Mater Mothers’ Hospital (MMH) works in partnership with Brisbane South PHN (Primary Health Network) and other key clinicians in the public and private sector, to develop a best practice model for General Practitioner (GP) Maternity Shared Care in South Brisbane, Queensland. Inclusive in this model is a uniform guidelines and protocols booklet for GPs and hospitals to assist them to care for women in accordance with current evidence based antenatal practice.

Sincere thanks are extended to the following for their dedication to the task:

- Dr Wendy Burton—GP Advisor, Brisbane South PHN
- Caroline Nicholson—Director, Mater/UQ Centre for Integrated Care and Innovation
- Dr Michael Beckmann—Medical Director, Mothers, Babies and Women’s Health Services, MMH
- Maree Reynolds—Director of Nursing and Midwifery, Mothers, Babies and Women’s Health Services, MMH
- Dr Paul Bretz—Director of Obstetrics and Gynaecology, Mater Mothers’ Hospital
- Kay Wilson—Director of Nursing and Midwifery Ambulatory and Birthing Services, Mater Mothers’ Hospital
- Dr Glenn Gardener—Director of Maternal Fetal Medicine, Mater Mothers’ Hospital
- Dr Treasure McGuire—Assistant Director of Pharmacy Practice and Development, Mater Hospital Springfield
- Professor David McIntyre—Director of Obstetric Medicine, Mater Mothers’ Hospital
- Dr Shelley Wilkinson—Senior Maternity Research Dietitian, Mater Mothers’ Hospital
- Anne Williamson and Nicola Graham—Clinical Midwives/GP Liaison, Mater Mothers’ Hospital
- Dr Huda Safa—Senior Staff Specialist Obstetrics and Gynaecology, Mater Mothers’ Hospital.

The MMH/GP Maternity Shared Care Program is managed by:

Department of Obstetrics
Mater Mothers’ Hospital
South Brisbane, Qld 4101

Contact:
GP Liaison Midwife, MMH
Telephone: 07 3163 1861 Mobile: 0466 205 710
Email: GPL@mater.org.au
Website: materonline.org.au/sharedcare

Dr Wendy Burton GP Advisor for the Mater Mothers’ Hospital /GP Maternity Shared Care Program are supported by:

We would like to acknowledge the South Australian Divisions of General Practice Inc (SADI) for providing information regarding the SA Statewide model and the use of the ‘GP Obstetric Shared Care Protocols: A Statewide Model’ (March 2006) document as a template for this publication.
Blood group and antibody screen 27
Rubella titre 27
Hepatitis B and C, and HIV tests 27
Oral glucose tolerance test 27
Thyroid management in pregnancy 28
Management of anaemia in pregnancy flowchart 29

14. How to manage abnormal findings/symptoms 30
   Intrauterine growth restriction (IUGR) 30
   Decreased fetal movements 30
   Hypertension 31
   Pre-eclampsia investigations 31
   Assessment of Hypertension 31
   Vaginal bleeding ≥ 20 weeks 32
   Abnormal presentation 32

15. Care for women who are Rh (D) negative 32
   Testing for Anti-D antibodies: 32
   Anticipating prophylactic Anti-D administration in pregnancy 32
   Notes to assist in obtaining informed consent 33
   Anti-D prophylaxis for potentially sensitising events 33
   Routine prophylaxis at 28 and 34 weeks 33
   Administration of Anti-D 34
   Dosing recommendations for Rh D negative women—Australian Red Cross Blood Service 34

16. Birth and postnatal care 34
   Mater Mothers’ Parenting Support Centre 34
   Postnatal GP appointment at 5–10 days 35
   Postnatal GP appointment at 6 weeks 35

17. Further information for GPs 36
   171 Infections 36
   172 Edinburgh Postnatal Depression Scale (EPDS) 38
   173 Gestational diabetes screening and diagnosis 40
   174 Pregnancy Management Plan BMI > 35 42
   175 Breastfeeding 43
   176 Smoking during pregnancy 44
   177 Resources for GPs 44

18. Additional information for women 45

19. MMH antenatal shared care process flowchart 46

20. Mater Mothers’ Hospital shared care alignment and re-alignment options 47

21. Pregnancy checklist 48

22. Contact list 49
1. Maternity shared care

Women wishing to attend the Mater Mothers’ Hospital (MMH) for their care during pregnancy and in childbirth have an option of GP shared care, which means most of their maternity care is managed by their General Practitioner (GP).

The most important principle underlying shared care is that the designation of high and low risk is a continuing process throughout the pregnancy, as more than one fifth of those designated as low risk on first antenatal visit will have their risk status changed during their pregnancy. A further percentage will have their risk status changed during labour. In certain circumstances a high risk woman may be accepted into a shared care program providing all health care providers are familiar with the stated risk factors and consequent management strategies. This would require close collaboration between GPs and the hospital. It is most important in all cases to demonstrate consistency in the approach between all caregivers and the pregnant woman.

The decision to enter into a shared care arrangement is a joint decision made by the woman, her GP and the consultant obstetrician at MMH, all of whom share responsibility. While it is not necessary that the GP wishing to conduct shared care holds the DRANZCOG (Diploma of the Royal Australian College of Obstetricians and Gynaecologists), or the CWH (Certificate of Women’s Health) he/she should have adequate knowledge and skill in obstetric care and be familiar with the policies of MMH. GPs undertaking maternity shared care are expected to meet the alignment requirements for maternity shared care.

Shared care automatically implies that the responsibility for the health of the woman and her baby is shared.

A referral to a consultant obstetrician at Mater Mothers’ Hospital should be submitted before 12 weeks gestation whenever possible.

The following guidelines and protocols are to help you as a GP undertaking shared care, and the staff at MMH, to care for women in accordance with current evidence based obstetric practice.

2. The Pregnancy Health Record

The aim of the Pregnancy Health Record is to facilitate women’s participation in their care and communication, and to promote early and appropriate use of antenatal services, particularly amongst disadvantaged groups. The Pregnancy Health Record must be used for all women involved in GP Shared Maternity Care.

The Pregnancy Health Record includes:

- An antenatal pathway format and will act as a prompt to both General Practitioners and hospital professionals about the important issues to be covered at significant points in the pregnancy.
- Action oriented problems are designed to clearly identify concerns that may lead to an action above and beyond routine antenatal care e.g. past history of premature labour—admit if any contractions; APH repeated unexplained—serial growth measurements.
- A section entitled notes beneath each visit is designed to record concerns not necessarily requiring further action later in the pregnancy. This is a very important area for all members of the team to become aware of the individual woman’s experience of pregnancy.
- All care providers must record tests requested and the results when these are available. This process will enable rapid appreciation of timing and results of pathology tests ordered throughout the pregnancy. In addition this ensures that someone has checked the results of tests.

The Pregnancy Health Record is to be the substantive record of the woman’s pregnancy and MUST be completed at each visit. Information is to be recorded in the Mater Shared Electronic Health Record, or Pregnancy Health Record at every visit or a printed copy of each appointment notes can be attached. Documentation must be sufficient to meet the care provider’s duty of care in diagnostic and treatment decisions.
All pathology and ultrasound results are to be included in the Pregnancy Health Record.

The Pregnancy Health Record will be commenced by the midwife at the antenatal history appointment as an electronic record and a printed copy will be given to the woman at each subsequent appointment. This should be carried by her to all appointments during her pregnancy, including those with other health professionals.

The woman should be made aware that the Pregnancy Health Record is the ONLY complete medical record maintained for her antenatal care and becomes part of the obstetric hospital’s health records.

As the substantive record, the Pregnancy Health Record will be scanned into the electronic health record at MMH. The Pregnancy Health Record is not to be destroyed under any circumstances.

For further information about the Mater Shared Electronic Health Record, an electronic alternative to the Pregnancy Health Record, please visit materonline.org.au/e-health/doctorportal

3. Medical indemnity recommendations

The risk of litigation in the practice of obstetrics mainly relates to the conduct of labour.

Recently litigation has also occurred when antenatal screening tests have failed to be performed, or when serious medical problems or obstetric complications have not been detected during the pregnancy, or there has been a delay in management.

To be indemnified for the practice of maternity shared care the following guidelines must be adhered to:

1. Every GP should check with their MDO or professional indemnity provider as to the extent of cover provided. However in general terms it is the Mater’s understanding that GPs with non-procedural cover are covered for claims arising out of antenatal care (including any major antenatal complications) up until labour but are not covered for any planned (non-emergency) intrapartum care or treatment unless they have GP obstetric cover.

2. Request all appropriate tests after discussion and informed consent and follow up the results.
   i. Any investigations requested by shared care GPs for any pregnant woman under their care must be followed up by the GP concerned.
   ii. While part of appropriate follow up may be by communicating to the obstetrician/registrar at the shared care hospital the relevant results, it is still necessary for the GP to check that appropriate action has been taken. The GP will not be relieved of all liability by simply communicating the results in the assumption the hospital will act on the results.

3. Ideally the woman should be referred to an antenatal clinic before 12 weeks and triaged for consultation with an obstetrician/obstetric registrar at an appropriate time.
   i. If shared care is planned, then the consultant obstetrician/obstetric registrar or midwife should see the woman again at 36 weeks provided that the antenatal course is uneventful. Should any problems occur the consultant obstetrician should be advised. All women who have not delivered will have a 41 week appointment at MMH with a midwife, in consultation with an obstetrician, to discuss and plan induction of labour.
   ii. GPs may continue to see pregnant women for antenatal visits or for intercurrent medical problems, but in shared care the responsibility for the obstetric care and the delivery of the baby must rest with the consultant obstetrician or with a GP who has obstetric insurance arrangements (not an option at MMH).

4. In an emergency situation, e.g. haemorrhage or preterm birth, any doctor irrespective of their cover must render whatever emergency assistance they can, and will be indemnified.

5. If an aligned GP is going to be away from his or her practice, then the woman’s care must be handed over to another aligned GP, or she must be referred back to MMH. It is not acceptable for GPs not in the shared care alignment program to provide back up.

6. Further details can be obtained from your indemnifier.
4. Alignment and CPD requirements

GPs that choose to join the Alignment Program will have access to:

- High quality educational events, including on-line education.
- A range of on-line resources and tools, including the Appointments Schedule, Guidelines for Referral and Consultation and referral templates.
- Improved lines of communication into MMH.

In return, GPs participating in the Alignment Program will commit to providing:

- Referrals with an agreed minimum amount of clinically relevant information to facilitate safe provision of care. Hard-copy or electronic templates have been created for GP use. Referrals are to include copies of pathology and radiology reports.
- MMH Antenatal clinic (ANC) to be copied in all pathology and radiology requests.
- Timely, clinically significant communication with the appropriate clinician/s.
- Attendance at a minimum of one education update per QI and CPD triennium or completion of online realignment.
- High quality care to their patients.

MMH is committed to supporting all GPs who wish to share care in maintaining their skills and familiarity with new protocols and approaches. The alignment program is designed to be as flexible as possible for busy GPs and to minimise time lost and risks inherent in delayed communication with the hospital, bookings and missing information.

To become an aligned Maternity Shared Care GP with MMH, a GP must fulfil the requirements listed below.

Alignment

GPs must be a registered medical practitioner with current medical indemnity insurance.

As previously stated on page 4, while it is not necessary that the GP wishing to conduct shared care holds the DRANZCOG or CWH, they should have adequate knowledge and skill in maternity care. GPs undertaking maternity shared care are expected to meet the alignment requirements for maternity shared care and be familiar with the policies of MMH.

To provide maternity shared care GPs must attend the Mater Shared Care Alignment Program and complete the questionnaire satisfactorily or have completed the DRANZCOG, Certificate of Women’s Health program (CWH) or RACGP Antenatal ALM in the current triennium and completed the online bridging program, or completed an affiliated alignment program and the online bridging program.

To maintain your alignment

In order to continue to provide maternity shared care with MMH you will need to re-align each triennium by one of the following means:

1. Attend a MMH alignment seminar and complete the questionnaire satisfactorily
2. Complete the MMH online re-alignment and complete the questionnaire satisfactorily
3. Attend a maternity alignment seminar with an affiliated provider, complete the MMH online bridging program and complete the questionnaire satisfactorily
4. Attend three relevant two hour antenatal or postnatal/neonatal CPD events (category 2) AND complete the MMH online bridging program and complete the questionnaire satisfactorily.

*A copy of your attendance certificate/s from courses other than MMH is required to be forwarded to and accepted by the program administrator prior to recognition of re-alignment.

The three year cycle is run in parallel with the triennium set down by the RACGP and the Australian College of Rural and Remote Medicine (ACRRM) for GP Vocational Registration.
If the recommended best practice protocols are not followed and patient management problems occur accreditation may be withdrawn. This is monitored by reviewing patient records. GPs that have not been following protocols will be contacted, either by phone or letter to inform them of their protocol omission. Repeated omissions or serious management problems will be reviewed by the Maternity Shared Care Advisory Committee and may result in withdrawal of alignment.

If alignment is not maintained a GPs name will be removed from the GP Maternity Shared Care Program database, which would preclude participation in MMH Maternity Shared Care.

5. Contraindications to shared care

Special arrangements can be made for shared care for most women, but it is not recommended for women with the conditions listed under Section 6. However, some GPs may have skills that enable them to manage women with some of these conditions. Discussion with a consultant obstetrician is recommended to clarify management in these situations.

In circumstances where a woman has one of the listed complications and requests shared care, please make this clear in your referral letter to the consultant obstetrician involved.

The basic philosophy in this approach is that these women may have ongoing or future health needs for which the GP is responsible. It may not necessarily be appropriate to interrupt that process in pregnancy and in some circumstances it may be better to establish a modified system of shared maternity care between the GP and the consultant obstetrician.
6. Antenatal guidelines for consultation and referral—Mater Mothers’ Hospital

6.1 Introduction

Purpose
The following guidelines provide an evidence-based structured, decision making framework for General Practitioners (GPs) providing shared antenatal care with Mater Mothers’ Hospital. They outline specific antenatal indications to facilitate discussion, consultation and/or referral to specialist obstetricians in the care of pregnant women and their families. The main purpose of the indication list is to provide a guide for risk assessment and referral decisions.

Scope and context
The guidelines are aligned with both the Australian College of Midwives and RANZCOG guidelines.3,4 We recognise all providers of maternity care will work collaboratively to facilitate communication, trust and appropriate referral pathways within a woman-centred, shared model of care and recognise the knowledge, skills and experience that each professional group possesses.4, 6
This guideline applies to Mater medical and midwifery staff and GPs caring for pregnant women planning to birth at Mater Health. Private-funded women will have their care directed by their visiting medical officer (VMO) obstetrician.

Governing policy

<table>
<thead>
<tr>
<th>Document ID</th>
<th>Document title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PY-CLN-900033</td>
<td>Provision of care</td>
</tr>
</tbody>
</table>

6.2 Guidelines

6.2.1 Informed choice
a. The guidelines are underpinned by the principle of informed choice.3,4,5,6
b. If a woman requests care that is contrary to professional advice or the guidelines, the primary carer (midwife or GP) will direct the request to the consultant obstetrician.
c. Any exchange of information or advice will be clearly documented in the woman’s Pregnancy Health Record or electronic health record.
d. Refer to Non-standard maternity care—consultation, documentation and informed choice.

6.2.2 Discuss (A)
a. The primary carer (midwife or GP) will call upon such qualified health professionals as may reasonably be expected to have the necessary skills and experience to assist in the provision of care. 4
b. The primary carer (midwife or GP) will initiate a discussion with, or provide information to, another midwife or health care provider, in order to plan and provide optimal care.1,4

6.2.3 Discuss (B)
a. Following this discussion, the primary carer may recommend to the woman that consultation with another health care provider or medical practitioner take place because her pregnancy, labour, birth, postnatal period, or the baby may be affected by the condition or situation. Such a discussion does not transfer the responsibility for care. It is important that all parties are made aware of any recommended changes to care arrangements after the discussion.1,4
d. Any exchange of information or advice will be clearly agreed upon and will be clearly documented e.g. in the woman's Pregnancy Health record or Mater health record. 4

e. This discussion will include the need for, and timing of, any further review. 4

f. The specialist obstetrician/health care professional will not routinely assume responsibility for ongoing care; they will work collaboratively with the primary carer to safely meet the wishes of the individual woman.

6.2.3 Consult (requested with a specialist obstetrician or obstetric registrar) (B)

a. A consultation refers to the situation where a primary carer (midwife or GP) recommends the woman consult a specialist obstetrician or obstetric registrar or where the woman requests another opinion.

i. It will be the primary carer’s (midwife or GP) responsibility to initiate a consultation and to clearly communicate to the specialist obstetrician or other health care provider that they, and/or the woman, is seeking a consultation. 4

b. The individual situation of the pregnant woman will be evaluated and agreements made about the responsibility for maternity care based on the Antenatal Guidelines for consultation and referral—MMH.

c. A consultation may include the following:

i. A face-to-face assessment with the woman and the medical practitioner or other health care provider. This can also be performed using telehealth technologies. The outcome will be clearly communicated to the primary carer and the woman and documented formally e.g. using the woman’s hand held record, an electronic record, letter or secure electronic messaging.

ii. The primary carer may seek advice directly from the specialist obstetrician or other health care provider on behalf of the woman. This consultation may occur in person, by telephone or using telehealth facilities. The primary carer will document this request for advice as well as the advice they receive so that the matter can be discussed with the woman. 4

iii. When a consultation occurs, the decision regarding ongoing clinical roles and responsibilities will involve a discussion between the specialist obstetrician or health care provider, the primary carer and the woman. The woman may choose to consent to or decline the consultation. Seeking a consultation does not transfer responsibility for care. If the medical practitioner or health care provider recommends a change to the responsibility of care, this will be clearly communicated to the primary carer and the woman involved. 4

d. The consultation involves addressing the issue that led to the referral and the prompt communication of the findings and recommendations to the woman and the referring professional. The primary carer or specialist obstetrician will not automatically assume responsibility for ongoing maternity care. Responsibility will depend on the clinical situation and the wishes and needs of the individual woman. After consultation with a specialist obstetrician, it should be clearly established whether maternity care and responsibility:

i. continues with the primary carer (midwife or GP), or

ii. is referred to the specialist obstetrician 4

iii. areas of discussion and involvement will be agreed upon and clearly documented. 4

e. The specialist obstetrician may be involved in, and responsible for, a discrete area of the woman’s care, with the primary carer maintaining overall responsibility within their scope of practice.

f. Where urgency, distance or climatic conditions make a face-to-face consultation between a woman and a specialist obstetrician impossible, the primary carer will seek advice from the specialist obstetrician by phone. The primary carer should document this request for advice in their records, and discuss with the woman the advice received.

6.2.4 Transfer (to specialist obstetric care) (C)

a. When maternity care is referred (either permanently or temporarily) from the primary carer to a specialist obstetrician, the specialist obstetrician, in consultation with the woman and primary carer, assumes all responsibility for maternity care (secondary or tertiary). The woman will provide informed consent prior to a transfer. The obstetrician (or other medical specialist) will assume ongoing clinical responsibility and the role of the midwife or GP will be agreed between the specialist, the midwife or GP and the woman. This will include a discussion about the appropriate timing of a transfer of clinical responsibility back to the midwife or GP when the condition(s) permit. 4
b. When maternity care is referred to a specialist obstetrician, the primary carer may continue to provide maternity care within the primary carer’s scope of practice, in collaboration with the specialist obstetrician.

c. Areas of discussion, responsibility and involvement should be agreed upon and clearly documented and communicated to the woman.4

d. Specialist obstetricians/registrars will consult with other specialist medical officers as required, such as anaesthetics, obstetric medicine and neonatology.

e. NOTE: Where there are variations in the severity of a condition there may be more than one level recommended e.g. B/C; A/B/C.

6.3 Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - Discuss</td>
<td>The primary carer (midwife or GP) will provide clinical care and, if necessary, call upon such qualified health professionals as may reasonably be expected to have the necessary skills and experience to assist them in the provision of care.</td>
</tr>
<tr>
<td>B - Consult</td>
<td>Consult with a Mater Mothers’ Hospital (MMH) specialist obstetrician or obstetric registrar.</td>
</tr>
<tr>
<td>C - Refer</td>
<td>Transfer responsibility for the woman’s care to a MMH specialist obstetrician.</td>
</tr>
</tbody>
</table>

6.4 Medical conditions at commencement of pregnancy

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4.1</td>
<td>Anaesthetic difficulties</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Previous failure or complication (e.g. difficult intubation, failed epidural)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Malignant hyperthermia or neuromuscular disease or family history of these conditions</td>
<td>C</td>
</tr>
<tr>
<td>6.4.2</td>
<td>Autoimmune disease</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SLE/connective tissue disorder – Active or major organ involvement or hypertension or on medication or positive Ro/La</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>SLE/connective tissue disorder – Inactive, no renal involvement, no hypertension, or only skin/joint problems</td>
<td>B</td>
</tr>
<tr>
<td>6.4.3</td>
<td>Body mass index (BMI)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BMI less than 18 and more than 35</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>BMI &gt; 40</td>
<td>B/C</td>
</tr>
<tr>
<td>6.4.4</td>
<td>Cardiovascular disease</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arrhythmia/palpitations; murmurs: recurrent, persistent or associated with other symptoms</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Cardiac valve disease</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Cardiac valve replacement</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Cardiomyopathy</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Congenital cardiac disease</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Hypertension</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Ischemic heart disease</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Pulmonary hypotension</td>
<td>C</td>
</tr>
<tr>
<td>6.4.5</td>
<td>Drug dependency and prescription medicine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use of alcohol and other drugs</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Medicine use: the effect of drugs on the pregnant woman and the unborn child, lactation and/or neonate. (Information available from Mothersafe:1800 647 848)</td>
<td>B</td>
</tr>
<tr>
<td>6.4.6</td>
<td>Endocrine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Addison’s disease, Cushing’s disease or other endocrine disorder requiring treatment</td>
<td>C</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Key: A = Discuss; B = Consult; C = Transfer</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Diabetes mellitus – Gestational diabetes in previous pregnancy</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Diabetes mellitus – Pre-existing Type 1 or Type 2 diabetes</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Hypothyroidism – stable treated hypothyroidism</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Hypothyroidism – new diagnosis</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Thyroid disease</td>
<td>B</td>
</tr>
<tr>
<td>6.4.7</td>
<td>Gastrointestinal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hepatitis with positive serology (HBsAg+)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Hepatitis C</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Inflammatory bowel disease (includes ulcerative colitis and Crohn’s disease)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Oesophageal varices</td>
<td>C</td>
</tr>
<tr>
<td>6.4.8</td>
<td>Genetic – any condition</td>
<td>B</td>
</tr>
<tr>
<td>6.4.9</td>
<td>Haematological</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anaemia at commencement of care irrespective of how treated or whether it responds to treatment; Anaemia defined as Hb less than 90 g/L</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Coagulation disorders</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Decline blood products</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Haemoglobinopathies</td>
<td>B/C</td>
</tr>
<tr>
<td></td>
<td>Haemolytic anaemia</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Other antibodies detected</td>
<td>B/C</td>
</tr>
<tr>
<td></td>
<td>Rhesus antibodies</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Rhesus negative blood group requiring RhD immunoglobulin</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Thalassaemia</td>
<td>B/C</td>
</tr>
<tr>
<td></td>
<td>Thrombocytopenia &lt; 150 (x 10^9/L)</td>
<td>B/C</td>
</tr>
<tr>
<td></td>
<td>Previous Thrombo-embolic event and/or the presence of a positive family medical history</td>
<td>B/C</td>
</tr>
<tr>
<td></td>
<td>Thrombophilia including anti–phospholipid syndrome—no previous obstetric complications, maternal thrombosis or MTHFR mutation (heterozygous)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Thrombophilia including anti–phospholipid syndrome—on warfarin, previous obstetric complications or maternal thrombosis, hereditary thrombophilia</td>
<td>C</td>
</tr>
<tr>
<td>6.4.10</td>
<td>Infectious diseases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chlamydia</td>
<td>A/B</td>
</tr>
<tr>
<td></td>
<td>Cytomegalovirus</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Genital Herpes – primary infection</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Genital Herpes – recurrent infection</td>
<td>A/B</td>
</tr>
<tr>
<td></td>
<td>Gonorrhoea</td>
<td>A/B</td>
</tr>
<tr>
<td></td>
<td>History of pre pregnancy Cytomegalovirus, Rubella, Parvovirus, Toxoplasmosis, Varicella, or parasitic infection</td>
<td>A/B</td>
</tr>
<tr>
<td></td>
<td>HIV infection</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Human Papilloma Virus (HPV)</td>
<td>A/B</td>
</tr>
<tr>
<td></td>
<td>Listeriosis</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Parasitic infection</td>
<td>A/B</td>
</tr>
<tr>
<td></td>
<td>Parvovirus infection</td>
<td>B/C</td>
</tr>
<tr>
<td></td>
<td>Rubella</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Previous neonatal GBS</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Syphilis – positive serology and treated</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Syphilis – positive serology and not treated</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Trichomoniasis</td>
<td>A/B</td>
</tr>
<tr>
<td></td>
<td>Toxoplasmosis</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Tuberculosis – active</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Tuberculosis – past history and treated</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Varicella zoster virus infection</td>
<td>B</td>
</tr>
<tr>
<td>6.4.11</td>
<td>Maternal age</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Under 16 and over 40 years</td>
<td>B/C</td>
</tr>
<tr>
<td>6.4.12</td>
<td>Neurological</td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Key: A = Discuss; B = Consult; C = Transfer</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>AV malformations</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Bell's palsy</td>
<td>A/B</td>
<td></td>
</tr>
<tr>
<td>Epilepsy with medication or seizure in last 12 months</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Epilepsy without medication or in the past without treatment and no seizures in the last 12 months</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Multiple sclerosis</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Muscular dystrophy or myotonic dystrophy</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Myasthenia gravis</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Spinal cord lesion (paraplegia or quadriplegia)</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Subarachnoid haemorrhage, aneurysms</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>6.4.13 Organ transplant</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>6.4.14 Perinatal mental health problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care during pregnancy and birth will depend on the severity and extent of the mental health status:</td>
<td>A/B</td>
<td></td>
</tr>
<tr>
<td>EPDS – score more than 12</td>
<td>A/B</td>
<td></td>
</tr>
<tr>
<td>EPDS – positive response to Q10 re self-harm</td>
<td>A/B</td>
<td></td>
</tr>
<tr>
<td>Psychiatric condition requiring medication</td>
<td>A/B</td>
<td></td>
</tr>
<tr>
<td>Puerperal psychosis</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>6.4.15 Renal function disorders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disorder in renal function, with or without dialysis</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Glomerulonephritis</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Pyelitis</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Previous kidney surgery with potential to impair kidney function during pregnancy i.e. removal of kidney etc.</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Urinary tract infections (recurrent)</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>6.4.16 Respiratory disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma – mild</td>
<td>A/B</td>
<td></td>
</tr>
<tr>
<td>Asthma – moderate (i.e. oral steroids in the previous 12 months and maintenance therapy)</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>HINI (current)</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Severe lung function disorder</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Sarcoidosis (can be exacerbated during pregnancy)</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>6.4.17 Skeletal problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>These include conditions that may cause severe pain during labour:</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>History of developmental skeletal disorders</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Osteogenesis imperfecta</td>
<td>B/C</td>
<td></td>
</tr>
<tr>
<td>Scheuermann's disease</td>
<td>B/C</td>
<td></td>
</tr>
<tr>
<td>Scoliosis (with rods)</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Spondylolisthesis</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>6.4.18 System/connective tissue diseases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>These include rare maternal disorders such as:</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Anti–phospholipid syndrome (APS)</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Marfan's syndrome, Raynaud's disease and other systemic and rare disorders</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Periarteritis nodosa</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Scleroderma, rheumatoid arthritis, Sjörgen's syndrome</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Systemic lupus erythematosus (SLE)</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>6.4.19 Dermatological disease requiring systemic therapy</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>6.4.20 Malignancy – any history or current</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>
## 6.5 Pre-existing gynaecological disorders

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.5.1</td>
<td>Cervical abnormalities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abnormal PAP smear results requiring follow-up during pregnancy</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Cervical amputation</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Cervical surgery including cone biopsy, laser excision or LLETZ biopsy</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Cervical surgery with subsequent term vaginal birth</td>
<td>A/B</td>
</tr>
<tr>
<td></td>
<td>Cervical surgery without subsequent term vaginal birth</td>
<td>B</td>
</tr>
<tr>
<td>6.5.2</td>
<td>Female genital mutilation (FGM)</td>
<td>B</td>
</tr>
<tr>
<td>6.5.3</td>
<td>Fibroids</td>
<td>A/B</td>
</tr>
<tr>
<td>6.5.4</td>
<td>Infertility treatment</td>
<td></td>
</tr>
<tr>
<td>6.5.5</td>
<td>Intrauterine contraceptive device (IUCD) insitu</td>
<td>B</td>
</tr>
<tr>
<td>6.5.6</td>
<td>Pelvic deformities (trauma, symphysis rupture, rachitis)</td>
<td>B</td>
</tr>
<tr>
<td>6.5.7</td>
<td>Pelvic floor reconstruction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Colpo-suspension following prolapse, fistula and/or previous rupture</td>
<td>B/C</td>
</tr>
<tr>
<td>6.5.8</td>
<td>Uterine abnormalities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Myomectomy or hysterotomy</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Bicornuate uterus, unicoruncated uterus or other congenital reproductive tract anomaly (includes vaginal septums)</td>
<td>B</td>
</tr>
</tbody>
</table>

## 6.6 Previous obstetric history

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.6.1</td>
<td>ABO incompatibility</td>
<td>B/C</td>
</tr>
<tr>
<td>6.6.2</td>
<td>Active blood incompatibility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anti-Red Cell antibodies (including but not exclusively Rh, Kell, Duff, Kidd)</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Anti-Platelet antibodies (Neonatal alloimmune thrombocytopenia – NAIT)</td>
<td>C</td>
</tr>
<tr>
<td>6.6.3</td>
<td>Autoimmune thrombocytopenia</td>
<td>C</td>
</tr>
<tr>
<td>6.6.4</td>
<td>Caesarean section</td>
<td>B</td>
</tr>
<tr>
<td>6.6.5</td>
<td>Cervical weakness (and/or cervical suturing procedure)</td>
<td>C</td>
</tr>
<tr>
<td>6.6.6</td>
<td>Cholestasis</td>
<td>B</td>
</tr>
<tr>
<td>6.6.7</td>
<td>Congenital and/or hereditary disorder of a previous child</td>
<td>B</td>
</tr>
<tr>
<td>6.6.8</td>
<td>Forceps or vacuum extraction</td>
<td>A</td>
</tr>
<tr>
<td>6.6.9</td>
<td>Grand multiparity – defined as parity more than or equal to five</td>
<td>A/B</td>
</tr>
<tr>
<td>6.6.10</td>
<td>Hypertension</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Eclampsia/Severe preeclampsia (including HELLP)</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Gestational hypertension</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Pre-eclampsia</td>
<td>B</td>
</tr>
<tr>
<td>6.6.11</td>
<td>IUGR less than 10 percentile</td>
<td>B</td>
</tr>
<tr>
<td>6.6.12</td>
<td>Macrosomia more than 4.5 kg</td>
<td>B</td>
</tr>
<tr>
<td>6.6.13</td>
<td>Neonatal asphyxia (defined as an APGAR score of less than seven at five minutes)</td>
<td>B</td>
</tr>
<tr>
<td>6.6.14</td>
<td>Perinatal death</td>
<td>B/C</td>
</tr>
<tr>
<td>6.6.15</td>
<td>Placental</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abruptio</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Accreta</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Manual removal</td>
<td>B</td>
</tr>
<tr>
<td>6.6.16</td>
<td>Postpartum depression</td>
<td>A</td>
</tr>
</tbody>
</table>
### 6.6.17 Postpartum haemorrhage more than 500 ml requiring additional treatment and/or transfusion

**Key: A = Discuss; B = Consult; C = Transfer**

- **B**

### 6.6.18 Preterm birth (less than 35 weeks) in a previous pregnancy

- **B**

### 6.6.19 Previous mid-trimester loss

- **B/C**

### 6.6.20 Previous neonatal group B streptococcus (GBS) infection

- **B**

### 6.6.21 Previous serious psychological disturbance

- **B**

### 6.6.22 Recurrent miscarriage (three or more during the first trimester)

- **B**

### 6.6.23 Rhesus isoimmunisation

- **C**

### 6.6.24 Second trimester miscarriage (category will depend on the nature of the miscarriage)

- **B/C**

### 6.6.25 Shoulder dystocia

- **B**

### 6.6.26 Symphysis pubis dysfunction

- **A**

### 6.6.27 Termination of pregnancy (TOP)

- **A**

### 6.6.28 Trophoblastic disease: hydatidiform mole or vesicular mole, within last 12 months

- **C**

### 6.6.29 Third or fourth degree perineal laceration

- **B**

- **B**

### 6.6.30 Vulval/perineal haematoma requiring surgical treatment

- **B**

### 6.6.31 Other significant obstetric event

- **A/B/C**

### 6.7 Other indications from previous obstetric history

### 6.8 Clinical indications developed or discovered during pregnancy

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8.1</td>
<td>Adoption – intended</td>
<td>A</td>
</tr>
<tr>
<td>6.8.2</td>
<td>Cervical weakness (cervical dilation prior to 37 weeks and/or cervical procedure)</td>
<td>C</td>
</tr>
<tr>
<td>6.8.3</td>
<td>Cervix cytology abnormalities</td>
<td>B/C</td>
</tr>
<tr>
<td>6.8.4</td>
<td>Ectopic pregnancy</td>
<td>C</td>
</tr>
<tr>
<td>6.8.5</td>
<td>Endocrine disorders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diabetes mellitus – Gestational diabetes – diet controlled</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Diabetes mellitus – Gestational diabetes – requiring medication</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Thyroid disease – Hypothyroidism</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Thyroid disease – Hyperthyroidism</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Addison's disease, Cushing's disease or other endocrine disorder requiring treatment</td>
<td>C</td>
</tr>
<tr>
<td>6.8.6</td>
<td>Fetal anomaly</td>
<td>B/C</td>
</tr>
<tr>
<td>6.8.7</td>
<td>Fetal death in utero</td>
<td>C</td>
</tr>
<tr>
<td>6.8.8</td>
<td>Fetal size discrepancy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polyhydramnios or oligohydramnios</td>
<td>B/C</td>
</tr>
<tr>
<td></td>
<td>Small for gestational age (SGA) or large for gestational age (LGA) Fundal height variation &gt; 3 cm from weeks of gestation.</td>
<td>B</td>
</tr>
<tr>
<td>6.8.9</td>
<td>Fibroids</td>
<td>A/B</td>
</tr>
<tr>
<td>6.8.10</td>
<td>Gastrointestinal and Hepatobiliary</td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Key: A = Discuss; B = Consult; C = Transfer</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Cholecystitis or biliary colic</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Cholestasis</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Hepatitis B with positive serology (HBsAg+)</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Hepatitis C</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Inflammatory bowel disease includes ulcerative colitis and Crohn’s disease</td>
<td>B</td>
</tr>
<tr>
<td>6.8.11 Haematological</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anaemia – Hb less than 90 g/L and not responding to treatment</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Blood group incompatibility</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Coagulation disorders</td>
<td>B/C</td>
</tr>
<tr>
<td></td>
<td>Mean corpuscular volume (MCV) less than 80</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Rhesus negative requiring Rh (D) immunoglobulin (anti-D)</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Thrombosis or thrombophilia (other than MTHFR mutation)</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Thrombocytopenia less than 150 x 10^9/L</td>
<td>B/C</td>
</tr>
<tr>
<td>6.8.12 Hernia nuclei pulposi (slipped disc)</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>6.8.13 High head at term</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>6.8.14 Hyperemesis gravidarum</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>6.8.15 Hypertension</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any type with proteinuria &gt; 1 + or &gt; 30 mg/mmol</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Chronic hypertension – present during preconception or the first half of the</td>
<td>B/C</td>
</tr>
<tr>
<td></td>
<td>pregnancy. It may be essential hypertension (no apparent cause) or secondary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>hypertension (hypertension is associated with renal, renovascular, endocrine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>disorder or aortic coarctation. Diastolic pressure should be recorded as</td>
<td></td>
</tr>
<tr>
<td></td>
<td>point V Korotkoff (K5) i.e. the point of disappearance of sounds.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eclampsia</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Gestational hypertension – any hypertension after 20 weeks gestation</td>
<td>B/C</td>
</tr>
<tr>
<td></td>
<td>Pre-eclampsia – BP of more than, or equal to, 140/90 and/or relative rise of</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>more than 30/15 mm/Hg from BP reading at commencement of care</td>
<td></td>
</tr>
<tr>
<td></td>
<td>And any of:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proteinuria more than 0.3 g/24 hours; or protein/creatinine ratio more than</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>equal to, 30 mg/mmol or 2+ protein on dipstick</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Platelets less than 150 x 10^9/L</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Abnormal renal or liver function</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Imminent eclampsia</td>
<td>C</td>
</tr>
<tr>
<td>6.8.16 Infectious diseases</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cytomegalovirus</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Genital Herpes – late in pregnancy – active lesions</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Genital Herpes – primary infection</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Genital Herpes – recurrent</td>
<td>A/B</td>
</tr>
<tr>
<td></td>
<td>HIV infection</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Parvovirus infection</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Listeriosis</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Rubella</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Sexually transmitted infections including syphilis, gonorrhoea, chlamydia,</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>human papillama virus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Toxoplasmosis</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Tuberculosis – active tuberculous process</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Varicella zoster virus infection</td>
<td>B/C</td>
</tr>
<tr>
<td>6.8.17 Malpresentation/non-cephalic presentation at term Breech presentation</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>6.8.18 Multiple pregnancy</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>6.8.19 No prior prenatal care (at term)</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>
6.8.20 Perinatal mental health issues

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8.20</td>
<td>EPDS score more than 12</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>EPDS positive response to Q10 self-harm</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Mental health issue requiring medication</td>
<td>B/C</td>
</tr>
</tbody>
</table>

6.8.21 Placenta indications

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8.21</td>
<td>Placental abruption</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Placenta accreta</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Placenta praevia confirmed</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Vasa praevia</td>
<td>C</td>
</tr>
</tbody>
</table>

6.8.22 Post-term pregnancy (amenorrhoea lasting longer than 42 completed weeks or 294 days)

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8.22</td>
<td>Preterm labour (threatened or actual) and birth</td>
<td>B/C</td>
</tr>
</tbody>
</table>

6.8.23 Preterm rupture of membranes

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8.23</td>
<td>Reduced fetal movement in third trimester</td>
<td>B</td>
</tr>
</tbody>
</table>

6.8.24 Renal function disorders

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8.24</td>
<td>Haematuria or proteinuria (equal to or more than 2+)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Urinary tract infections</td>
<td>A/B</td>
</tr>
<tr>
<td></td>
<td>Pyelitis</td>
<td>C</td>
</tr>
</tbody>
</table>

6.8.25 Respiratory disease

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8.25</td>
<td>Asthma</td>
<td>A/B</td>
</tr>
</tbody>
</table>

6.8.26 Surgery during pregnancy

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8.26</td>
<td>Symphysis pubis dysfunction (pelvic instability)</td>
<td>A/B</td>
</tr>
</tbody>
</table>

6.8.27 Uncertain duration of pregnancy by amenorrhoea greater than 20 weeks

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8.27</td>
<td>Vaginal blood loss</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Recurring loss prior to 12 weeks</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>At or after 12 weeks</td>
<td>B</td>
</tr>
</tbody>
</table>

6.9 Other indications during pregnancy

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Key: A = Discuss; B = Consult; C = Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.91</td>
<td>Current or previous child protection concerns</td>
<td>A</td>
</tr>
</tbody>
</table>

6.10 References

2. AHPRA, Nursing and Midwifery Board of Australia. (2013) Scope of practice for registered nurses and midwives.
7. Referral to MMH for public care

MMH is a private hospital contracted by Qld Health to conduct an agreed number of public births per year. Due to high demand it is not currently possible to accept routine low risk referrals from outside the catchment area. Special consideration is made for women requiring tertiary care, a specialist drug and alcohol service and women whose baby will identify as indigenous.

The GP should submit a referral on the Mater Antenatal referral form as soon as possible following the first appointment or, if the LNMP is uncertain, after confirmation of the due date by dating scan. The Mater Antenatal referral form can be accessed by:

1. Users of Medical Director or Genie can download the referral templates from materonline.org.au/quick-referrals/refer-an-uninsured-patient/maternity/antenatal-clinic There are instructions on the site on how to add the referral template to your system. Many of the required data fields on the referral form will be auto-completed from your management system.

2. From the website materonline.org.au/quick-referrals/antenatal-clinic the form can be printed out (as a Microsoft Word document or PDF) completed by hand and faxed or mailed, completed in Microsoft Word, printed out and faxed or mailed or completed using the interactive PDF document, printed out and faxed or mailed.

3. Referrals can be sent using secure electronic messaging via Medical Objects and Healthlink. For GPs who already send with Medical-Objects or Healthlink there are no additional costs to refer to Mater. You will receive an automated reply on receipt of your referral. Information at: materonline.org.au/e-health/e-referrals

4. A supply of paper copies of the referral form is available for those practices without computer or Internet access. Copies of this form can be obtained by contacting the GP Liaison Midwife on 3163 1861 or by email gpl@mater.org.au

Completed referrals can be faxed to 07 3163 8053 or mailed to Mater Mothers’ Antenatal Clinic Raymond Terrace South Brisbane 4101.

Referrals are triaged daily (Monday–Friday) and appointments are allocated according to urgency and due date.

A booking appointment with a midwife and obstetrician will be arranged at 12–20 weeks unless a medical condition or obstetric history dictate an earlier appointment.

Women who want diagnostic testing (CVS or amniocentesis) can be referred to Mater Maternal Fetal Medicine for counselling +/- procedure, in addition to the antenatal clinic referral.

Ultrasound reports and a copy of blood test results should be brought to the first antenatal clinic appointment.
8. Calculation of due date

EBD is based on the LNMP if:

- LNMP normal, cycle regular, women is certain of the first day of last LNMP, woman has not breastfed or taken OCP within the last three months, has not been on depo-provera within the last 9 months
- If LNMP doesn’t fulfil above criteria, use first ultrasound
- Crown-rump length is used for dating if CRL is > 10 mm and < 84 mm
- If more than one 1st trimester USS, use earliest USS with CRL = to at least 7 weeks (CRL 10 mm)
- If CRL > 84 mm (13.6 weeks) EBD is based on head circumference (HC).

<table>
<thead>
<tr>
<th>Gestation</th>
<th>Best method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 14+0 weeks</td>
<td>Use LNMP* if within four days (less than four days) from the USS estimated due date.</td>
</tr>
<tr>
<td>14+0 to 22+6 weeks</td>
<td>Use the LNMP* if within seven days (less than seven days) from the USS estimated due date.</td>
</tr>
<tr>
<td>More than 23+0 weeks</td>
<td>Discuss with consultant if using LNMP* for dating and first scan performed at more than 23 weeks.</td>
</tr>
</tbody>
</table>

*LNMP must be ‘normal’ to be considered for calculating the estimated date of birth.
Screening for fetal chromosome and genetic conditions

Screening for fetal chromosome abnormalities should be discussed and offered to women of ALL ages.

Screening tests for fetal chromosome abnormalities are dependent upon accurate gestational age. If dates are uncertain, a dating scan is required to inform the correct timing of tests.

First trimester combined screening consists of Papp-A, β-HCG and nuchal translucency ultrasound. The ‘triple test’ consisting of β-HCG, AFP and oestradiol, is performed in the second trimester. For optimal triple test screening a dating scan is required.

• Biochemical tests in first and second trimester are available at all pathology providers and the timing of tests is outlined in the table below.

• When requesting a nuchal translucency scan, please indicate the pathology provider on the scan referral so that a combined result can be calculated on the day of the scan.

<table>
<thead>
<tr>
<th>Screening Test</th>
<th>Appropriate timing—gestational age</th>
</tr>
</thead>
<tbody>
<tr>
<td>First trimester biochemical—Papp-A, β-HCG</td>
<td>10+0 to 13+6 weeks</td>
</tr>
<tr>
<td>Nuchal translucency scan</td>
<td>11+0 to 13+6 weeks</td>
</tr>
<tr>
<td>Second trimester Maternal serum screening (triple test)—β-HCG, AFP, oestradiol</td>
<td>15 to 20 weeks (optimal time 16 weeks)</td>
</tr>
</tbody>
</table>

When ordering the first trimester combined screen, the blood test should be performed before the nuchal translucency scan so that the result is available to be combined into a single adjusted risk on the day of the scan. The result should not be given with separate biochemical and nuchal translucency risks but always as a ‘combined’ adjusted risk only.

NIPT Non Invasive prenatal testing

The non invasive prenatal test (NIPT) is a screening test for a limited number of chromosomal abnormalities including Down syndrome (Trisomy 21), Edward’s syndrome (Trisomy 18) and Patau’s syndrome (Trisomy 13). Most NIPT providers offer testing from 10 weeks gestation. NIPT is also available for twin pregnancies but with some restrictions.

A nuchal translucency scan can still be performed before or after NIPT as part of an early anatomical ultrasound assessment. If a NIPT is undertaken for the common trisomies (21, 18 and 13) then first trimester biochemical (BHCG and Papp—a) is not required.

Genetic carrier screening gives individuals and couples information about their chance of having a child with a genetic condition. Three common inherited conditions cystic fibrosis (CF), fragile X syndrome (FXS) and spinal muscular atrophy (SMA) can be screened for, and if requested, many more rarer conditions can also be screened for at greater cost. It is important to note that a carrier screening test will not detect every person who is a carrier of these conditions.

Recent evidence supports that the procedure related risk of pregnancy loss from chorionic villus sampling and amniocentesis is much lower than previously quoted.

See additional information on Non-Invasive Prenatal Testing (NIPT) at:

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

Routine morphology ultrasound screening

All pregnant women should be offered a morphology ultrasound scan, performed between 18 weeks and 20 weeks + 6 days. The routine morphology scan is not endorsed as a screening test for Down Syndrome. If screening for Down syndrome is requested by the woman in the second trimester, the options are NIPT or biochemical screening (‘triple test’).
10. GP shared care antenatal appointment schedule

Specific instructions

a. Throughout the entire antenatal period, practitioners will remain vigilant to the signs and symptoms of any conditions which affect the wellbeing of the mother and unborn baby.

b. Healthy pregnant women, with uncomplicated singleton pregnancies, will be offered continuity of care through GP Shared model of care or midwifery models.

c. Women’s height and weight will be documented at the first antenatal visit and their pre-pregnancy BMI calculated. There is no evidence of effectiveness or need for subsequent recalculations of BMI.
   i. Women will be advised about appropriate gestational weight gain
   ii. It is recommended that weight is monitored regularly using appropriate tools to determine adherence to weight gain guidelines. Sustained deviation from guidelines (above or below) will then be detected and acted upon.

d. Urine testing:
   i. for proteinuria (dipstick urinalysis) and asymptomatic bacteruria (MSU for microscopy, culture and sensitivity) are recommended at the first antenatal visit regardless of the stage of pregnancy
   ii. for chlamydia/gonorrhoea PCR is recommended for women < 25.

e. Screening for gestational diabetes mellitus should be offered to all women who are not known to have Type 1 or Type 2 Diabetes.

f. Women over the age of 35 years:
   i. Women 38 years, or older, should have their first hospital visit at 13–14 weeks gestation (unless earlier review indicated) or within 2–3 weeks if late referral
   ii. Women aged 35–37 should have their first hospital visit at 16 weeks gestation (unless earlier review indicated) or within 4 weeks if late referral.

Routine antenatal assessment

A routine antenatal assessment will be performed, at each appointment, and includes the following, as specified:


b. Fetal growth measurement—fundus to symphysis pubis (from 24 weeks gestation).

c. Fetal movement.

d. Fetal heart rate (from 16 weeks gestation).

f. Weigh and document weight; assess against recommended trajectory for pre-pregnancy BMI.

g. Reassess any risk factors.

Documentation at each antenatal appointment

a. Midwives will document in the Mater Shared Electronic Health Record (MSEHR). A printout will be included in the PHR.

b. GPs will document in the Mater Shared Electronic Health Record (MSEHR), Pregnancy Health Record (PHR), or provide a printout for the PHR at each appointment. This will be scanned into the MSEHR at the next hospital appointment.

c. All other health professionals will document in the PHR (or MSEHR).

d. Electronic test results will be reviewed in Verdi if ordered by a Mater clinician and performed at a Mater Pathology collection centre. Non Mater pathology results are not automatically reviewed at MMH. Results should be cc’ed to MMH and a printed copy of the result placed in the PHR.

e. The antenatal history will be completed in Matrix at the first hospital antenatal appointment. Additional information will be added to Matrix during pregnancy, as appropriate e.g. changes to ‘issues and plans’.

f. All internal and allied health referrals will be documented in the women’s health record.
6-12 weeks appointment with GP to confirm pregnancy

a. Obtain medical and obstetric history.
b. Measure BP, record height and weight, and calculate BMI.
c. Order βHCG, if required. Order dating scan if LNMP uncertain.
d. Discuss options for screening and diagnostic testing for fetal chromosome and genetic conditions with all women. Refer to page 19. Request all appropriate tests after discussion and informed consent and follow up results.
e. Order first trimester combined screen, if requested:
   i. PAPP-A biochemistry at 9+0–13+6 weeks
   ii. Nuchal translucency screen at 11+0–13+6 weeks or NIPt from 10 weeks and anatomy scan at 13 weeks.
f. Order dating ultrasound scan, if requests serum screening for Down syndrome (triple test performed between 14–20 weeks) and presents too late for first trimester combined screen.
g. Discuss and provide referral for the 18–20 week morphology scan.
h. Request and review routine bloods after discussion and informed consent, and ensure all results are copied to Mater Mothers’ Hospital:
   i. full blood count (FBC)
   ii. blood group and antibodies
   iii. rubella antibody titre
   iv. hepatitis B, hepatitis C, human immunodeficiency virus (HIV)
   v. syphilis
   vi. request first trimester HbA1c 1 (or early OGTT if presents after 12 weeks gestation) for women at risk of diabetes 2
   vii. urine:
      * mid-stream urine (MSU) for microscopy, culture and sensitivity (MC&S)
      * dipstick urinalysis for proteinuria
   viii. If BMI ≥ 30 and or age ≥ 40, hypertension or previous pre-eclampsia request baseline ELFT and urine protein creatinine ratio.
   ix. TSH if age ≥ 30 years or other risk factors.
i. Perform cervical screening, if due.
j. Discuss available models of care.
k. Indicate GP alignment status and woman’s preferred model of care on referral (including GP Share Care option).

m. Advise women at moderate–to high risk of preeclampsia that low dose aspirin from early pregnancy may be of benefit in its prevention.3 Commence when pregnancy is confirmed (K6 onward).

n. Refer after first appointment or when due date is confirmed using the Mater Mothers Antenatal referral form. Referrals can be sent by secure electronic messaging via Medical Objects and Healthlink, by fax or post. See referral information on page 17.
o. Reinforce aspects of health promotion, including pertussis and influenza vaccinations, and parent education.

12-20 weeks routine booking appointment with midwife and obstetrician (earlier if high risk)

a. Women will receive a link by text to an online form to be completed before the first hospital booking appointment. NB. Where women are unable to complete the booking online this will be attended to at the first appointment.

b. At the hospital booking appointment with a midwife and obstetrician, the history will be completed and documented in Matrix. The woman will be given the Pregnancy Health Record and a copy of the history will be posted to the GP. The obstetric consult will be by telehealth if the woman attends a midwifery clinic in the community.

c. Check BP: record height and weight: calculate BMI.

d. The midwife and doctor will identify any risk factors and complete ‘Issues and Plans’ in Matrix for women requiring additional care.

e. The midwife and doctor will discuss model of care and appropriate schedule of antenatal visits with the woman. If a planned obstetric review is required during the antenatal period, this will be identified on the schedule of visits. The schedule will be sent to the woman when appointments have been booked.

f. Confirm estimated date of birth (EDB).

g. Perform blood tests (as listed above) and MSU if not already obtained. Review and document available results. Results are to be scanned into the health record. Request that the woman bring copies of any subsequent scans/results to following appointments.

3. Australian Government Department of Health Pregnancy Care Guideline 26 Risk of pre-eclampsia
h. Check blood group.

i. Midwife and doctor to review, discuss and document plan for all abnormal results.

j. Dipstick urinalysis to screen for chronic renal disease. Check for blood, protein, nitrites and leukocytes.

k. Confirm that each woman understands the screening tests and answer any questions. If required, refer to appropriate clinician for ongoing management.

l. Reinforce public health principles such as diet, exercise, smoking cessation. Ask about domestic abuse, drug and alcohol use and social circumstances.

m. Perform the Edinburgh Postnatal Depression Scale (EPDS) and refer if required.

n. Provide information about allied health services and refer as appropriate.

o. Discuss parent education and recommend antenatal classes.

p. Provide information about length of hospital stay and postnatal homecare visits.

q. Discuss recommendations for pertussis and influenza vaccinations in pregnancy.

r. Rh (D) negative women:
   i. discuss antenatal prophylaxis and inform the woman of the importance of seeking advice following any potentially sensitising events.
   ii. ensure that 28 and 34 week Rh (D) appointments are booked.
   iii. if GP shared care send letter to GP advising current recommendations for Rh (D) prophylaxis and how to order Anti D.

18–20 week morphology ultrasound scan followed by an appointment with the GP as soon as possible


b. Review morphology USS results and triple test result if taken, and provide a copy for the PHR. Notify antenatal clinic of abnormal results and refer if necessary to Maternal Fetal Medicine.

c. If the placenta is less than 2 cm from the os, a follow up scan to check placental location should be requested by the GP between 34–36 weeks at a private ultrasound provider. The placental location scan should be requested at Mater MFM only if the placenta is anterior, the woman has had previous uterine surgery and is therefore at increased risk of placenta accreta.

d. Confirm estimated date of birth if required.

e. Document in MSEHR, PHR or print antenatal summary for PHR.

24 week appointment with primary carer (GP or midwife) for primigravidas and multigravidas with risks identified

a. Routine antenatal assessment (refer to page 20) and review domestic violence, drug and alcohol use and mental health. Repeat the EPDS to assess women for antenatal depression.\(^1\)

b. Begin assessment of fundal height to measure fetal growth and include at each antenatal assessment.

c. Discuss and provide written information about normal fetal movements during the antenatal period.

d. Reinforce aspects of health promotion and parent education.

e. Reassess planned schedule of care and identify women who need additional care.

f. Gestational diabetes screening will be offered to all women: fasting 75 g two-hour oral glucose tolerance test (OGTT).

g. Provide request form for 26–28 week blood tests: FBC, OGTT, and blood group and antibody screen (for Rh (D) negative women).

h. Document in MSEHR, PHR or print antenatal summary for PHR.

28 week appointment with primary carer (GP or midwife)

a. Routine antenatal assessment (refer to page 20) and review domestic violence, drug and alcohol use and mental health. Repeat the EPDS to assess women for antenatal depression.\(^1\)

b. Reinforce aspects of health promotion, including pertussis and influenza vaccinations, and parent education.

c. For women not seen at 24 weeks repeat as above.

d. Review, discuss and document results of OGTT (offered to all women at k26–28 excluding women with earlier diagnosis of gestational diabetes) FBC and blood group and antibody screen for Rh (D) negative women. See how to manage abnormal results page 27.

i. If Hb is less than 105 initiate further investigation and/or appropriate treatment

---

ii. If woman is Rh (D) negative, take antibody screen before offering administration of 625 IU Rh (D) immunoglobulin IM.

e. Discuss infant feeding and benefits of breastfeeding.

f. Discuss neonatal vitamin K, and hepatitis B vaccination, for baby at birth.

g. Reassess planned schedule of care and identify women who need additional care.

h. Discuss and commence birth plan.

i. Consider discharge planning.

j. Document in MSEHR, PHR or print antenatal summary for PHR.

32 week appointment with primary carer (GP or midwife) for primigravidas and multigravidas with risks identified.


b. Review, discuss and document results of tests taken at 28 weeks and action as required.

c. Reassess planned schedule of care and identify women who need additional care.

d. Continue discussing birth plan.

e. Document in MSEHR, PHR or print antenatal summary for PHR.

34 week appointment with primary carer (GP or midwife)


b. Order FBC to be taken prior to 36 week appointment.

c. If a woman is Rh (D) negative, recommend and administer 625 IU R (D) immunoglobulin IM.

d. For women not seen at 32 weeks complete actions b. and d. as per 32 week appointment.

e. Repeat ultrasound scan if low lying placenta at morphology scan.

f. Reassess planned schedule of care and identify women who need additional care.

g. Discuss birth plan.

h. Repeat the Edinburgh Postnatal Depression Scale (EDPS), if applicable, to assess woman for antenatal depression.¹

i. Document in MSEHR, PHR or print antenatal summary for PHR.

36 week appointment with midwife or midwife and obstetrician (e.g. if previous caesarian to discuss mode of birth).

a. Routine antenatal assessment (refer to page 20) and review domestic violence, drug and alcohol use and mental health. Repeat the EPDS to assess women for antenatal depression.

b. Identify and document fetal presentation by palpation and portable USS. Clinical midwives who have been appropriately certified may perform presentation USS at 36 weeks gestation to determine fetal presentation as part of standard antenatal care.

c. If breech presentation, provide Mater’s brochure Pregnancy—breech presentation at term, accessible via brochures.mater.org.au, and refer for discussion regarding external cephalic version (ECV).

d. Reassess planned schedule of care and identify women who need additional care. Discuss and book induction of labour at 39 weeks for nulliparous women aged 38 or older and at 40 + 0 weeks gestation for multiparous women aged 40 or older, to reduce the rate of late antenatal stillbirths and the maternal risks of an ongoing pregnancy, such as pre-eclampsia.

e. Review or request 36 week Full Blood Count. If Hb < 105 refer to Page 29 Management of Anaemia in pregnancy flowchart for further investigations and appropriate treatment.

f. Check follow-up ultrasound for placental position if low lying placenta at 18–20 weeks.

g. Discuss birth preferences, active birth/labour and pain relief, especially if woman has not attended parent education. Confirm Birth Preferences Awareness statement has been signed.


i. Discuss infant feeding and the benefits of breast feeding.

j. Discuss length of hospital stay and postnatal homecare.

k. Ensure awareness of Pregnancy Assessment Centre 24/7 for urgent assessment. See page 26.

l. Ensure copies of all results available in either Verdi or the hospital health record.

m. If elective caesarian section indicated, medical officer will obtain informed consent and book the procedure.
38 week appointment with primary carer (GP or midwife)


b. Review any outstanding blood results.

c. Confirm understanding of signs of labour and indications for admission to hospital. Provide additional information as required.

d. Document in MSEHR, PHR or print antenatal summary for PHR.

40 week appointment with primary carer (GP or midwife) for primigravidas or multigravidas with identified risks


b. Provide additional information as required.

c. Advise low risk women that a midwife will call them at 40+6 to discuss induction of labour.

d. Document in MSEHR, PHR or print antenatal summary for PHR.

41 week appointment with midwife and consultation with obstetrician.

a. Routine antenatal assessment.

b. Discuss implications of prolonged pregnancy and induction of labour with all women who have not given birth by 41+0 weeks. Book induction of labour by 41.5. To ensure patient safety and bed availability a limited number of inductions are booked each day. At the 41 week appointment the woman will be advised of the 4 day window within which her induction will occur. This allows induction bookings to be triaged daily and prioritised according to clinical need. If the induction is scheduled the next day, the woman will receive confirmation by phone 24 hours before, and notification by text message if the induction is not scheduled the next day.
11. MMH Antenatal support

11.1 Mental Health

Perinatal mental illness is a significant cause of morbidity and mortality, affecting maternal and neonatal outcomes, the health of families and of the community. The recognition of depression in the antenatal period is important, as it may require treatment during the pregnancy and is a strong predictor for postpartum depression.

The Edinburgh Postnatal Depression Scale (EPDS) is a screening tool for postnatal depression that is also useful in identifying symptoms of depression and anxiety in the antenatal period. It is completed at the hospital booking appointment and should be repeated by the GP at 28 weeks and at 6 weeks postpartum or if there are any ongoing concerns. It is the GP’s responsibility to arrange appropriate referrals if needed, document in the PHR and notify MMH if concerns are identified or medication commenced.

1300 MH CALL Phone: 1300 64 22 55 Triage and assessment service for severe and complex presentations and urgent or crisis situations. Medication advice. Not counselling. Diverts to local service e.g. Metro South Acute Care Services

Beyondblue.org.au: information, factsheets, support resources

COPE: Centre of Perinatal Excellence supports the emotional wellbeing of parents during pregnancy and the first year. Visit: cope.org.au/

CYMHS: (under 18) Acute Response Team Crisis Line. Phone: 07 3068 2555

Eligible psychologists: Visit: www.psychology.org.au

Headspace: 12 –25yrs Mental and physical health services, work and study support, alcohol and drug counselling Woolloongabba, 182 Logan Rd, Phone: 07 3249 2222.


MothertoBaby: (medications and more during pregnancy and breastfeeding—American Teratology Specialist advice. Visit: mothertobaby.org/

PANDA: Perinatal Anxiety and Depression Australia. Resources : www.panda.org.au/ Phone support:1300 726 206


Queensland Transcultural Mental Health Service: Phone: 07 3167 8333.

The MMH Risk Planning Midwife: co-ordinates the maternity care of women with complex mental health concerns and social risk factors. Phone 07 3163 7917; Fax 07 31638053
11.2 Pregnancy Assessment Unit

The Pregnancy Assessment Unit (PAC) is open 24 hours 7 days a week for all women requiring urgent assessment at any stage of pregnancy and up until 6 weeks postpartum by self-referral or GP referral.

As catchment restrictions apply for maternity booking, women should be referred to their local hospital for ongoing care even if they have been seen in PAC and women who live in the Mater catchment also require a separate referral to Antenatal Clinic for maternity booking.

Early Pregnancy Assessment (EPA) is located within PAC for the care of women < 20 weeks with problems in early pregnancy. Women who are acutely unwell can present any time and will be seen by a midwife and/or doctor. If non-urgent care is required for women living in the Mater Catchment appointments are available Monday–Friday 8:00 am–11:00 am Telephone 3163 5132 or Fax 3163 6120.

Women who live outside the Mater Catchment who require non-urgent care should be referred to their local hospital.

PAC also provides 24/7 assessment of conditions arising in the second half of pregnancy e.g. reduced fetal movements, hypertension, ruptured membranes, contractions, bleeding etc. Women should present for assessment. They cannot call for advice. To notify acute presentations, or for clinical consultation or advice, GPs can phone the Obstetric Registrar 3163 6611 or Consultant 3163 6612.

12. Supplements

Vitamin and mineral supplements

See RANZCOG College Statement C-Obs 25.
www.ranzcog.edu.au/college-statements-guidelines.html#obstetrics

Iodine

As iodine requirements increase during pregnancy, the NHMRC recommends dietary supplementation of 150 mcg iodine daily, prior to or as soon as possible after diagnosis of pregnancy and continuing through pregnancy and lactation. nhmrc.gov.au/about-us/publications/iodine-supplementation-pregnant-and-breastfeeding-women

Folate

Folic acid supplementation of 0.5 mg daily is recommended for at least one month preconception until 12 weeks gestation, to reduce the risk of neural tube defects. 5 mg daily is recommended if the woman has pre-existing diabetes, obesity, is on anticonvulsant medication, a previous child with, or family history of neural tube defects. www.ranzcog.edu.au/college-statements-guidelines.html#obstetrics
13. How to manage abnormal results

Any investigations requested by a GP for any pregnant woman under their care must be followed up by the GP concerned. It is the GPs responsibility to follow up all abnormal results irrespective of whether a copy has been sent to the hospital.

**NIPT, nuchal translucency or triple test**

Notify antenatal clinic promptly of abnormal results. Referrals for counselling and diagnostic tests (CVS or amniocentesis) can be faxed with a copy of the NIPT result and/or USS report to MFM fax 07 3163 1890.

**Morphology ultrasound**

Notify antenatal clinic promptly of abnormal results. Fax scan report and previous results e.g. nuchal translucency and a cover letter to antenatal clinic Fax: 07 3163 8053. For consultation or advice phone the Obstetric Registrar: 07 3163 6611 or MFM: 07 3163 1899.

**Full Blood Count**

Refer to page 29 Management of anaemia in pregnancy flow chart. Consider iron studies if the haemoglobin is 105 g/L or less and the MCV is low or red blood cells are microcytic. Check B12/folate levels if the red blood cells are macrocytic.

Testing for thalassaemia (haemoglobin electrophoresis) should also be considered where appropriate. Low white cell or platelet counts should prompt discussion with obstetric registrar, and/or referral to MMH Antenatal Clinic.

**Blood group and antibody screen**

Any positive test for antibody levels should prompt immediate referral to MMH Antenatal Clinic.

**Rubella titre**

A “non immune” level should prompt a note to discuss immunisation with the woman postnatally. **Under no circumstances should immunisation be given in pregnancy.** Contact with rubella should be avoided.

**Syphilis serology**

Refer to the Qld Clinical Guideline Syphilis in Pregnancy December 2018 or the Australian STI Management Guidelines www.stiguidelines.org.au. Notify obstetrician and provide treatment as required.

**Hepatitis B and C, and HIV tests**

A positive result should prompt immediate referral to MMH Antenatal Clinic. The obstetrician will refer to Mater Brisbane infectious diseases/gastrology clinic.

**Oral glucose tolerance test**

Diagnosis of gestational diabetes is based on:

- Fasting glucose > 5.1 mmol/L and /or
- 1 hour glucose > 10.0 mmol/L and /or
- 2 hour glucose > 8.5 mmol/L.

Or HbA1c > 5.9 % 41 mmol/mol (first trimester only). HbA1c is the preferred test in the first trimester as the fasting glucose has not yet fallen to pregnancy levels and the 5.1 mm threshold has proven too low for diagnosis of GDM in the first trimester a fasting glucose ≥ 5.5 mm (as for outside pregnancy) is evidence of impaired fasting glucose.1,2

The diagnosis of gestational diabetes should prompt immediate referral to the Antenatal Clinic and transfer from GP shared care to MMH Obstetric care.

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 NHMPC 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)

Thyroid Management in Pregnancy by Mater Mothers Hospital Alignment is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.
Management of anaemia in pregnancy flowchart (revised January 2019)

**Hb 105 or above**
- Routine iron supplementation is not indicated
- Encourage an iron-rich diet
- May use a low-dose iron supplement
- If MCV low (less than 80), suspect thalassemia and perform Hb electrophoresis

**Hb less than 105**

- **MCV normal (80–100)**
  - Iron deficiency anaemia
  - Likely iron deficiency anaemia
  - Perform iron studies

- **MCV low (less than 80)**
  - Likely iron deficiency anaemia
  - Perform iron studies

- **MCV high (greater than 100)**
  - Likely vitamin B12 or folate deficiency
  - Perform iron studies, vitamin B12, red cell folic acid

**Confirmed iron deficiency – Hb less than:**
- 70 (at 28 weeks); OR
- 90 (at 36 weeks); OR
- Intolerant of oral iron

**Management:**
- Consult medical officer
- Consider iron infusion
- If delivery imminent consider blood transfusion

Refer to Treatment of iron deficiency anaemia including intravenous iron—all patients

**Tests normal**
- Consider other causes and treat as appropriate

**Treat with oral iron supplement**
- Consult medical officer
- Perform Hb electrophoresis

**Not responding to treatment**
- Consult medical officer
- Re-check iron deficiency diagnosis

**Confirmed iron deficiency – Hb less than:**
- 70 (at 28 weeks); OR
- 90 (at 36 weeks); OR
- Intolerant of oral iron

**Management:**
- Consult medical officer
- Consider iron infusion
- If delivery imminent consider blood transfusion

Refer to Treatment of iron deficiency anaemia including intravenous iron—all patients

**Thalassaemia or Sickle cell anaemia**
- Folic acid 5 mg
- Treat iron deficiency if present
- Genetic counselling/test partner – document any required postnatal investigations for baby, if required
- May need blood transfusion
- Individualise treatment

**Vitamin B12 deficiency:**
- Hydroxocobalamin 1 mg IM daily for one week, then weekly for four weeks
- Folic acid deficiency:
  - Folic acid 5 mg/day

**Perform serum methylmalonic acid if vitamin B12 low**
14. How to manage abnormal findings/symptoms

**Intrauterine growth restriction (IUGR)**

Measure symphysial-fundal height (SFH):
- Ensure mother is comfortable in a semi-recumbent position, with empty bladder.
- Use the unmarked side of a non-elastic tape measure.
- Measure from fundus to top of symphisis pubis.
- Measure longitudinal axis of the uterus, do not correct to midline.
- Record measurement.
- On a growth chart the emphasis is on the slope of serial measurements.

Other considerations include transverse lie, multiple pregnancies and obesity.

If the fundal height is 3 cm above or below the expected measurement for the gestational age refer the woman for an ultrasound and request:
- fetal size/growth compared with previous ultrasound
- doppler of umbilical artery flow
- amniotic fluid volume—deepest vertical pocket.

Depending on the findings either contact the Obstetric Registrar on 3163 6611 or Consultant 3163 6612 or fax a copy of the ultrasound with a request for a review appointment in antenatal clinic to Fax 3163 8053

**Decreased fetal movements**

If fetal movements are decreased, check fundal height and fetal heart rate and refer immediately to PAC for assessment of fetal wellbeing.

Maternal concern of decreased fetal movements overrides any definition of decreased fetal movements based on number of movements. If fetal movements are decreased, refer to PAC for assessment of fetal well-being by calling the Obstetric Registrar on 07 3163 6611 or Consultant 07 3163 6612.
Hypertension

Definition: systolic blood pressure greater than or equal to 140 mmHg and/or diastolic blood pressure greater than or equal to 90 mmHg (Korotkoff V).1

Essential hypertension is diagnosed prior to pregnancy or before 20 weeks. Gestational hypertension is diagnosed after 20 weeks (without pre-existing hypertension).

Pre-eclampsia is a multi-system disorder unique to human pregnancy characterised by hypertension and involvement of one or more other organ systems and/or the fetus. Raised blood pressure is commonly but not always the first manifestation. Proteinuria is the most commonly recognised additional feature after hypertension but should not be considered mandatory to make the clinical diagnosis.1 (A relative rise in systolic ≥ 30 mmHg and diastolic ≥ 15 mm Hg may be significant in some women but is not included in the definition. Assess for clinical and laboratory features of preeclampsia).2

A diagnosis of pre-eclampsia can be made when hypertension arises after 20 weeks gestation and is accompanied by one or more of the following:

- Renal involvement
  - Significant proteinuria—dipstick proteinuria confirmed by urine protein/creatinine ratio ≥ 30 mg/mmol.
  - Serum or plasma creatinine > 90 micromol/L
  - Oliguria

- Hematological involvement
  - Thrombocytopenia
  - Hemolysis
  - Disseminated intravascular coagulation

- Liver involvement
  - Raised serum transaminases
  - Severe epigastric or right upper quadrant pain.
  - Neurological involvement
  - Severe headache
  - Persistent visual disturbances (photopsia, scotomata, cortical blindness, retinal vasospasm)
  - Hyporeflexia with sustained clonus
  - Convulsions (eclampsia)
  - Stroke

- Pulmonary edema
- Fetal growth restriction
- Placental abruption.

Pre-eclampsia investigations

- Maternal: urine protein/creatinine ratio, full blood count, liver function test.
- Fetal: USS for fetal growth, umbilical artery flow, amniotic fluid volume (deepest vertical pocket) and CTG (> 24 weeks).

Assessment of Hypertension

Women with signs and symptoms of pre-eclampsia, BP ≥ 140/90, abnormal pathology or signs of fetal growth restriction should be referred immediately to PAC by communicating with the Obstetric Registrar on 07 3163 6611 or Consultant 07 3163 6612.

If the woman is asymptomatic without proteinuria, confirm non-severe hypertension by repeat measurement. For non-urgent advice or consultation call Antenatal Clinic Phone: 07 3163 8611 (8 am–5 pm Monday–Friday) and ask to speak to an Obstetric Registrar or Consultant.


**Vaginal bleeding ≥ 20 weeks**

- Perform a physical assessment of the woman and record a fetal heart rate.
- Review ultrasound reports for placental location. Refer for USS if the woman's condition is stable and there is no previous USS. Speculum can be performed with placenta praevia but avoid digital exam.
- Speculum to view cervix and cervical screening if no normal cervical screening result in last two years.
- Consider need for Anti–D if rhesus negative and Kleihauer count to ascertain amount to give.
- If spotting ceased and exam normal reassure and encourage observation at home.
- For ongoing bleeding or anything other than light spotting refer woman to PAC at MMH ext. 07 3163 6577
- If heavy blood loss and or patient appears clinically compromised IV access, arrange urgent transfer to hospital and contact on call obstetric registrar/consultant.

**Abnormal presentation**

If abnormal presentation is suspected after the 36 week hospital appointment refer to antenatal clinic for assessment as soon as possible. The GP Liaison can assist with arranging an appointment (phone 07 3163 1861).

**15. 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.** The following information therefore relates only to women who are Rh (D) negative and have no preformed antibodies.

**Testing for Anti–D antibodies:**

- All women should be tested for blood group antibodies at the first antenatal visit.
- Women who are Rh negative and had no Rh (D) antibodies in early pregnancy should be tested again for the presence of antibodies before administration of Anti–D at K28.
- Ideally testing should precede administration of Anti–D. However, if both are done at the same clinic appointment, the sequence in which they occur does not matter. It takes some time (2–4 hours) before the Anti–D that has been injected can be detected in the circulation.
- Further testing later in pregnancy (after administration of Anti–D) is superfluous because the test cannot distinguish between endogenous and administered Anti–D.

**Anticipating prophylactic Anti–D administration in pregnancy**

- All women who are Rh (D) negative and have no preformed Anti–D antibodies should be informed about the need to prevent Rh D sensitisation. This includes:
  - Anti–D administration if a sensitising event occurs in pregnancy
  - routine prophylaxis at 28 and 34 weeks gestation
  - further prophylaxis after birth if the baby is Rh D positive.
- Recurrent vaginal bleeding requires discussion with/or referral to MMH before administering doses of Anti–D.
- Informed consent for prophylaxis should be obtained early in pregnancy (as soon as the Rh D status has been determined). This is to cover any and all occasions on which Anti–D may become indicated during pregnancy.
- The woman’s consent for prophylaxis must be documented in her Pregnancy Health Record.
Notes to assist in obtaining informed consent

Ensure that the woman understands what Rh D sensitisation means and the consequences it may have, if not necessarily for this pregnancy, at least for any future pregnancies.¹

- Provide the woman with information.
- Antenatal administration of Anti-D to all Rh negative women is recommended by the NHMRC. Administration of Anti-D to all Rh negative women who give birth to a Rh positive baby has been practiced for many years in Australia.
- Anti-D is a blood product. As it is made from human blood, there is a theoretical risk of transmission of blood borne diseases. However, the risk of transmission is extremely small because of the careful selection of blood donors and because of the way in which Anti-D is produced from the blood.
- More than 1.5 million doses of Anti-D have been given in Australia without a single viral transmission thus far.
- The risk of HIV transmission, for example, is currently estimated to be less than one in five million Anti-D ampoules administered. Thus far, HIV has never been transmitted through Anti-D injections.
- One case has been reported of transmission of Hepatitis C attributed to Anti-D administration. This occurred overseas.

Anti-D prophylaxis for potentially sensitising events

RhD immunoglobulin must be given within 72 hours of the sensitizing event. Potentially sensitising events are defined as any situation in which there is an increased likelihood of fetal red blood cells entering the maternal circulation. These include:

- any uterine bleeding in pregnancy ranging from (threatened) miscarriage to antepartum haemorrhage. However, there is insufficient evidence to suggest that a threatened miscarriage before K12 necessitates Anti-D
- any abdominal trauma in pregnancy
- any uterine or intra-uterine intervention (such as external cephalic version, amniocentesis, etc). However, the responsibility for prophylaxis rests with the hospital at which these interventions are performed.

If a sensitising event occurs:

- before 12 weeks gestation, the recommended prophylaxis consists of 250 IU (international units) CSL Rh D immunoglobulin
- at or after 12 weeks gestation, the recommended prophylaxis consists of 625 IU (international units) CSL Rh D immunoglobulin
- after routine prophylaxis at 28 weeks, she should have a dose of Anti-D regardless of when the prophylactic dose was administered.

Routine prophylaxis at 28 and 34 weeks (with or without previous sensitising events)

- Rh D negative women without preformed Anti-D antibodies should receive 625 IU CSL Rh D immunoglobulin at 28 weeks (after or simultaneously testing for preformed Rh D antibodies) and again at 34 weeks.
- Anti-D can be administered before the result of the test for endogenous Anti-D at 28 weeks becomes available provided that the woman had no Anti-D antibodies at the beginning of pregnancy.
- Basic principles about the timing of the routine prophylaxis are:
  - the Anti-D administration will provide cover for a minimum of six weeks
  - the risk of sensitisation increases as pregnancy progresses.
- Thus, if someone has received Anti-D slightly before 28 weeks, the 34 weeks injection should still be given as planned at 34 weeks.

¹ RANZCOG College Statement for Guidelines for the use of RH(D) Immunoglobolin (Anti-D) in Obstetrics in Australia.
• If someone has missed out on receiving Anti-D at 28 weeks (for example because they did not attend) Anti-D should be given at the next visit (better late than never). In that case, the second injection should be planned six weeks later, provided that the woman is still pregnant then.

• If a woman has received Anti-D for a potentially sensitising event, e.g. antepartum haemorrhage or trauma, before 28 weeks, she should still receive Anti-D at 28 and 34 weeks, as scheduled, unless the Anti-D for the sensitising event was administered less than one week before the prophylactic dose being due.

Administration of Anti-D

• Rh D immunoglobulin should be given slowly by deep intramuscular injection.

• Administration of Anti-D must be documented in the woman’s Pregnancy Health Record.

• RhD immunoglobulin can be obtained from the following pathology companies upon receipt of a signed and completed request form. It will be delivered by their routine courier service.
  i. Mater Blood Bank Fax 07 3163 8179
  ii. QML Blood Bank Fax 07 3371 9029

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

Dosing recommendations for Rh D negative women—Australian Red Cross Blood Service (as at 16/8/13)

<table>
<thead>
<tr>
<th>Dose of CSL Rh (D) immunoglobulin</th>
<th>IU</th>
</tr>
</thead>
<tbody>
<tr>
<td>First trimester sensitising events (&lt; 12 weeks)</td>
<td>250</td>
</tr>
<tr>
<td>First trimester sensitising events (multiple pregnancies &lt; 12 weeks)</td>
<td>625</td>
</tr>
<tr>
<td>Second and third trimester sensitising events</td>
<td>625</td>
</tr>
<tr>
<td>All Rh (D) negative women without preformed Anti-D—at 28 and 34 weeks gestation</td>
<td>625</td>
</tr>
<tr>
<td>Postnatal prophylaxis</td>
<td>625</td>
</tr>
</tbody>
</table>

16. Birth and postnatal care

The care of the woman during labour and birth will be the responsibility of the health care team at MMH. At discharge, a summary of the pregnancy and birth outcome will be sent to the GP.

Mater Mothers’ Parenting Support Centre

Phone: 07 3163 2229 or email: parentsupportcentre@mater.org.au Offers support and guidance for parents up to six months after the birth of their baby, for breast feeding and other feeding issues, sleep and settling, emotional wellbeing, infant interaction and adjustment to parenting. An appointment is required and self referrals are accepted. There is no cost for Medicare eligible families. A postnatal appointment with the GP is advised for mother and baby at 5–10 days and 6 weeks. Some women may be offered a postnatal outpatient appointment at MMH if they have experienced specific problems during pregnancy or birth e.g. third or fourth degree tear. This appointment will be made prior to discharge. During the postnatal period, the GP may identify problems that require referral back to MMH or to a paediatrician.

1. RANZCOG College Statement for Guidelines for the use of RH(D) Immunoglobolin (Anti–D) in Obstetrics in Australia.
Postnatal GP appointment at 5–10 days

**Mother** Early contact to assess wellbeing, social risk factors, and level of support. Apply Edinburgh Postnatal Depression Scale if indicated. Review:

- BP
- lochia
- perineum
- abdominal wound if LSCS
- feeding—refer section 15.5 for breastfeeding information and advice
- contraception.

**Referral (prn)**

- Child Health Centre
- Mater Parent Support Centre (see above)
- Australian Breastfeeding Association
- social worker
- Pregnancy Assessment Centre (PAC) 24/7 for urgent maternal assessment up to 6 weeks postpartum.

**Baby** Review by GP between five and ten days if baby discharged from hospital < 72 hours of age (Queensland Health, Personal Health Record book):

- age, weight, head circumference
- feeding
- examination: signs of jaundice; fontanelle/sutures; eyes and red reflexes; face/ears/mouth/palate/tongue/frenulum; limbs; spine; genitalia; anus; meconium within 24 hours; urine output, abdomen and umbilicus; respiratory; cardiac (auscultation and femoral pulses); hips; neurological/reflexes
- health promotion safe sleeping, SIDS prevention, benefits of breastfeeding, vaccinations, role of child health nurse.

**Referral (prn):** child health clinic and paediatrician.

Postnatal GP appointment at 6 weeks

**Mother** Assess wellbeing, social risk factors, and level of support. Apply Edinburgh Postnatal Depression Scale. Examination:

- BP
- breasts, nipples
- abdomen—palpate uterus unless LSCS, check wound if LSCS, refer to physio if abdominal diastasis
- examine perineum if tear or episiotomy. Cervical screening if due; ask re urinary or faecal incontinence
- family planning/intercourse
- follow-up for mother e.g. gestational diabetes, hypertension.

**Baby** As for initial visit and including the following examination:

- weight, length, head circumference—plot on growth charts
- vision/eye examination
- facial symmetry—smiling
- mouth/palate/frenulum
- hearing profile
- cardiovascular
- femoral pulses
- hip testing
- genitalia—testes fully descended?
- development.

**Discuss:** bowel habits, vaccinations, SIDS awareness.
17. Further information for GPs

17.1 Infections

Pregnancy may be complicated by any of the common infections. There are however infections which can impact adversely on fetal wellbeing. Discussion with a consultant obstetrician is required where these infections are suspected or there is a history of exposure.

Obstetric Consultant: 07 3163 6609 Obstetric Registrar: 07 3163 6611

- **Coxsackie virus (hand, foot and mouth disease)**
  - In adults, most diseases caused by coxsackie B viruses are mild. However coxsackie B viruses may cause an inflammation in the fetal heart or lungs and increase the chance of spontaneous miscarriage, infection in the fetus or stillbirth. Referral for discussion of confirmed infection during pregnancy is appropriate.

- **Cytomegalovirus**
  - Primary infection and reactivation in pregnancy can both result in congenital CMV. Up to 20% of infants born to mothers who have primary infection in pregnancy will be symptomatic with mortality in this group of 9% and severe neurological sequelae in 80%.

- **Epstein-Barr virus (Glandular Fever)**—Primary EBV infection during pregnancy is rare. Only 3–3.4% of pregnant women are susceptible (Arvin and Maldonado 2001)
  - Only 50% of pregnant women infected will develop clinical infectious mononucleosis
  - The low frequency of maternal EBV in pregnancy makes it difficult to assess the risk to the fetus
  - Early studies have reported that infants occasionally suffer damage due to maternal primary EBV infection just before conception or during pregnancy
  - In other studies, EBV infection was not transmitted to the fetus and there were no adverse effects
  - The risk of intrauterine transmission of EBV infection is considered to be low, even when the mother is symptomatic clinically (Fleisher and Bolognese 1984; Sumaya 1998; Arvin and Maldonado 2001).

- **Genital herpes simplex (HSV)**
  - 50% risk of transmission if primary infection with active lesions at time of vaginal birth. 3% risk of transmission if recurrent infection with active lesions at time of vaginal birth
  - If primary infection in second half third trimester refer for advice about delivery. Prophylactic valacyclovir offered to reduce incidence of recurrence to facilitate decisions around vaginal delivery.

- **Hepatitis B**
  - Infection rate 90% and infection occurs typically at time of birth
  - Neonatal vaccination protects 95% of at risk newborns. HBIG and HB vaccine for the baby at birth
  - Presence of HBeAg confers high risk fetal transmission.

- **Hepatitis C**
  - Obstetrician will refer to specialist clinic.
  - Order hepatitis C RNA, LFTs, and screen for STIs
  - Avoid invasive tests (has implications for discussion around Nuchal Screening).
  - Vaginal birth and breastfeeding are not discouraged
  - Baby is screened at 18 months for HCV antibody.

- **HIV/AIDS**
  - Risk of transmission during pregnancy and postnatal period 25%. This can be reduced to close to 1% with antiretrovirals and elective caesarean section for birth. More recent data suggests, for women with a nondetectable viral load, a vaginal birth may not confer any increased risk.
  - Screening for other STIs is important
  - Avoid invasive tests (has implications for discussion around Nuchal Screening)
  - Refer to antenatal clinic. MMH obstetrician will refer to Infectious Diseases consultant
  - Breastfeeding confers a risk of transmission and is not advised in Australia.
• Parvovirus (slapped cheek syndrome)
  » Up to 50% pregnant women have pre-existing IgG and therefore are not considered at risk of infection
  » B19 infection in pregnancy is associated with fetal loss and hydrops fetales
  » Fetal hydrops is amenable to treatment with intrauterine transfusion after 20 weeks
  » Check for maternal IGM and IGG. If IgG positive and IgM negative reassure and referral not required
  » If IgG negative or IgM positive refer to consultant obstetrician.

• Rubella infection
  » German measles outbreaks are rare secondary to effective immunisation campaign in Australia
  » Heterogenous spread fetal infection rates are 80% first trimester, 25% second trimester, 35% early third trimester and 100% of fetuses exposed after 36 weeks
  » Risk of congenital rubella is limited to the first 16 weeks of pregnancy. May result in sensorineural deafness, ophthalnic abnormalities, cardiac malformation and neurological sequelae
  » Infection later in pregnancy is associated with intrauterine growth restriction
  » Diagnosis is by four fold rise in IgG or the presence of IgM or positive rubella culture.

• Syphilis (Treponema Pallidum)
  » Refer to www.sti.guidelines.org.au/
  » Perinatal transmission rate is 50%in primary or secondary syphilis. Reduced risk if latent or tertiary disease
  » Risk of fetal anomaly, growth restriction, congenital infection, prematurity, stillbirth, neonatal death
  » Adequate treatment of mother in pregnancy can reduce fetal infection rate from 70 to 100% down to 1%
  » High risk women should be rescreened at 26–28 weeks, 34 weeks and post birth.

• Toxoplasmosis
  » Mononucleosis like illness
  » Infection confirmed if demonstrate seroconversion IgG or IgM negative to positive
  » Avidity testing helps interpret results as IgM can remain positive for up to 13 months
  » Risk of fetal transmission increases with increasing gestational age (15% first trimester, 44% second trimester, 71% third trimester)
  » Amniocentesis with PCR for T. gondii is undertaken to diagnose fetal infection and enable optimal medical treatment or discussion about pregnancy continuance.

• Varicella–zoster (chicken pox)
  » Risk of maternal compromise e.g. pneumonia. Give Acyclovir if seen within 24 hours of symptoms
  » Risk for the fetus is before 20 weeks (2% risk of Varicella Zoster syndrome) and five or less days before birth as baby can develop infection without maternal antibodies
  » Refer any woman with varicella in pregnancy, but liaise by phone to reduce risk to other pregnant women.

17.2 Edinburgh Postnatal Depression Scale (EPDS)\textsuperscript{1}

Instructions for users:

- the mother is asked to underline which comes closest to how she has been feeling in the previous seven days.
- all 10 items must be completed.
- care should be taken to avoid the possibility of the mother discussing her answers with others.
- the mother should complete the scale herself unless she has limited English or has difficulty reading.

How are you feeling?

As you have recently had a baby, we would like to know how you are feeling now. Please underline the answer which comes closest to how you have felt in the past seven days, not just how you feel today.

Here is an example, already completed:

I have felt happy
Yes, most of the time
Yes, some of the time
No, not very often
No, not all

In the past seven days

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

2. I have looked forward with enjoyment to things:
As much as I ever did
Rather less than I used to
Definitely not so much now
Hardly at all

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

4. I have felt worried and anxious for no good reason:
No, not at all
Hardly ever
Yes sometimes
Yes, very often

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

6. Things have been getting on top of me*:
Yes, most of the time I haven’t been able to cope at all
Yes, sometimes I haven’t been coping as well as usual
No, most of the time I have coped quite well
No, I have been coping as well as ever
7. I have been so unhappy that I have had difficulty sleeping*
   - Yes, most of the time
   - Yes, sometimes
   - Not very often
   - No, not at all

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

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

10. The thought of harming myself has occurred to me*
    - Yes, quite often
    - Sometimes
    - Hardly ever
    - Never

### Scoring

Response categories: 0, 1, 2, and 3 according to increased severity of the symptom. Items marked with an asterisk (*) are reverse scored (i.e. 3, 2, 1, 0). The total score is calculated by adding together the scores of each of the 10 items.

Mothers who score above 12 are likely to be suffering from a depressive illness of varying severity. The EPDS should not override clinical judgement. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother has felt during the previous week and in doubtful cases, it may be usually repeated after two weeks. The scale will not detect mothers with anxiety neuroses, phobias or personality disorders.

If referral required see page 25.
17.3 Gestational diabetes screening and diagnosis

17.3.1 Key recommendations

As of January 1, 2015 the diagnosis of GDM is to be based on an oral glucose tolerance test (75 g carbohydrate load) or first trimester HbA1c. There has also been a change to the threshold for diagnosis of GDM. This is in line with recommendations from the International Association Diabetes in Pregnancy Study Group (IADSPG) and the World Health Organisation (WHO) and is endorsed by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG).1

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Recommendation</th>
</tr>
</thead>
</table>
| Diagnostic testing                  | • At MMH HbA1c is the preferred test in the first trimester as the fasting glucose has not yet fallen to pregnancy levels and the 5.1 mmol/L has proven to be too low for diagnosis of GDM. In the first trimester a fasting glucose ≥ to 5.5 mmol/L (as for outside pregnancy) is evidence of impaired fasting glucose.2  
  • The two step Glucose Challenge Test (GCT) followed by an Oral Glucose Tolerance Test (OGTT) will no longer be performed  
  • The GCT will not be available for GDM diagnosis (do not order this test)                                                                                                                                 |
| All women                           | • Require a two hour OGTT (after overnight fasting)                                                                                                                                                            |
|                                     | • Should maintain a normal diet until 10 hours before the OGTT and then FAST                                                                                                                                 |
|                                     | • During fasting, advise the woman to drink water to prevent dehydration and to continue any usual medications                                                                                                    |
|                                     | • The three day high carbohydrate diet is no longer required                                                                                                                                                   |
| High risk women                     | • Request early OGTT/HbA1c (first trimester only) for women at high risk of diabetes as per the Qld Clinical Guidelines for screening and diagnosis of gestational diabetes.                                                |
|                                     | • If normal, repeat at 26–28 weeks                                                                                                                                                                             |
| Women having maternal steroids      | • Do not perform an OGTT within one week of maternal steroids (betamethasone/dexamethasone).                                                                                                                     |
|                                     | • Monitor blood glucose levels if the woman is receiving steroids                                                                                                                                               |
| Diagnostic threshold for GDM        | • Diagnosis of GDM is based on:                                                                                                                                                                               |
|                                     | a. Fasting glucose greater than or equal to 5.1 mmol/L and/or  
  b. 1-hour glucose greater than or equal to 10.0 mmol/L and/or  
  c. 2-hour glucose greater than or equal to 8.5 mmol/L or  
  d. HbA1c > 41mmol/mol (4.9%) First trimester only.                                                                                                    |
|                                     | • If a fasting glucose test has been performed for other reasons and shows an elevated value, this may be accepted as diagnostic of GDM                                                                              |
| Diabetes in pregnancy               | • Women with first trimester HbA1c of 48mmol/ml (6.4%) or markedly elevated OGTT values may be classified as having Diabetes in Pregnancy  
  e. Fasting glucose greater than or equal to 7.0 mmol/L and/or  
  f. 2-hour glucose greater than or equal to 11.1 mmol/L  
  • Women with diabetes in pregnancy:                                                                                                                                                                       |
|                                     | g. Require urgent care  
  h. May have undiagnosed “overt” diabetes and associated complications such as retinopathy and nephropathy                                                                                               |
|                                     | i. Are at higher risk of pregnancy complications  
  j. Manage in a centre/clinic with experience in the management of pre-existing diabetes in pregnancy                                                                                                  |
|                                     | k. May require confirmation of diagnosis in the postpartum period                                                                                                                                                |

Note: At MMH HbA1c is the preferred test in the first trimester. See page 40.

**Risk factors for GDM**
- BMI greater than 30 kg/m² (pre-pregnancy or on entry to care)
- Ethnicity (Asian, Indian subcontinent, Aboriginal, Torres Strait Islander, Pacific Islander, Maori, Middle Eastern, non-white African)
- Previous GDM
- Previous elevated BGL
- Maternal age 40 years or older
- Family history DM (1st degree relative or sister with GDM)
- Previous macrosomia (birth weight greater than 4500 g or greater than 90th percentile)
- Previous perinatal loss
- Polycystic Ovarian Syndrome
- Medications (corticosteroids, antipsychotics)
- Multiple pregnancy
- Ethnicity

**GDM diagnosis**
At MMH, HbA1c is the preferred test in the first trimester

**HbA1c**
- First trimester only
- Result equal to or greater than 41 mmol/mol (or 5.9%)

**OGTT (after 12 weeks)**
One or more of:
- Fasting BGL equal to or greater than 5.1 mmol/L
- 1 hour BGL equal to or greater than 10 mmol/L
- 2 hour BGL equal to or greater than 8.5 mmol/L

**OGTT advice for women:**
- Fast (except for water) for 8–14 hours prior to OGTT
- Take usual medications.

Note: a single elevated fasting BGL of 5.1–5.5 mmol/L in the first trimester does not constitute a diagnosis of GDM; these women will be recommended to have an HbA1c (if still first trimester) or 2 hour OGTT
17.4 Pregnancy Management Plan BMI > 35

Queensland Clinical Guideline: Obesity in pregnancy

Flow Chart: Obesity in pregnancy

Pre and inter-conception
- Analysis of BMI and waist circumference
- Risk counselling – increased risk of adverse maternal and fetal outcome
- Discuss benefits of inter-pregnancy weight loss – refer to dietitian, stabilise weight loss before conception
- Advise on lifestyle interventions – weight loss, activity, behaviour modification, smoking cessation
- Folic Acid 5 mg daily at least one month prior to conception

Antenatal
- Comprehensive history (including previous bariatric surgery)
- Document pre-pregnancy BMI
- Folic Acid 5 mg daily until 12 weeks
- Initial laboratory investigations (BMI >30 kg/m²):
  - OGTT or Hba1c at entry to care
  - Baseline liver and renal function, transaminases
  - Urine protein creatinine ratio
- Develop care plan with woman that identifies strategies to reduce risk
- Referrals:
  - Diabetic services for nutritional advice
  - If BMI > 35 kg/m², obstetric consult
  - If BMI > 40 kg/m², anaesthetic consult
  - Other specialist referrals as indicated
- Counsel about:
  - Maternal and fetal risks of obesity
  - Implications for birth, model of care, breastfeeding and transfer of care
  - Recommended weight gain during pregnancy
  - Physical activity
- Clinical assessments:
  - Document GWG at each visit
  - Risk of VTE
  - Surveillance for preeclampsia – consider low dose aspirin
  - If initial OGTT/HbA1c negative, repeat OGTT at 24–26 weeks
  - Fetal surveillance to identify/exclude fetal malformations, macrosomia, growth restriction
  - Awareness of psychosocial wellbeing

Labour and birth
- Team approach with frequent communication between care providers
- Obesity alone not an indication for IOL or CS
- Ensure bariatric equipment available intra and postpartum
- Early consultation with anaesthetist/operating theatre
- Early assessment of IV access
- If BMI > 35 kg/m², water immersion not recommended
- If BMI > 40 kg/m² recommend continuous fetal monitoring
- If CS, give higher dose prophylactic antibiotics
- Surveillance for increased risk of shoulder dystocia/PPH
- Active third stage management
- Consider need for blood products

Postpartum
- Surveillance for risk of airway compromise (particularly after narcotic, sedatives)
- Encourage early mobilisation
- Actively assess risk of VTE and requirement for thromboprophylaxis
- Increased surveillance for wound infection
- Additional support for breastfeeding
- Advice re: bed sharing/co-sleeping
- Counselling/referral for ongoing lifestyle interventions
- If GDM, repeat OGTT at 6–12 weeks

Principles of care
- Plan care in consultation with the woman
- Use clinical judgement to provide a safe service
- Determine local criteria for safe care provision
- Liaise/consult early with anaesthetist
- Use multidisciplinary case review
- Ensure necessary resources available (human and equipment)
- Audit care

BMI calculation (kg/m²)
- Use pre-pregnancy weight to calculate BMI at entry to care
- As part of the overall assessment for safe birth:
  - Monitor GWG throughout pregnancy
  - Recalculate BMI at 36 weeks
  - BMI impacted by ethnic variations

BMI classification (kg/m²)
- Underweight: < 18.5
- Normal: 18.5–24.9
- Overweight: 25.0–29.9
- Obese I: 30.0–34.9
- Obese II: 35.0–39.9
- Obese III: > 40
- Extreme obesity: > 50

Gestational weight gain

<table>
<thead>
<tr>
<th>Trimester 1</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>All women</td>
<td>0.5–2.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trimester 2+3</th>
<th>(kg/week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>0.45</td>
</tr>
<tr>
<td>Normal</td>
<td>0.45</td>
</tr>
<tr>
<td>Overweight</td>
<td>0.28</td>
</tr>
<tr>
<td>Obese</td>
<td>0.22</td>
</tr>
</tbody>
</table>

Total GWG | kg |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>12.5–18</td>
</tr>
<tr>
<td>Normal</td>
<td>11.5–16</td>
</tr>
<tr>
<td>Overweight</td>
<td>7–11.5</td>
</tr>
<tr>
<td>Obese</td>
<td>5–9</td>
</tr>
</tbody>
</table>

BMI: body mass index, CS: caesarean section, GDM: gestational diabetes mellitus, GWG: gestational weight gain, IOL: induction of labour, OGTT: oral glucose tolerance test, PPH: postpartum haemorrhage, VTE: venous thromboembolism, > greater than, < less than

17.5 Breastfeeding

Breastfeeding is the normal method of feeding infants and positively influences both their immediate and long-term health.

GPs have a very important role in encouraging and supporting women to breastfeed.

- The initial antenatal interview between a woman and her doctor or midwife should include a careful assessment of the woman’s (and her partner’s) attitudes, beliefs, expectations, knowledge and experience in relation to infant feeding.
- Women are more likely to breastfeed if: they are committed to breastfeeding prior to birth, their husband/partner and mother supports breastfeeding, they attend antenatal classes, and if they have access to support in the postnatal period.

Recommendations for breastfeeding

- Exclusive breastfeeding for the first six months. The infant receives only breast milk by mouth, no other liquid or solids, with the exception of medication for the first six months of life.
- Continued breastfeeding until 12 months of age, with introduction of solids around 6 months of age.
- Breastfeeding continued beyond 12 months as desired by mother and child.

Benefits of breastfeeding

Mother
- Accelerated weight loss and return to pre-pregnancy body weight.
- Protection against premenopausal breast cancer, and ovarian cancer.
- Promotes a loving bond between mother and baby.
- Convenient and inexpensive.
- Prolonged period of postpartum infertility.

Infant
- Increased protection against bacteraemia, meningitis, urinary tract infection, otitis media, and SIDS.
- Possible reduced risk of developing obesity, coronary vascular disease, cancer, type two diabetes, asthma and delayed onset of coeliac disease.
- Reduced incidence and duration of diarrhoeal illnesses.
- Improved cognitive development.
- Reduced malocclusion due to better jaw shape and development.

GPs have a very important role in supporting women to overcome any breastfeeding problems.

- Some women cease breastfeeding too early because they encounter problems, do not have support, or mistakenly feel they do not have an adequate supply of breast milk.
- Timely support and management is the key to overcoming these problems to ensure continued breastfeeding.
- Refer to services providing breastfeeding support (see end of section).

Common problems with breastfeeding and where to go for help:

- Is my baby getting enough milk?
- Is my baby feeding enough? Too frequently?
- Breastfeeding is painful—sore or cracked nipples.
- Engorgement or mastitis.
- Oral infant pathology i.e. tongue tie.
  - Flat or inverted nipples.
  - My baby is unsettled, particularly in the early evening. Does my baby have colic?

Australian Breastfeeding Association: 1800 686 2686

Mater Breast Feeding Support Service is a specialist service within the Mater Mothers’ Parenting Support Centre staffed by lactation consultants experienced in the care of newborn, preterm and special needs babies up to the age of 6 months. Phone: 07 3163 2229 or Email: parentsupportcentre@mater.org.au brochures.mater.org.au/Home/Brochures/Mater-Mothers-Hospital/A-guide-to-breastfeeding
17.6 Smoking during pregnancy

- Effective smoking cessation intervention should be offered to pregnant smokers at the first antenatal visit and throughout pregnancy and postpartum.
- Extended psychosocial interventions that exceed minimal advice to quit should be made available for pregnant women.
- Consider lowest dose intermittent nicotine replacement therapy after the first trimester using a risk/benefit approach.

Pregnant and lactating women

- Cigarette smoking by pregnant women causes adverse fetal outcomes including stillbirth, spontaneous abortion, reduced fetal growth, premature rupture of membranes, preterm birth, low birth weight, placental abruption, sudden infant death, cleft palate, cleft lip and childhood cancers.
- Maternal smoking increases the risk of poor health outcomes in infants and children including sudden infant death syndrome, respiratory infections, asthma, and middle ear disease.
- Although abstinence early in pregnancy will produce the greatest benefits to the mother and fetus, smoking cessation at any point during the pregnancy will be beneficial.
- The health benefits of breastfeeding whilst smoking outweigh the risk of formula feeding in a smoking household. Mothers who smoke whilst breastfeeding should be encouraged and supported to stop smoking; and concurrently educated about the benefits of continuing to breastfeed their babies.

Smoke Free Pregnancy Project
Call the Quitline on 13 78 48 for help

17.7 Resources for GPs

See Shared Care Alignment on the Mater website materonline.org.au for:

Alignment and realignment options
materonline.org.au/alignment

Antenatal appointment schedule
materonline.org.au/services/maternity/health-professional-information/guidelines-and-policies

Antenatal referral form
materonline.org.au/quick-referrals/antenatal-clinic

Guidelines for consultation and referral
materonline.org.au/services/maternity/health-professional-information/guidelines-and-policies

Mater Doctor Portal
materonline.org.au/doctor-portal

Mater Shared Electronic Health Record
mater.org.au/mater-shared-ehr

Pregnancy Health Record
materonline.org.au/pregnancy-health-record

Pregnancy Health Record additional pages
materonline.org.au/pregnancy-health-record

Shared Care Guidelines
materonline.org.au/services/maternity/health-professional-information/guidelines-and-policies

Therapeutic advice & information service
www.nps.org.au
18. Additional information for women

**13HEALTH—Queensland Health help-line:**
Telephone: 13 43 25 84

**Aligned GPs:**
matermothers.org.au/shared-care-gps

**Child Health Line/Parent Line Queensland (QLD):** Telephone Information Support Service
Telephone: 07 3862 2333 (Brisbane metro area) or 1800 177 279

**Choices for maternity care:**
brochures.mater.org.au/choices-of-maternity-care

**Information on having your baby at the Mater Mothers’**:
brochures.mater.org.au/having-your-baby-at-mmh

**Mater Breast Feeding Support Service:**

**Mater brochure site:**
brochures.mater.org.au/brochures/mater-mothers-hospital

**Mater Mothers’ Parenting Support Centre:**
matermothers.org.au/hospitals/services/mater-mothers-parenting-support-centre

**Mater Patient Portal:**
patientportal.mater.org.au

**Medicines Line:** Medicines information line for consumers.
Telephone: 1300 888 763

**Queensland Child Health Service:**
19. MMH antenatal shared care process flowchart

Pre-conception—unique role for GPs
• Folate & iodine supplementation
• Rubella serology +/- vaccination
• Varicella serology if no history +/- vaccination
• Cervical screening if due
• Smoking cessation
• Alcohol cessation
• Pre-conception clinic MMH if medical condition/s
• Consider screening for genetic conditions e.g. SMA/CF/FXS*

First GP visit/s (may take more than one visit)
• Confirm pregnancy & dates
• Scan if uncertain dates or risk of ectopic (previous ectopic, tubal surgery)
• Folate & iodine supplementation for all
• Review medical/surgical/psych/family history, medications, allergies etc., update GP records
• Identify risk factors for pregnancy
• Discuss screening vs diagnostic testing
• Discuss diet & drug avoidance—Listeria, alcohol, cigarettes etc.
• Complete Mater referral
• Indicate if you wish to share care & confirm you are aligned
• Recommend & administer influenza vaccination
• If woman agrees to a My Health Record, consent for & upload shared health summary

First trimester screening tests (cc to MMH ANC on pathology & radiology request form please)
• FBE, blood group & antibodies, rubella, Hep B, Hep C, HIV, syphilis serology, MSU (treat asymptomatic bacteruric) Cervical screening if due
• Discuss/request/review prenatatal screening or first trimester screening/testing for anatomical, chromosomal & genetic anomalies:
  1. Nuchal translucency scan + first trimester screen (free hCG, PAPP-A) K11-13+6 or
  2. Maternal serum screening (AFP, Oestriol, hCG) K15-18 if desired or if presents too late for first trimester testing. (Not if twins or diabetic)
  3. Non-Invasive Prenatal Test *(NIPT) > K9
     (Not if multiple pregnancy, first trimester anatomical scan still recommended)
  4. SMA/CF/FXS or other genetic testing as indicated*
• Varicella serology (if no history of varicella or vaccination)
• HbA1c (first trimester only) or OGTT if high risk for diabetes
• ELFT, TFTs, Vitamin D for specific indications only

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 41 mmol/mol or 5.9%)
• If positive, refer promptly, specify the reason & include the results
  Fax to 3163 8053

Medical disease or obstetric complications? EARLY/URGENT Hospital ANC referral:
• GP referral letters are triaged within two working days
• Please specify urgency & reasons in the referral letter. Fax to 3163 8053
• cc MMH ANC on pathology & radiology

Rh Negative mothers
• If antibody negative, offer 625 IU anti-D at 28 & 34 weeks

For urgent referral or advice contact Mater Mother’s Hospital:
• GP Liaison Midwife: 3163 1861, ANC team leader 3163 8611
• O & G Registrar on call: 3163 6611
• MMH Consultant on call: 3163 6612

BMI > 35 recommend folic acid 5 mg daily
• In addition to routine bloods, order first trimester HbA1c, E/LFT, urine protein/creatinine ratio. OGTT 25–28 weeks if first trimester test normal.
• If antibody negative, offer 625 IU anti-D at 28 & 34 weeks

Pregnancy Assessment Centre (PAC) Open 24/7
• For urgent obstetric related care at any stage in pregnancy and for 6 weeks after the birth: Telephone: 07 3163 6577
• Private & Public open to women outside of Mater catchment however women must live in within catchment to access public antenatal care
• Haemodynamically unstable women should be directed to MAH ED
  Telephone: 3163 8485

Uncomplicated pregnancy
• Send referral to Mater ANC fax 3163 8053
• Refer privately for detailed scan (dating, morphology) to be done at 18–20 weeks
• Arrange to see patient after morphology scan
• First MMH ANC visit with midwives & obstetric doctor K18–20
• You will be responsible for care until she is seen by a doctor in the hospital

GP visits: 14, 24, 28, 32, 34, 38, 40 weeks (more frequently if clinically indicated)
• Record in Pregnancy Health Record (place printed copy of computer obstetric record in the blue folder)
• GTT, FBC; if Rh Neg blood group/antibody screen at K26–28 & 625 IU Anti D offered
• K28–32+, recommend & administer Pertussis
• K34, if Rh Neg, 625 IU Anti D offered
• K36, FBC
• cc MMH ANC on pathology & radiology

Mater Mothers’ Hospital visit: 36 weeks (more frequently if clinically indicated)
Mater Mothers’ Hospital visit: 41 weeks prn

*Not Medicare funded.
SMA/CF/FXS = spinal muscular atrophy, cystic fibrosis, fragile X syndrome
For more information, resources and education: materonline.org.au (Click on Shared Care Alignment)

January 2019
20. Mater Mothers’ Hospital shared care alignment and re-alignment options

First alignment: Required for MMH shared care

- **Alignment option A**
  - MMH path
  - MMH alignment one
  - 6 hour / 40 CAT 1

- **Alignment option B**
  - Affiliated path
  - Affiliated alignment
  - Redland, Logan, Beaudesert, RBWH, Caboolture, Redcliffe, Ipswich, Nambour and Emerald Hospitals
  - 6 hour / 40 CAT 1

- **Alignment option C**
  - Other path
  - DRAZCOG RANZCOG Certificate in Women’s Health or RACGP Women’s Health ALM within last three years

MMH online bridging 30 mins

Subsequent requirements: Re-alignment required once each triennium for MMH

- **Re-alignment option A**
  - MMH Path
  - MMH alignment two or three
  - 6 hour / 40 CAT 1
  - *Can undertake before required*

- **Re-alignment option B**
  - Affiliated path
  - Affiliated alignment
  - Redland, Logan, Beaudesert, RBWH, Caboolture, Redcliffe, Ipswich, Nambour and Emerald Hospitals
  - 6 hour / 40 CAT 1

- **Re-alignment option C**
  - Other Path
  - Attend three relevant 2 hour antenatal or postnatal/neonatal CPD events CAT 2

DRAZCOG RANZCOG Certificate in Women’s Health or RACGP Women’s Health ALM within last three years

MMH online bridging 30 mins
### 21. Pregnancy checklist

- Decide on where and how you wish to have your child—do you wish to be looked after privately or a publicly?
- Do you wish to have midwifery, general practitioner (GP) or obstetric care?
- 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.
- How do you plan to feed your baby?
- Reliable information on safe use of drugs and alcohol, diet, exercise and lifestyle activities in pregnancy can be found on the following websites: Mater Mothers’, RWH, Pregnancy, birth & baby and Raising children.
- 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.
- 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 when they are available, regardless of your stage in 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 (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 contacted.
- If you have a Rh 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.
- 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.
- It is recommended that you have a free* whooping cough booster from 28 weeks’ gestation in each and every pregnancy, even if the pregnancies are less than two years apart.
- 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.

*There may be a fee to see your GP | Dr Wendy Burton | Creative Commons License | September 2018
22. Contact list

Mater Mothers’ Hospital

Aboriginal and Torres Strait Islander Liaison Service
Telephone: 07 3163 1528 or 07 3163 1853 or via switch 07 3163 8111, Pagers: 4845; 0918 or 4558

Breastfeeding Support service
Telephone: 07 3163 2229 Email: parentsupportcentre@mater.org.au

CHAMP (recent or current drug/alcohol use)
Telephone: 07 3163 2417 Mobile: 0434 189 444 (in hours only)

Diabetes Educator
Telephone: 07 3163 1988 Fax: 07 3163 8053

Dietician
Telephone: 07 3163 6000 Fax: 07 3163 1671

Fertility Services at Mater
Telephone: 07 3163 8437

GP Liaison Midwife
Telephone: 07 3163 1861 Email: GPL@mater.org.au Mobile: 0466 205 710
Antenatal Clinic Team Leader: 07 3163 8611

Genetic counselling (Refer to Genetic Health Qld)

Health & Wellness Clinic (Private Allied Health)
Telephone: 07 3163 6000 Fax: 07 3163 1509

Mater Centre for Maternal Fetal Medicine (MFM)
Staff access telephone: 07 3163 1899 Fax: 07 3163 1890 Appointments: 07 3163 1896
Tertiary ultrasound referrals. For genetic counselling refer to Genetic Health Qld

Mater Doctor Portal and Mater Shared Electronic Health Record
Telephone: 1800 228 470 Email: MaterSharedEHR@mater.org.au

MMH Antenatal Clinic
Staff access telephone: 07 3163 8611 Fax: 07 3163 8053 Appointments: 07 3163 8330

Parent Support Centre
Telephone: 07 3163 2229 Email: parentsupportcentre@mater.org.au

Perinatal bereavement and support
Telephone: 07 3163 3467 Fax: 07 3163 2137 Mobile: 0414 828 724

Physiotherapy Department
Telephone: 07 3163 6000 Fax: 07 3163 1509

Preconception Care Clinic
Telephone: 07 3163 8611 Fax: 07 3163 8053

Pregnancy Assessment Centre (PAC)
Open 24/7 for the urgent assessment of women from early pregnancy until 6 weeks post-partum
O+G Registrar: 07 3163 6611 Consultant: 07 3163 6612 Team Leader: 07 3163 6577
There is no phone number for women to call for advice. Women should present for assessment.
Appointments are available for non-urgent follow up of early pregnancy complications for women in MMH catchment: Telephone: 07 3163 5132 Fax: 07 3163 2281
