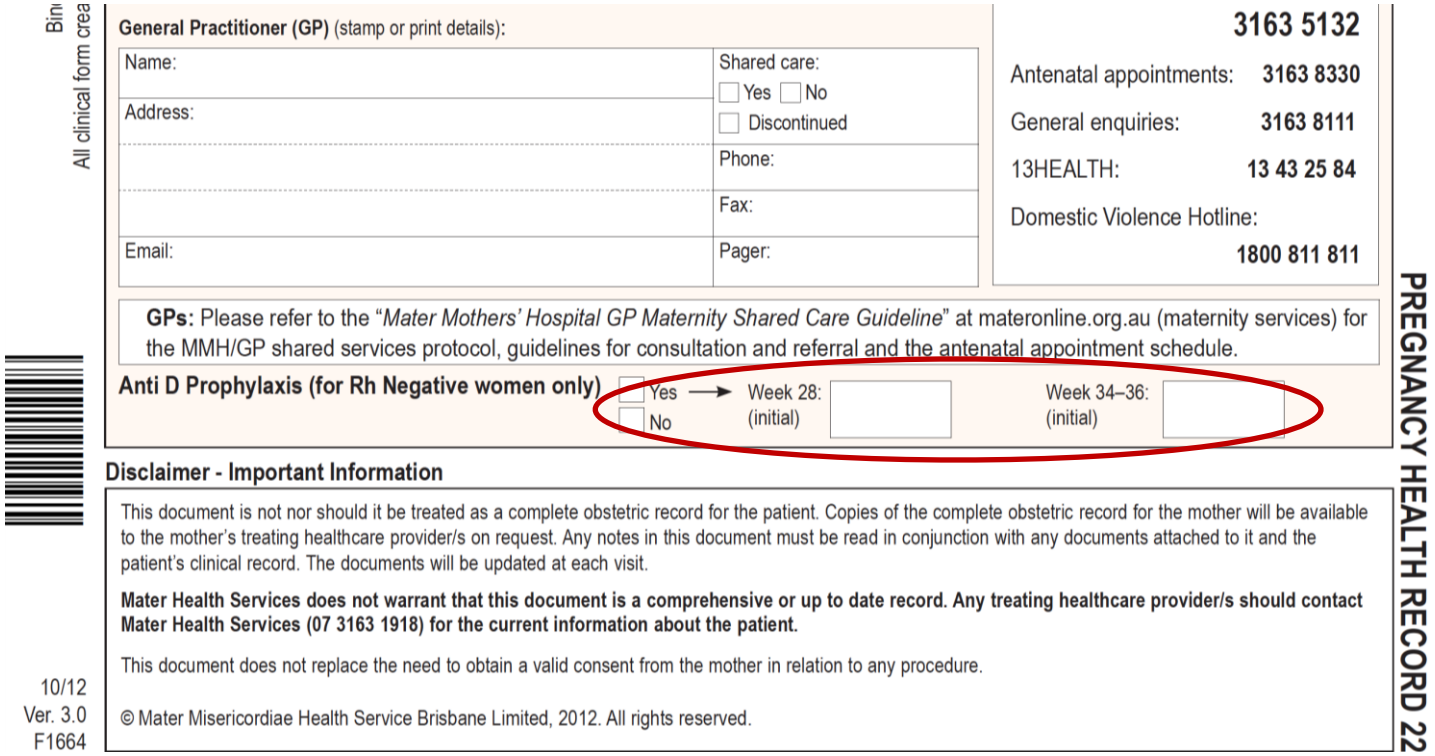
- miscarriage at any gestation
- threatened miscarriage after 12 weeks (unless worried about compliance)
- antepartum haemorrhage
- abdominal trauma sufficient to cause bleeding
- interventions such as ECV, amniocentesis, CVS
- postpartum if baby Rh positive

Anti D use

- Give within 72 hours
- Dose: 250 IU before, 625 IU after 12 weeks
- Routine Anti D (625 IU) at 28 and 34-36 weeks
- Can be ordered for women and stocks held in general practice
- If sending women into the hospital for Anti D, please send with a letter with a copy of the result confirming their blood group.
- Appointments preferred/phone ahead

Routine Anti-D prophylaxis

Anti-D can be ordered from the Red Cross and QML or Mater will deliver it to surgeries. **Please record the routine administration at 28 and 34-36 weeks on page 1 of the women's section of the PHR.** 625 IU (125 µg) is recommended for ALL Rh negative women unless they are antibody positive.



Bin
All clinical form crea

General Practitioner (GP) (stamp or print details):

Name:	Shared care: ☐ Yes ☐ No ☐ Discontinued
Address:	
	Phone:
	Fax:
Email:	Pager:

3163 5132

Antenatal appointments: **3163 8330**

General enquiries: **3163 8111**

13HEALTH: **13 43 25 84**

Domestic Violence Hotline: **1800 811 811**

GPs: Please refer to the "*Mater Mothers' Hospital GP Maternity Shared Care Guideline*" at materonline.org.au (maternity services) for the MMH/GP shared services protocol, guidelines for consultation and referral and the antenatal appointment schedule.

Anti D Prophylaxis (for Rh Negative women only) ☐ Yes → Week 28: (initial) ☐ No Week 34–36: (initial)

Disclaimer - Important Information

This document is not nor should it be treated as a complete obstetric record for the patient. Copies of the complete obstetric record for the mother will be available to the mother's treating healthcare provider/s on request. Any notes in this document must be read in conjunction with any documents attached to it and the patient's clinical record. The documents will be updated at each visit.

Mater Health Services does not warrant that this document is a comprehensive or up to date record. Any treating healthcare provider/s should contact Mater Health Services (07 3163 1918) for the current information about the patient.

This document does not replace the need to obtain a valid consent from the mother in relation to any procedure.

10/12
Ver. 3.0
F1664

PREGNANCY HEALTH RECORD 22

Routine Anti-D prophylaxis QHealth

Please record the routine administration on page 7 of the clinician's section of the PHR.

Immunisation

Anti D Prophylaxis (Rh D negative women only)	☐ Not required ☐ 28 weeks If *no*, reason: Batch number: ☐ 34–36 weeks If *no*, reason: Batch number:	Print name: Designation: / Signature: Print name: Designation: / Signature:	
dTpa (diphtheria, tetanus and whooping cough) vaccine	☐ Yes ☐ No Date given: / / Gestation: weeks Batch number:	Print name: Designation: / Signature:	
Influenza vaccine	☐ Yes ☐ No Date given: / / Gestation: weeks Batch number:	Print name: Designation: / Signature:	
Other (specify)	Date given: / / Gestation: weeks Batch number:	Print name: Designation: / Signature:	

Administration of Anti-D

Rh D immunoglobulin should be given by slow, deep IMI

Document in the Pregnancy Health Record

RhD immunoglobulin can be obtained from QML and Mater upon receipt of a signed and completed request form. It will be delivered by their routine courier service.

a) Mater Blood Bank Fax 07 3163 8179

b) QML Blood Bank Fax 07 3371 9029

If your practice has an immunization fridge you may be able to order and keep a small supply.

We are here

Time	Session	Who
8:30 am	Welcome, housekeeping, learning objectives	Dr Wendy Burton
8:40	Models of care, MGP Presentation	Nicola Graham
8:50	Case work: Task 1	GP groups
9:05	Present Task 1 Feedback/ discussion	Dr Paul Bretz Dr David McIntyre Dr Glenn Gardener
10:10	Gestational Diabetes Thyroid disease	Dr David McIntyre
10:30	Refuel	All
10:50	Obesity Presentation Managing overweight and obesity during pregnancy	Dr Paul Bretz Amy Allia
11:20	Antenatal testing for fetal anomalies	Dr Glenn Gardener
11:50	Recap	Dr Wendy Burton
12:00 12:30 pm	Lunch Tour of MMH	All Optional

Antenatal testing for fetal abnormality

Dr Glenn Gardener
Director
Mater Centre for Maternal Fetal Medicine
Mater Mothers Hospital
Ph. 3163 8844

Classifying fetal abnormalities

1. **Chromosomal abnormalities** e.g. trisomies 21,18 and 13, Turner syndrome (XO) etc.

2. **Structural abnormalities** e.g. spina bifida, cardiac malformations, cleft lip etc.

3. **Gene abnormalities** e.g. cystic fibrosis, thalassaemia, spinal muscular atrophy etc.

Hereditary, de novo or other?

- Many fetal abnormalities e.g. trisomy 21 occur for the first time (de novo) with no prior family history
- Healthy parental ‘carriers’ - autosomal recessive inheritance e.g. cystic fibrosis, spinal muscular atrophy
- Structural abnormalities e.g. spina bifida, cardiac malformations – increased risk of recurrence
- If previously affected fetus, child or family member consider genetics referral

Primary care in prenatal testing

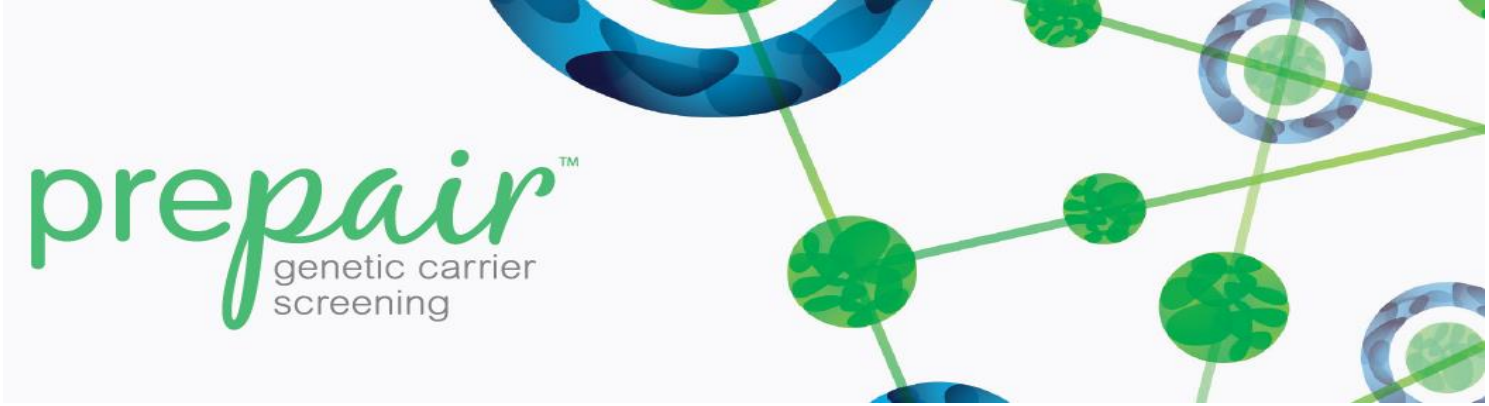
Assess knowledge, risks and concerns

Provide information and options

Arrange tests or referral as indicated

Document
- the giving of information
- what tests offered
- response
- tests ordered*

* Use QHealth or MMH templates to facilitate this



mater

	Number of people who are carriers of the condition	Number of people with the condition
Cystic fibrosis	1 in 25	1 in 2,500
Fragile X syndrome	1 in 150	1 in 4,000
Spinal muscular atrophy	1 in 40	1 in 6,000 - 1 in 10,000

- Discuss and offer carrier screening for common conditions to all pregnant women and women planning pregnancies (+/- partner)
- Most pathology providers offer carrier screening
- Extended carrier screening (more conditions)available at higher cost

Pros, cons, benefits and risks of testing

- Option to continue the pregnancy or not
- Option for prenatal intervention e.g. spina bifida in-utero surgery
- Preparation for a baby with specific needs
- Identifying an ‘at risk’ fetus may alter antenatal care, place of birth and mode/timing of delivery
- Preparation for palliative care e.g. trisomy 18
- Risks of diagnostic testing - CVS/amniocentesis
- Anxiety and/or reassurance
- Costs (individual, society) eg NIPT

Screening vs Diagnosis

- **Screening** tests are applied to the population to narrow a group at 'high risk'

  eg First trimester combined screen (FTCS), NIPT

- 20 week morphology scan **screens** for a broad range of structural abnormalities but can also be a **diagnostic test** eg spina bifida

- **Diagnostic tests include** CVS, amniocentesis or tertiary ultrasound

Screening vs Diagnosis

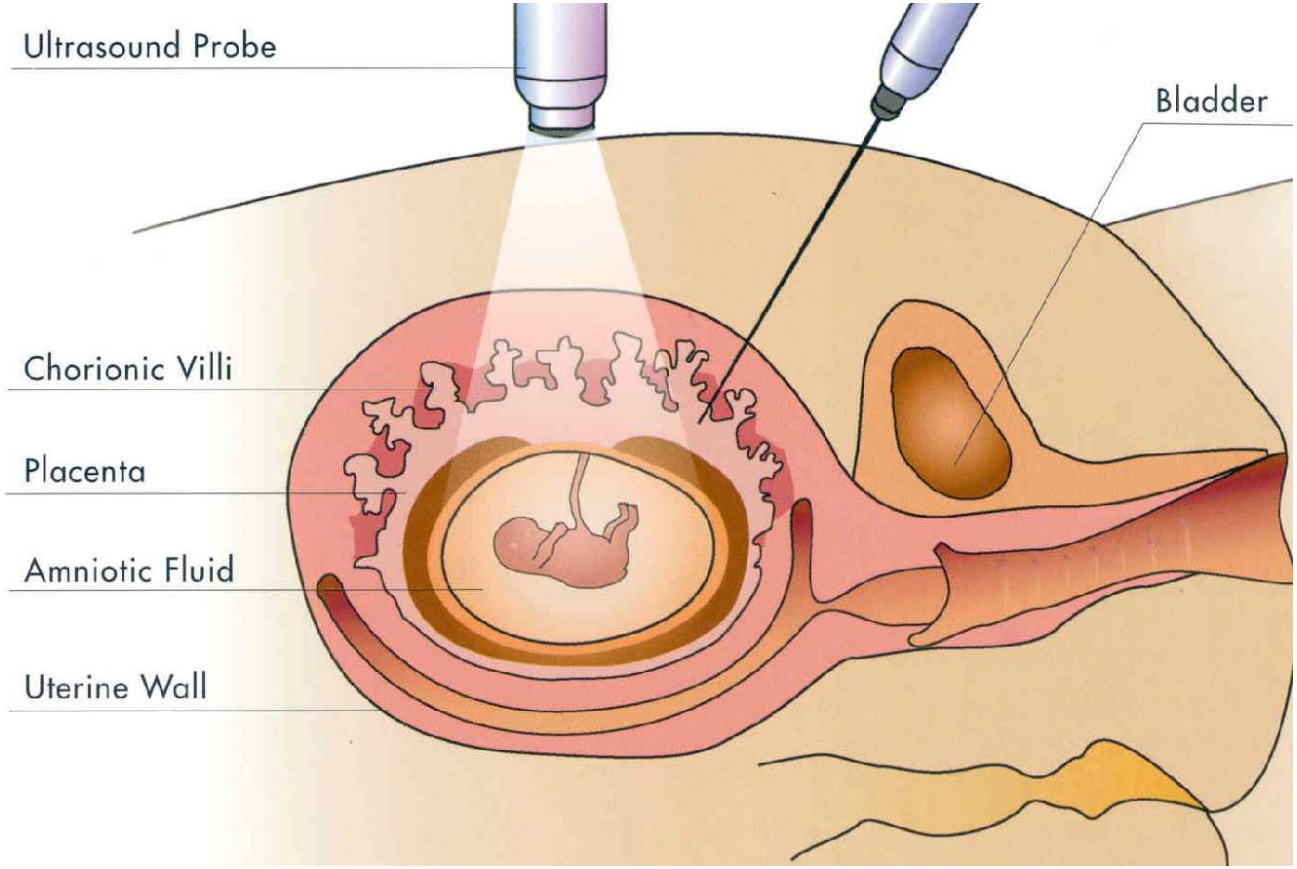
Screening tests include

i. Non-invasive prenatal testing (NIPT)
ii. First trimester combined screen (FTCS)
iii. 2nd trimester triple test
iv. Morphology scan

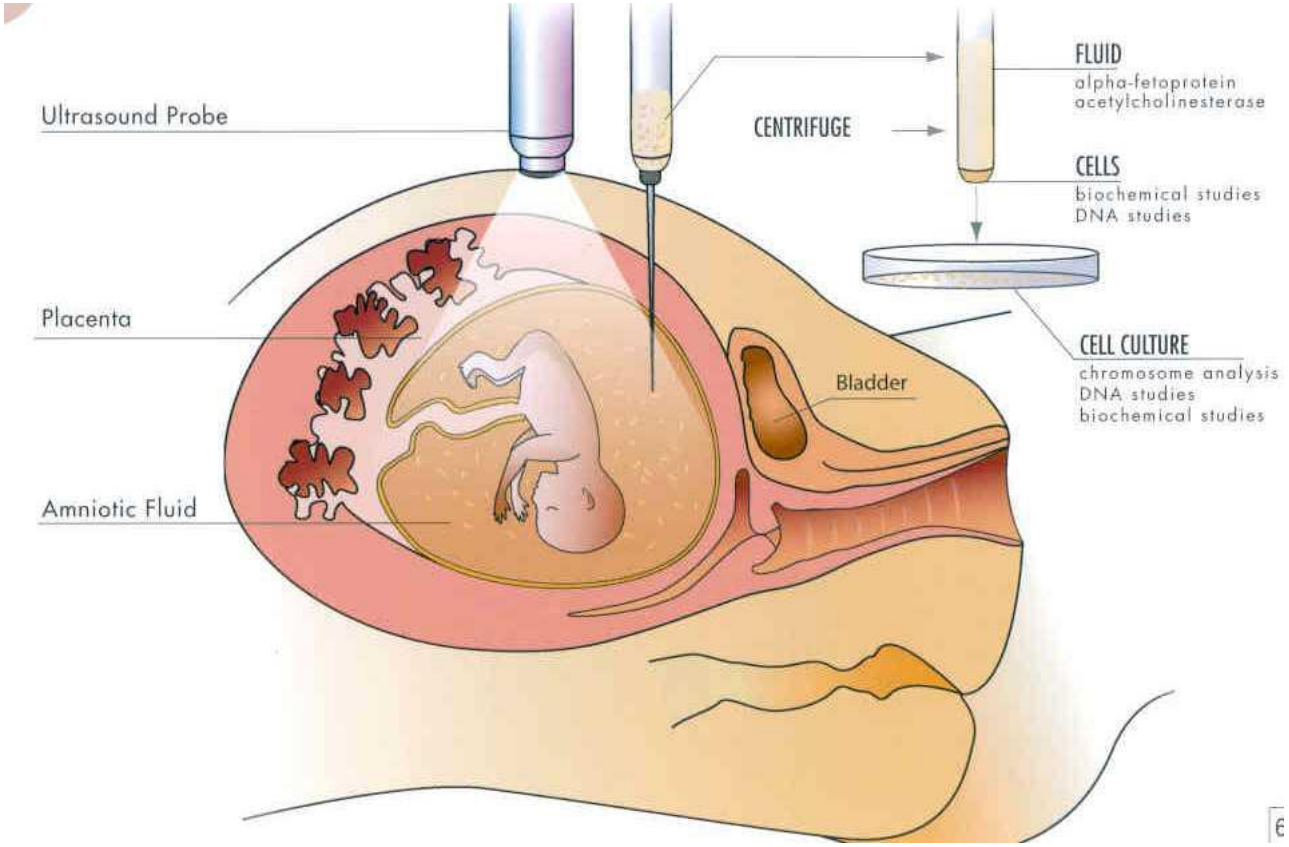
Diagnostic tests include

i. Chorionic villus sampling (CVS)
ii. Amniocentesis
iii. Morphology scan
iv. Fetal MRI

Chorionic Villus Sampling (CVS) Abdominal (11 - 14 weeks)



Amniocentesis (from 15 weeks)



Recent reports of pregnancy loss rates of 1:800 for amniocentesis and 1:350 for CVS

Screening tests compared

Test	Down Syndrome Detection Rate	Screen positive rate
Nuchal translucency scan (NTS)	**70%**	**5%**
FTCS - NTS + free BHCG +PAPP-A*	**85-90%**	**5%**
Second trimester serum test (Free BHCG + oestriol + AFP**)	**70%**	**5%**
Morphology scan	**20-50%**	**10%**
Non-Invasive Prenatal Testing (NIPT)	**99%**	**0.1%**

**Pregnancy-associated plasma protein A*

*** Alpha-fetoprotein*

Termination of pregnancy (TOP)

- Qld law reform 2018 - TOP decriminalised
- Conscientious objectors legally must refer
- Each state/territory has its own laws pertaining to termination of pregnancy
- **Qld Maternity and Neonatal Clinical Guideline**

  'Termination of pregnancy' (Dec 2018)
- Mater does not provide elective TOP
- Mater patients seeking TOP may access public or private services

First Trimester Combined Screen

- Nuchal translucency scan (11-13 wks) with *Papp-A + BHCG (9-13 wks)
- Detection rate for Down syndrome 85-90% (9/10)
- Screen positive rate 5% (1/20 women will be given a ‘high risk’ result)
- Cut-off for ‘high risk’ 1/300
- Results should be ‘combined’ and not provided separately by scan and biochemistry

**Papp-A = Pregnancy associated plasma protein A*

Other issues to consider with FTCS

- **Increased nuchal translucency (>3.5mm)** associated with cardiac malformations, genetic syndromes and skeletal dysplasia
  - tertiary morphology scan 20 weeks
  - chromosomal microarray testing looking for smaller chromosomal deletions and duplications

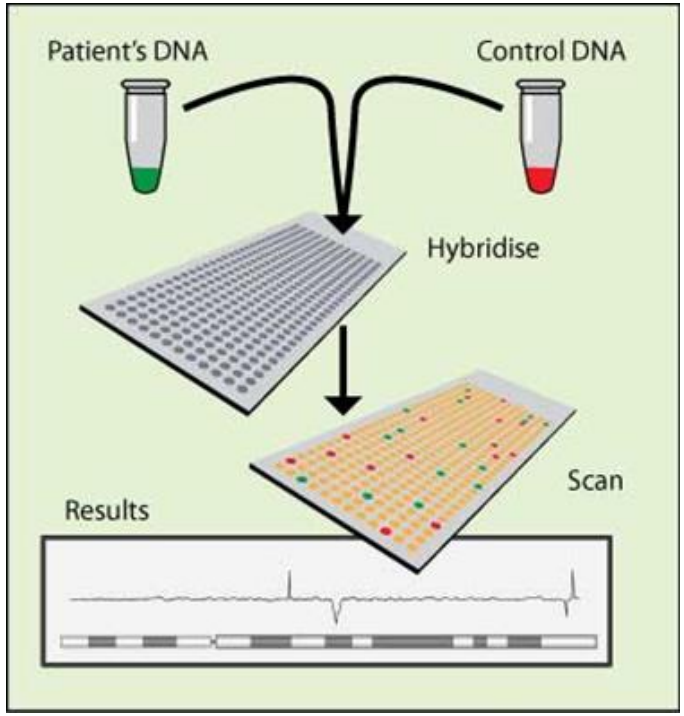
- **Low Papp-A (<0.4 MoM)** associated with pre-eclampsia, growth restriction and stillbirth
  - fetal growth and uterine artery Doppler 22-24 wks
  - third trimester growth scan

Triple test/serum screen

- Maternal 2nd trimester blood test at 15-20 weeks
- BHCG + Oestriol + alpha fetoprotein (AFP)
- Detection rate 70% (7/10 cases detected)
- False positive rate 5% (1 in 20 women screened will be given a ‘high risk’ result)
- Adds risk assessment for open neural tube defects (AFP)
- Uses 1/250 cut-off for high risk for chromosomal abnormalities
- Confirm dates with scan for best test performance

Chromosomal Microarray = Molecular Karyotyping

- Replacing conventional karyotyping
- Detects genomic gains and losses
- High resolution (50-100 kilobases)
- Shorter timeframes
- Accuracy confirmed
- Different types – array CGH, SNP array
- Requires CVS/amniocentesis



Chromosomal Microarray (CMA) vs Conventional Karyotyping

Benefits

- 6% additional information (significant Copy Number Variants) over conventional karyotyping if fetal abnormality on ultrasound
- 1% gained in low risk 'normal' scanned patients

Problems

- Variants of unknown significance 'VUS' can create anxiety for parents (2%)
- Genetics referral for uncertain results

Fetal DNA in maternal blood

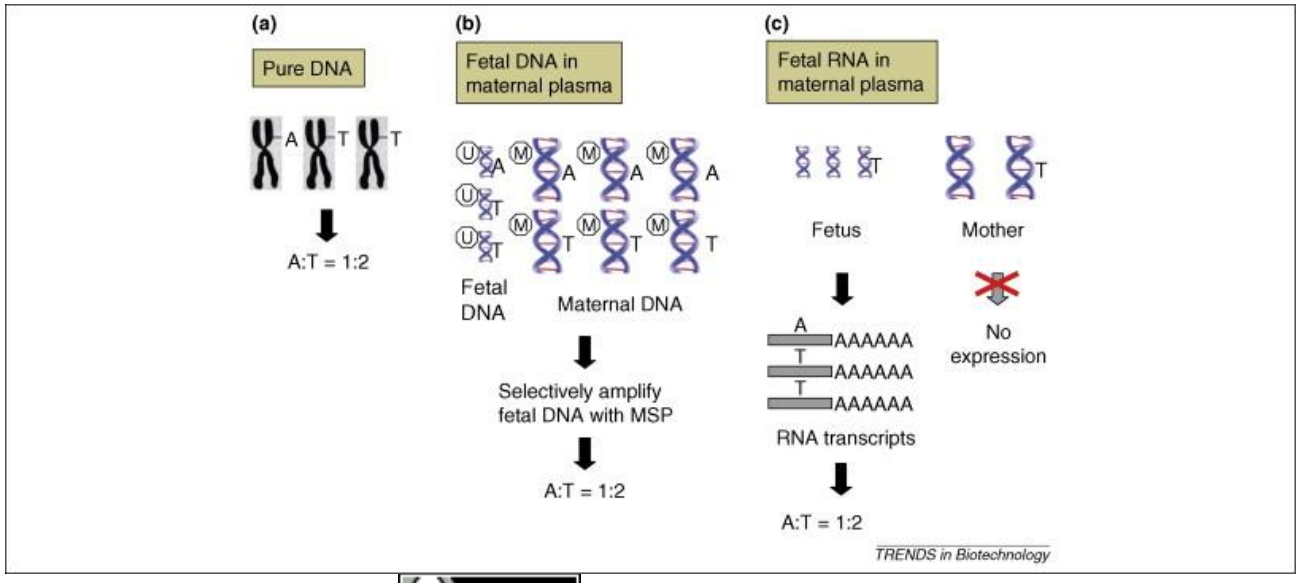
- Dennis Lo (1997) reported cell-free fetal DNA in maternal plasma
- Prior reports of tumour DNA detected in plasma of cancer patients
- Noted similarities between placenta and neoplasm
- Non-invasive prenatal testing (NIPT)

Intact fetal cells vs cell free DNA

- Intact fetal cells
  - Scarce in number
  - Persist in maternal circulation for many years
- Cell free fetal DNA
  - More available (approx 10% of total maternal DNA fraction)
  - Comes from placental trophoblast apoptosis
  - Short DNA fragments
  - Rapid clearance from maternal circulation
  - Half life 40 mins (renally excreted)

Clinical Applications NIPT

- **NIPT for fetal chromosomal abnormality**
- Uses overall increase (or decrease) in amount of chromosomal DNA in maternal blood
- Need accurate quantification, not just identification e.g. massive parallel sequencing



NIPT for microdeletions ?

- Many microdeletions small (<2Mb)
- NIPT currently limited to 3Mb
- DiGeorge (22q11-) most common microdeletion
  - 7% 1.5Mb
  - 6% atypical and variable in size
- Sensitivity and specificity using NIPT for microdeletions is currently not accurately established
- NIPT plus not currently recommended

NIPT - problems and pitfalls

- False positive results
- False negative results
- High risk vs low risk population (positive predictive value)
- ‘No call’ results – higher risk of chromosomal abnormality
- High maternal BMI and low fetal fraction
- Maternal cancer or chromosomal abnormality
- Placental mosaicism (fetus normal)

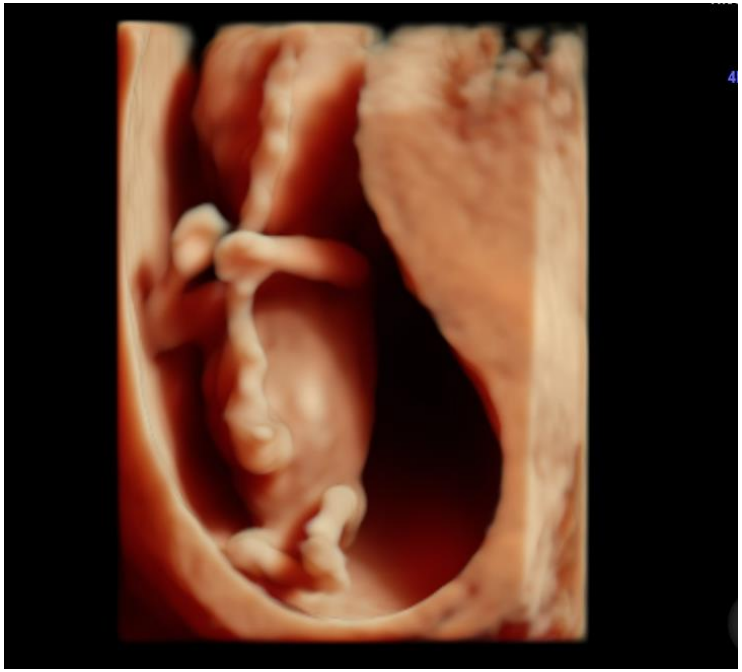
Refer any no-call/abnormal/unusual NIPT results to Mater Maternal Fetal Medicine

Confirm any high risk NIPT with invasive testing

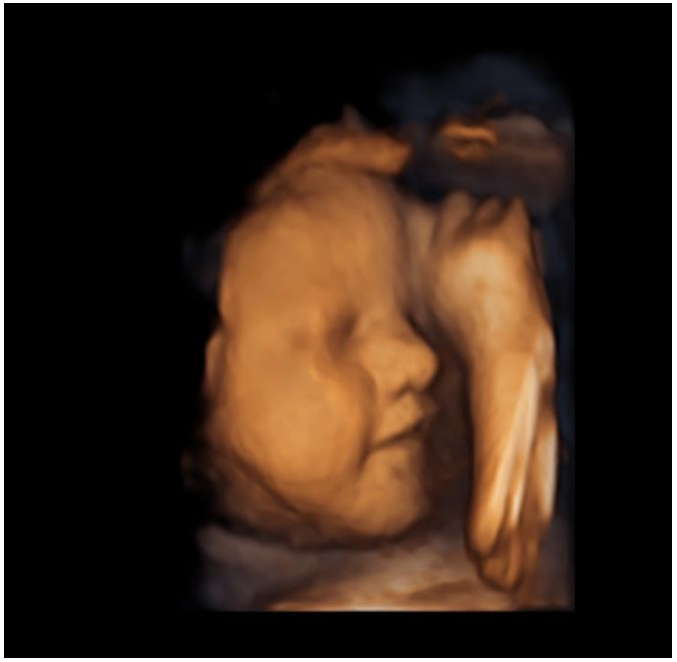
Detection rates for fetal abnormalities at 20 week morphology scan

- Neural tube defects (>90%)
- Cardiac abnormalities (major 20-75%)
- Cleft lip (>75%)
- Trisomy 21 (20-50%)
- Trisomy 13 (>90%)
- Trisomy 18 (>90%)

What about 3D/4D ultrasound?



1st trimester



3rd trimester

When should 3D/4D ultrasound be used in pregnancy?

- Most frequent application of 3D/4D ultrasound in pregnancy is for ‘keepsake’ imaging
- In general fetal anomaly detection is not enhanced significantly by 3D/4D ultrasound
- For surface anatomy abnormalities eg facial cleft, 3D/4D ultrasound can assist in counselling
- 3D/4D ultrasound is not useful in screening for chromosomal abnormalities

Case study

- Mary is 36 yo G3P1
- Previous healthy term baby born 3 years ago
- No medical/surgical/family history
- BMI 36, now 12 weeks gestation

Let's review her options……

First Trimester Combined screen

Pros	Cons	Costs
Widely available Medicare funded Detection of T21 85-90% See the fetus Dating + diagnose twins, miscarriage, major structural abnormalities	Misses 10-15% of T21 cases Screen positive rate 5% (1 in 20) Complicated by needing 2 tests	Ranges from no out of pocket costs up to $250

NIPT

Pros	Cons	Costs
Widely available Easy to arrange Detection of T21 99% False positive rate 0.1% (1 in 1000) Avoid invasive test (CVS, amnio)	Small number of abnormalities tested No scan – no dating, miss twins, miscarriage, major structural abnormalities No Medicare rebate ‘No call’ results High BMI, IVF, twins	$395-$450

NIPT before or after 12wk scan

Pros	Cons	Costs
Best screen coverage for chromosomal and structural abnormalities See the fetus Dating + diagnose twins, miscarriage, major structural abnormalities	No Medicare rebate 'No call' results Maternal and placental mosaicism	Up to $700 out of pocket

Amniocentesis – chromosomal microarray

Pros	Cons	Costs
Best diagnostic coverage for chromosomal abnormalities including microdeletions and duplications Better than NIPT if NT >3.5mmor structural abnormalities	Medicare rebate Uncertain results (2%) Parental chromosomal abnormalities Later gestation - 16 weeks for amnio, plus 10 days for results Risk of pregnancy loss 1 in 800	No out of pocket for public funded (up to $500 out of pocket for private)

Take home messages

- *Inform and offer* screening and diagnostic tests for chromosomal abnormality to ALL pregnant women
- NIPT is the best screening test available for T21
- FTCS offers additional useful information cf NIPT alone
- Triple test remains a valid low cost screening option for later presentation
- NIPT, FTCS or triple test are better screening tests for T21 than using maternal age risk alone or 20 week morphology scan

Take home messages

- If ordering NIPT first also offer 12-13 week scan (biochemistry and risk assessment for T21 is not required after NIPT)
- If having CFTS and *Papp-A <0.4 MoM - risk of pre-eclampsia, growth restriction, stillbirth - refer to Mater MFM (fetal growth scan and uterine artery Dopplers at 24 weeks).
- Offer carrier screening for common recessive conditions to all women

***Papp-A alone is not supported as a 'standalone' screening test**

Patient information resources

Chorionic villus sampling (CVS)

Chorionic villus sampling (CVS) is performed from 11 weeks of pregnancy. An ultrasound is first performed to date the pregnancy and check that the position of the placenta and fetus is suitable for performing the procedure. Occasionally the procedure may not be possible and your doctor will discuss this with you. A sterile needle is guided into the placenta and a small sample is taken for testing. CVS has a miscarriage risk of 1%. Sometimes, a test result may be difficult to interpret and it may be necessary to undergo further testing, such as amniocentesis, to clarify the result.

Amniocentesis (Amnio)

Amniocentesis is performed from 16 weeks of pregnancy. Under ultrasound guidance, a needle is inserted through the abdomen into the amniotic sac around the fetus and fluid is taken for testing. Amniocentesis has a miscarriage risk of 1%.

Test results

CVS and amniocentesis test the fetal chromosomes. Other genetic testing can occur where indicated. A rapid chromosome screening test takes 2-5 days. This only assesses for a handful of chromosomal disorders including Down syndrome, Edward syndrome, and Patau syndrome, amongst others. This test can also determine fetal gender. Normal rapid screening results are very reassuring; however it is important to wait for the final chromosome results which may take 2–3 weeks for confirmation. The time taken for other genetic test results may vary depending on the test.

What is genetic testing?

If you are considering a pregnancy or are pregnant, it is advisable to obtain a referral to a genetics service if you have a personal and/or family history of an inherited disorder (e.g. cystic fibrosis, Fragile X or Duchenne muscular dystrophy). Tests on couples or their family members may be required before prenatal diagnostic testing can be offered in a pregnancy.

Limitations of prenatal screening and testing

Prenatal screening and diagnostic tests are designed to detect disorders in a fetus before birth. Some conditions can be treated after birth. However, chromosome abnormalities and some other genetic disorders cannot be reversed, which may have serious consequences for the baby. In these situations, some couples may wish to have information prior to the birth of their baby so they have time to prepare; other couples consider requesting a termination of the pregnancy. No prenatal test can give a full guarantee that the baby will be normal in every way. However the majority of couples will have a healthy child.

Genetic Health Queensland (GHQ)

For more information about Genetic Health Queensland, educational material and details about making appointments, please contact the main office or the genetic counsellor at one of the outreach centres.

Royal Brisbane and Women's Hospital (Main Office)	07 3646 1686
Royal Brisbane and Women's Hospital Prenatal Service	07 3646 2269
Cairns and Townsville	07 4433 1464
Bundaberg, Rockhampton and Mackay	07 4150 2794
Nambour	07 5441 7167
Toowoomba	07 4616 6995
Gold Coast	07 5687 1515

Office hours are 8 am to 5 pm.

Genetic Health Queensland

C/-Royal Brisbane and Women's Hospital
Butterfield Street, Herston QLD 4029

Phone: 07 3646 1686
Fax: 07 3646 1987
Email: ghq@health.qld.gov.au
Web: www.health.qld.gov.au/ghq

QH453 03/15

Queensland Health

Genetic Health Queensland

Prenatal screening and testing

Queensland Government

mater mothers' hospital
Patient information

Quick Links

View other services offered by
Mater Mothers' Hospital

Testing for Down syndrome and other chromosome abnormalities

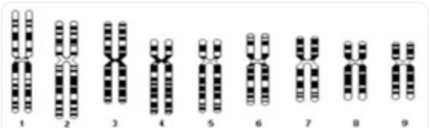
Information for expectant parents

What are chromosome abnormalities?

Chromosomes carry our individual genetic material (genes). Our bodies are made up of billions of cells, and in each cell there are 23 pairs of chromosomes. Extra or missing chromosomes may cause abnormalities that can affect a baby's development. The most common chromosome abnormality affecting newborns is Down syndrome which occurs in around 1 in 500 to 600 pregnancies.

Down syndrome (trisomy 21)

Down syndrome (also known as trisomy 21) is a genetic condition—it is not an illness or a disease. Down syndrome is caused by the occurrence of an extra chromosome; chromosome 21. This results in a range of physical features, health problems, developmental delay and some level of intellectual disability. In most cases there is no family history of Down syndrome as it usually occurs randomly. Other chromosome abnormalities such as Edward syndrome (trisomy 18) and Patau syndrome (trisomy 13) occur less often than Down syndrome but have more severe effects on the baby. Chromosome abnormalities cannot be reversed once they occur.



Appropriate referrals

All women should be offered first trimester screening

- order privately – insufficient public capacity

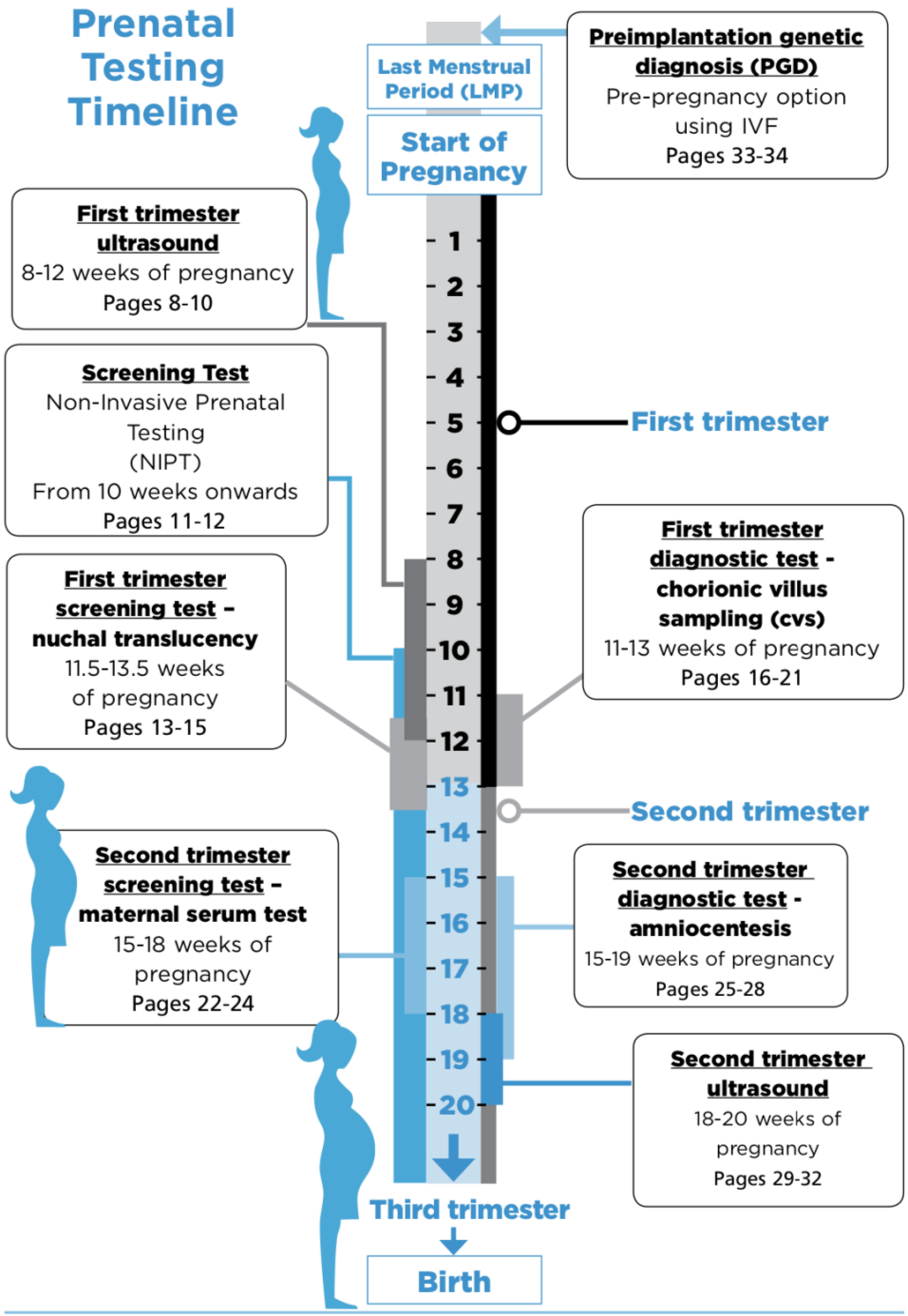
Low risk women are not seen in antenatal clinic until 16-20 weeks

- GPs to lead the discussions and provide referrals

- Women need to be made aware of their options
  - including limitations of screening Vs diagnostic tests

Appropriate referrals

- If after discussions, women wish to have further testing, they need a *prompt* referral to MMH or a private provider as a NIPT result takes 2-3 weeks to come back and the earliest *diagnostic* testing via a CVS can only be done between 11 and 14 weeks gestation
- Further information is available at Genetics fact sheets

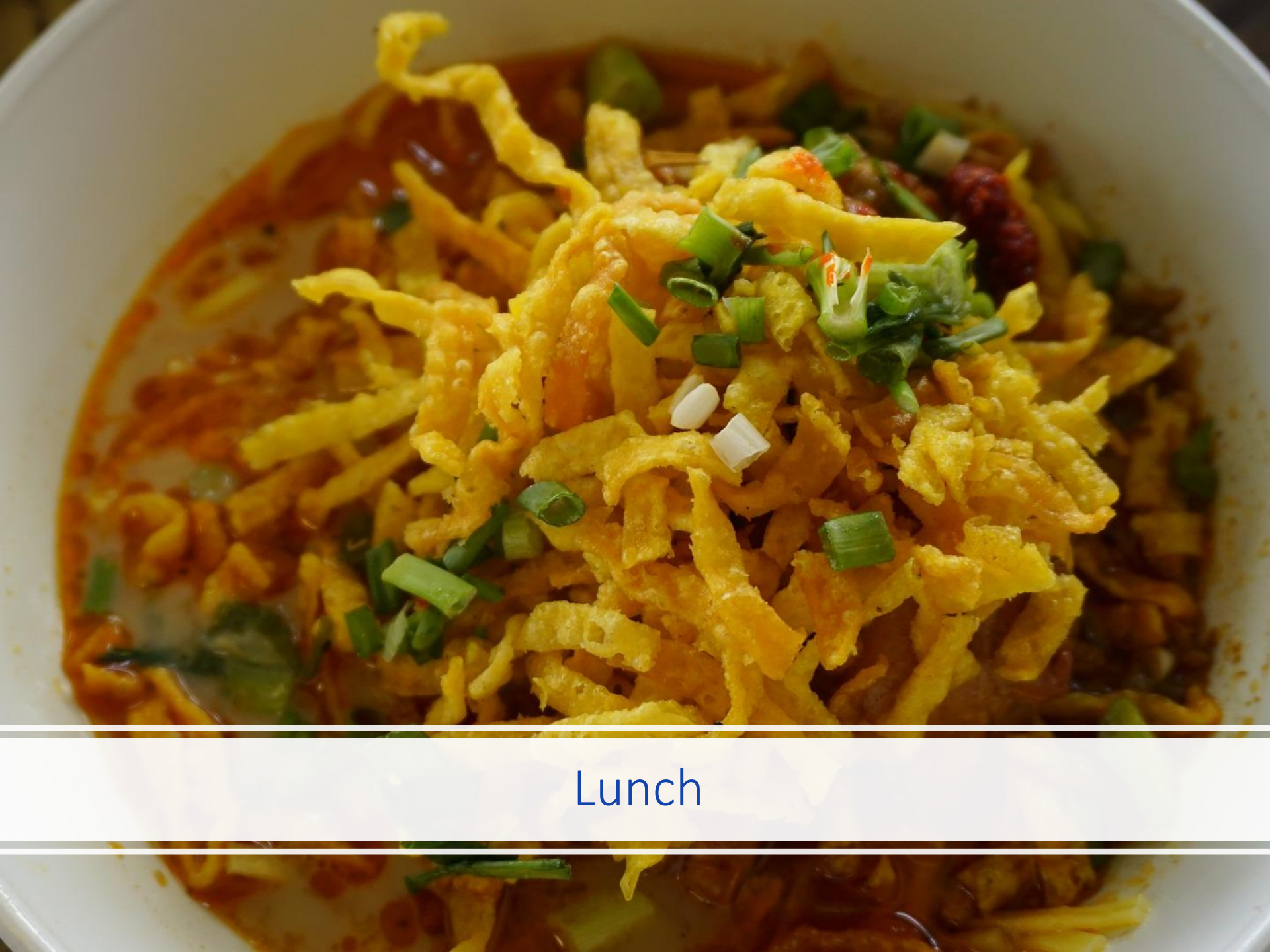


NSW Centre for Genetics Information consumer resource

The termination dilemma

- The MMH DOES NOT provide TOP
- QHealth capacity is limited
- Hospitals are developing their own processes, this is a situation where you phone a consultant
- Information about the range of options for women and termination providers is available at Children by Choice

Support organisation for families



Lunch

Welcome back from lunch

Time	Task	Who
1:00	Physiotherapy in the Child Bearing Years	Kristen Ruhmann
1:20	Pharmacology and pregnancy – general principals	Dr Treasure McGuire
1:30	Case work: Task 2	GP groups
1:40	Case Presentations	Dr Huda Safa Dr Wendy Burton
3:00	Afternoon Tea	All
Amy Allia (Dietician)	Introducing our MMH midwives:	Nicola Graham & Erin Hutley GPLM Jan Tyrrell Clinical Midwife

Physiotherapy in the child-bearing year

Mater Mothers' Hospital GP Maternity Shared Care Alignment Program

Physiotherapy
Mater Health Services

How can we help?

- Provide primary healthcare support to medical staff in the management of women and their babies
- Enable easy access for women to Physiotherapy
- Promote a multi-disciplinary model of care

Physiotherapy services at MMH

ANTENATAL

Classes:

- Physiotherapy Pilates
- TENS in Labour (from K37)
- Your Changing Body Classes

Outpatient clinics (Obstetric and Pelvic Floor appointments):

- Public – Allied Health Level 2 MAH
- Private – Mater Health &Wellness

Physiotherapy services at MMH

POSTNATAL

Classes:

- **Postnatal Review Workshop** 4-6wks
- Abdominal wall class 2-4 weeks
- Physiotherapy Reformer Pilates >6wks

Inpatient service:

- **Individual inpatient Rx**, or e-mail/telephone consult if D/C from Birth Suite
- Lactation Service- Therapeutic USS for Blocked Ducts/Mastitis

Outpatient clinics (Obstetric and Pelvic Floor):

- Public – Allied Health (Level 2 MAH)
- Private – Mater Health & Wellness
- Parenting Support Service Clinic (0-6 months)

Common Complaints within the CBY

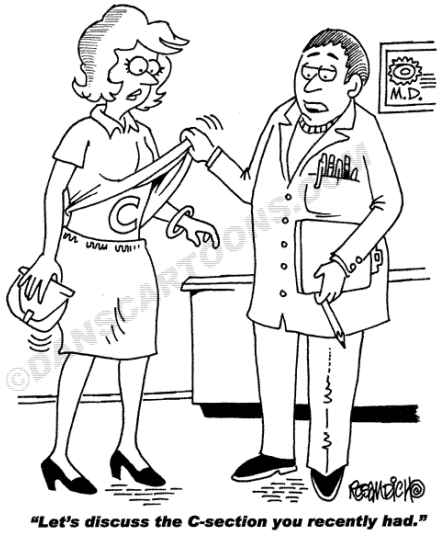
ANTENATAL

- Ligamentous changes and Postural load
  - Pelvic girdle pain/dysfunction
  - Bladder control problems
- Constipation/straining
- Pelvic floor strain
- Abdominal strain
- Altered body mechanics
  - Difficulty moving in/out bed, or finding comfortable positions
- Carpal tunnel syndrome, Neck/shoulder pain
- Altered circulation, varicose veins, lower extremity edema

Common Complaints within the CBY

POSTNATAL

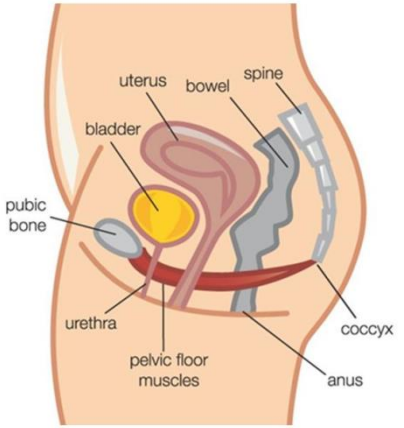
- Abdominal corset dysfunction
  - Caesarean section wound
  - Rectus Diastasis, abdominal instability/laxity
- Pelvic floor dysfunction/trauma
  - Pain inhibition
  - Swelling
  - Neuropathy
- Spinal /pelvic girdle pain
  - Lumbar, Thoracic/shoulder girdle
  - Pubic Symphysis or Sacroiliac joint
- Upper extremity stresses and muscular requirements of baby cares
- DeQuervain's tenosynovitis & Carpal tunnel syndrome



Physiotherapy Services at MMH

Pelvic Floor Dysfunction GP or Specialist referral is required

- Urinary or Faecal Incontinence
- Chronic Bladder/Bowel Dysfunction
- Pelvic Organ Prolapse
- Pre/post-op Gynae Surgery care
- Male Continence (including pre/post Prostatectomy)
- Sexual Dysfunction/Pelvic Pain/Dyspareunia/Vaginismus/Vestibulodynia



Recognising when to refer to Physio

Stress Urinary Incontinence (SUI)

- Involuntary leakage of urine on exertion or with coughing or sneezing
- Recommend PFM exercises in pregnancy and beyond
  - Mater Website: http://brochures.mater.org.au/
  - CFA website: www.continence.org.au
  - Pelvic floor first website: www.pelvicfloorfirst.org.au
- **When to refer to physio:**
  - Severe symptoms
  - Pelvic floor muscle exercises are not helping
  - Symptoms bothering patient

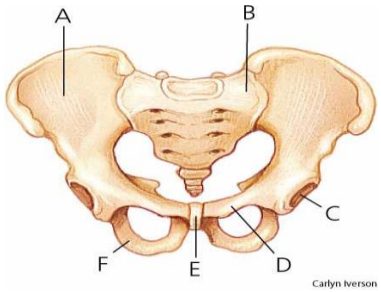
Recognising when to refer to Physio

Pelvic Girdle Pain (Pubic Symphysis (SPD) or Sacro-Iliac Joint (SIJ) Dysfunction:

- Persistent or severe pain which interrupts daily activities
- Difficulty mobilising, interrupted sleep

Typically aggravated by:

- Rolling or getting in and out of bed
- Walking, twisting, stairs



Persistent or severe lower back pain

Physio can help! SEEK TREATMENT EARLY

Recognising when to refer to Physio

CTS and DeQuervain's

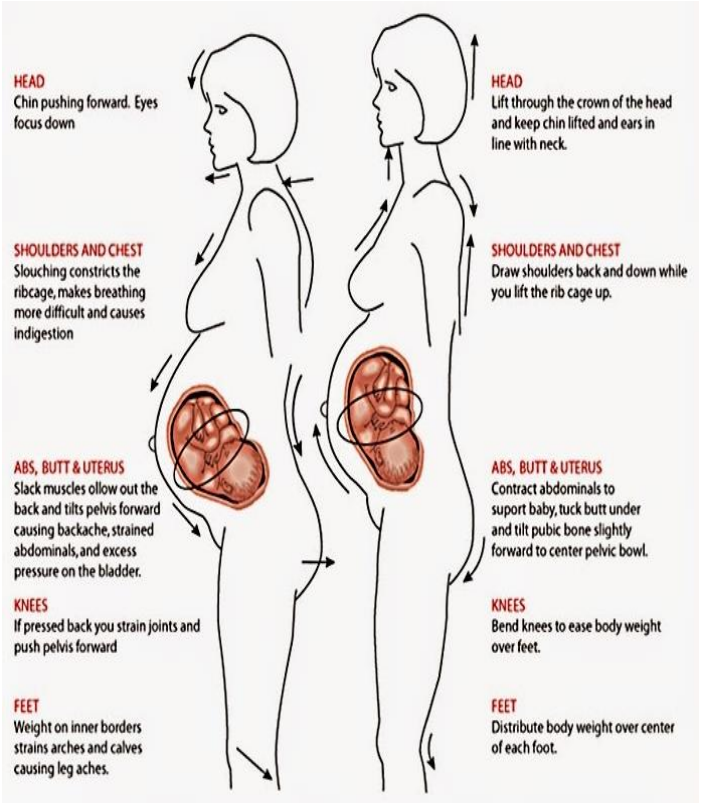
- Related to fluid retention in pregnancy
- Refer if early onset in pregnancy and symptoms worsen

Vulval Varicosities

- Differentiate from Pubic Symphysis Dysfunction
- Physiotherapy education

How can Physiotherapy help?

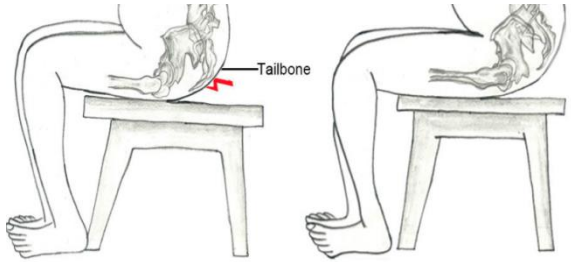
- **Postural Correction and Stretches**
- **Achieving normal movement**
  - Reduce strain
  - Adequate support (passive/ core stability)
- **Pelvic floor muscle training**
- **Good bladder and bowel habits**
- **Guidelines to safe exercise**

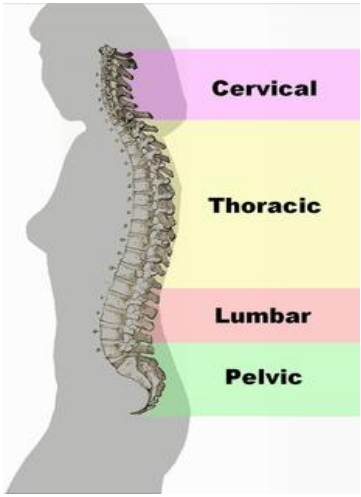


Keeping your spinal curves “neutral”

Good posture

- Decreases strain on muscles, joints and ligaments
- May assist with optimal foetal positioning
- Facilitates core stability muscle function
- Assists prevention/treatment spinal pain





Sitting posture alignment

Standing posture alignment

Postural stretches

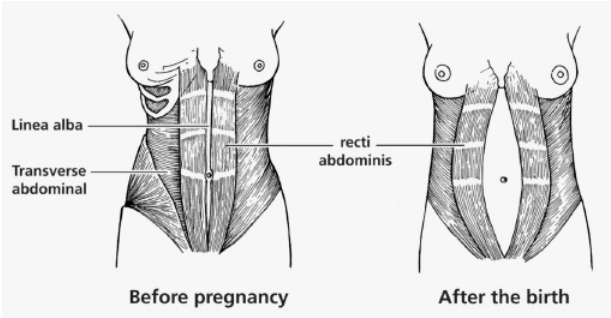
Functional bracing

Remember to **keep the curves in your back** and **draw in your gentle "brace"** as you:

- Sit → stand
- Stand → kneel
- Kneel → stand
- Stand → bend/lift
- Stand → sit
- Protected coughing, sneezing
- ??? Vomiting – a challenge

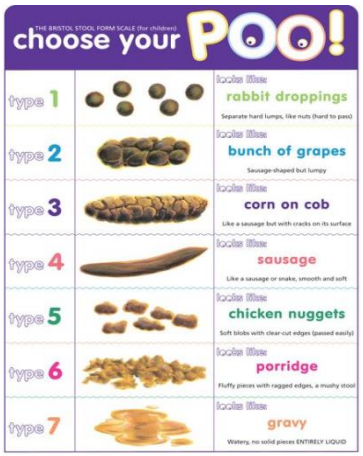
Rectus Diastasis and Abdominal wall instability

- **Rectus Diastasis (RD)- thinning and stretching of the linea alba during pregnancy causing stretch between the Rectus Abdominis muscles**
- The stretch occurs through entire abdominal wall
- Disrupts the ability of the Transversus Abdominus Muscle (TrA) to stabilise the lumbo-pelvic region
- Can lead to increased strain on the lumbo-pelvic area and contribute to pelvic girdle/low back pain



MOVING SAFELY REDUCES STRAIN ON THE ABDOMINAL MUSCLES→ **IN/OUT OF BED THROUGH SIDE-LYING AT HOME AND DURING MEDICAL APPOINTMENTS**

Good bladder and bowel habits



- Adequate water intake (normally 1.5 to 2.0litres)
- Normal AN to void 12-14 times/day
- Normalise bladder capacity PN – no "just in case" visits
- "The Knack" – pre-contract PFM prior to ↑ IAP
- Allow time to go to the toilet – never strain to empty bladder or bowel
- Ensure optimal stool consistency – (water, fibre, +/- aperient)
- Use the correct toileting position and relax PFM

Safe exercise in Pregnancy

- **Encourage exercise in pregnancy**
- Numerous benefits for mother and baby +++
- No increase in adverse pregnancy or neonatal outcomes
- Look out for updates (see below)

Guidelines:

- SMA position statement (Exercise in Pregnancy and the Postpartum Period) 2016
- RANZCOG (Aus/NZ) 2004
- RCOG Statement No. 4 2006 / 2011 (UK)
- ACOG guidelines 2003 (USA)
- SOGC / CSEP 2003 (Canadian)

Exercise in Pregnancy Guidelines

- All women should be encouraged to participate in aerobic and strength conditioning as part of healthy lifestyle
  - maintain good fitness level rather than trying to reach peak fitness level
  - choose activities that minimise risk of loss of balance/trauma
  - PFM exercise immediately postnatally may reduce risk of future urinary incontinence
- Health care professionals to use judgement as to extent and duration of exercises with certain conditions (listed in guidelines)
- Advise women of warning signs to cease exercise

(2011 RCOG)

Absolute contra-indications to exercise in pregnancy

- Ruptured membranes
- Preterm labour
- Hypertension or pre-eclampsia
- Incompetent cervix
- IUGR
- Multiple gestation (≥3)
- Placenta previa after 26/40
- Persistent bleeding in 2nd/3rd trimester

Returning to exercise & fitness programs

Early individualised postnatal exercise:

- Pelvic floor and Transversus Abdominis muscles
- Postural stretches and awareness
- Gentle short walks, within comfort
- Regular rest periods

Post-natal review class (4-6/52 PN)

Return to Sport Pelvic Floor Muscle Check- Health & Wellness Clinic from 6/52 PN

Progress after 6 weeks:

- Static toning and strengthening *e.g. light weights, ↑home program*
- Low impact, dynamic exercise *e.g. swim, cycle, yoga, pilates*

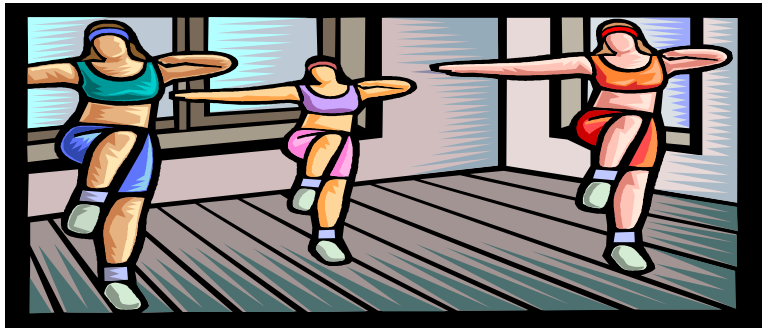
Returning to exercise & fitness programs

Progress after 3-6 months:

- Higher impact, dynamic *e.g. running, netball, tennis*

Beware for up to 12 months:

- Unexpected, rapid, high impact, unpredictable sports and activities *e.g. water skiing, power boating in rough seas, horse riding, some contact sports*



Summary - When to refer?

- Enquire about the presence of incontinence, constipation, pelvic girdle (PGP) or low back pain (LBP)
- Refer when symptoms are bothersome
  - difficulty remaining at work
  - difficulty completing activities of daily living/taking care of family
  - Interfering with comfort and sleep
- Enquire about physical activity in pregnancy→ provide information on antenatal and post-natal exercise

Early referral for:

- Anterior and bilateral pelvic girdle pain
- Significant low back pain/Hx of trauma or surgery
- Early onset of significant symptoms (1st/2nd trimester) – particularly symphysis pubis dysfunction and Carpal tunnel syndrome
- Significant Bladder or Bowel dysfunction

Physio MMH contact details

Public Outpatient service (including classes)

- no referral required if booked in to Mater Mothers' Hospital
- Phone 07 3163 6000 (prompts 2 then 2), OR Fax to 3163 1671
- Can arrange for urgent appointment if required (best to call)→ rapid response service activated

Private Outpatients - Health & Wellness Clinic

- Phone 07 3163 6000 (prompts 1 then 2)
- Patient can self-refer or Doctor/Specialist referral
- Websites:
  http://wellness.mater.org.au
  http://brochures.mater.org.au (MMH or MMPH, enter *physiotherapy* into the search tab for a range of brochures for women)

Pharmacology and pregnancy

Dr Treasure McGuire, Pharmacologist

General principles

Introduction - general pharmological principles including supplements and CAMS	Dr Wendy Burton, MBBS Chair, MMH MSC Alignment Committee Maternity Lead, GMSBML & Dr Treasure McGuire, Pharmacist and Pharmacologist Mater, UQ and Bond University	 Video (≈17 mins)
General principles, organogenisis, ADEC categories	Dr Wendy Burton, MBBS Chair, MMH MSC Alignment Committee Maternity Lead, GMSBML & Dr Treasure McGuire, Pharmacist and Pharmacologist Mater, UQ and Bond University	 Video (≈10 mins)

Small Group Activity

Red Group –24 year old, vomiting

Yellow Group – 22 year old unplanned pregnancy, DOCS

Pink Group – Primiparous, hypertension, headache

Blue Group – 32 year old, Varicella

Green Group – 32 year old, PND, SSRI

Orange Group – 28 year old, hypertension, ACE

Task 2

- You need a scribe and a presenter
- You have *10* minutes!

Green Group
Task 2 - Medications in pregnancy

Kathy, age 31, presents in her second pregnancy. You provided shared ANC for her first pregnancy and diagnosed her post natal depression, which responded very well to medication (an SSRI). After reading online blogs, she ceased her medication and is confident she'll be ok. Upon enquiring about her mother, who has been unwell, Kathy informs you that her mother has recently been diagnosed with bipolar disorder.

- Did she need to stop the SSRI?
- Is there a "best" medication for anxiety or depression in pregnancy?
- Outline your approach to her care during and after pregnancy.
- What resources are available to assist in planning her management?
- Is the family history relevant?

Preconception Choices

- Stop medication before & during pregnancy
- Stop medication & reintroduce if symptoms recur
- Reduce dose
- Change to alternate medication / Rx
- Continue current medication

With thanks to Dr Lyndall White for her contribution to the following slides/information

Major Depressive Episode (DSMV)

- Either low mood or serious loss of interest (or both)
- Problems with sleep, appetite, concentration
- Psychomotor ↑ or ↓
- Guilt, suicidal ideation
- Most days 2/52

Prevalence of Perinatal Depression

Antenatal Depression: (new cases)

- 1st Trimester - 7.5%
- 2nd Trimester - 13%
- 3rd Trimester - 12%

Recurrences of major depressive disorders occur rapidly

- 50% 1st Trimester
- 90% 2nd Trimester

Postnatal Depression

- Mean prevalence – 13%
- May be as high as 20%
- DSMV definition – within 4 weeks of delivery
- Clinically – up to 12 months following birth
- Need to consider Bipolar Disorder if severe

SUICIDE

- A frequent cause of maternal death in the postpartum period
- Often violent
- Highest risk period 6 weeks - 12 months post diagnosis
- 73% victims have serious mental illness
- High incidence of perinatal complications

Biological Risk Factors for Perinatal Mood Disorders

Past history

- Mental illness
- Significant medical/obstetric complications
- Complicated delivery
- Discontinuation of medication
- Abrupt cessation of lactation/other hormonal change
- Substance use/abuse/OTC use
- Comorbidities, especially anxiety
- Use of corticosteroids – high dose, long course

Family history

- Mental illness
- ↑ risk with 1º relative
- ↑ risk with perinatal onset in relative

Preconception

Early discussions of risks & management strategies

Reduce general risks

- Cigarettes, ETOH
- Weight, nutrition
- Exercise
- Other substances

Other

- Counselling – CBT, IPT

Involve partner where possible

During Pregnancy

- NO DRUG “SAFE”
- Need clear indication for medication
- “Dance with the one that brung you”
- Medication considerations
  - Dose (lowest effective, evidence based)
  - Time
  - Interactions
  - Complicating factors
  - Tolerability

Medication in Pregnancy General principles

- Avoid 1st trimester if possible
- Lowest effective dose for shortest time
- Chose best evidence based medication
- Avoid polypharmacy
- Use an effective medication in an effective dose, treat to remission and continue treatment past vulnerable times

Medication in Pregnancy cont..

- Collaborate with O&G team
- Communicate with carers / treaters
- Early USS & echocardiography
- Consider dose changes as necessary
  - Mid trimester increase
  - Late trimester reduction no longer recommended
- Metabolic changes in pregnancy

? Late Term Reduction in Dose

- Drug may clear maternal compartment
- Unlikely to clear fetal brain
- May predispose to relapse at most vulnerable time

Antidepressants in Lactation

- <10% maternal dose in EBM
- Side effects in infants rare
- Maternal monitoring best
- NB substance and OTC use
- Other medications

LactMed

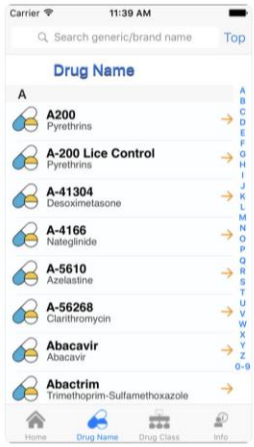
LactMed 17+

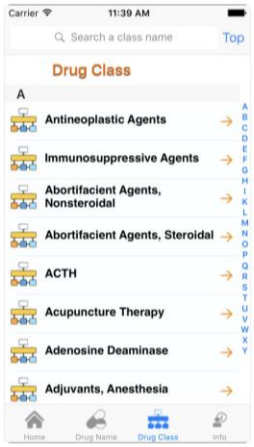
National Library of Medicine

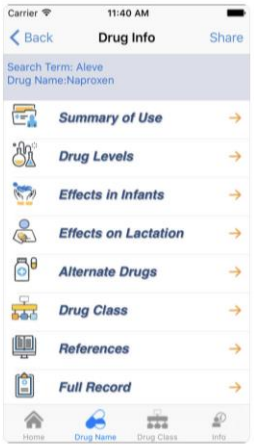
★★★★★ 4.0, 3 Ratings

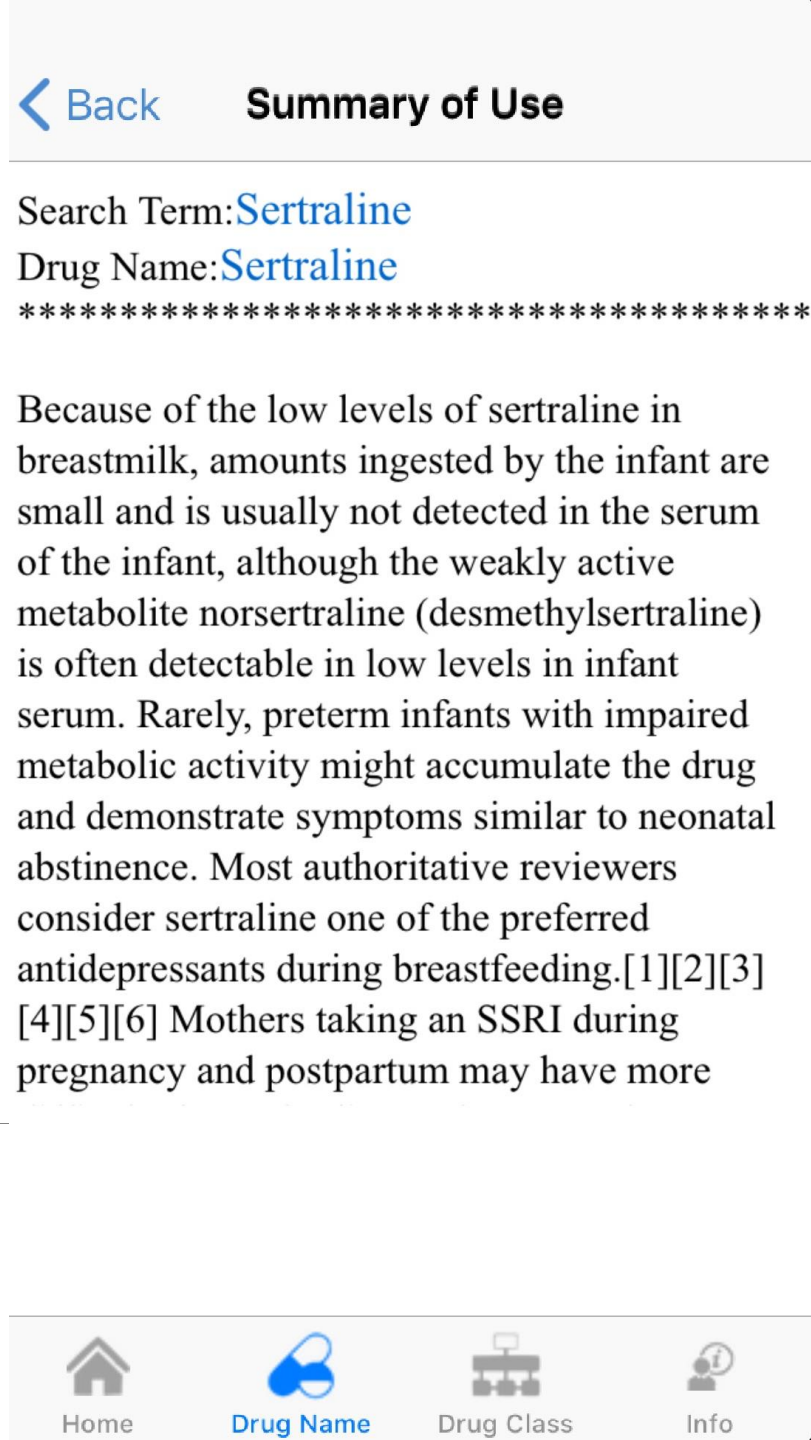
Free

iPhone Screenshots









General Management Principles

- In pregnancy and the postnatal period – severity of illness drives the risk – benefit analysis
- Treatment should be individualised
- If in doubt refer

Antidepressant medication in pregnancy

Antidepressant medication during pregnancy and breastfeeding

Information for pregnant women

During your pregnancy it is really important for you to have a stable mood and be comfortable on your antidepressant medication as part of providing a safe environment for your baby.

Taking antidepressant medication during your pregnancy

Mood and anxiety disorders need to be treated appropriately during pregnancy. This could include the need for antidepressant medication which is safe, effective and not addictive. Among the antidepressant medications often prescribed to treat mood and anxiety disorders are Selective Serotonin Reuptake Inhibitors (SSRI) and Selective Noradrenaline Reuptake Inhibitors (SNRI).

Babies can be exposed to these medications because they cross the placenta. Exposure to antidepressant medication in late pregnancy can result in your baby having “discontinuation syndrome”.

Symptoms of discontinuation syndrome occur in up to one in three babies who have been exposed to SSRI or SNRI medication. Symptoms are usually mild and disappear within a few days. However, moderate to severe symptoms have also been reported. These symptoms include respiratory problems, temperature changes, feeding

Online Mater resources

Medication Use in Pregnancy. Managing Nausea vomiting and Hyperemesis	Dr Wendy Burton, MBBS Chair, MMH MSC Alignment Committee Maternity Lead, GMSBML & Dr Treasure McGuire, Pharmacist and Pharmacologist Mater, UQ and Bond University	 Video (≈8 mins)
Medication use in pregnancy. The use of psychotropic medications in a breastfeeding woman	Dr Wendy Burton, MBBS Chair, MMH MSC Alignment Committee Maternity Lead, GMSBML & Dr Treasure McGuire, Pharmacist and Pharmacologist Mater, UQ and Bond University	 Video (≈8 mins)
Medication Use in Pregnancy. Managing Bipolar, Schizophrenia and Psychosis	Dr Wendy Burton, MBBS Chair, MMH MSC Alignment Committee Maternity Lead, GMSBML & Dr Treasure McGuire, Pharmacist and Pharmacologist Mater, UQ and Bond University	 Video (≈5 mins)
Medication Use in Pregnancy. Managing Anxiety and Depression	Dr Wendy Burton, MBBS Chair, MMH MSC Alignment Committee Maternity Lead, GMSBML & Dr Treasure McGuire, Pharmacist and Pharmacologist Mater, UQ and Bond University	 Video (≈16 mins)

Management of mental illness in the perinatal period

Consider all options including lifestyle and facilitating appropriate supports

Options include:

- Pregnancy support counseling—no Mental Health Plan required, 3 Medicare funded visits
- Search for eligible psychologists at www.psychology.org.au

Find a Psychologist

Find a Psychologist
- About the APS Find a Psychologist Service
- About psychologists
- Specialist areas of psychology
- Consulting an APS psychologist
- Fees and rebates
- Psychology topics
- Psychology in the Public Interest
- Useful links
- National Psychology Week

Quick links
- Log your CPD
- Submit your Medicare number(s)
- Join/Renew Find a Psychologist
- Update your details
- Events Calendar
- Find a Psychologist
- Find a Job
- APAC-accredited courses
- Media releases

Quick search | Advanced search | Search by name

About Find a Psychologist

Quick search

Psychologists listed here do NOT want to receive unsolicited commercial electronic messages.

Search for a psychologist in your area. Access over 2,300 psychologists Australia wide, who are in private practice and provide services for a fee.

Information about Medicare

This listing is not a directory of APS Members.

To refine your search use Advanced Search.

If you need further assistance use our telephone referral service.

Journalists: use Media Referral Service.

Please note: Psychologists listed in this *Find a Psychologist* database have paid an annual fee to participate. All psychologists listed are fully registered and either: Associate Members, Members, Fellows or Honorary Fellows of the Australian Psychological Society. Any services offered or therapeutic approaches listed are self-regulated and require a Declaration from each psychologist that they are competent in those areas.

The APS requires its members to comply with the APS Code of Ethics, particularly standard B.1.2. - 'Psychologists only provide psychological services within the boundaries of their professional competence.'

Who is this for? Adult *

What are the issues? Please choose up to 3. *

Display: by category | alphabetically

- [ ] Bipolar Disorder
- [ ] Depression
- [ ] Dissociative Identity Disorder
- [ ] Eating disorders
- [ ] Gender/sexual identity disorders
- [ ] Mental illness

Medicare Psychologist (•) Yes
(lists Psychologists and Clinical Psychologists)

Medicare Clinical Psychologist ( ) Yes
(lists Clinical Psychologists only)

Non-directive Pregnancy Support Psychologists [x] Yes
(lists psychologists that have trained and registered with Medicare to provide non-directive pregnancy support counselling for pregnant women and women who were pregnant within the past 12 months)

Autism and PDD Psychology Provider [ ] Yes
(lists psychologists that have indicated that they have training and experience in the assessment and treatment of autism and PDD)

Location of psychologist? *

Suburb, town or postcode: Morningside, QLD, 4170

Within a radius of: 10 km from suburb/town

Search

Referral Process

Any GP may refer patients to eligible psychologists, social workers and mental health nurses for services, via a signed and dated letter or note. GPs do not need to have completed non-directive pregnancy counselling training to make referrals.

Patients may be referred to more than one allied health professional (eg, where the patient does not wish to continue receiving services from the provider they were referred to in the first instance).

A new referral is required for each pregnancy or where the patient wishes to be referred to a different provider.

Patients who are unsure of the number of rebates available to them may check with Medicare Australia on 132 011. Providers may also check prior to providing a service (patient needs to be present).

Summary

- Rebates are available for up to three (3) non-directive pregnancy support counselling services per patient, per pregnancy.
- A person who is currently pregnant or who has been pregnant in the preceding 12 months may access the services.
- Services can address all pregnancy-related issues for which non-directive counselling is appropriate.
- Services are provided by eligible GPs, and allied health professionals on referral from a GP.
- Providers may set their own fees. If a provider accepts the Medicare benefit as full payment for the service, there will be no out-of-pocket cost. If not, you will have to pay the difference between the fee charged and the Medicare rebate.

What Were We Thinking!

MONASH University
School of Public Health and Preventive Medicine

The Marcé Society

An international society for the understanding, prevention and treatment of mental illness related to child bearing.

family doctor or another health professional.

Management of mental illness in the perinatal period

If public specialist assessment is required:

Metro South Acute Care Services (1300 MH CALL = 1300 64 22 55) offer initial triage and assessment for severe or complex presentations.

They can also provide expert advice on management and advice around medications.

Management of mental illness in the perinatal period

Options continued..

- Mental health assessment and plan if required and manage/refer as appropriate
  - medication
  - psychologist
  - psychiatrist
- Mater has a public outpatient service for women with complex mental health issues
- Belmont Private Hospital
- There is a public mother-and-baby inpatient unit at the Gold Coast University Hospital

Take home message

- Perinatal mental illness is a significant cause of morbidity and mortality, affecting maternal and neonatal outcomes, the health of families and of the community.
- A woman will have an EPDS completed at her booking in appointment. As per the PHR (Pregnancy Health Record) please administer EPDS (or K10 or DASS21 or ANRQ) again by 34 weeks, at 6 weeks post partum and prn
- Identification and appropriate treatment is essential to promote optimal outcomes
- Suicide is the leading cause of maternal death in the developed world
- **In Qld in 2015, *suicide* was the number one cause of maternal mortality within a year of the end of pregnancy***

Queensland Mothers and Babies 2014 and 2015
Report of Queensland Maternal and Perinatal Quality Council 2017

Postpartum suicide

It is distressing to review the deaths of mothers due to suicide who had infants of less than 12 months of age. Women continue to fall through the gaps of mental health care provision, including appropriate identification of their mental health issues during and immediately post pregnancy. This is a significant public health issue and needs urgent attention. As perinatal mental health issues are common and often poorly diagnosed, managed and followed up, it is clear that this is a matter that must be prioritised. Timely access to specialist perinatal mental health services and/or advice is a matter of serious concern, as is the lack of systematic mental health screening in the private sector for women accessing care through that sector. Delays in access to public mental health professionals have also been identified in some maternal deaths.

The Council noted in its 2015 Report that active follow-up of the women known to be at risk of depression from prenatal and postnatal screening needs to be universal and effective.

Approximately 1 in 6 maternal deaths are due to suicide

Every woman, every time….

Are you ok?

The 2017 National Perinatal Mental Health Guideline

"Obstetric practice – Obstetricians in public or private practice are responsible for ensuring that screening with the EPDS and psychosocial assessment take place. Regardless of who conducts the assessments (e.g. the obstetrician or a practice midwife), the woman's GP and the hospital at which the woman will give birth need to be notified if there are any concerns and relevant information included in the woman's discharge summary."

- May I suggest we all modify our obstetric templates or write to the obstetricians we regularly refer to, to let them know we are able to assist with further assessments and planning for women whose mental health is at risk.

Yellow Group
Task 2 – Complicated pregnancies

Jade is a 22 year old G4P2T1 who presents with an unplanned pregnancy. You have seen Jade and her children on various occasions. Her home life is disorganised, you know she abuses alcohol, is a heavy smoker and you suspect that she also uses illicit drugs. The Department of Child Safety contacted the practice around the time of the birth of the first baby but you are not aware of any ongoing involvement. As you take her BP, you notice a suspicious bruise on her arm and the smell of alcohol on her breath. Her toddlers are more fractious than usual and could do with a bath and some clean clothes.

Outline your approach to her care

Mandatory Reporting

- The *Child Protection Act 1999* requires certain professionals, referred to as 'mandatory reporters', to make a report to Child Safety, if they form a reasonable suspicion that a child has suffered, is suffering or is at an unacceptable risk of suffering significant harm caused by physical or sexual abuse, and may not have a parent able and willing to protect them.
- Mandatory reporters should also report to Child Safety a reasonable suspicion that a child is in need of protection caused by any other form of abuse or neglect.

Making a report

Make a report to Child Safety

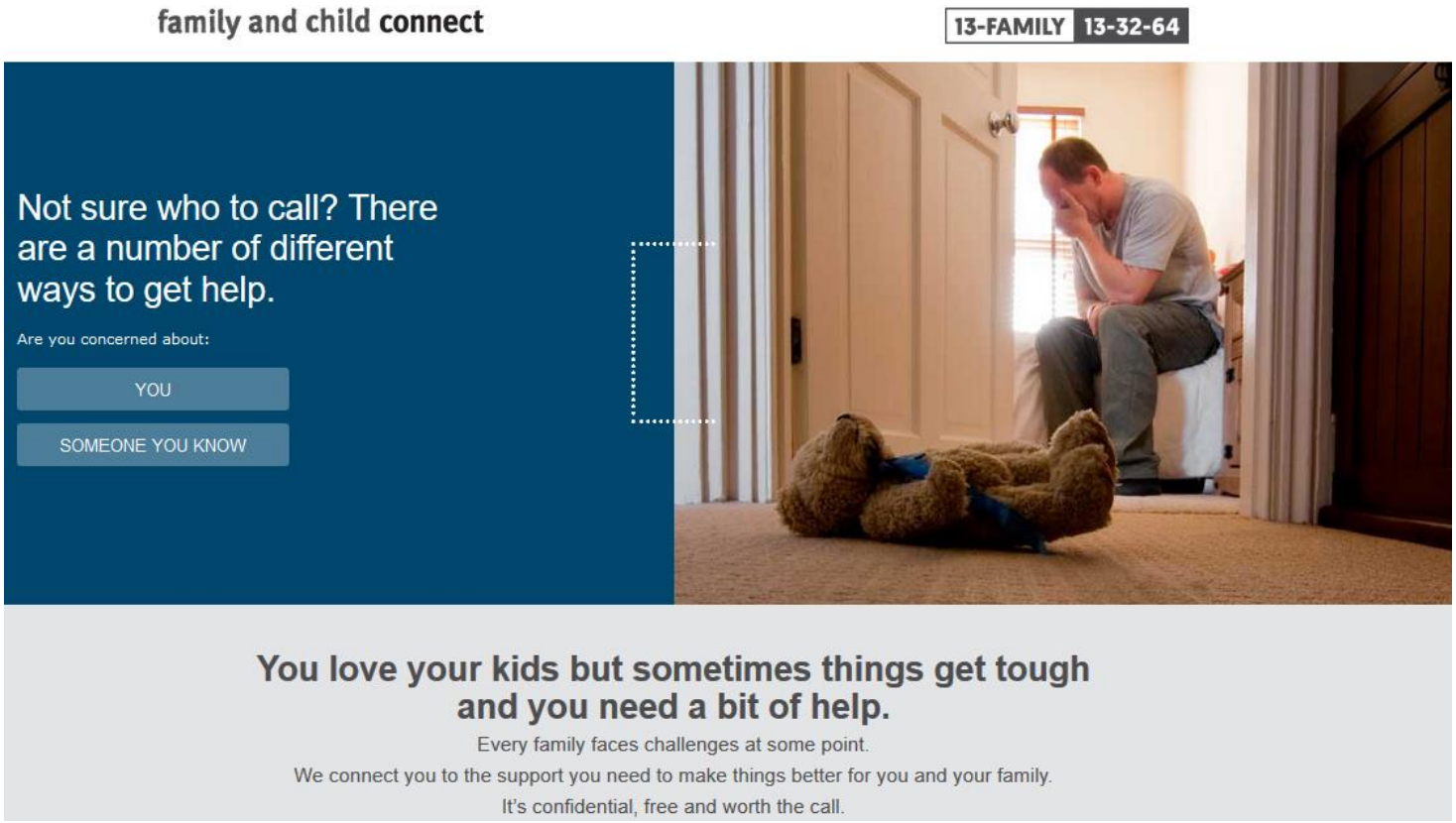
This site provides a means of reporting child protection concerns to the Department of Communities, Child Safety and Disability Services.

Report child protection concerns to Child Safety

Start report form ›

Use this form to report child protection concerns to the Department of Communities, Child Safety and Disability Services.

www.familychildconnect.org.au



Information for professionals

family and child **connect**

13-FAMILY 13-32-64

Professionals who work with children and families

If you are a professional who works with children and families (e.g. teachers, doctors, or police) and you have concerns about a family, you can refer them to Family and Child Connect for help.

We connect families to government and non-government services within their local area.

Who do I call?

- If you have a reason to suspect a child in Queensland is experiencing harm, or is at risk of experiencing harm, you need to contact Child Safety Services
- If you are unsure, you can contact the social workers at MMH for advice

RACGP White Book

Specific populations

Pregnant women

GPs involved in obstetric or shared antenatal care need to be aware that pregnancy is a risk factor for intimate partner abuse. Evidence suggests that four to nine women in every 100 pregnant women are abused.[44]

We ask pregnant patients about smoking, alcohol and breastfeeding, and we also need to screen for intimate partner abuse.[3,2]

For many women, pregnancy and the post partum period exacerbates the violence and threats within their relationship.[45] For some, pregnancy may even provoke it. A violent and jealous partner may resent the pregnancy because he is not prepared to 'share' her. There may be financial or sexual pressures, which are compounded by the pregnancy.

Abused pregnant women are twice as likely to miscarry than non-abused pregnant women. An abusive partner will often target the breasts, stomach and genitals of their pregnant partner.[3] Often the abuse will start with the first pregnancy, and as a result the woman may avoid prenatal check-ups. Women who do not seek antenatal care until the third trimester should raise suspicion.

Consider asking about intimate partner abuse in the antenatal period.[3]

How do you ask women about DV?

"In addition to the blood tests and ultrasound scans we recommend in pregnancy, we ask every woman questions about how she is feeling and if she is safe. Anxiety, depression and domestic violence are common conditions and they may occur for the first time or get worse in pregnancy."

"Are you safe?"

Recognising Domestic Violence

- Physical
  - Pushing, shoving, punching, injuring
- Verbal
  - Constant put downs, name calling
- Sexual
  - Forced or unwanted sexual contact
- Social
  - Controlling where you go; what you do
- Financial
  - Being denied/refused access to money

Management

Organise a 2nd appointment

- without partner if possible

Resources

- Domestic Violence Hotline 1800 811 811
- 1800Respect 1800 737 732

Facilitate early referral to hospital

- Flag concerns/suspicions
- Enable social worker support

Please use the resources and the tools

- Notify the Social Workers
- Alert MMH to the risks so that they can triage most effectively
- Please communicate with other care providers
- On page 3 (QHealth a10) of the Pregnancy Health Record (PHR) is the Tobacco Screening Tool. Use it.
- On page 4 (QHealth a11) of the PHR are the Alcohol and Drug Screening Tools. Use them.

Women want to know campaign

www.alcohol.gov.au

About the 'Women Want to Know' project

Search enter search term search

Share |

The '*Women Want to Know*' project encourages health professionals to routinely discuss alcohol and pregnancy with women and to provide advice that is consistent with the *National Health and Medical Research Council's Australian Guidelines to Reduce Health Risks from Drinking Alcohol*.

The '*Women Want to Know*' project was developed by the Foundation for Alcohol Research and Education (FARE) in collaboration with leading health professional bodies across Australia and is supported by funding from the Australian Government Department of Health.

women want to know
discuss pregnancy & alcohol

The *Women Want to Know* project includes:

- A leaflet for health professionals on pregnancy and alcohol HTML | PDF 359 KB
- A leaflet on assessing alcohol consumption in pregnancy using AUDIT-C HTML | (PDF 332 KB)
- A leaflet for women on pregnancy and alcohol HTML | (PDF 309 KB)
- A leaflet on the *Women Want to Know* project HTML | (PDF 331 KB)
- Videos demonstrating health professionals discussing alcohol and pregnancy with women
- Videos of women and health professionals reflecting on this experience

Hard copies of the leaflets can be ordered from the resources and publications page.

In addition three online e-Learning courses with Continuing Professional Development accreditation are available for Health Professionals through the:

- Royal Australian College of General Practitioners
- Royal Australian and New Zealand College of Obstetricians and Gynaecologists
- Australian College of Midwives

Governance

The *Women Want to Know* project was overseen by a project Working Group with representation from the Australian Medical Association, the Royal Australian College of General Practitioners, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, the Australian College of Midwives, the Maternity Coalition, Medicare Locals Alliance and the Australian Government Department of Health.

Red Group
Task 2 – Medications in pregnancy

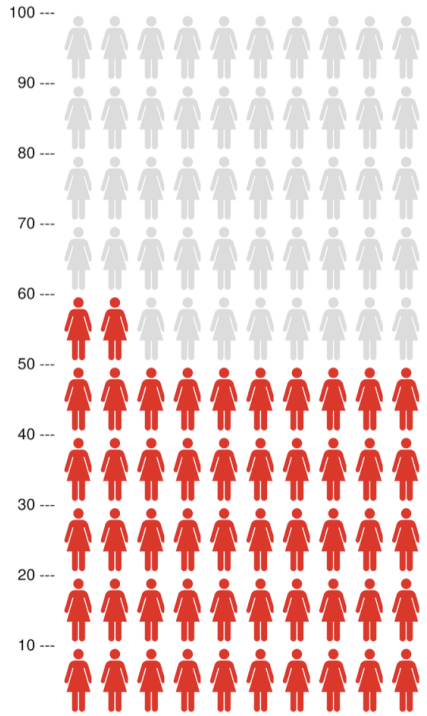
Nicole is now 9 weeks pregnant and is looking decidedly pale and ill at ease as she walks into the consulting room. Her partner is with her, looking worried. "She's been spewing her guts out Doc, you've got to help her!" Indeed, her BP is 90/60 sitting, 80/55 standing, her PR is 104 and she reports that her urine output is down. The chemist has given her some vitamin preparation, which did not help at all.

Outline your approach to her care.

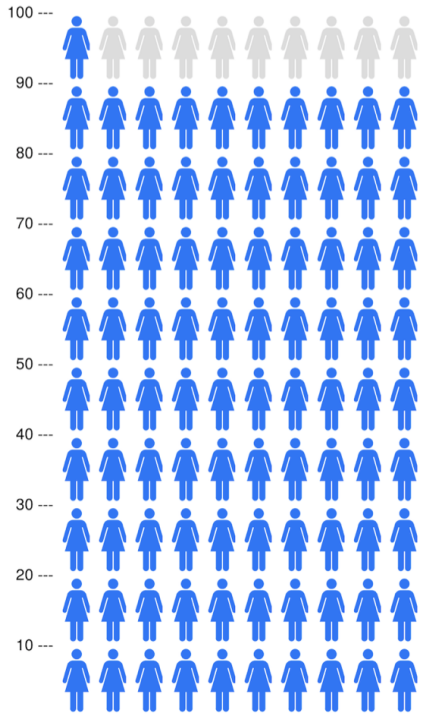
Nausea and vomiting in pregnancy

Mums-to-be who feel like they are going to vomit

Mums-to-be who do vomit in the first 3 months



Mums-to-be who feel better by 20 weeks



Nausea and vomiting in pregnancy

Only 11-18% of women have symptoms limited to the morning…

Hyperemesis gravidarum is ***not*** common

- 0.3-1.5% of women
- symptoms starting between 5-10 weeks of pregnancy
- >90% of affected women feel better by 20 weeks
- The hospitalisation rate falls from 8 weeks onwards

Decreasing iron supplementation can ease symptoms of severe nausea

Statistics source: National Antenatal Guidelines page 275

Orange Group
Task 2 - Medications in pregnancy

Jane, aged 28 years, has essential hypertension for which she was commenced on an ACE inhibitor some years ago following a full work up by yourself. Her BP control has been excellent over the years. She now presents flushed and excited as she has recently fallen pregnant!

Outline your approach to her care.

Pregnancy—high blood pressure

Quick Links

Pregnancy—high blood pressure

Types of hypertension in pregnancy

Gestational hypertension—the term used when your blood pressure rises above 140/90 mmHg after 20 weeks of pregnancy, but was normal before this time. It does not produce any other symptoms and usually returns to normal soon after the birth of your baby.

Pre-eclampsia—refers to a more complex and severe medical condition of pregnancy involving high blood pressure and usually protein in the urine. You may never have had high blood pressure at all before this pregnancy. This is discussed in greater detail below.

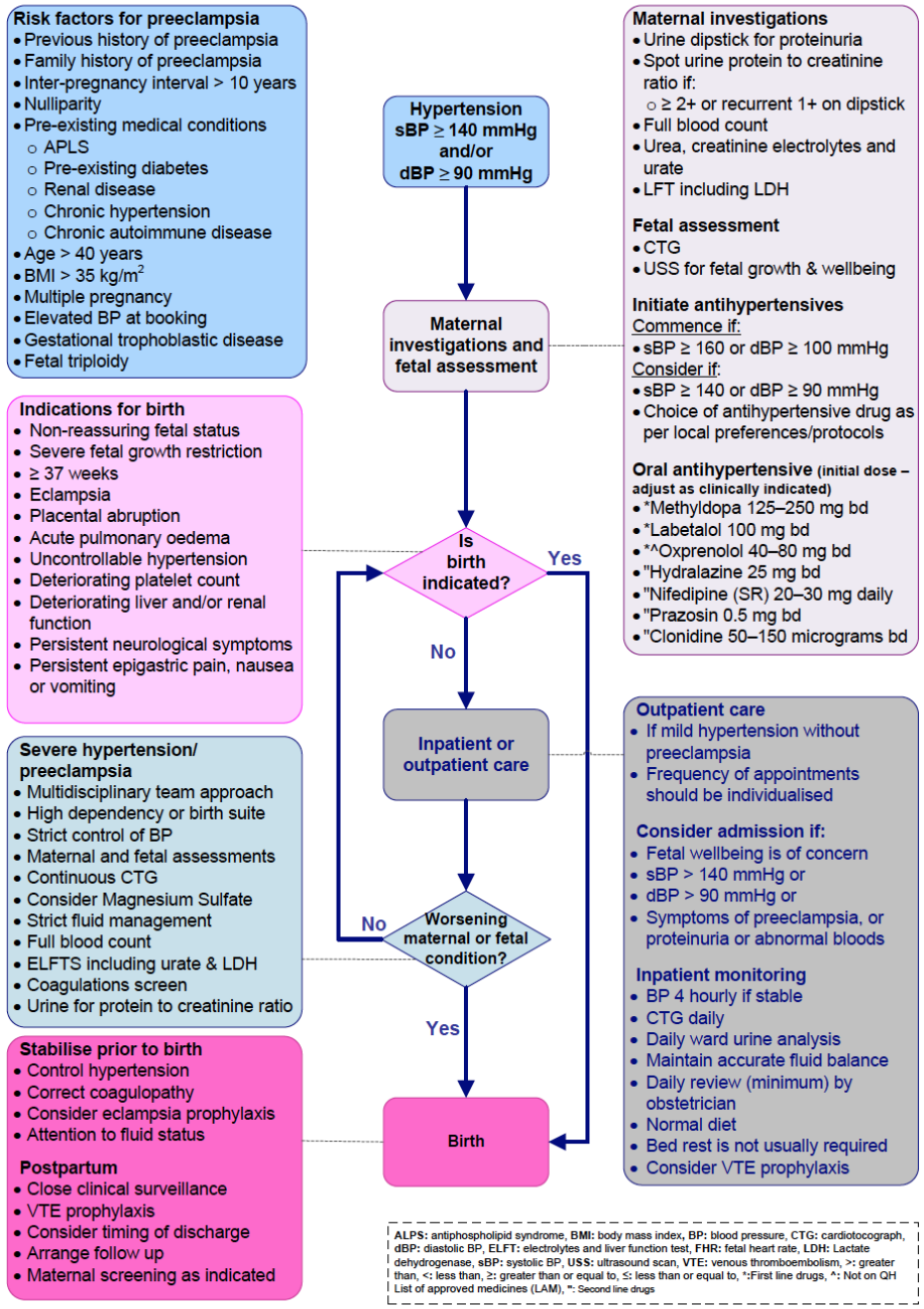
Chronic hypertension—the term used when you have high blood pressure before and during your pregnancy. This continues after the birth of your baby.

Treatment for hypertension

Gestational and chronic hypertension can be treated with medication to lower your blood pressure, although this is not always required. Several medications have been used safely in pregnancy for many years; sometimes it is necessary to take more than one type of medication to control your blood pressure.

Page 4 of QCG Hypertension Guideline

Flowchart: Management of hypertension in pregnancy



Queensland Clinical Guidelines: Hypertensive disorders in pregnancy. Flowchart version: F15.13-2-V7-R20

Blue Group
Task 2 - Medications in pregnancy

Anna, 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. Anna is 17 weeks pregnant.

Outline your approach.

What are the current Australian recommendations for preconception, antenatal and postnatal vaccination? (all vaccines, not just Varicella)

Varicella issues

Varicella exposure (= sharing home/face to face > 5 minutes) in pregnancy (chicken pox or shingles):

- Good clinical history of varicella or known to be IgG positive – no action required
- Poor clinical history or no history of varicella and no history of immunisation – check IgG levels
  - If positive, no action required
  - If negative, notify the obstetric team, ZIG if within 96 hours of exposure, Acyclovir after 96 hours and/or ASAP after the rash has emerged if the woman is >20 weeks, a smoker or asthmati
- History of x 2 doses of varicella vaccine – no action required
- History of x 1 dose of varicella vaccine – phone a friend! i.e. contact Public Health for advice Ph. (07) 3176 4000.

Serology will not help in an immunised woman

Varicella in pregnancy

At risk times for baby:

- Between 12-20 weeks
  - 2% risk of Varicella Zoster syndrome (scarring of skin, low birth weight, problems affecting the arms, legs, brain and eyes)
- Five or less days before birth
  - high risk as baby develops infection without maternal antibodies

At risk times for mum:

- Risk of maternal compromise throughout pregnancy e.g. pneumonitis.
- Give Acyclovir if seen within 24 hours of the onset of symptoms
- Risk to mum is higher if > 20 weeks gestation or if mum is a smoker or asthmatic

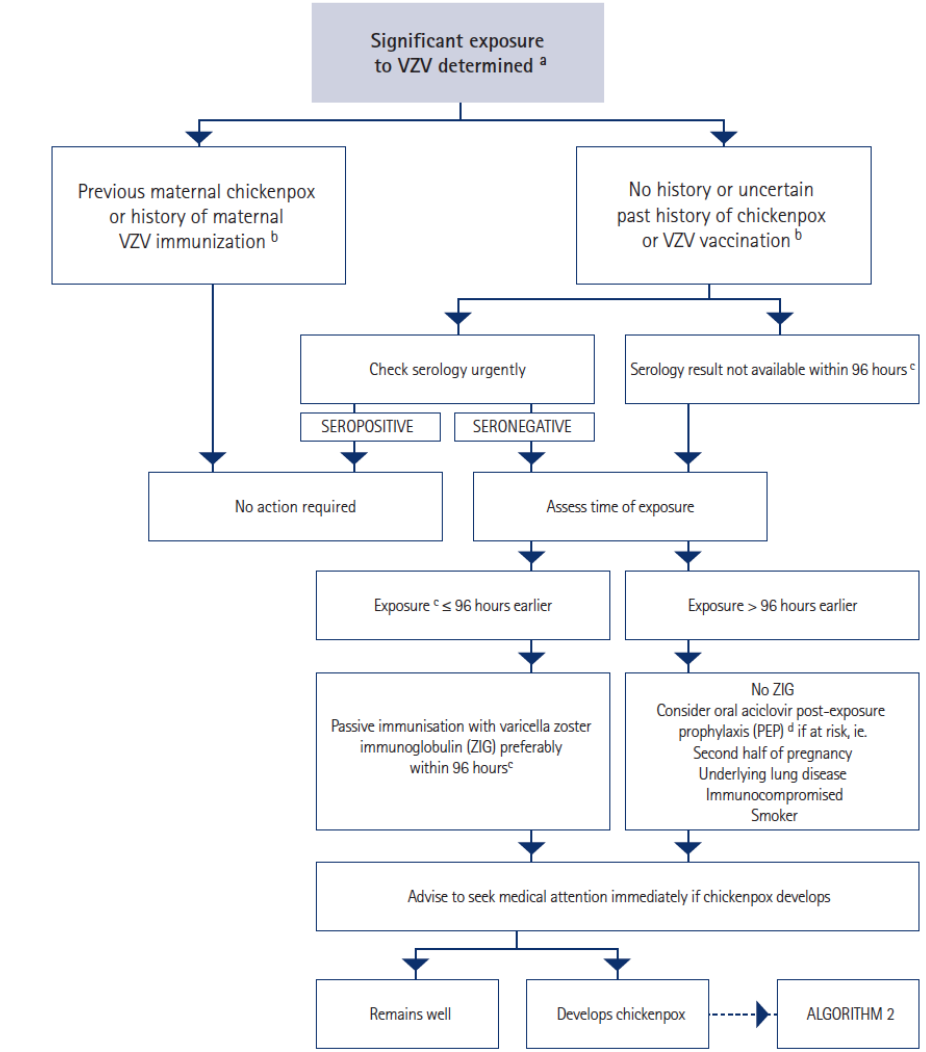
Varicella in pregnancy

- Varicella is a Category B/C condition for pregnancy (page 14 Mater Guideline)
- Discuss with or refer all woman with varicella in pregnancy to her obstetrician, but *liaise by phone* in the first instance before referring a woman to ANC to reduce risk to other pregnant women (they will want to isolate her!)
- Mater Shared Care Guidelines Page 37
- ASID Algorithms pages 82-87

Australian Society of Infectious diseases

VARICELLA ZOSTER VIRUS – ALGORITHM 1

EXPOSURE TO VARICELLA ZOSTER VIRUS DURING PREGNANCY



COMMENTS

a. Significant exposure to varicella or zoster. [1,2]
   - Living in the same household as a person with active chickenpox or herpes zoster.
   - Face-to-face contact with a case of chickenpox or zoster for at least 5 minutes or being in the same room for at least one hour. [1]

   Chickenpox cases are infectious from 2 days before rash until lesion crusted.

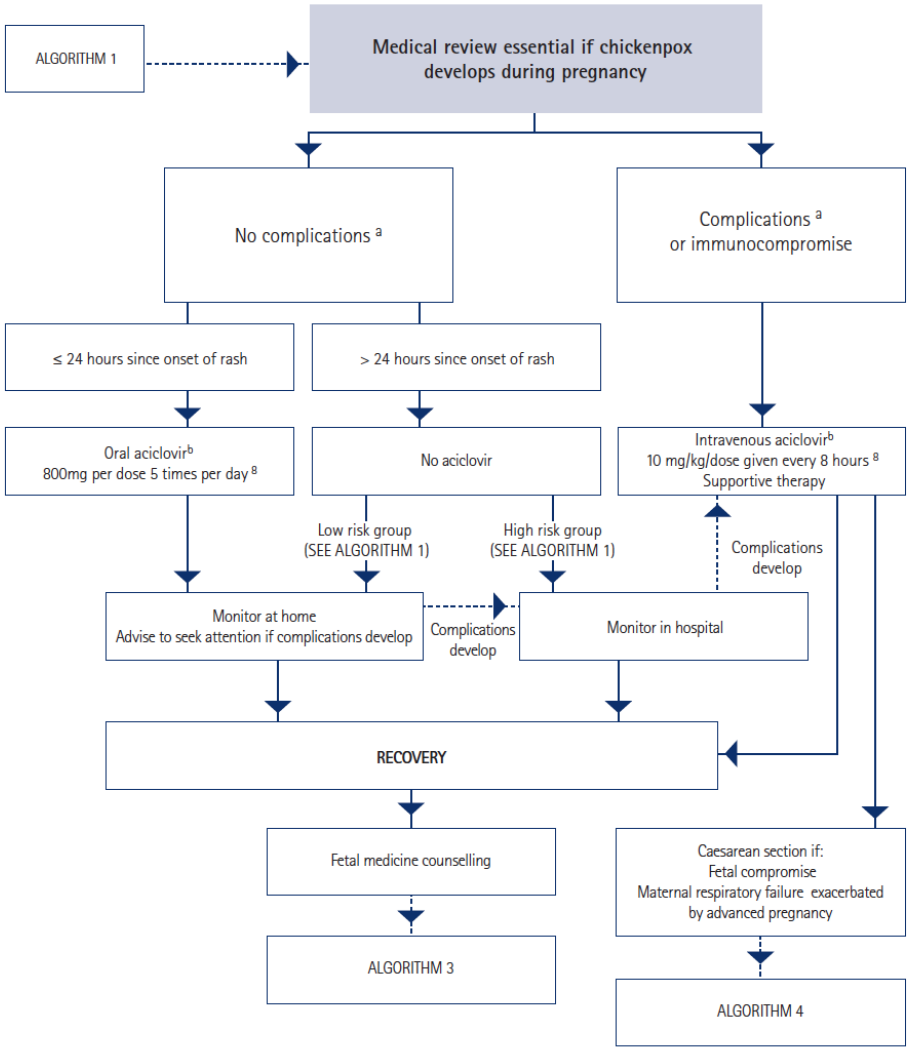
b. VZV vaccine not recommended during pregnancy. However, inadvertent administration of VZV vaccine to pregnant women has not been shown to be associated with congenital varicella. [3]

c. ZIG should be given early in the incubation period (within 96 hours of exposure) but may have some efficacy if administered out to as late as 10 days post exposure. Dose is based on weight and given IM (SEE ALGORITHM 2). [1,4]

d. Efficacy of aciclovir PEP in pregnancy not tested in controlled trials. Dose is 800 mg orally five times per day. [4-8] Duration 7 days. Unlikely to be effective if started 14 days post exposure.

VARICELLA ZOSTER VIRUS – ALGORITHM 2

MANAGEMENT OF CHICKENPOX IN PREGNANCY



COMMENTS

a. Complications [4]:
- Respiratory symptoms
- Haemorrhagic rash or bleeding
- New pocks developing >6 days
- Persistent fever >6 days
- Neurological symptoms

b. Aciclovir is not licensed for use in pregnancy, but data from large registries suggest it is safe[8]. Limited data suggest pro-drug valaciclovir safe. Insufficient data to support use of famciclovir in pregnancy.

Pertussis immunisation

- Due to the rapid decline in antibody titres, vaccination is recommended from 20 weeks with *each* pregnancy including pregnancies which are closely spaced (e.g. < 2 years)
- 10 babies died in Australia from pertussis from 2006-2012 and another died in 2015
- The Australian Technical Advisory Group on Immunisation recommends vaccination every 10 years for fathers, extended family members, household contacts and medical staff.
- What do you recommend?

Vaccination before, during, after...

- Preconception: MMR, Influenza, Varicella (check status prn) and Pneumococcus for at risk women (including smokers)
- Antenatally: Influenza, DTPa + as clinically indicated (avoid fever) The only **absolute C/I** = smallpox, although **live vaccines are not recommended** due to the altered immune responses in pregnant women
- Post partum: DTPa (not funded), MMR prn

Source: Australian Immunisation Handbook, 10th Edition

QHealth Influenza data 2019

Queensland Health

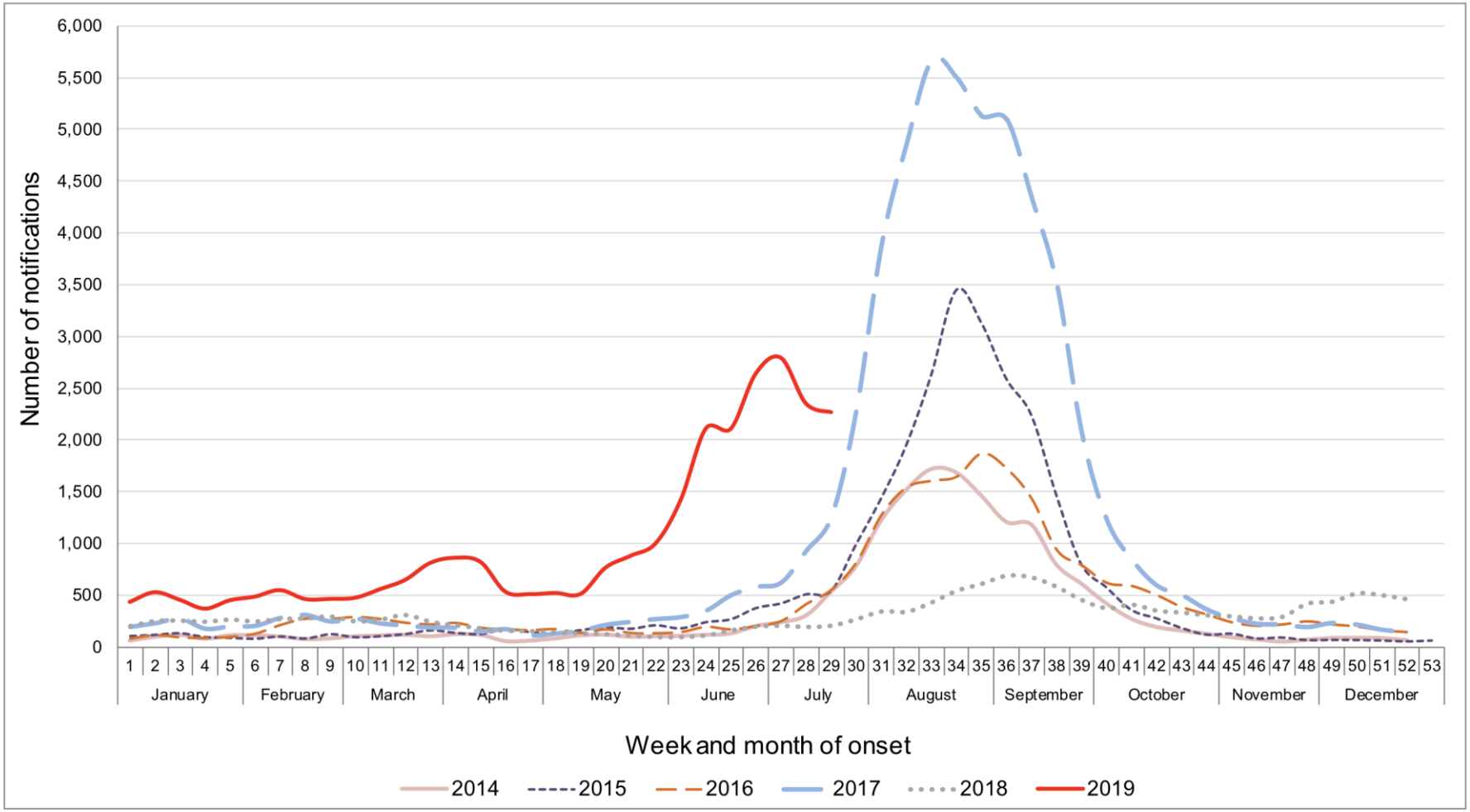
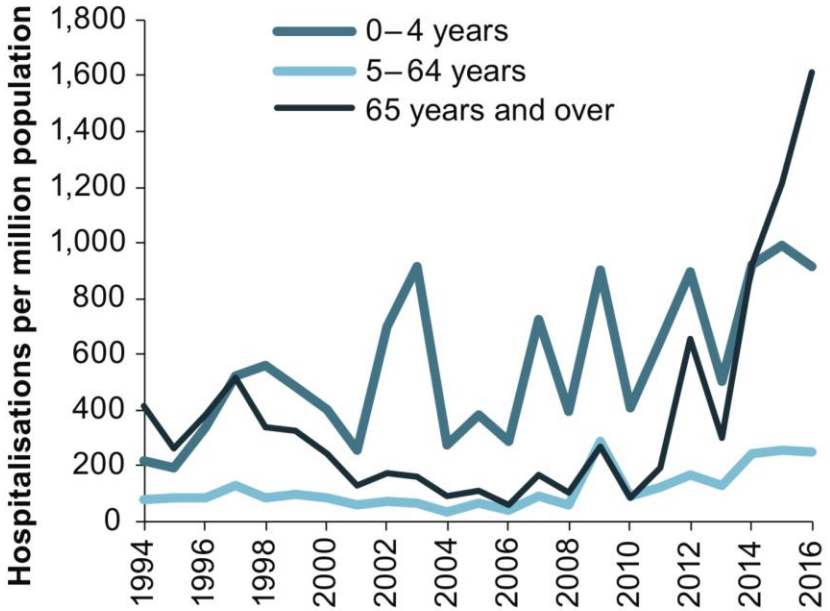


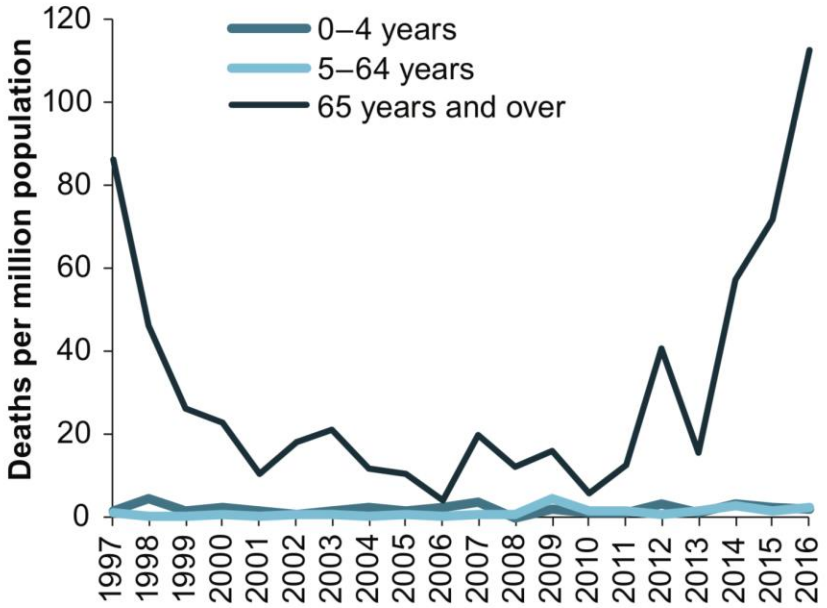
Figure 1 Laboratory confirmed influenza notifications in Queensland, by ISO week* and month of onset, 30 December 2013 to 21 July 2019.

*ISO week 1 of each year commenced on the following dates: **2014** – 30 December 2013; **2015** – 29 December 2014; **2016** – 4 January 2016; **2017** – 2 January 2017; **2018** – 1 January 2018; **2019** – 31 December 2018

Influenza hospitalisations and deaths (AIHW data)

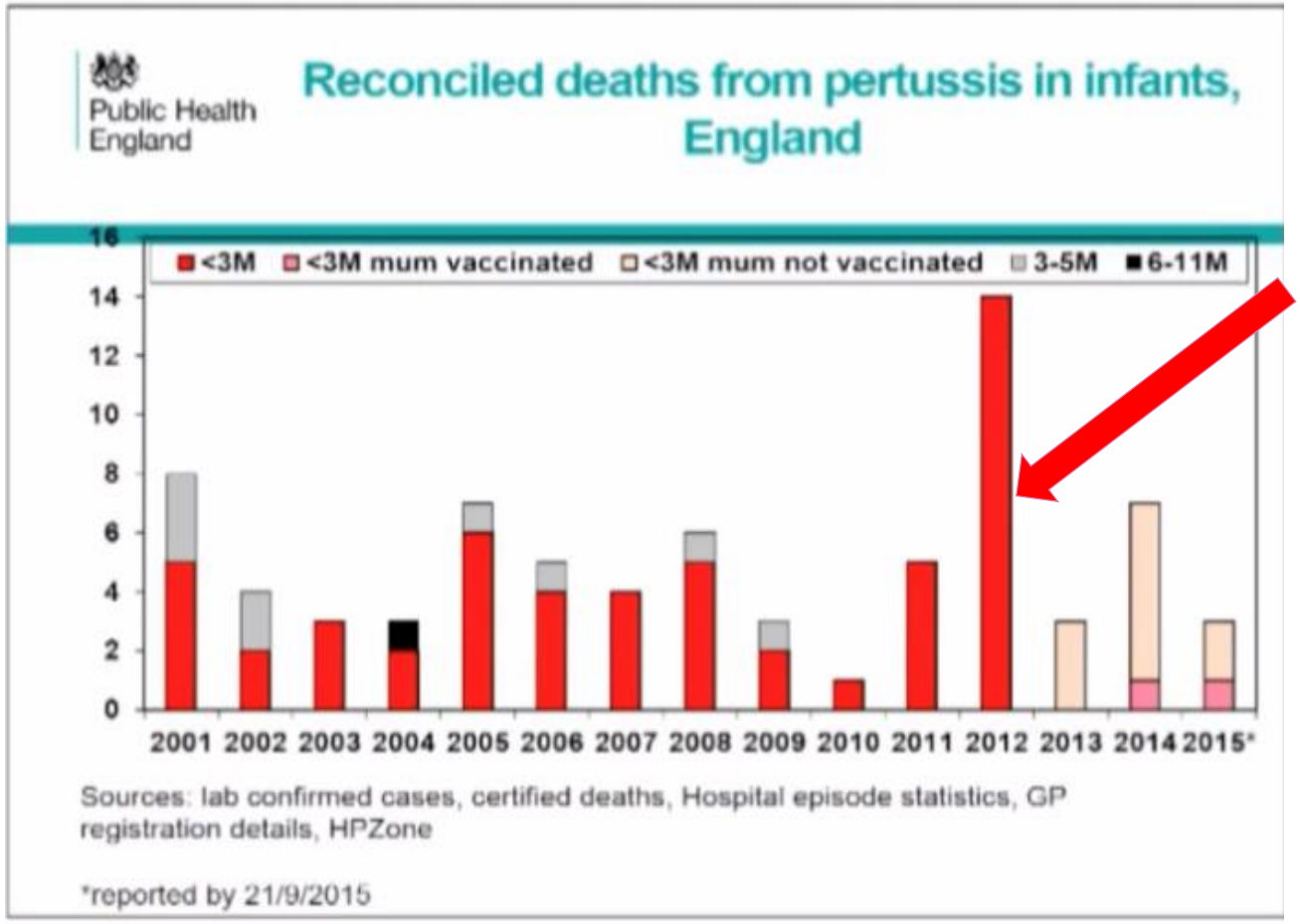


Source: AIHW analysis of National Hospital Morbidity Database.



Source: AIHW analysis of National Mortality Database.

UK pertussis deaths in infants



Antenatal pertussis vaccination introduced Oct 1 2012

Pink Group
Task 2 - Pregnancy complications

Janice, a G1P0 is stressed. She was running late for your appointment (caught in traffic) and you were late anyway and now she has to leave shortly to get back to work in time for an important meeting. She's had a stinker of a headache all week and is not surprised when her BP is elevated at 162/97— but she's sure it will settle once she calms down. K = 28. Despite her protests (she *has* to get to her meeting) you repeat her BP reading after 5 minutes and the best you can get is 153/92.

Outline your approach.

Pre-eclampsia

- Pre-eclampsia (PE) = most common serious medical disorder of human pregnancy
- Most common in primiparous women
- Signs and symptoms:
  - hypertension
  - renal dysfunction
  - proteinuria
  - oedema – hands, feet, face
  - in severe cases dizziness, headaches and visual disturbances.
- Untreated, it can lead to convulsions and other life-threatening problems for both mother and baby
- Pre-eclampsia only occurs when a woman is pregnant
- The only cure currently is to end the pregnancy, even if the baby is premature

Pre-eclampsia

In Australia

- mild PE: 5-10% of pregnancies
- severe PE: 1-2% of pregnancies
- PE accounts for 15% of direct maternal mortality
- PE accounts for 10% of perinatal mortality
- PE is the indication for 20% of labour inductions
- PE is the indication for 15% of Caesarean sections
- PE accounts for 5-10% of preterm deliveries

Worldwide, pre-eclampsia and its complications kill many tens of thousands of women and their babies each year

Source: The Women's Hospital

Pre-eclampsia a multisystem disease

2.1 Preeclampsia

A multi-system disorder characterised by hypertension and involvement of one or more other organ systems and/or the fetus. Raised BP is commonly but not always the first manifestation. Proteinuria is also common but should not be considered mandatory to make the clinical diagnosis.[3]

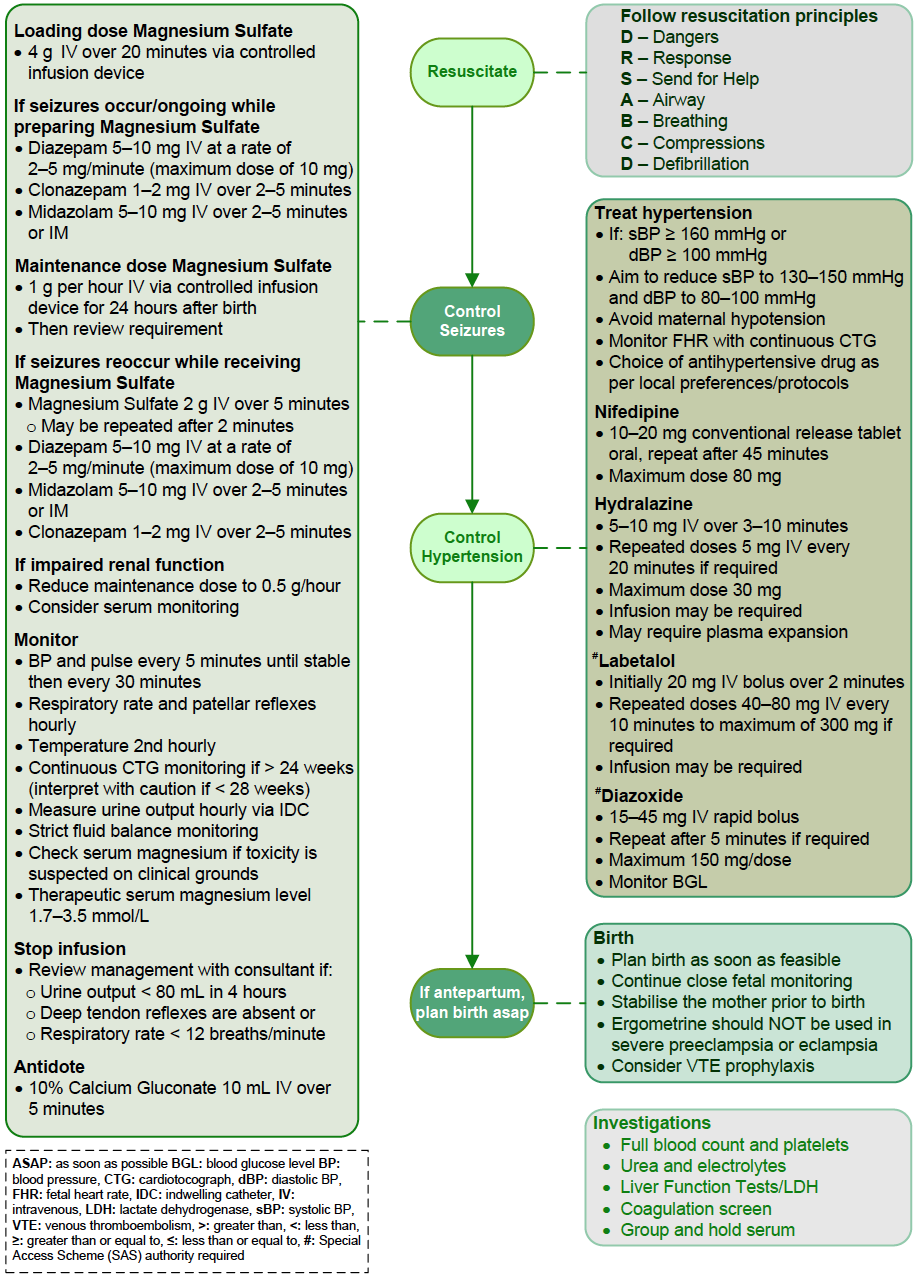
Diagnosis can be made when:

- hypertension arises after 20 weeks gestation
  - confirmed on 2 or more occasions
- accompanied by one or more of:
  - significant proteinuria
    - random urine protein/creatinine ratio greater than or equal to 30 mg/mmol
    - 24 hour urine excretion not generally required
  - renal involvement
    - serum or plasma creatinine greater than or equal to 90 micromol/L or
    - oliguria
  - haematological involvement
    - thrombocytopenia
    - haemolysis
    - DIC
  - liver involvement
    - raised transaminases
    - severe epigastric or right upper quadrant pain
  - neurological involvement
    - severe headache
    - persistent visual disturbances (photopsia, scotomata, cortical blindness, retinal vasospasm)
    - hyperreflexia with sustained clonus
    - convulsions (eclampsia)
    - stroke
  - pulmonary oedema
  - intrauterine fetal growth restriction (IUGR)
  - placental abruption

Hypertensive Disorders of Pregnancy

Guideline, page 3

Flow Chart: Management of eclampsia



Adapted from: Algorithm 16.1 Preeclampsia/eclampsia *in* The Moet course manual: managing obstetric emergencies and trauma (2007)

In addition to the guidelines, QHealth has a wealth of education resources, including flowcharts, power points, videos and videoconferences available online

Presentations *(Updated Mar 2018)*

Maternity

- Early onset Group B streptococcal disease (PDF, 642kB)
- Early pregnancy loss (PDF, 268kB)
- Gestational diabetes Mellitus (PDF, 566kB)
- Hypertensive disorders of pregnancy (PDF, 675kB)
- Induction of labour (IOL) (PDF, 889kB)
- Intrapartum fetal surveillance (PDF, 433kB)
- Normal birth (PDF, 869kB)
- Oxytocin protocol update Mar 2017 (PDF,157kB)
- Perinatal substance use: maternal (PDF 891kB)
- Perineal care (PDF, 254kB)
- Preterm labour and birth (PDF, 836kB)
- Primary postpartum haemorrhage (PDF, 928kB) *(Updated Mar 2018)*
- Stillbirth care (PDF, 462kB) *(Updated Mar 2018)*
- Trauma in pregnancy (PDF, 1489kB)
- Vaginal birth after caesarean section (PDF, 351kB)
- Venous thromboembolism (VTE) prophylaxis in pregnancy and the puerperium (PDF, 351kB)

Neonatal

- Assessment - Routine newborn assessment (PDF, 469kB)
- Breastfeeding - Establishing breastfeeding part 1: normal pathway (PDF, 904kB)
- Breastfeeding - Establishing breastfeeding part 2: pathway variances (PDF, 117kB)
- Hypoglycaemia - Newborn (PPT, 1607kB)
- Hypoxic-ischaemic encephalopathy (PDF, 658kB) *(Updated Mar 2018)*
- Jaundice - Neonatal (PDF, 570kB) *(Updated Dec 2017)*
- Perinatal care at the threshold of viability (PDF, 766kB)
- Perinatal substance use: neonatal (PDF 788kB)
- Respiratory distress including CPAP - neonatal (PDF, 456kB)
- Resuscitation - neonatal (PDF, 345kB)
- Seizures - neonatal (PDF, 166kB)
- Stabilisation for retrieval - Neonatal (PDF, 703kB) *(Updated Mar 2018)*
- Term small for gestation age baby

Knowledge assessments *(Updated Mar 2018)*

Videos

Antenatal Appointment Schedule

18-20 week visit

- Review morphology scan and follow up/referrals prn
- Organise follow up of placental position prn
- Confirm EDC, if not already done

24 weeks

- Routine AN assessment ? Additional care required
- Fundal height and health promotion/parent education

28 weeks

- As above + FBC, Blood group antibodies, GTT +/- antiD
- EPDS, DV, drug and alcohol screening
- Discuss infant feeding, Vit K and Hep B
- Discuss and commence birth plan
- Consider discharge planning

Don’t forget…

31 weeks

- As above, review results and follow up prn
- Confirm consent for Vit K, Hep B

34 weeks

- AntiD prn
- Repeat USS if low lying placenta on morphology scan
- Routine assessment, reassess schedule
- Discuss birth preferences

38 & 40 weeks

- Routine assessment
- Confirm understanding of the signs of labour and indications for admission to hospital

Please enquire or inform women about….

- Breastfeeding intentions and availability of support e.g. ABA, Mater Breastfeeding Support Centre, brochures
- Vit K
- Hep B
- Birthing preferences
- to hospital
- Post natal checks

Quick Links

- Birth plans
- Braxton Hicks contractions
- Contractions
- Engagement
- Epidural
- Fetal heart rate monitoring
- First stage of labour
- How does labour start
- Labour contractions
- Massage
- Nitrous Oxide
- Pain management
- Pethidine
- Positioning
- Second stage of labour
- Show
- Signs and symptoms of going into labour
- Sterile water injections for

Labour and birth—information for women and families

Introduction

The final weeks of your pregnancy are often filled with great anticipation as you wait for the birth of your baby. This information has been developed with midwives, doctors and pregnant women to provide helpful advice about ways to make the birth your baby a rewarding experience.

Please use the alphabetical information list on the right or the category list below to navigate this section of the website and find the information you need.

Am I in labour?

Fetal heart rate monitoring

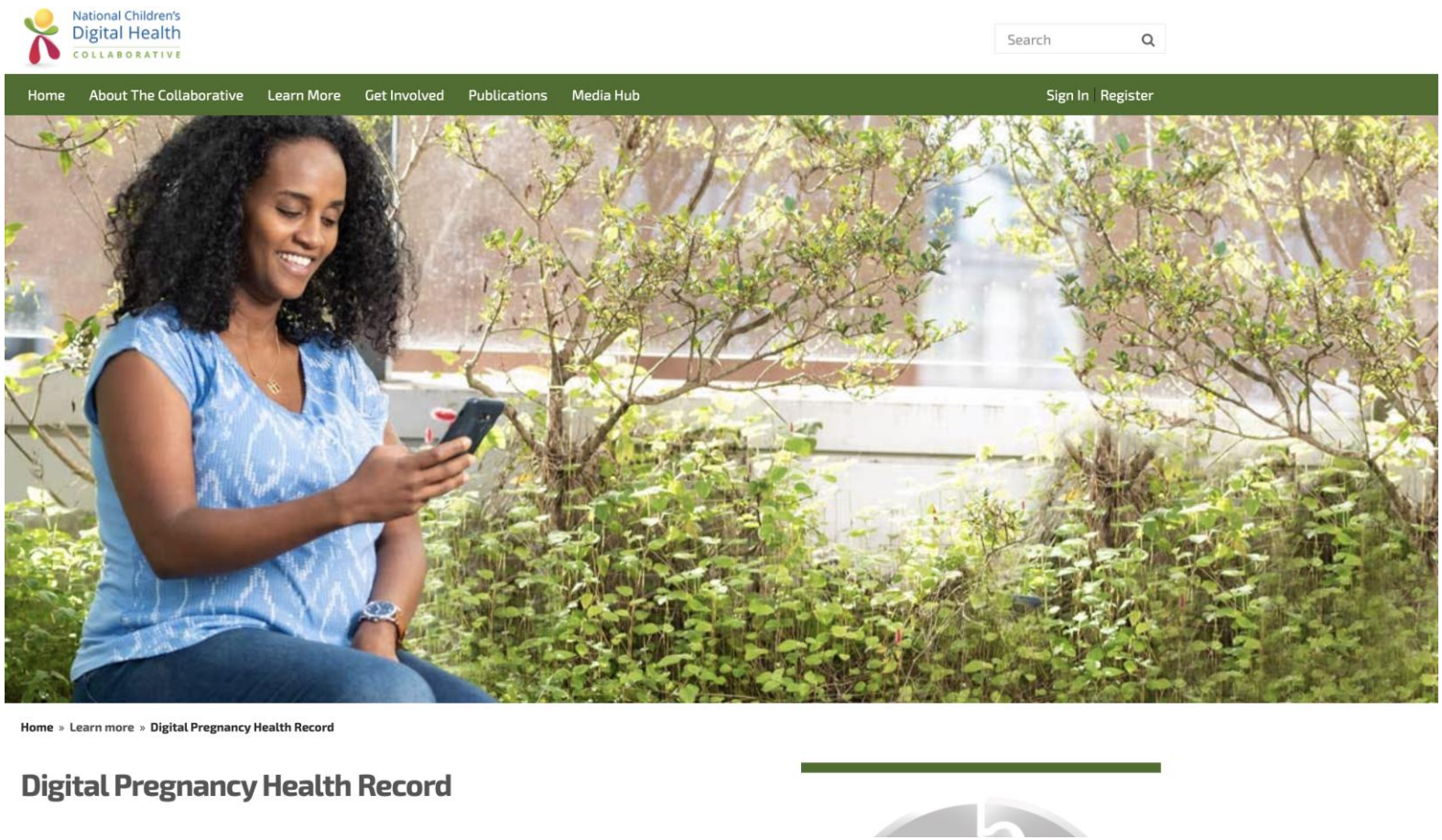
Supporting breastfeeding with skin to skin contact

Stages of labour

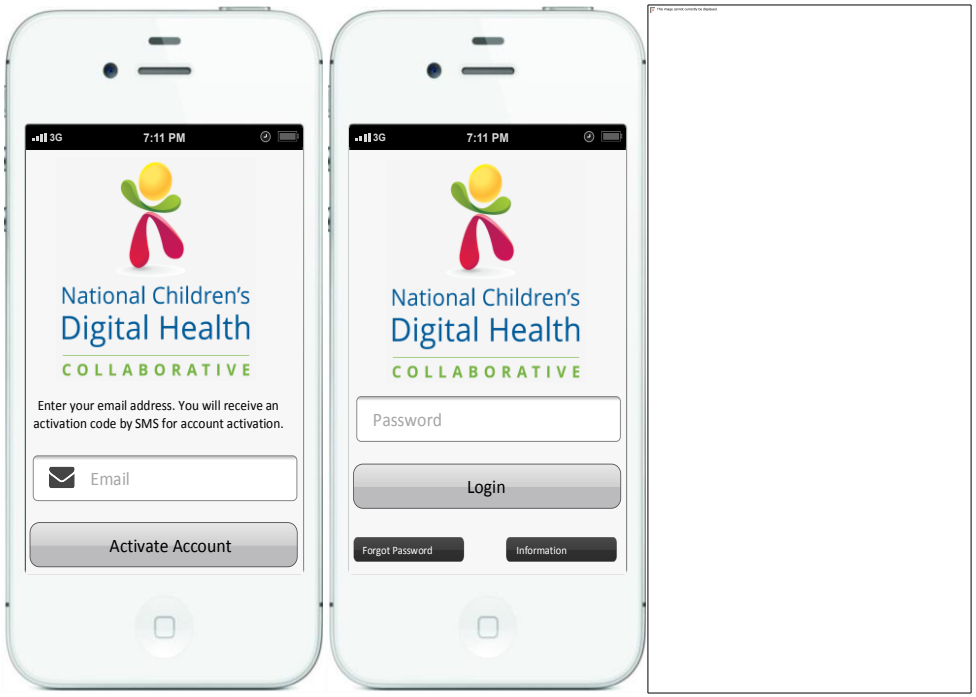
Pain management

Am I in labour?

dPHR



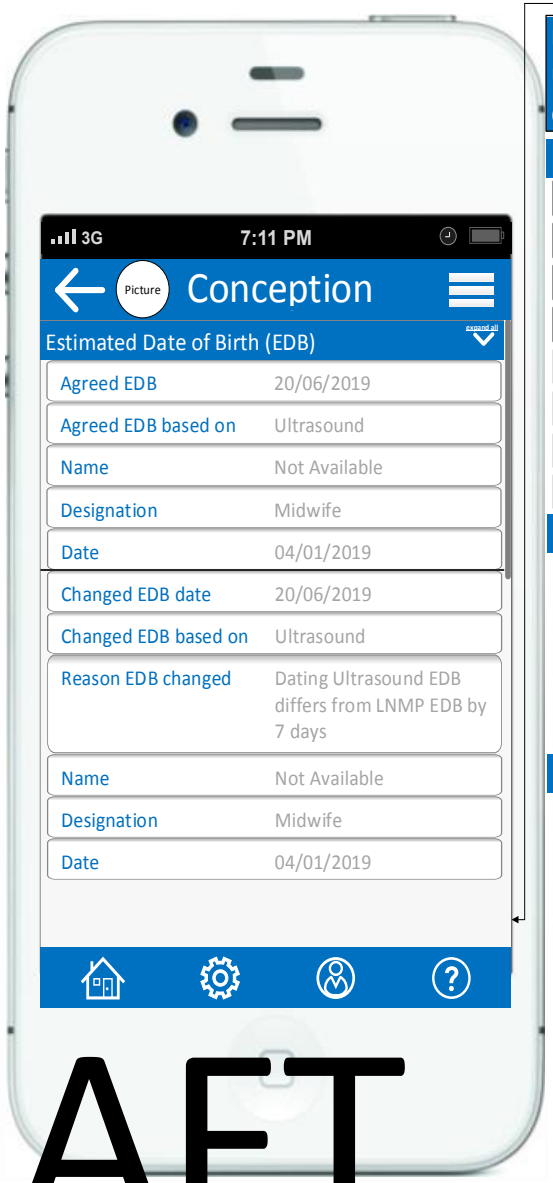
Digital Pregnancy Health Record – Draft Consumer App Wireframes



DRAFT

National Children's Digital Health COLLABORATIVE

Digital Pregnancy Health Record – Draft Consumer App Wireframes



Last Normal Menstrual Period (LNMP)
Ultrasound (USS)
Conception

Last Normal Menstrual Period (LNMP)

First day of LNMP	01/10/2018
Certain / Uncertain	Not Available
Cycle Length	7 (days)
Cycle Regular / Irregular	Regular
Due date based on period and cycle	Ultrasound
Hormonal Contraception	No
Breast Feeding at time of conception	No
Pregnancy Confirmation	No

Ultrasound (USS)

Gestation at ultrasound	12w+6d
Due date by ultrasound	20/06/2019
LNMP consistent	No
Date of ultrasound (earliest USS Greater than 6 weeks	06/01/2019

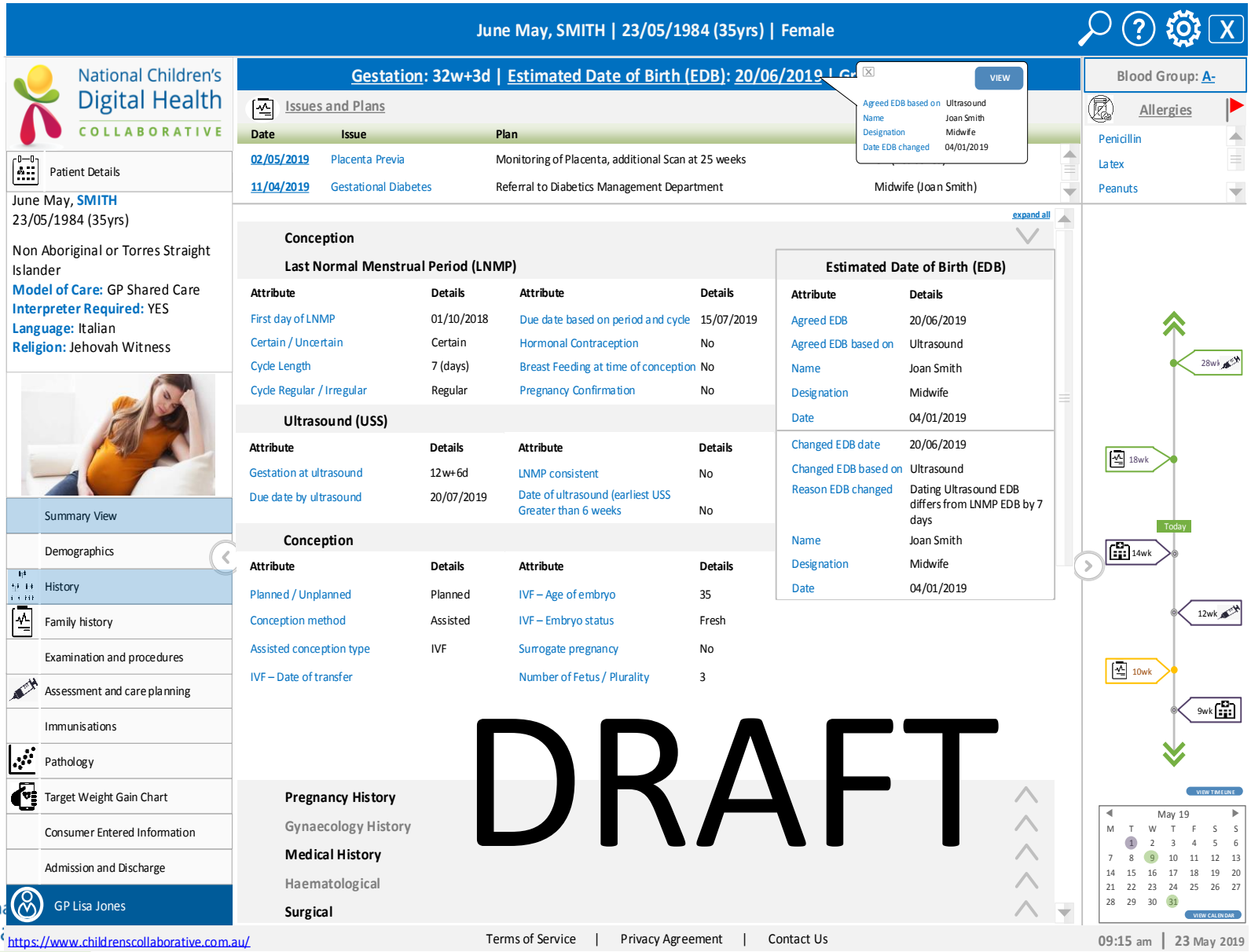
Conception

Planned / Unplanned	Planned
Conception method	Assisted
Assisted conception type	IVF
IVF – Date of transfer	10/10/2018
IVF – Age of embryo	10 (days)
IVF – Embryo status	Fresh
Number of Fetus / Plurality	1
Surrogate pregnancy	No

DRAFT

National Children's Digital Health Collaborative

Digital Pregnancy Health Record – Draft Provider Viewer Wireframes



Afternoon Tea

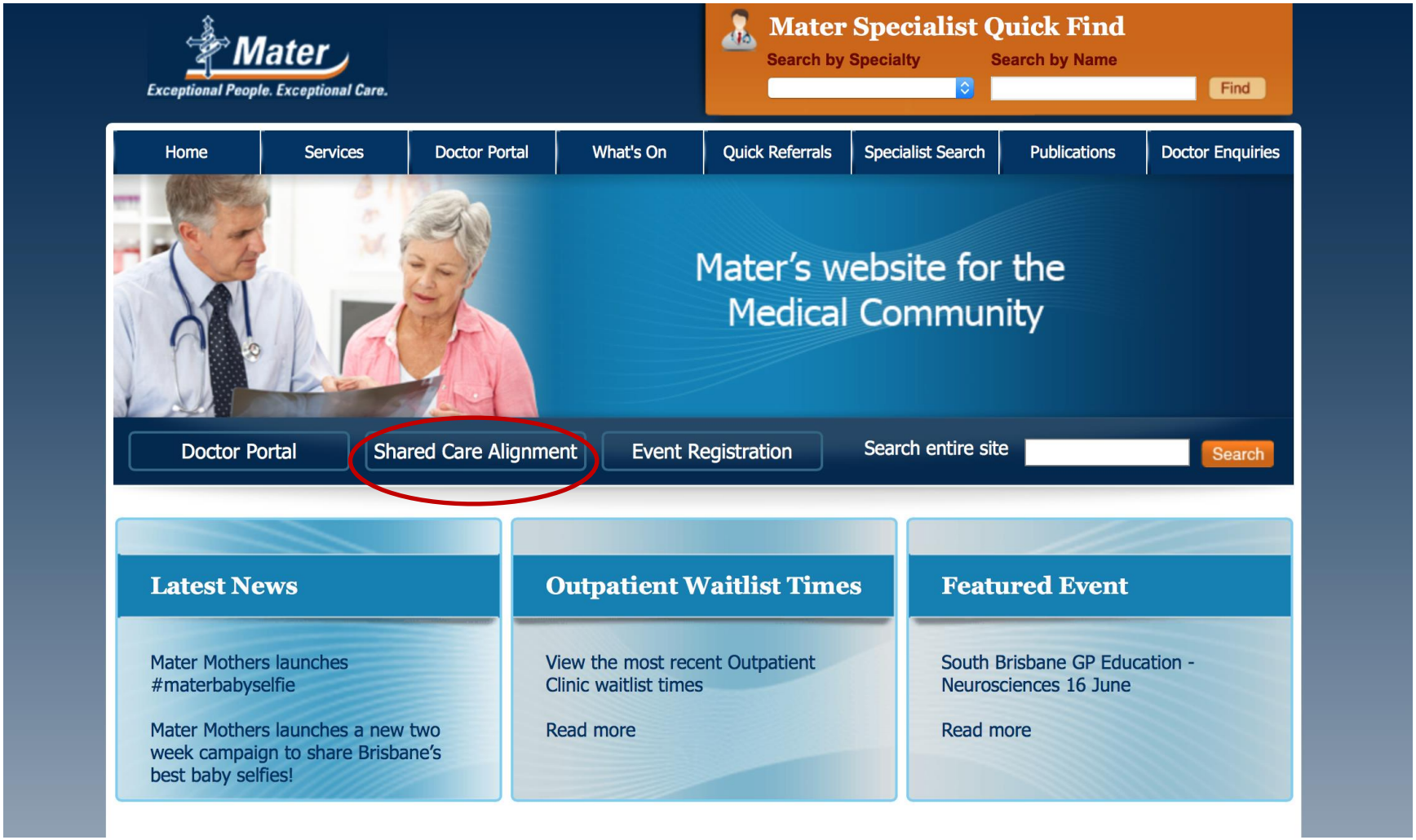
Welcome back—last session

Time	Task	Who
3:30	Communication in 2019	Dr Wendy Burton
3:50	Case Work: Task 3	All
4:00	Present task 3 PAC presentation Feedback/discussion	Dr
4:50	Summary	Dr Wendy Burton
5 pm	Close	All

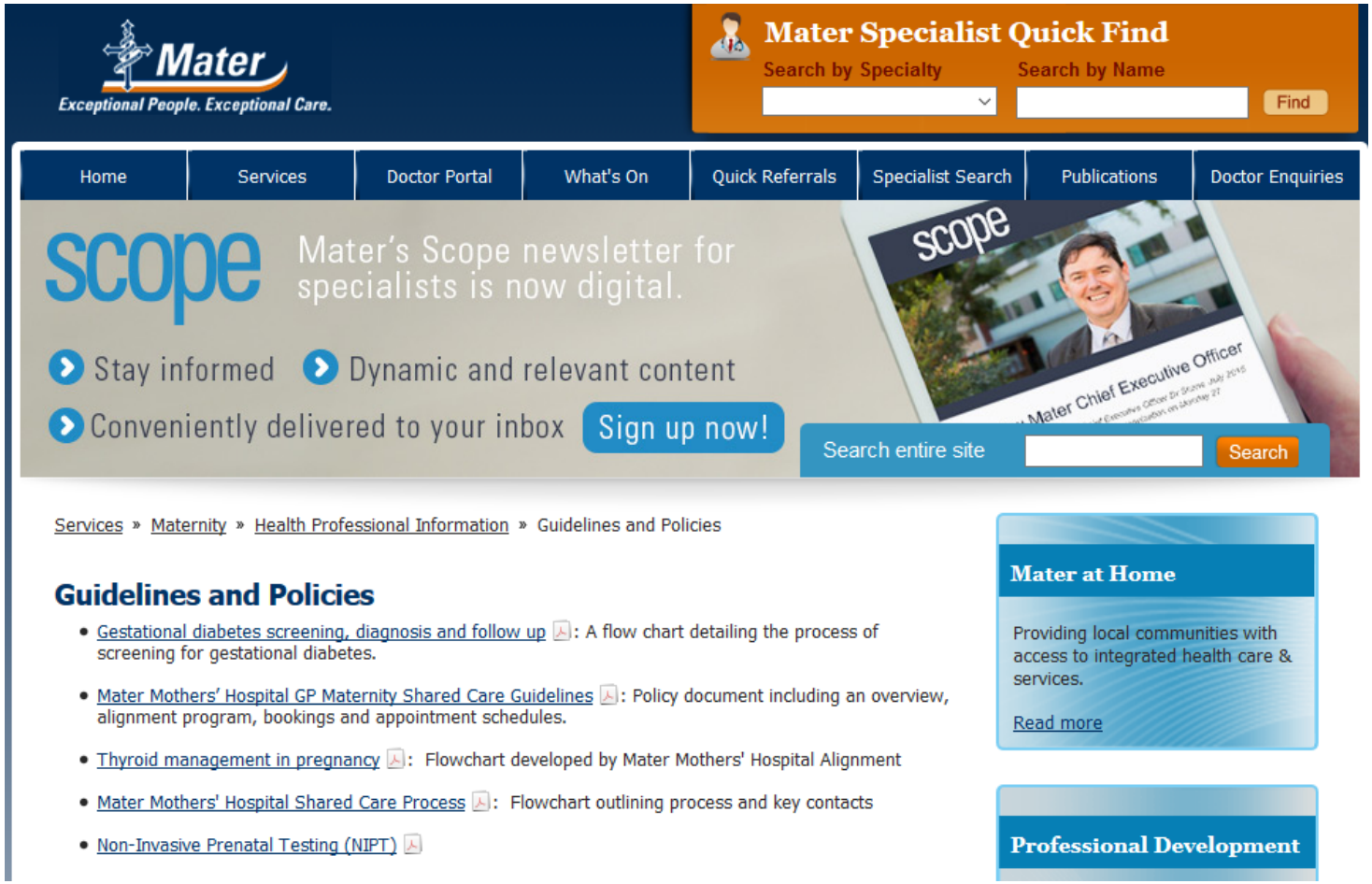
Communication in 2019

Dr Wendy Burton

www.materonline.org.au



www.materonline.org.au/services/maternity/health-professional-information/guidelines-and-policies



Mater Doctor Portal

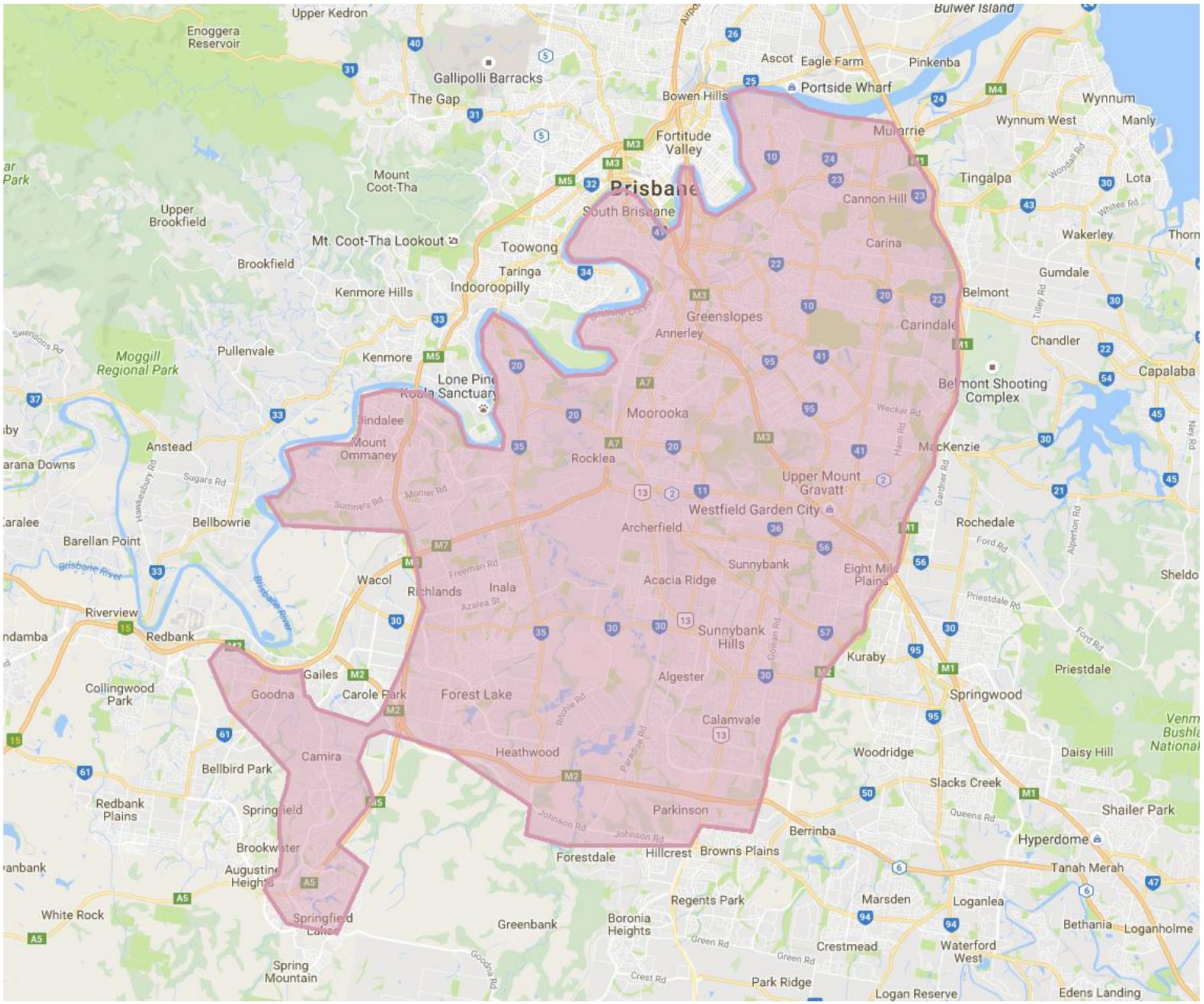
Mater's version of the Health Provider Portal

Interested? Indicate on the feedback form for this session

MMH catchment area

- **Private** hospital, **public** births
- **Local** hospital, **tertiary** referral centre
- **High demand = no routine low risk referrals outside catchment**
  - Except indigenous women
  - Perhaps women requiring a specialist drug and alcohol service
- Refer all women to their local service
- If you are uncertain, or if time is critical = contact GPLM
- Mater Mothers **Private?** No catchment restrictions

www.materonline.org.au/

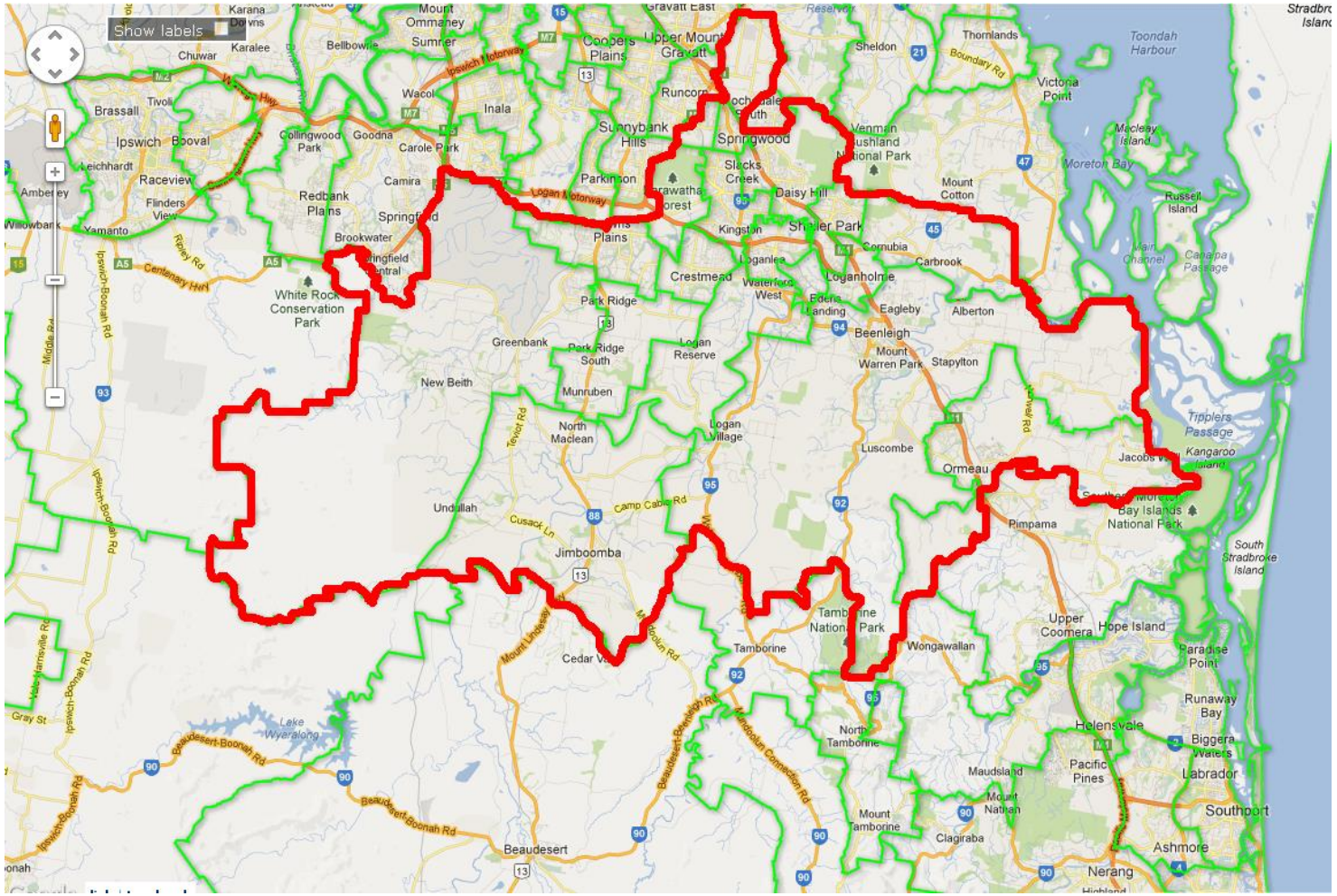


Women living within the catchment area will be accepted, however proof of address is required.

Catchment Map & Postcode List

A		Goodna	4300	Q	
Acacia Ridge	4110	Graceville	4075	Queensport	4172
Algester	4115	Graceville East	4075	R	
Altandi	4109	Greenslopes	4120	Richlands	4077
Annerley	4103	H		Riverhills	4074
Archerfield	4108	Hawthorne	4171	Robertson	4109
B		Heathwood	4110	Rocklea	4106
Balmoral	4171	Highgate Hill	4101	Runcorn	4113
Balmoral Heights	4171	Hill End	4101	S	
Banoon	4109	Holland Park	4121	Salisbury	4107
Berrinba	4117	Holland Park East	4121	Seven Hills	4170
Bulimba	4171	Holland Park West	4121	Seventeen Miles Rocks	4073
Buranda	4102	I		Sherwood	4075
C		Inala	4077	Sinnamon Park	4073
Calamvale	4116	Inala East	4077	Springfield	4300
Camira	4300	Inala Heights	4077	Springfield Lakes	4300
Camp Hill	4152	Inala West	4077	Southbank	4101
Cannon Hill	4170	J		South Brisbane	4101
Carina	4152	Jamboree Heights	4074	Stones Corner	4120
Carina Heights	4152	Jindalee	4074	Stretton	4116
Carindale	4152	K		Sumner	4074
Carindale Heights	4152	Kangaroo Point	4169	Sumner Park	4074
Chelmer	4068	Kuraby	4112	Sunnybank	4109
Colmslie	4170	L		Sunnybank Hills	4109
Coopers Plains	4108	Larapinta	4110	T	
Coorparoo	4151	M		Tarragindi	4121
Corinda	4075	Macgregor	4109	Tennyson	4105
D		Mansfield	4122	U	
Darra	4176	Middle Park	4074	Upper Mount Gravatt	4122
Doolandella	4077	Moorooka	4105	W	
Drewvale	4166	Morningside	4170	Wellers Hill	4121
Durack	4077	Mt Gravatt	4122	West End	4101
Durack Heights	4077	Mt Gravatt East	4122	Westlake	4074
Dutton Park	4102	Mt Ommaney	4074	Willawong	4110
E		Murarrie	4172	Wishart	4122
East Brisbane	4169			Woolloongabba	4102
Eight Mile Plains	4133	N		Y	
Ekibin	4121	Nathan	4111	Yerrongpilly	4105
Ellen Grove	4077	Nathan Heights	4111	Yeronga	4104
F		Norman Park	4170	Yeronga West	4104
Fairfield	4103	O			
Forest Lake	4077	Oxley	4075		
Fruitgrove	4113	P			
G		Pallara	4110		
Gailes	4300	Parkinson	4115		

The Logan catchment map (approx.)



Please consider signing up

Mater has a consumer website www.matermothers.org.au with models of care information

Women who do not have a GP can use this list to locate an aligned GP

- Yeronga
- Wynnum
- Wishart
- West End
- Waterford West
- Underwood
- Toombul
- The Gap
- Sunnybank Hills
- Stones Corner
- Springwood
- Spring Hill
- Slacks Creek
- Seven Hills
- Runcorn
- Rocklea
- Redbank Plains
- Purga
- Paddington
- Norman Park
- Nathan
- Mount Warren Park
- Morningside
- Meadowbrook
- Mansfield
- Macleay Island
- Laidley
- Keperra
- Jindalee
- Indooroopilly
- Holland Park
- Heritage Park
- Greenslopes
- Goodna
- Fernvale
- Eight Mile Plains
- Eagle Heights
- Darra
- Cornubia
- Cleveland
- Capalaba
- Calamvale
- Buranda
- Brookwater
- Bracken Ridge
- Belmont
- Bardon
- Auchenflower
- Annerley
- Acacia Ridge
- Yeppoon
- Woolloongabba
- Windsor
- Wellington Point
- Victoria Point
- Toowoomba
- Tingalpa
- Tenneriffe
- Sunnybank
- Stafford
- Springfield Lakes
- Southport
- Sinnamon Park
- Samford
- Rochedale
- Richlands
- Redbank
- Parkinson
- Oxley
- Newmarket
- Murrumba Downs
- Mount Ommaney
- Moorooka
- McDowall
- Manly West
- Loganlea
- Kuraby
- Kenmore
- Jimboomba
- Inala
- Hillcrest
- Hawthorne
- Greenbank
- Fortitude Valley
- Fairfield
- East Brisbane
- Durack
- Daisy Hill
- Coorparoo
- Carindale
- Cannon Hill
- Burpengary
- Bulimba
- Brookfield
- Bowen Hills
- Beenleigh
- Balmoral
- Ashgrove
- Algester
- Yarrabilba
- Woodridge
- Windaroo
- Wellers Hill
- Upper Mt Gravatt
- Toowong
- Thornlands
- Taringa
- Sumner Park
- St Lucia
- Springfield
- South Brisbane
- Sherwood
- Salisbury
- Robertson
- Redland Bay
- Red Hill
- Park Ridge
- Nundah
- New Farm
- Mt Gravatt
- Mount Cotton
- Middle Park
- Marsden
- Manly
- Loganholme
- Kingston
- Kangaroo Point
- Ipswich
- Holmview
- Highgate Hill
- Gumdale
- Graceville
- Forest Lake
- Everton Hills
- Eagleby
- Dunwich
- Crestmead
- Collingwood Park
- Carina
- Camp Hill
- Burleigh Waters
- Browns Plains
- Brisbane CBD
- Birkdale
- Beaudesert
- Bald Hills
- Ascot
- Albany Creek

The template

- ANC receives **200-400** referrals *a week*
- Information = safe, effective and efficient triage
  - Medical, social risk factors
  - Indications for early appointment
- Need advice? Contact the GPLM
- The use of the MMH referral template is mandatory
- cc MMH ANC on *all* investigations

Mater Misericordiae Ltd

REFERRAL - ANTENATAL

FAX NUMBER: (07) 3163 8053

MHS Unit Record No.

Patient surname

Patient given names

Patient date of birth

Do not fax from private or business numbers. GP fax only.

Patient details

Residential address:

Suburb: State: Postal code:

Preferred contact: ☐ Home ☎: ☐ Mobile ☎:

Next of kin: ☎:

Please advise all patients to bring their Medicare card when presenting to the Mater. Medicare ineligible patients will incur a fee for appointments/ treatment provided which is payable on presentation. Insurance provider and policy number must be provided before bookings can be processed.

Medicare eligible? ◯ Yes ◯ No Medicare no.: Card ref. no.: Expiry date:

Private health insurance name: Policy number:

Indigenous status? | Aboriginal | Torres Strait Islander | Australian South Sea Islander | Not Indigenous

Does this patient identify as having a refugee background? ◯ Yes ◯ No

Interpreter required? ◯ Yes ◯ No Language: **Special needs** e.g. Carer:

This referral is for an initial consultation with a Doctor for the planning and co-ordination of care for this pregnancy. Women will be subsequently offered a choice of appropriate models of care. To improve efficiency and reduce waiting times, this named referral will be shared with other specialists. The consultation may be bulk-billed to Medicare Australia with NO out of pocket expenses for this patient.

Referral

Referral date:

Dear Dr Michael Beckmann (Director, Mothers Babies and Women's Health Services)

Thank you for seeing this woman whose LNMP was **and whose EDC is**

She is **G** **P** **Height** **Weight** **BMI**

This patient is high risk and requires early assessment ? ◯ Yes ◯ No If "Yes", specify details below

Past genetic, medical ,surgical, and obstetric history:

Binding margin - do not write. Do not reproduce by photocopying. All clinical form creation and amendments must be conducted through Health Informatics.

REFERRAL - ANTENATAL 100

06/16
Ver. 6.00
F1828

Clear form

Continued on page 2 ➔

Mater Misericordiae Ltd

REFERRAL - ANTENATAL

FAX NUMBER: (07) 3163 8053

MHS Unit Record No.

Patient Surname

Patient Given Names

Patient Date of Birth

Medications: (attach patient summary if necessary)

Allergies:

Models of care

I have discussed models of care and this woman would like:

GP Shared Care? ◯ Yes ◯ No

I have completed the MMH alignment program: ◯ Yes ◯ No.

Midwifery Care? ◯ Yes ◯ No

Midwifery Group Practice? ◯ Yes ◯ No Second choice if **Midwifery Group Practice** full?

Relevant investigations (attach investigations or results)

Pathology service provider: ☐ Mater ☐ S & N ☐ QML

1. **Pap smear up to date?** ◯ Yes ◯ No
   Result: ◯ Normal ◯ Abnormal
2. **Down Syndrome screening discussed?** ◯ Yes ◯ No
   Testing accepted? ◯ Yes ◯ No
   Referral given? ◯ Yes ◯ No
3. **First trimester HbA1c for BMI > 30, previous GDM, maternal age ≥ 40, or previous macrosomic baby?** ◯ Yes ◯ No
4. **18/40 morphology ultrasound ordered?** ◯ Yes ◯ No
6. **FBC?** ◯ Yes ◯ No
7. **Rubella serology?** ◯ Yes ◯ No
8. **Urine M/C/S?** ◯ Yes ◯ No
9. **HIV?** ◯ Yes ◯ No
10. **Syphilis serology?** ◯ Yes ◯ No
12. **Blood group & antibody?** ◯ Yes ◯ No
13. **Hepatitis B serology?** ◯ Yes ◯ No
14. **Hepatitis C serology:** ◯ Yes ◯ No

Referring clinician (Please complete all fields clearly or affix stamp)

Referring clinician name: Provider number:

Address:

Phone number: Fax number:

Signature: Email address:

Mater staff use only

Date received:

☐ **Referral accepted** Age: EDC: Current gestation:

☐ **Referral declined** ☐ Out of Area ☐ Other

☐ GP Notified Date sent: ☐ Woman notified Date notified:

☐ **First appointment midwife and obstetrician** ☐ Woman notified of first appointment on

☐ **Medicare eligilbe** ☐ Medicare ineligible AND insured ☐ Medicare ineligible, NOT insured

Sent to billing office date: Sent to billing office date:

Notes:

Midwife name: **Signature:** **Date:**

Print form

Binding margin - do not write. Do not reproduce by photocopying. All clinical form creation and amendments must be conducted through Health Informatics.

Mater midwives are amazing but not clairvoyant…

Referral **Referral date:**

Dear Dr Michael Beckmann (Director, Mothers Babies and Women's Health Services)

Thank you for seeing this woman whose LNMP was **and whose EDC is**

She is **G** **P** **Height** **Weight** **BMI**

This patient is high risk and requires early assessment ? ○ Yes ○ No If "Yes", specify details below

Please attach copy AND cc MMH

Relevant investigations (attach investigations or results)

1. **Pap smear up to date?** ◯ Yes ◯ No
   Result: ◯ Normal ◯ Abnormal
2. **Down Syndrome screening discussed?** ◯ Yes ◯ No
   Testing accepted? ◯ Yes ◯ No
   Referral given? ◯ Yes ◯ No
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4. **18/40 morphology ultrasound ordered?** ◯ Yes ◯ No

Pathology service provider: ☐ Mater ☐ S & N ☐ QML

6. **FBC?** ◯ Yes ◯ No
7. **Rubella serology?** ◯ Yes ◯ No
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9. **HIV?** ◯ Yes ◯ No
10. **Syphilis serology?** ◯ Yes ◯ No
12. **Blood group & antibody?** ◯ Yes ◯ No
13. **Hepatitis B serology?** ◯ Yes ◯ No
14. **Hepatitis C serology:** ◯ Yes ◯ No

Copy of results in referral = helpful for triage

cc results to MMH

Printed copy of reports in the PHR = immediate access to clinical information

Press print!

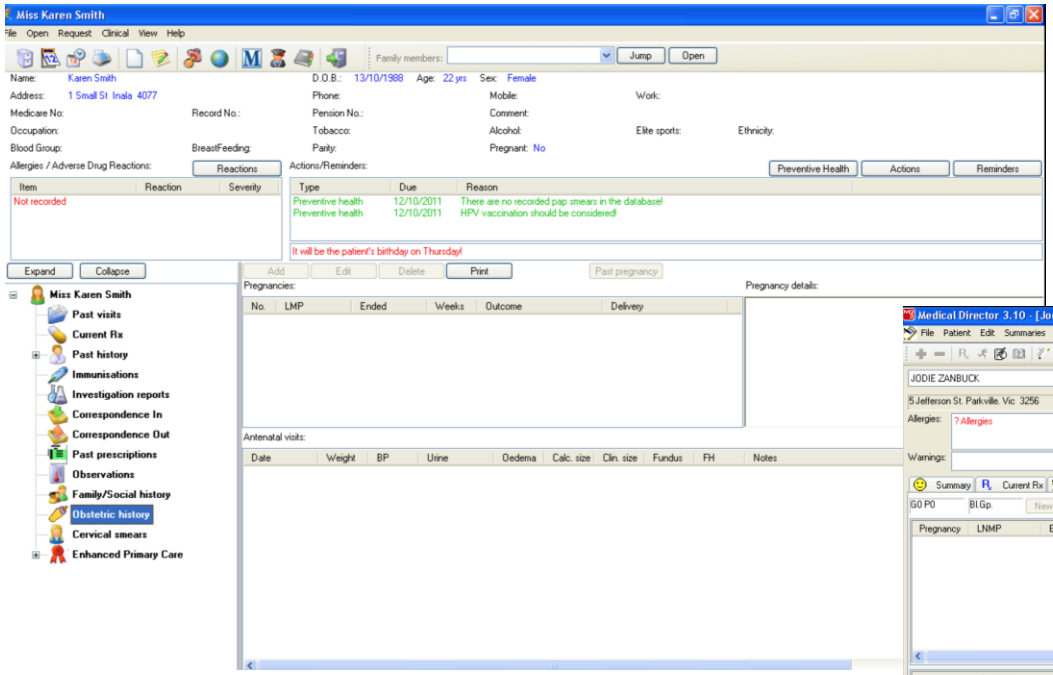
The booking in process

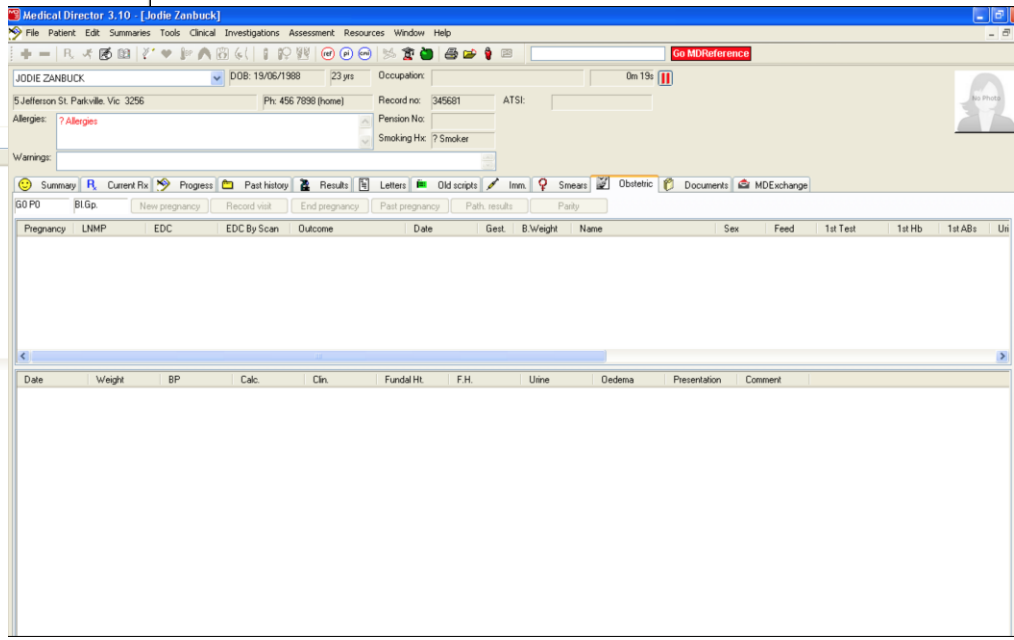
- Low risk women must complete information online before their antenatal booking appointment
- A link is sent via SMS = ***mobile phone number must be correct***
- Mobile phone number changes? Women to contact ANC
- *If unable to be contacted their booking will be cancelled*
- Women who have not completed the online information will have to be *rescheduled* (time pressures)
- Women who need an interpreter have a longer booking appointment, not the online version. Identify them!

Where are you entering your observations?

Use the obstetric tabs

- *easy to enter data
- *print a copy for PHR
- *ready for dPHR





Who is responsible for abnormal results?

You.

If you order it, you are responsible for follow up and referrals

- The cc result is not seen by clinicians until contact with the woman is made
- What to you do with what you have found is in the MMH GP Maternity Shared Care Guideline
- Unsure? Phone a friend

Who can you call?

For clinical advice or if a woman requires urgent review:

- Obstetric registrar: 3163 6611
- Obstetric consultant: 3163 6009
- Obstetric Medicine registrar via switch 3163 8111

The GP Liaison office is open Mon - Fri 0730 - 1600 for general advice and assistance.

- Telephone 07 3163 1861 (you can leave a message) mobile 0466 205 710 or email GPL@mater.org.au

Referral process

- Women with *pre-existing* medical conditions identified in the antenatal referral don't need separate referrals to specialist clinics. The obstetrician will sort it out at the first visit
- If a woman *develops* a medical condition after referral, fax a new referral to ANC with results
- OGTT positive? REFER her into clinic

The referral pathway

- All women should be referred to their local obstetric hospital
- A comprehensive referral = appropriate triage
- Local obstetricians will liaise with or refer women onto MMH prn
- If complications arise, contact her *local* obstetric service, they can sort it out

Antenatal Classes

Quick Links

- Bookings
- Available classes
- Allied health classes for pregnant women

Antenatal education—birthing and babies

Mater Mothers' Hospital provides a range of education programs to inform and empower you as you approach the birth of your baby, and the early weeks that follow.

The classes are facilitated by midwives, physiotherapists and dietitians who are skilled in childbirth education and women's health. These classes also provide you with the opportunity to get to know some of the other mothers you may see on the postnatal ward after the birth of your baby.

Please encourage women to book early and attend Antenatal classes

Bookings

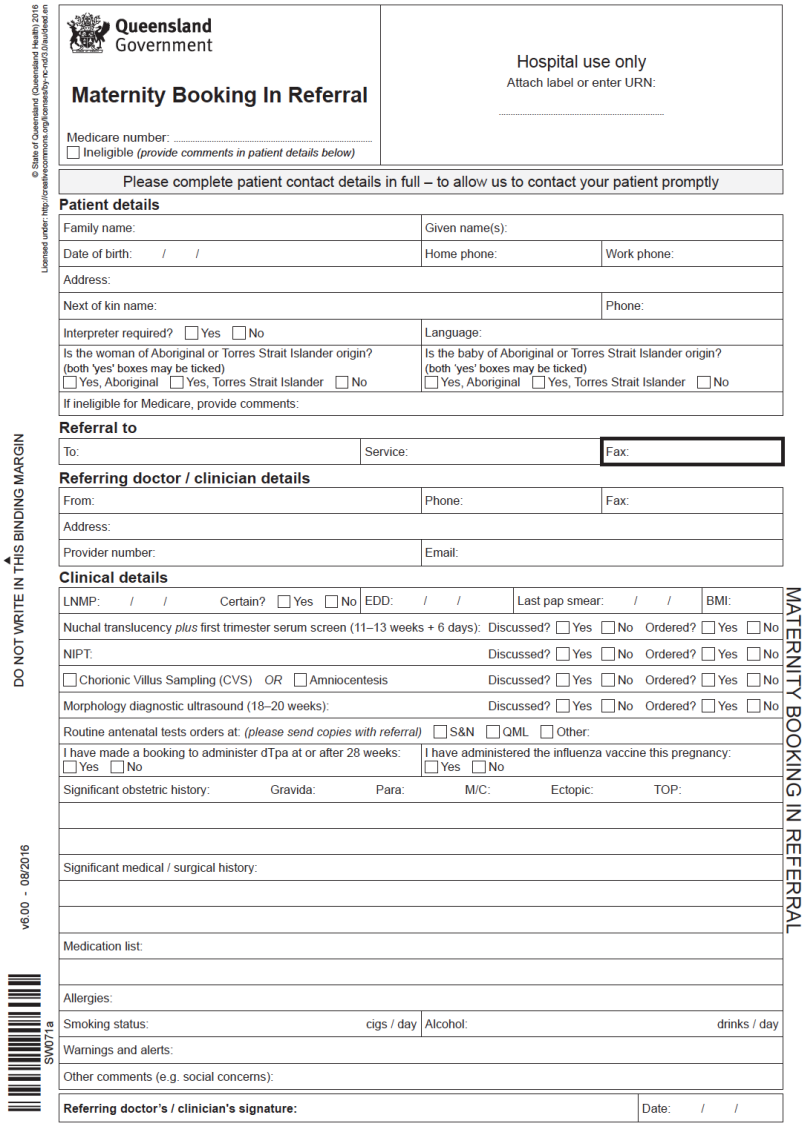
Our *Birthing and babies'* antenatal classes are very popular. **It is important to book as early as possible (i.e. before 16 weeks of pregnancy) to avoid any disappointment. Please telephone our bookings coordinator on 07 3163 8847 to secure your place.** Please note that payment is required at the time of booking. You will then receive a letter confirming the details of your booking and information about the venue for your class.

Costs

Costs are provided when booking your class. Your partner is included at no extra cost.

QHealth referral template

This is a helpful document, with decision support built in. An electronic version is available for MD3 on www.bsphn.org.au and there is a supplied template on BP (QHealth Maternity). You can download a paper copy



Queensland Government

Maternity Booking In Referral

Medicare number:
☐ Ineligible *(provide comments in patient details below)*

Hospital use only
Attach label or enter URN:

Please complete patient contact details in full – to allow us to contact your patient promptly

Patient details

Family name:	Given name(s):	
Date of birth: / /	Home phone:	Work phone:
Address:		
Next of kin name:		Phone:
Interpreter required? ☐ Yes ☐ No	Language:	
Is the woman of Aboriginal or Torres Strait Islander origin? (both 'yes' boxes may be ticked) ☐ Yes, Aboriginal ☐ Yes, Torres Strait Islander ☐ No	Is the baby of Aboriginal or Torres Strait Islander origin? (both 'yes' boxes may be ticked) ☐ Yes, Aboriginal ☐ Yes, Torres Strait Islander ☐ No	
If ineligible for Medicare, provide comments:		

Referral to

To:	Service:	Fax:

Referring doctor / clinician details

From:	Phone:	Fax:
Address:		
Provider number:	Email:	

Clinical details

LNMP: / / Certain? ☐ Yes ☐ No	EDD: / /	Last pap smear: / /	BMI:	
Nuchal translucency *plus* first trimester serum screen (11–13 weeks + 6 days):	Discussed? ☐ Yes ☐ No	Ordered? ☐ Yes ☐ No		
NIPT:	Discussed? ☐ Yes ☐ No	Ordered? ☐ Yes ☐ No		
☐ Chorionic Villus Sampling (CVS) *OR* ☐ Amniocentesis	Discussed? ☐ Yes ☐ No	Ordered? ☐ Yes ☐ No		
Morphology diagnostic ultrasound (18–20 weeks):	Discussed? ☐ Yes ☐ No	Ordered? ☐ Yes ☐ No		
Routine antenatal tests orders at: *(please send copies with referral)* ☐ S&N ☐ QML ☐ Other:				
I have made a booking to administer dTpa at or after 28 weeks: ☐ Yes ☐ No	I have administered the influenza vaccine this pregnancy: ☐ Yes ☐ No			
Significant obstetric history: Gravida:	Para:	M/C:	Ectopic:	TOP:
Significant medical / surgical history:				
Medication list:				
Allergies:				
Smoking status: cigs / day	Alcohol: drinks / day			
Warnings and alerts:				
Other comments (e.g. social concerns):				
Referring doctor's / clinician's signature:	Date: / /			

DO NOT WRITE IN THIS BINDING MARGIN

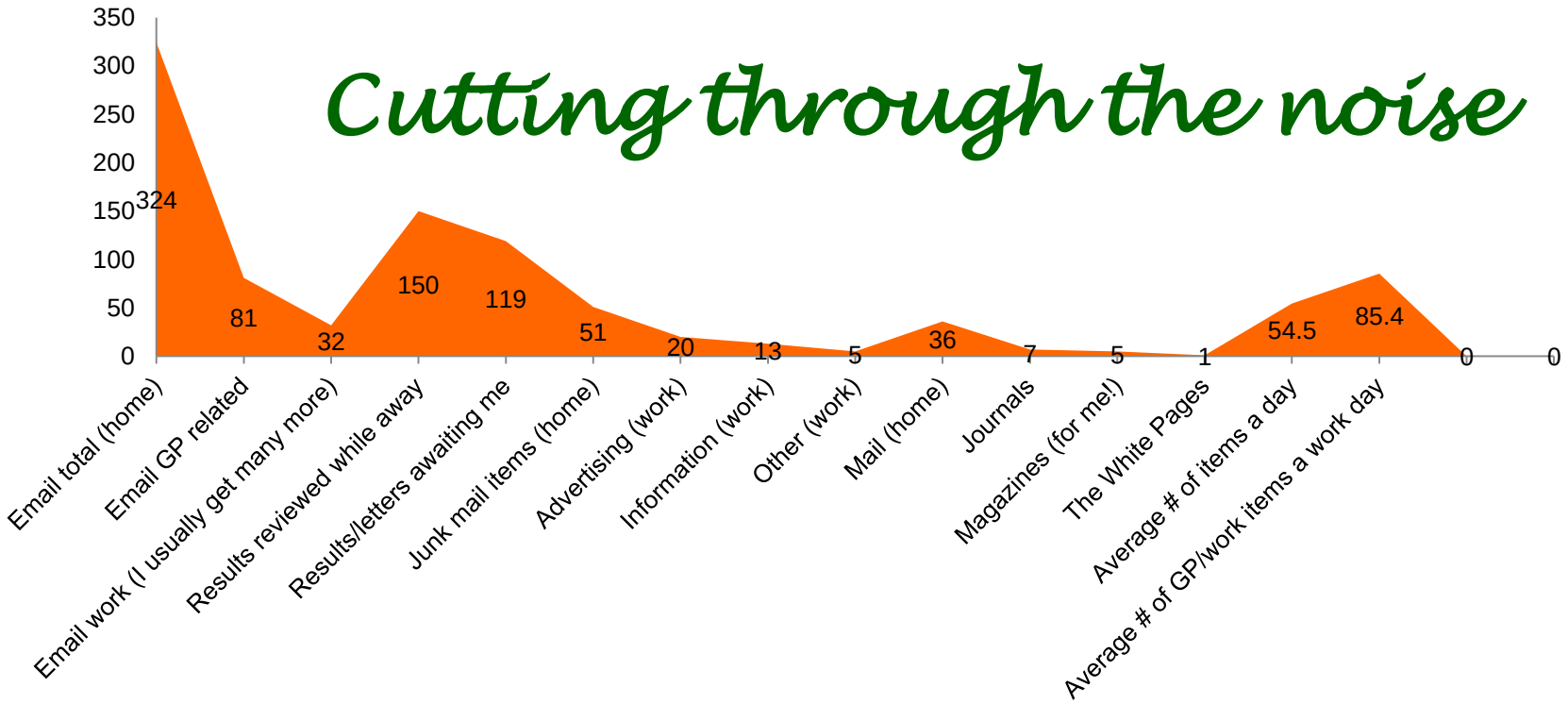
MATERNITY BOOKING IN REFERRAL

v6.00 - 08/2016

SW071a

Page 1 of 1

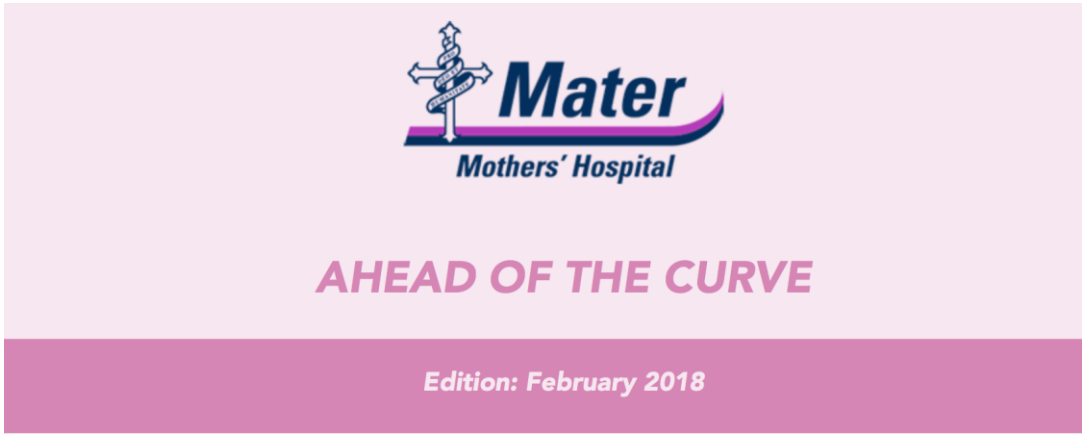
Cutting through the noise



Communication received by Dr Wendy Burton in 2 weeks in Sept/Oct 2011 (school holidays)

Please watch out for AOTC

We will keep you updated e.g. about changes to the GDM pathway, guideline changes, immunisations, education events. AOTC, including past editions, is available online



2018 Mater Mothers' Hospital GP Maternity Shared Care program

Small Group Activity

Red Group –24 year old, small for dates

Yellow Group – 22 year old first trimester bleeding

Pink Group – 28 year old, pregnancy planning, on warfarin

Blue Group – 29 year old, home birth

Green Group – 27 year old, Models of care

Orange Group – 32 year old, reduced fetal movements

Task 3

- You need a scribe and a presenter
- You have *10* minutes!

Yellow Group
Task 3 - Pregnancy complications

Amina, a 22 year old from Somalia who wears the hijab and has lived in Brisbane for a year, is now 6 weeks since her LNMP. Amina's uHCG was positive a week ago. She informs you she has been bleeding since yesterday—"sort of like the beginning of a period." Her blood group is O neg

Outline your approach to her care.

Pregnancy Assessment Centre

Pregnancy Assessment Centre (PAC)

PAC is a specialist area in MMH that deals specifically with pregnancy presentations from conception up to 6 weeks post partum

It has three areas:

- private
- public > k20
- early pregnancy

It is, essentially, an ED for women with pregnancy related problems

The early pregnancy area manages threatened and incomplete miscarriages and investigate causes of pain. They do not provide dating scans.

Women with non pregnancy related conditions e.g. broken arm should still present to ED!

PAC

Haemodynamically unstable women *can* be looked after by the PAC

They are open 24/7

Private women incur a once only $200 per pregnancy cost

Women < k 20 can present at any time for assessment

- Bookings into the early pregnancy clinic (EPC) are preferred (less waiting)
- EPC operates 8 am – 12 noon Monday to Friday
- Phone 3163 5132 for an appointment
- A referral is not required but is helpful

PAC

Common presentations would include:

- Vaginal bleeding
- Pain
- Preterm labour
- Uncertainty about or premature rupture of membranes
- Reduced fetal movements
- Review of hypertensive women referred by their GP, obstetrician or midwife

PAC

- PAC is located adjacent to Birth Suites on level 5 of the MMH
- GP's should contact the PAC before sending a woman in for assessment.
- Team leader 3163 6577 Registrar 3163 6611
- Women can self refer or call their midwife (MGP) or 13HEALTH for advice
- *GPs are encouraged to continue to manage women in the community, where appropriate, and are welcome to phone for advice if required*

PAC

- In addition to surgical management of miscarriages and ectopic pregnancies, the PAC is able to offer medical management to suitable women
- Public women are able to attend similar units at Logan, Redland, RBWH, QEII and Ipswich
- Emergency presentations from outside the catchment area will be seen, however it will not entitle them to antenatal care at MMH in a current or subsequent pregnancy.

Incomplete miscarriage treatment options

Expectant

- follow up USS if still bleeding after 2 weeks OR if painful, heavy bleeding

Medical management (initiated by hospital)

- Misoprostol has proven effective in 80 – 85% of miscarriages < 13/52
- x 2 doses administered sublingual on consecutive days as an outpatient
- bleeding and pain occur ~ 2-4 hours after the first dose and lasts up to 24-72 hours before the miscarriage is completed
- period-like bleeding will then occur over the next week or so
- ~ 10% of women have excessive pain or bleeding—medical review and possibly D & C may be required
- hospitalisation for heavy bleeding or infection occurs in < 1% of women
- *not* TGA registered for use in pregnancy. Use supported by QHealth and RANZCOG

Surgical management

Diagnosing an early pregnancy loss

Don't just read USS scan reports, get used to looking at the measurements on the scan pictures

- Once crown rump length (CRL) is 7mm, there should be a heartbeat, if there is not, then it is a miscarriage
- If CRL is < 7mm (even if report says it is a missed miscarriage) it is too early to call, repeat USS in a week
- If there is no CRL yet, then go by sac size
- Once sac size is 25mm, there should be a fetal pole, if there is not then this is an anembryonic pregnancy (old term blighted ovum)
- If the mean sac diameter (MSD) < 25mm, repeat scan in a week

Diagnosing an early pregnancy loss

- If CRL or MSD grows over a week then repeat scan in a week, even if it has only grown by 1mm, any growth is growth and you can't diagnose an early pregnancy loss while there is growth
- If CRL or MSD gets smaller over 2 scans a week apart or fails to grow at all, then you can diagnose a missed miscarriage
- If CRL or MSD growing slowly, then a drop in HCG level (done at same lab) is enough to diagnose a missed miscarriage

Pregnancy of unknown location (PUL)

- An Intrauterine pregnancy (IUP) is one where a yolk sac is seen – no yolk sac = a PUL

- If you have no yolk sac, especially if the HCG is > 800-1000, be cautious…

Classic ectopic symptoms & risk factors

Triad of:

- Amenorrhoea, 6-8 weeks post LNMP
- Abdominal pain (and especially shoulder/rectal)
- Bleeding

Most significant risk factors:

- Previous ectopic pregnancy
- Pregnancy associated with emergency contraception/POP/IUDs
- Tubal surgery/infection/PID

Ultrasound: Correlation with B-HCG

- IUP can usually be seen with B-HCG levels above 800
- A threshold of 1500 will detect 98% of IUPs
  - Pitfall; multiple pregnancy
- Higher thresholds will result in more missed ectopics
- B-HCG >10 000, should be a fetal heart beat
- An IUP *almost* always excludes ectopic (heterotopic awareness when risk factors)

Appropriate rise in 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 (99% accuracy)
- Consider multiple or molar pregnancy in rapidly rising levels
- Single isolated level is less useful for uncertain clinical scenarios

Orange Group
Task 3 - Pregnancy complications

Anna 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?

Red Group
Task 3 - Pregnancy complications

Julie presents for her 34 week visit. Colleagues at her work have been commenting about how small the baby is going to be. Her symphysio-fundal height (SFH) measures 30 cm and you note that at 30 weeks gestation her SFH was 28 cm. Her hairdresser thinks there is something really wrong and she will need to see an obstetrician or otherwise her baby might die.

Outline your approach including your advice to Julie.

Fetal size concerns

If you are worried that the fetus is too big, too little (3 or more cm outside gestational age in weeks) or if you are unsure due to mum's BMI, please order an ultrasound scan and follow up the result.

- If the scan is normal, i.e. the fetus is an appropriate size for dates, no further action is required
- If the scan confirms the fetus is small for gestational age, refer promptly to the Maternofetal Medicine Unit
- If the scan confirms the fetus is large for gestational age, refer promptly to the obstetric team
- Not diagnosing, and therefore not following up on suspected IUGR or macrosomia, can lead to adverse outcomes

Pink Group
Task 3 – Preconception consultations

Michelle, age 28, is a new patient who moved to Brisbane earlier this year. She has presented for an OCP script and travel advice (considering her tropical island options). Her CST is up to date and, after collating her record and doing the appropriate checks, you complete the consultation 3 minutes over time and have a full waiting room. With your hand on the door handle, she casually mentions that she plans to cease the OCP and start trying for a baby soon. Is there anything she should know?

What do you advise her ?

PRECONCEPTION CONSULTATIONS

How do your cases present?

Busy, running late, waiting room **full,** hand on door handle, "***Oh, by the way****…."*

My common presentations

Opportunistic

"more is missed by not looking than not knowing"*

Thomas McCrae

*or, in this case, by not asking

15 minute consultation

HISTORY

SNAP (smoking, nutrition, alcohol, physical activity)

Personal history (r u ok; r u safe?)

Menstrual history, CST

Obstetric history (GPMET)

Family history

Medications

Vaccinations

Update clinical record

BP

Height

Weight

BMI

HS x 2

? Murmurs

? Breast (or thyroid) examination

As indicated by history

EXAMINATION

INVESTIGATIONS

Definitely

- Blood group +/- antibodies
- FBC
- Rubella +/- Varicella
- CST if due

Maybe (funded)

- Infection screening (Hep B, Hep C, HIV, Syphilis)
- Ferritin, B12, Vitamin D
- E/LFTs, Protein/Cr ratio
- HbA1c
- Pelvic USS

Maybe (unfunded unless high risk CF)

- Carrier status (limited or extended panels)

Probably not

- GBS
- CMV
- HSV

ADVICE

- Folic Acid
- Iodine
- How to make a baby
- Models of care
- Health insurance (Gold)
- Genetic carrier testing
- Dental check up

YOU'RE KIDDING, RIGHT?

HAND ON DOOR
OPPORTUNISTIC
15 MINUTES....

Would something like this help?

Page 1 of 2

Oh, and spread over at least 2 visits!

Preconception Checklist—Planning a pregnancy?
Please complete to the best of your knowledge and feel free to ask if you don't understand a question or the reason for asking it.
Have you thought about when you want to fall pregnant, how many children you wish to have and what gap you would like between children?
Have you been trying to fall pregnant already? If so, for how long?
Have you ever been pregnant before? If so, how many times and what were the outcomes each time? Were there any complications during the pregnancy, during the birth or afterwards for you or for baby?
Are your periods regular or irregular? Heavy or light? Painful or ok?
Do you have any medical conditions that might affect future pregnancies? Diabetes, thyroid disease, high blood pressure, epilepsy, low platelet count, asthma, heart, lung or kidney problems and mental health conditions are particularly important.
Do you take any medications? This includes prescription medication such as asthma puffers, the pill, an IUD, Implanon, Depo as well as over the counter, herbal or alternative medications & supplements.
Have you had any surgical operations? If yes, what did you have, when & were there any complications?
Do you ever smoke? If yes, what do you smoke, how much and how often? Do others smoke near you?
Do you drink alcohol? If yes, what do you drink, how much and how often?
Do you use drugs? If yes, what do you take, how do you take it, how much and how often?
Do you follow any particular diet such as vegan, vegetarian, gluten or dairy-free?
What types of exercise do you like? Do you exercise regularly? If yes, what types of exercise do you do?
Have you ever had a Pap Smear or Cervical Screening Test? If yes, when was it and what was the result?
Have you ever had a sexually transmitted infection?
Did you have vaccinations as a child? Have you had any as an adult e.g. for travel, whooping cough?

  Dr Wendy Burton July 2019

Maternity-matters.com.au

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Maternity-Matters

Home Before During After For Clinicians

The advances in knowledge in the maternity field are extraordinary. I have collated various resources I have personally found helpful or created content to answer questions which are frequently asked by colleagues.

The resources I have suggested in previous pages have useful information for clinicians and I recommend them to you. Useful guidelines and information for clinicians are linked to the right. Video clips featuring discussions on important topics and checklists are linked below.

Managing nausea, vomiting, hyperemesis in pregnancy
Medication management of anxiety and depression in pregnancy
The use of psychotropic medications in a breastfeeding woman
Managing bipolar, schizophrenia and psychosis in pregnancy
Early pregnancy scans Medicare Rebates for first trimester scans
NTS in the era of NIPT 40 second summary of NTS in the era of NIPT
Screening low risk women for SMA, CF and FXS
Pelvic Floor Prolapse
Perineal injuries in childbirth
Hands on or hands off? Perineal care
Prophylactic aspirin use in early pregnancy Summary document
Contraceptive options in the 6 weeks post partum
Genetic testing 101

PRECONCEPTION CHECKLIST

Search

National pregnancy guidelines
RANZCOG clinical guidelines
Mater Mothers Shared Care
RANZCOG Human Genetics Society joint statement
Queensland Clinical guidelines
Australian Society of Infectious Diseases
Pregnancy and alcohol
Australasian Diabetes in Pregnancy Society
PSANZ guidelines
National Perinatal Mental Health Guideline and training (COPE)
eMental Health resources
PANDA
Nutrition information
Weight tracker for BMI < 25
Weight tracker for BMI > 25

Blue Group
Task 3 - Current controversies

Jasmine, age 29, is a G1P0 whose LNMP was 5 weeks ago. She is interested in a home birth, with a private practice midwife. Can you recommend one? Will the MMH provide backup? She has heard that Medicare is funding this model of care.

What do you advise?

Where can you get advice?

Please consider

What is it Jasmine is looking for and why?

Would existing models of care (e.g. MGP) be a suitable alternative to a home birth?

How best to support her to achieve the birth outcome she is looking for while being mindful of the issues

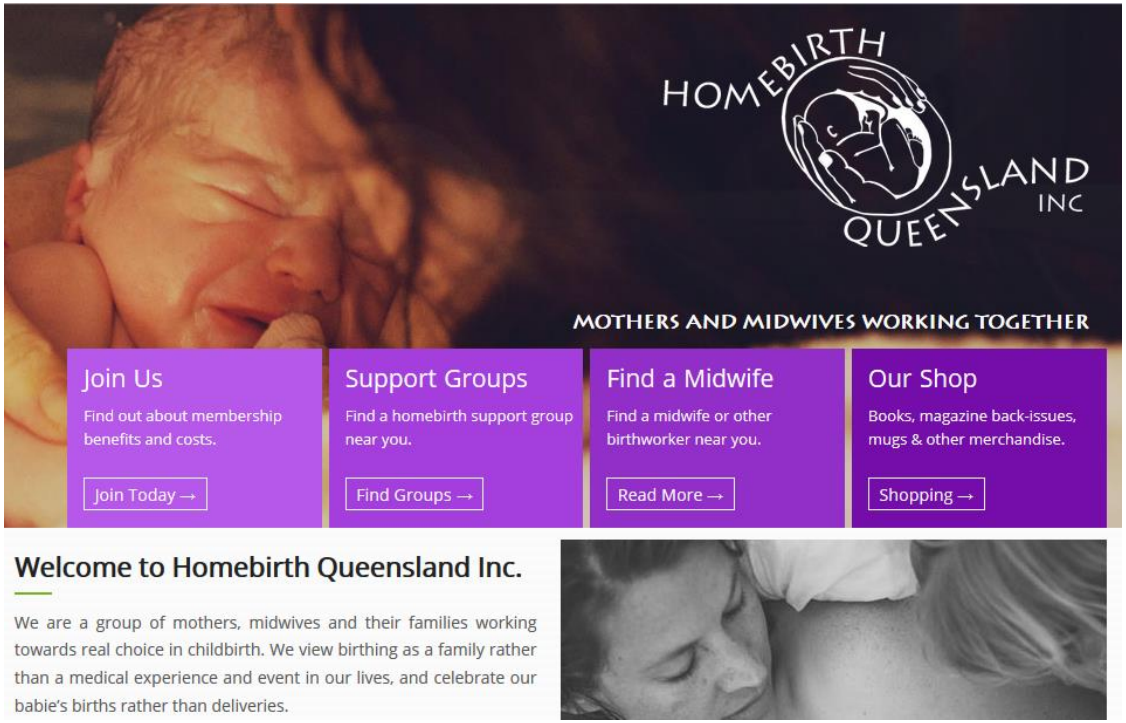
Ultimately, the choice is hers

Home births

- Home births accounted for 0.28% of all Qld births from 1988-2007 = 2 672 singleton births. 22.4% of all planned home births from 2001-2007 resulted in transfer for birth elsewhere. (Source: Qld Maternal and Perinatal Quality Council, 2010)
- In 2015,115/61 903 (0.18%) of births were home births
- MMH does provide back up care with independent midwives, however if a woman is transferred in labour, her care will transfer to the hospital staff and her independent midwife will become a support person. This may change if visiting rights are granted to participating midwives.

Home births

- http://www.homebirth.org.au/find-a-midwife-or-birth-support/ provides a list of independent midwives providing home births



Private Practice Midwives

MBS rebates for participating midwives in private practice are available for a range of antenatal, intrapartum and postnatal MBS items. The intrapartum items will only be payable for births occurring in a hospital.

GPs may be asked to refer women to Private Practice Midwives for antenatal or postnatal/lactation services and advised that this will enable women to receive a Medicare rebate. This applies if they are already in a collaborative arrangement with a GP obstetrician, an obstetrician or obstetric hospital.

Green Group
Task 3 – women's choices in pregnancy

Helen is a 27 year old healthy G1P0 who presents for advice with a LNMP 5 weeks ago and three positive home pregnancy tests. She has private health insurance, but thinks it is only singles cover. She has done some online research, checked out the blogs and is a bit confused. Some mothers prefer a private obstetrician (should she simply self insure if she's not covered and how much will that cost?) others swear by midwifery care (but she's read she needs to ask for the continuity of carer model, can she be sure she'll get it and what does it mean?) and she found you on the Mater site for Aligned GPs – you are nice and close to where she lives and what is the difference between GP, midwife and obstetrician care anyway?

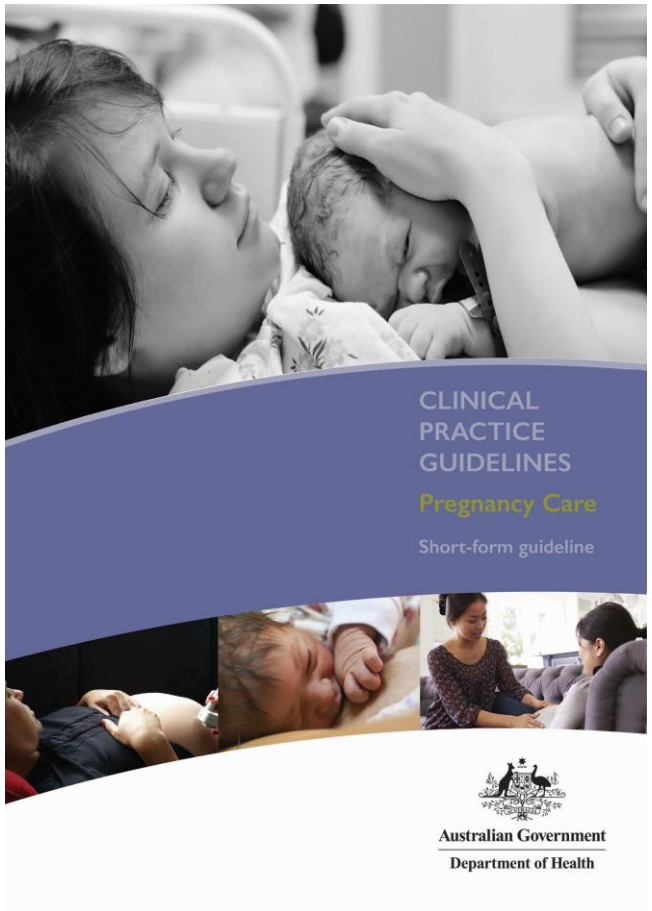
You have 15 minutes, what do you tell her? What resources can you recommend?

Self insurance

- Women can get a quote from the Mater Mother's Finance Department by ringing switch on 3163 8111 and asking to be put through.
- Expect to be asked to put a $10 000 deposit down and if there are complications, this can escalate rapidly (e.g. NICU admissions)

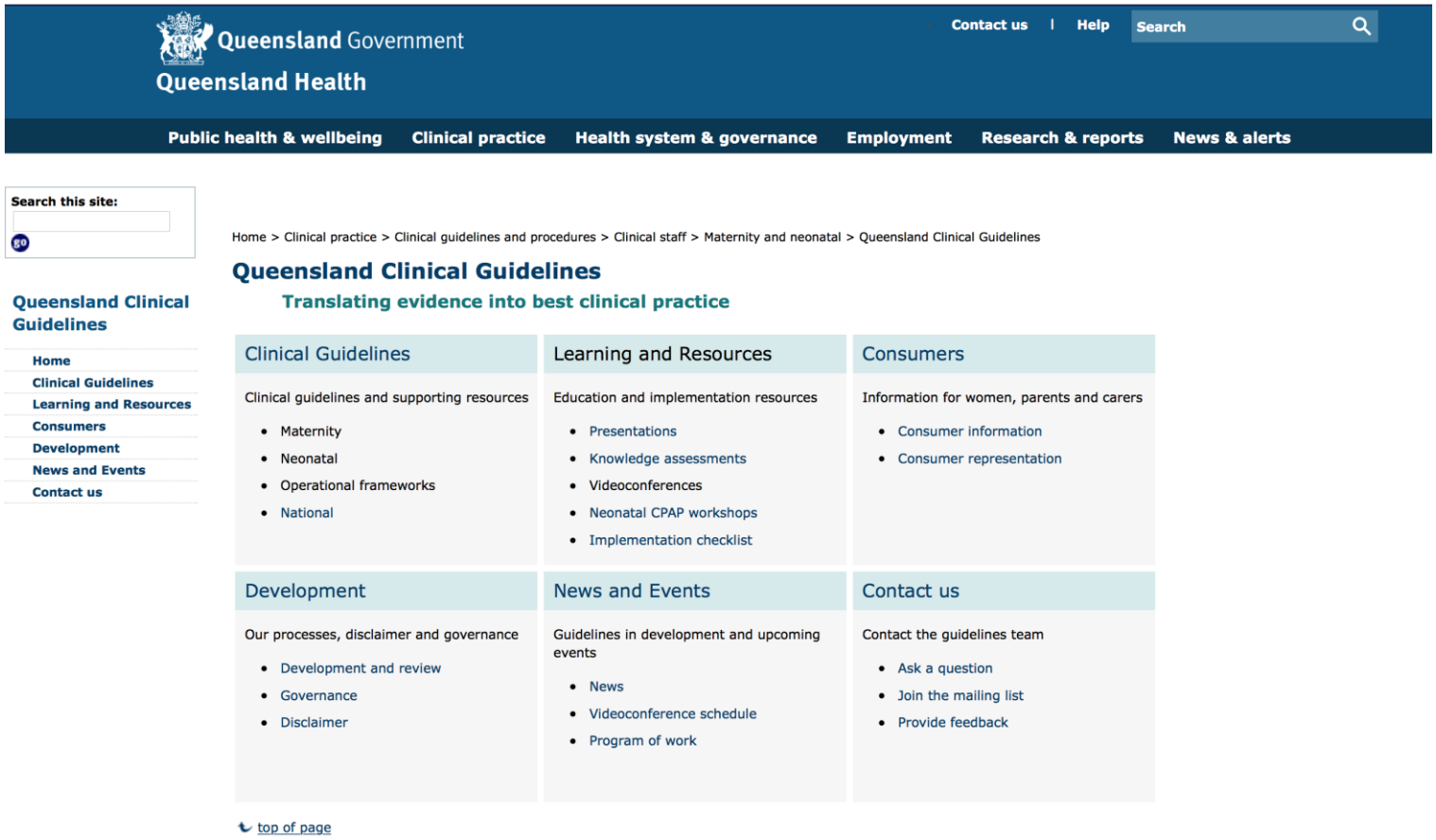
Pregnancy Care Guidelines

32 pages of recommendations and practice points
16 pages with clinical content
Full document is 376 pages long but searchable!

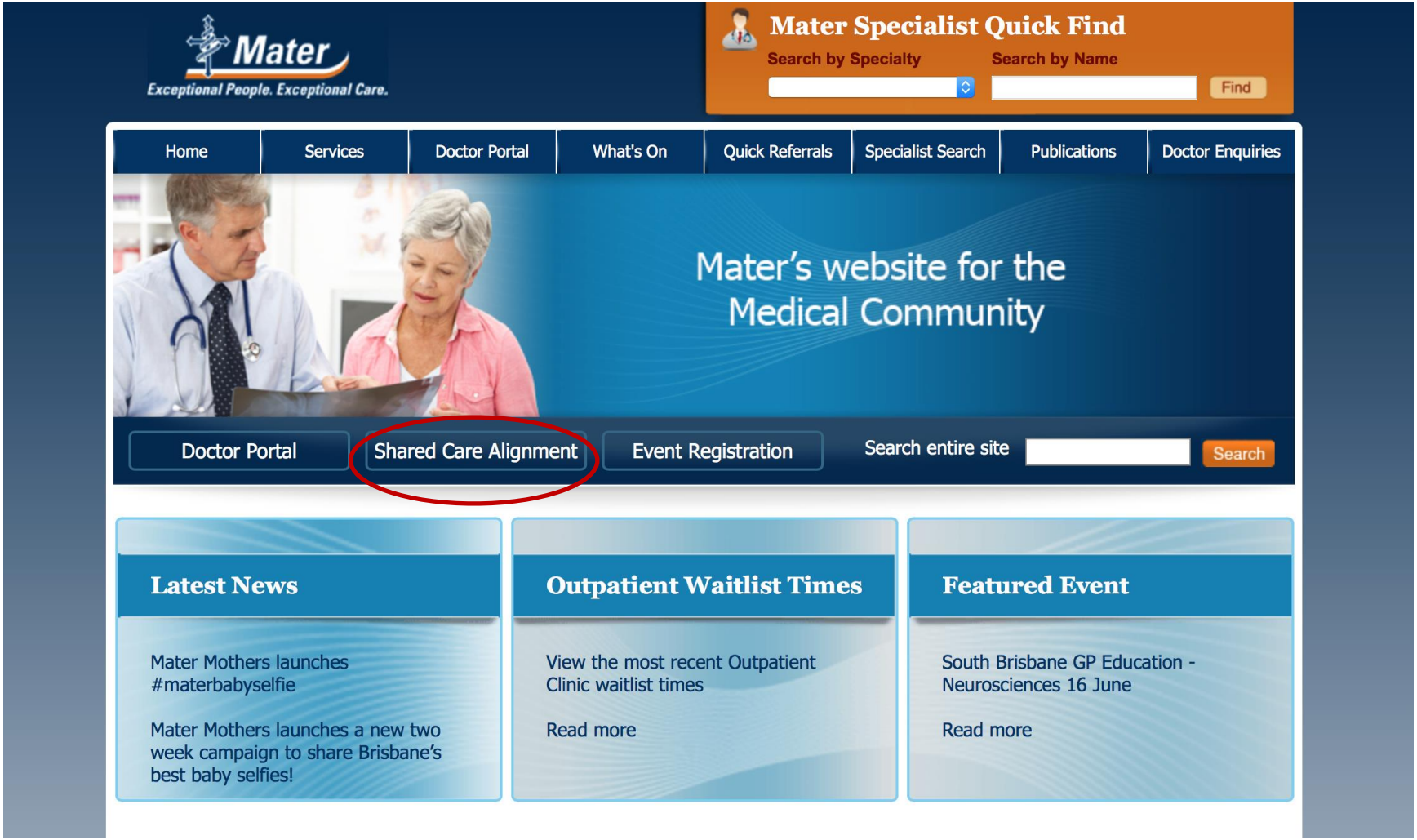


Queensland Clinical Guidelines

QHealth has evidence based guidelines, consumer and education resources



www.materonline.org.au



Click through to www.bsphn.org.au

This hyperlink takes you to the home page

What's On » Professional Development » GP Maternity Shared Care Alignment

GP Maternity Shared Care Alignment

In line with national trends and a commitment to providing the highest quality of antenatal care to women, Mater Mothers' Hospital (MMH), in partnership with Brisbane South PHN (BSPHN), has developed a range of GP Maternity Shared Care Alignment Program options.

Program Outline

Program Alignment Options

Alignment program dates

Please visit the events page for program dates in 2015.

Program resources

A range of program resources has been developed to assist in completing the MMH GP Maternity Shared Care Program and Advanced Program, and to enhance clinical knowledge and MMH referral processes.

Guidelines and policies

A list of guidelines and policies relating to GP Maternity Shared Care is available to assist you along with a MMH patient catchment map.

Aligned GPs

Once you are aligned and have given permission for your practice details to be listed they will appear on the Mater Mothers' Hospital website. Please advise the program administrator via email mscadmin@mater.org.au if your details need to be updated.

Patient Referrals

To refer an uninsured patient to Mater Mothers' Hospital please complete our antenatal referral form.

Further information

For further information about the Shared Care please contact the GP Liaison Midwife on telephone **07 3163 1861**, mobile 0466 205 710 or email GPL@mater.org.au.

For event registration enquires please contact the Program Administrator by email mscadmin@mater.org.au.

GP Advisors for the MMH GP Maternity Shared Care Alignment Program are supported by Medicare Locals.

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An Australian Government Initiative

Mater Health Centres

Providing local communities with access to integrated health care & services.

Read more

Professional Development

GP Education, Maternity Shared Care Alignment Program and Events.

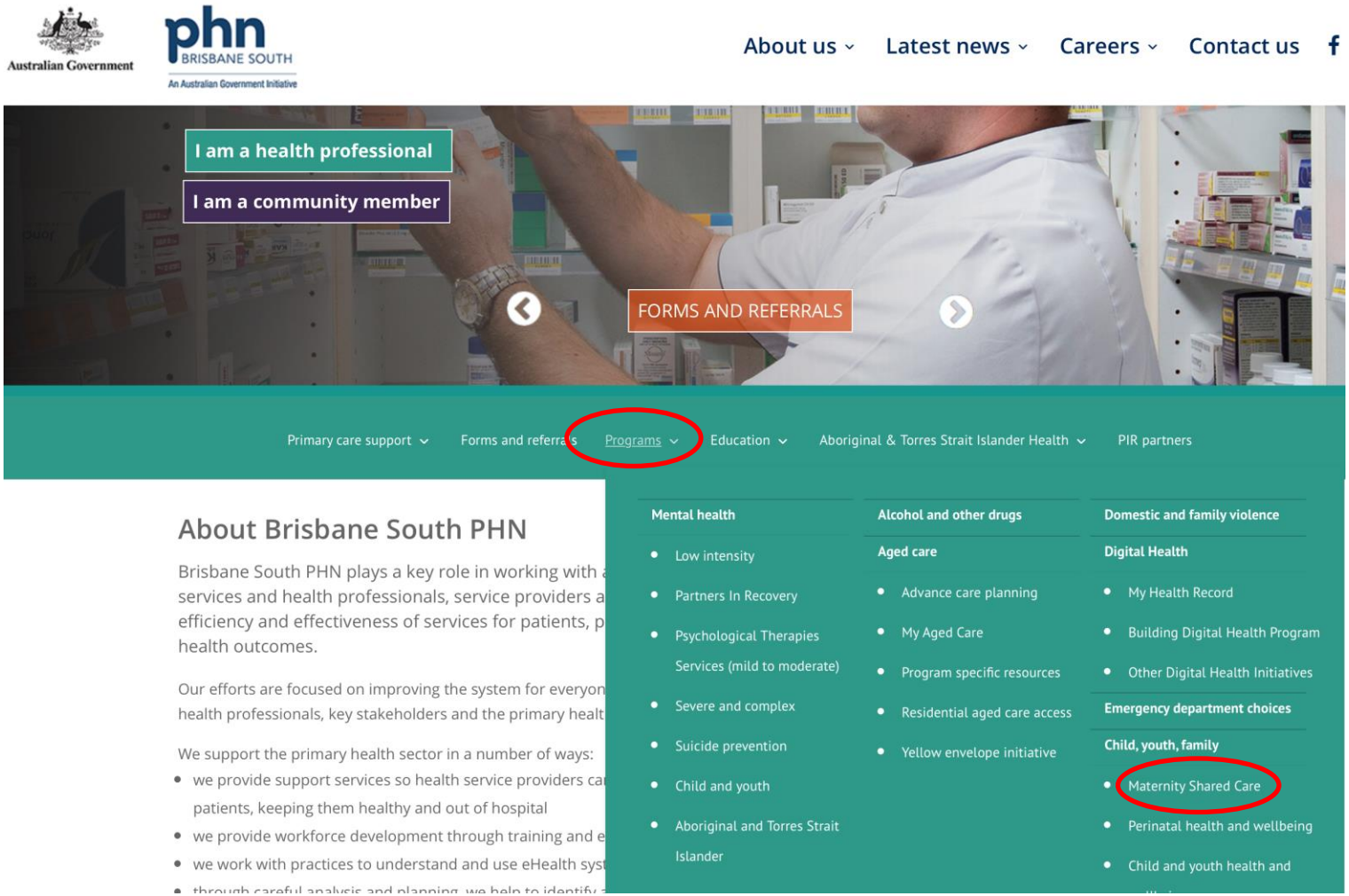
Read more

Featured Event

South Brisbane GP Education - 13 October

Read more

www.bsphn.org.au



Maternity Shared Care

Australian Government

phn BRISBANE SOUTH
An Australian Government Initiative

About us | Latest news | Careers | Contact us

Primary care support | Forms and referrals | Programs | Education | Aboriginal & Torres Strait Islander Health | PIR partners

Home > Programs > Child, youth and family > Maternity Shared Care

Maternity Shared Care

Resources

Brisbane South PHN/Queensland Health Redland Hospital Maternity Care Update (27 May 2017)
Brisbane South PHN/Queensland Health Maternity Care Update at Logan Hospital (7 October 2017)
Antenatal Shared Care Summary January 2018
Directory for Perinatal Mental Health Care
Pregnancy Checklist
Thyroid management in pregnancy

About Brisbane South PHN's maternity education workshops

Related news:

Living Healthier Lives community grants now open

South Brisbane Antenatal Shared Care

Process

Pre-Conception Unique role for GPs!

- Folate and iodine supplementation for all
- Rubella serology +/- vaccination
- Varicella serology if no history +/- vaccination
- Cervical screening if due
- Chlamydia test/treat <25yr
- Smoking cessation
- Alcohol cessation
- Discuss genetic screening e.g. SMA/CF/FXS or extended panel
- Consider referral to preconception clinic e.g. Mater/Logan pre-pregnancy assessment

First GP Visit(s) (May take more than one consultation)

- Confirm pregnancy and dates
- Review medical, surgical, psych, family history, medications, allergies etc. – delete old medications, update GP records ± My Health Record shared health summary
- Identify risk factors
- Scan if dates uncertain ***or*** risk of ectopic (previous ectopic, tubal surgery)
- Folate and iodine supplementation
- Discuss and anomaly and genetic carrier testing, including screening vs diagnosis
- Discuss models of care
- BP, weigh, calculate BMI
- Discuss smoking, nutrition, alcohol, physical activity (SNAP); dietary advice (listeria) and drug avoidance
- Offer influenza vaccination as soon as practical

First Trimester Screening Tests (cc to ANC on all request forms please)

- FBC, blood group and antibodies, rubella, Hep B, Hep C, HIV, syphilis serology, MSU (treat asymptomatic bacteruria)
- Discuss and offer screening for anomalies:
  1. Nuchal Translucency Scan + First Trimester Screen (free hCG, PAPPA) K11-13[+6] ***OR***
  2. Non-Invasive Prenatal Testing > K9 (Higher failure rate in multiple pregnancy, not Medicare funded, first trimester scan recommended) ***OR***
  3. Triple Test (AFP, Oestriol, hCG) K15-18 if desired or if presents too late for first trimester testing. Not if twins or diabetes
- Cervical screening test if due
- Varicella serology (if no history of varicella or vaccination)
- OGTT (or HbA1c) if high risk for Diabetes ***(see box below)***
- ELFT, TFTs, Vit D, chlamydia ***only recommended for at risk women (see over)***

Uncomplicated pregnancy

- Refer privately for detailed scan (placenta, morphology) at 18-20 weeks
- First Midwifery Booking visit is at 16-18/52 with a Medical visit at 20/52 (18-20/52 combined RM/doctor visit MMH)
- **You are responsible for her care until she is seen by the hospital, after which the responsibility is shared**
- GP visits to be scheduled around hospital appointments to ensure timely review of results
- **All investigations to be reviewed by referring clinician and required follow up taken or referrals made**

GP Visits: 14, 24, 28, 31, 34, 38, 40 weeks

- Record or place printed copy of notes and results in Pregnancy Health Record (PHR)
- Schedule, education and assessment as per the PHR
- More frequent visits if clinically indicated
- K26-28 GTT, FBC, Blood group and antibody screen
- K36 Hb
- Offer influenza (at any time) & pertussis vaccination (pertussis funded from 20 weeks), both safe to use in pregnancy
- **Routine hospital review** at 36 and at 40-41 weeks
- ***Be sure to cc pathology and radiology to the ANC***

General Information

High Risk for Diabetes in Pregnancy?

- Previous GDM or baby > 4500g, polycystic ovarian syndrome, strong family history, glycosuria, BMI > 30, maternal age ≥ 40, ethnicity
- **OGTT by 12 weeks (or HbA1c if OGTT not tolerated.) Urgent Hospital ANC referral if abnormal (Fasting ≥ 5.1 mmol or 1-hr ≥ 10 mmol or 2-hr ≥ 8.5 mmol; HbA1c ≥5.9)**
- Please specify reason and include a copy of the results in the referral letter **to your local service**.

Medical Disease or Obstetric Complications? EARLY or URGENT Hospital ANC referral:

- GP referral letters are triaged by consultant within same week
- Please specify urgency and reasons in the referral letter
- Refer to local service who will liaise or make further referrals if required
- ***Be sure to cc pathology and radiology and give women a copy of their results***

Rh Negative Mothers

- If antibody negative, offer 625 IU anti-D at 28 and 34 weeks and for sensitisng events
- Dose can be given at local Hospital; or
- Dose can be given by GP—order via Fax from QML or Mater Blood Bank, delivered via courier to surgery
  - QML **3371 9029**
  - Mater **3163 8179**

CONTACTS	Beaudesert	Logan	Redland	Mater
Contact Details for Referrals, Pathology				
Hub fax (for initial referral)	**Central Referral Hub: 1300 364 248**			**3163 8053**
ANC fax (for updated information)	**5541 9132**	**3299 8202**	**3488 3436**	**3163 8053**
Secure e-Referral	**Medical Objects or HealthLink available for all centres**			
ANC phone	**5541 9144**	**3299 8527**	**3488 3434**	**3163 1861**
For Urgent Referral or Advice				
O&G Registrar/GP Obs on Call	**5541 9111**	**3299 8027**	**3488 3758**	**3163 6611**
Obstetrician on call	**-**	**3299 9097**	**3488 3111**	**3163 6612**
Triage Midwife	**5541 9144**	**3299 8811**	**3488 3044**	**3163 1861**
Mental Health (MH) Services	**3089 2734**	**3089 2734**	**3825 6000**	**3163 7990**
For urgent MH referral/advice	**1300 642255 (1300 MHCALL) for all centres**			
Pregnancy Complications				
Complications, e.g. bleeding, pain, threatened or incomplete miscarriages, phone 24/7 ***Haemodynamically unstable women? Direct to ED/PAC***	**On-Call GP Obstetrician 5541 9111**	**<20 3299 9309** **>20 3299 8811** **EPAU FAX 3089 2016** **ED: 3299 8899**	**On-Call Obstetrician 3488 3111**	**Pregnancy Assessment Centre (PAC) 3163 6577**

Modified by BSPHN and MMH from an original created by Drs Michael Rice, Mano Haran and Heng Tang Version May 2019 www.materonline.org.au | www.bsphn.org.au

Summary of routine bloods

- Routine first trimester ANS = FBC, Blood group and antibodies, Rubella, Hep B, Hep C, HIV, Syphilis and MSU m/c/s. (CST if due)
- Women with BMI > 35 to have first trimester HbA1c or early OGTT if k>12 , E/LFTs urinary protein/creatinine ratio as well as the above
- 26-28 week bloods = FBC, OGTT and Blood group antibodies
- 36 week bloods = FBC

Contact details

Maternity Share Care issues?

- GP Liaison Midwife (GPLM) Phone: 3163 1861
- E-mail: GPL@mater.org.au
- Mobile: 0466 205 710

If you are uncertain about the best approach to take in caring for or referring a woman, or if she requires urgent review, phone the:

- on call consultant 3163 6612
- registrar 3163 6611 or
- GPLM

Contact details

Alignment status, contact details, evaluation training & RACGP enquiries?

- Phone Mater Education on 3163 1500
- Fax 3163 8344
- Email mscadmin@mater.org.au

Available now!

Online options to realign

- Bridging option (or refresher!) for GPs who complete an Alignment event at an allied hospital (Redland, Logan, Beaudesert, RBWH and Redcliffe/Caboolture, Ipswich and Nambour!)
- VOPP of MFM and infections in pregnancy presentations from Alignment 1 and 2
- Video clips with Dr Treasure McGuire, pharmacologist

GPs referring to MSHHS?

Online resources including power points with information on local referral pathways are hosted at Brisbane South PHN

GPs referring to MNHHS?

- **Contact information for the MNHHS Alignment:**
  Brigid Wheaton Program Coordinator Metro North Maternity GP Alignment Program

Phone: (07) 3646 4421

Email: mngpalign@health.qld.gov.au

Online resources are available under Metro North GP Alignment Program on the Education resources page

Take home messages from this update:

Communicate, communicate, communicate.

When you have assembled your exhaustive history and have completed your examination and investigations, promptly send your referral to the MMH so that the booking can commence and triage can be most effectively and efficiently done. ***Use the template!***

Copy the MMH on ALL investigations.

If an adverse event occurs, such as a miscarriage, let the GPLM know.

If an adverse event occurs at MMH and you are NOT notified, please give this feedback to the GPLM. Communication is a two way street and gaps can only be closed if they are identified.

Consultation with women and care givers

I am sure that we are all aiming to provide high quality clinical care. This involves ongoing education on our part and seeking advice from others. We are able to access physiotherapists, dietitians, social workers, pharmacists, lactation consultants, physicians, midwives and obstetricians, giving our patients a very broad range of advice and assistance from these professionals.

USE THEM!

IF IN DOUBT, PHONE A FRIEND!!!

Item numbers for MSC

16500 Rebate $40.10 Antenatal Attendance

16591 Rebate $121.30 "Planning and management, by a practitioner, of a pregnancy if:

(a) the pregnancy has progressed beyond 28 weeks gestation; and

(b) the service includes a ***mental health assessment (including screening for drug and alcohol use and domestic violence****) of the patient; and*

(c) a service to which item 16590* applies is not provided in relation to the same pregnancy

Payable once only for a pregnancy"

(16590 = planning to undertake the delivery for a privately admitted patient)

To apply the best practice share care models in antenatal and postnatal care, we all need to be

Clinically competent

Up to date

Following the Guidelines

Thinking

Communicating

Postnatal item numbers

16407

Postnatal professional attendance (other than a service to which any other item applies) if the attendance:

(a) is by an obstetrician or general practitioner; and

(b) is in hospital or at consulting rooms; and

(c) is between 4 and 8 weeks after the birth; and

(d) lasts at least 20 minutes; and

(e) includes a mental health assessment (including screening for drug and alcohol use and domestic violence) of the patient; and

(f) is for a pregnancy in relation to which a service to which item 82140 applies is not provided (participating RM)

Payable once only for a pregnancy

Fee: $71.70 **Benefit:** 75% = $53.80 85% = $60.95

16408

Home visit for woman who was admitted privately for the birth. Midwife (on behalf of and under the supervision of the medical practitioner who attended the birth) Obstetrician or GP can claim. 1-4 weeks post partum, at least 20 min duration

Fee: $53.40 **Benefit:** 85% = $45.40

YOU ARE NOT YET ALIGNED!!

You still have to get an 80% pass in the questionnaire *and* complete paperwork, this may take up to 8 weeks.

Complete the questionnaire within 4 weeks, otherwise we'll have to ask you to submit the points application to the RACGP directly.

Please provide your email address

To ***maintain*** your alignment in the next triennium, you must either:

- repeat one Alignment Seminar (you can repeat this Alignment, attend Alignment 2, 3 or an affiliated Alignment + complete the online bridge) including Q&A; OR
- attend three relevant antenatal or postnatal/neonatal CPD events and complete online Q & A. The CPD events DO NOT need to be with the Mater Health Services OR
- Complete a RANZCOG Diploma or Certificate in Women's Health or the RACGP's Antenatal and postnatal ALM + complete the online bridge OR
- Complete a 2 hour online update.

Good afternoon and would you please?

- Complete the evaluation and give us feedback—let us know what we did well and what we could do better
- Let us know if you would be happy to have your contact information available for pregnant women who don't have a regular GP
- Let us know if you would be happy to have BSPHN hold your contact details also
- Give us an email address that we will be able to contact/update you on

The End!

GOOD AFTERNOON AND THANK YOU!

Dr Julie Buchanan
BNURS MBBS FRANZCOG

Eve Health