Maternity GP shared care guideline

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Acknowledgements

Metro North Hospital and Health Service (MNHHS), works alongside Brisbane North PHN and other key stakeholders in the public and private sector, to develop and maintain a best practice model for General Practitioner (GP) maternity care. Inclusive in this model are guidelines to assist GPs and hospitals to care for women in accordance with current evidence based maternity care practice.

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Abbreviations

ACRRM	Australian College of Rural and Remote Medicine (ACRRM)
ANDAS	Antenatal Day Assessment Unit
CAPC	Centre for Advanced Prenatal Care
CFTS	Combined First Trimester Screen
CMS	Community Midwifery Service
CMV	Cytomegalovirus
CPI	Central Patient Intake
CVS	Chorionic Villi Sampling
DRANZCOG	Diploma of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists
EPAU	Early Pregnancy Assessment Unit
EPDS	Edinburgh Postnatal Depression Scale
EPPM	Eligible Private Practice Midwife
GP	General Practitioner
HBeAg	Hepatitis B "e" antigen
HBIG	Hepatitis B Immune Globulin
HBV	Hepatitis B Virus
MFM	Maternal Fetal Medicine
NIPT	Non-Invasive Prenatal Testing
NBA	National Blood Authority
OGTT	Oral Glucose Tolerance Test
ORC	Obstetric Review Centre
PHR	Pregnancy Health Record
PMC	Primary Maternity Carer
RACGP	Royal Australian College of General Practitioners
SANDS	Stillbirth And Neonatal Death Support
SHADES	Specialist Hospital Alcohol and Drug Service
SIDS/SUDI	Sudden Infant Death Syndrome / Sudden Unexpected Deaths in Infants

Definitions

Consultation[1]	A discussion between health care professionals or health care professionals and the woman for the purpose of providing clinical care. Consultation can occur face to face, by videoconference, telephone, or email.
Obstetrician	Local facilities may as required, differentiate the roles and responsibilities assigned in this document to an "obstetrician" according to their specific practitioner group requirements; for example to general practitioner obstetricians, specialist obstetricians, consultants, senior registrars and obstetric fellows.
Primary Maternity Carer (PMC)[1]	In the context of maternity shared care, the PMC is the community based health care professional, nominated by the woman, who provides and coordinates the majority of the woman's care. The PMC may be a GP, GP obstetrician, obstetrician, or midwife providing private maternity care in the community.
Referral[1]	Communication, preferably in writing from the health care professional making the referral for: • Consultation (e.g. request for an opinion or specialised service where responsibility for the maternity care remains with the PMC) or • Transfer of care (e.g. responsibility for maternity care is transferred from the PMC to an obstetrician). The PMC may continue to provide care within their scope of practice, in collaboration with the specialist team (e.g. the team may consist of obstetrician, physician, and psychiatrist). Referrals should be accompanied by relevant personal and clinical information to enable an informed consultation or safe and timely transfer of care.
Shared Care[1]	A co-operative arrangement between a public birthing facility and a PMC not employed by the birthing facility and located in the community (e.g. GP or private practice midwife). The PMC provides the majority of the antenatal and postnatal care with the public birthing facility health care professionals providing care during labour and the intrapartum period.

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1. Forward

The National Maternity Plan (2011) set out the Federal Government's vision for maternity services that Maternity care will be woman-centred, reflecting the needs of each woman within a safe and sustainable quality system. *"All Australian women will have access to high-quality, evidence-based, culturally competent maternity care in a range of settings close to where they live".* It recognised the significant contribution that General Practitioners (GPs) make as part of collaborative networks necessary to ensure effective delivery and continuity of maternity care particularly in the context of those most at risk of poor outcome and those living in rural communities.

This guideline supports Metro North Hospital and Health Service (MNHHS) *Putting people first* Strategy as it engages MNHHS partners to improve the patient experience and fosters a culture of partnership to better deliver patient-centred care.

In order to support this shared delivery it is essential that we develop robust clinical pathways between primary, secondary and tertiary carers. This guideline complements the existing Queensland Clinical Guidelines Operational Frameworks: *Maternity shared care* and *Non-urgent referral for antenatal care* and will inform the Brisbane North PHN Pathways Program. Together these important tools will provide GPs with relevant information to support their delivery of safe and effective maternity care.

2. Maternity GP shared care

Women who wish to attend a MNHHS birthing facility during pregnancy and in childbirth have an option for GP shared care. (Refer to page 4 for definition of shared care).

To support effective communication and clear understanding of the respective roles and responsibilities of health care professionals involved in maternity shared care, Queensland Clinical Guidelines has published an operational framework titled: *Maternity shared care.*

This document can be accessed and downloaded from: http://www.health.qld.gov.au/qcg/

3. The Pregnancy Health Record

The aim of the Pregnancy Health Record (PHR) is to facilitate women's participation in their care and to facilitate communication between care providers.

The PHR is to be the substantive record of the woman's pregnancy. Information is to be recorded in the PHR at every visit by the care provider and must be sufficient to meet the care provider's duty of care in diagnostic and treatment decisions.

The woman should be advised that the PHR is the ONLY complete health record maintained by the birthing facility and forms part of the birthing facility's health care records.

All pathology and imaging requests are to be included in the PHR and results documented as soon as available. This provides evidence that someone has checked test results.

Obtaining and commencing the PHR

The PHR can be commenced by either the hospital or the GP.

The Royal Brisbane and Women's Hospital (RBWH) primarily commences the PHR at the hospital booking – in appointment. If the GP chooses to commence the PHR, it is to be noted on the referral to avoid

duplication.

Both Redcliffe and Caboolture hospitals prefer that the GP commences the PHR.

To obtain the PHR, the GP Practice can contact the hospital ante-natal clinic and PHRs will be sent.

Alternatively; the PHR can be ordered with access to the OfficeMax online ordering system (OrderMax). For OfficeMax contact details refer to Appendix 2: *Community resources and contacts.*

4. 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, 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 is to check with their professional indemnity provider as to the extent of cover provided. However in general terms it is understood that GPs with cover are covered for claims arising out of care (including any major antenatal complications) up until labour but are not covered for any intra-partum care or treatment. To be covered for intra-partum care the GP must have GP obstetric cover.
2. Ensure all appropriate antenatal screening tests are performed and followed up:
    a. **Any investigations requested for any pregnant woman under his/her care must be followed up by the GP who orders the tests.**
    b. While part of appropriate follow up is communicating relevant results to the shared care hospital, 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 will be referred to an antenatal clinic before 12 weeks gestation and triaged for consultation with an obstetrician/obstetric registrar at an appropriate time as required:
    a. If shared care is planned, the antenatal clinic will see the woman at 36 weeks and again at 41 weeks, provided that the antenatal course is uneventful.
    b. 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 obstetric hospital/clinic, consultant obstetrician or with a GP who has GP obstetric insurance arrangements.
4. In an emergency situation, e.g. haemorrhage or pre-term birth, any doctor irrespective of their cover must render whatever emergency assistance they can, and will be indemnified.
5. If a shared care GP is planning to be away from his or her practice, the woman's care including responsibility for follow up of tests is to be handed over to another GP who is adequately indemnified. Alternatively the woman can be referred back to the birthing facility. It is recommended that GPs contact their indemnifier for information about this.

5. Alignment and Continuing Professional Development (CPD) requirements

GPs that choose to participate in the Alignment Program will have access to:

- high quality education and,
- improved lines of communication with Metro North birthing facilities.

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;
- timely, clinically significant communication with the appropriate clinician/s;
- documentation of care provided in the PHR or clinic notes;
- attendance at education updates, with a minimum of one update per QI & CPD triennium and
- high quality patient care as per RACGP guidelines.

MNHHS is committed to supporting all GPs who wish to share care to maintain their skills and familiarity with new protocols and approaches.

To become an aligned maternity shared care GP within MNHHS, a GP must fulfil the requirements listed below.

Alignment

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

A Diploma of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (DRANZCOG) is desirable but not compulsory. GPs should at a minimum have current knowledge and skill in obstetric care and be familiar with and follow the guidelines and policies of the participating birthing facility.

To practice maternity shared care within MNHHS, GPs are encouraged to attend one maternity shared care alignment workshop per triennium and complete the associated knowledge assessment.

To maintain alignment the GP must either:

1. Repeat the standard alignment workshop including assessment OR

2. Complete online education including submission of completed assessment.

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.

6. Suitability for maternity shared care

Most women can be offered shared antenatal care. The decision is a joint one made by the woman, her PMC and the birthing facility health care professionals, all of whom share responsibility.

"Women with complex care needs may access maternity shared care providing all health care providers:

- *are familiar with relevant risk factors*
- *follow appropriate consultation and referral/management guidelines*
- *collaborate in a timely fashion with each other and;*
- *recognise the assessment of risk is a continuing process throughout the pregnancy"* [1]

For information regarding the process to facilitate effective communication, continuity of collaborative care and coordination of non-urgent antenatal referral for consultation and/or transfer of care; refer to the Queensland Clinical Guidelines operational framework: *Non-urgent referral for antenatal care 2016* located at: http://www.health.qld.gov.au/qcg/ .

6.1 Indications for discussion, consultation and/or transfer

The following 3 tables are specific indications for discussion, consultation and/or transfer of care when first discussing a woman's needs during initial visits. The main purpose of the indication list is to provide a guide for risk-selection

Table 1. Medical conditions

	Key: A = Discuss; B = Consult; C = Transfer
Anaesthetic difficulties	
Previous failure or complication (e.g. difficult intubation, failed epidural)	B/C
Previous adverse anaesthetic drug reaction	A
Malignant hyperthermia or neuromuscular disease or family history	C
Cardiovascular disease	
Pre-existing cardiac disease	B/C
Hypertension	C
Chronic hypertension, with or without medication	C
Arrhythmia	B/C
Drug dependency and prescription medicine	
Use of alcohol and other drugs	B/C
Medicine use (category B or higher)	B/C
Endocrine	
Pre-existing Type 1 or Type 2 diabetes	C
Impaired glucose tolerance	B/C

	Key: A = Discuss; B = Consult; C = Transfer
Gestational diabetes requiring insulin	C
Thyroid conditions	B
Gastroenterology	
Inflammatory bowel disease including ulcerative colitis and Crohn's disease	B/C
Previous bariatric surgery	B/C
Genetic – any condition	B/C
Haematological	
Thrombo-embolic disease	C
Coagulation disorders	C
Anaemia from any cause	B/C
Thrombophilia	B
Infectious diseases	
HIV-infection	C
Rubella	B/C
Toxoplasmosis	B/C
Cytomegalovirus	B/C
Parvo virus infection	B/C
Varicella Zoster virus infection	C
Hepatitis from all causes	B/C
Tuberculosis	C
Herpes genitalis - Primary infection and recurrent	B/C
Syphilis	B/C
Neurological	
Epilepsy	B/C
Subarachnoid haemorrhage, aneurysms	C
Multiple sclerosis	B/C
AV malformations	C
Myasthenia gravis	C
Spinal cord lesion	C
Muscular dystrophy or myotonic dystrophy	C

Key: A = Discuss; B = Consult; C = Transfer	
Mental health disorders	
Care during pregnancy and birth will depend on severity and extent of psychiatric disorder	B/C
Renal function disorders	
Disorder in renal function, with or without dialysis	B/C
Recurrent urinary tract infections	B/C
Pyelonephritis	B/C
Respiratory disease	
Mild	A/B
Moderate – requiring maintenance therapy	B/C
Severe	C
Autoimmune disease	
System/connective tissue diseases – these include rare maternal disorders such as systemic lupus erythematosus (SLE), anti-phospholipid syndrome (APS), scleroderma, rheumatoid arthritis, periarteritis nodosa, Marfan's syndrome, Reynaud's disease and other systemic and rare disorders.	C

Table 2. Pre-existing gynaecological disorders

Key: A = Discuss; B = Consult; C = Transfer	
Pelvic floor reconstruction	
This refers to colpo-suspension following prolapse, fistula and previous rupture	B/C
Cervical abnormalities	
Cervical amputation	C
Cervical cone biopsy	B/C
Cervical surgery with or without subsequent vaginal birth	B/C
Abnormal cervical cytology	B/C
Myomectomy/hysterotomy	B/C
Infertility treatment	B/C
Pelvic deformities (trauma, symphysis rupture)	B/C
Female genital mutilation	B/C

Table 3. Previous obstetric history

Key: A = Discuss; B = Consult; C = Transfer	
Maternal antibodies against red blood cells or platelets e.g. Rhesus isoimmunisation and alloimmune thrombocytopenia	C
ABO-incompatibility	B/C
Hypertension	A/B
Pre-eclampsia	B/C
Eclampsia	C
Recurrent miscarriage (three or more)	B/C
Pre-term birth (< 37 weeks)	B/C
Cervical incompetence and cervical rupture	C
Fetal growth concerns	
Fetal growth restriction	B/C
Small for gestational age (SGA) < 10th centile or < 2.5 kg after 37 completed weeks gestation	B/C
Large for gestational age (LGA)	B/C
Previous difficult birth	
Shoulder dystocia	B/C
Forceps or vacuum extraction	A/B
Asphyxia (defined as an APGAR score of < 7 at 5 minutes)	B/C
Caesarean section – Lower segment	B/C
Caesarean section - other	C
Perinatal death	B/C
Previous intra uterine fetal death (IUFD)	B/C
Prior child with congenital and/or hereditary disorder	B
Postpartum haemorrhage > 1000 mls	B/C
Placental abruption	B/C
Placental accreta	C
Manual removal of placenta	A/B
Third or fourth degree perineal laceration	
Functional recovery	B
No/poor function recovery	C
Symphysis pubis dysfunction	A/B

Key: A = Discuss; B = Consult; C = Transfer	
Postnatal depression	A/B
Postpartum psychosis	C
Grand multiparity – defined as parity > 6	A/B
Extremes of body mass	
BMI > 35	B/C
BMI < 18	B/C
Lack of social support	A/B

The following table lists specific indications for discussion, consultation and/or transfer of care in response to conditions or abnormalities identified during pregnancy. The main purpose of the indication list is to provide a guide for risk-selection.

Table 4. Indications developed/discovered during pregnancy

Key: A = Discuss; B = Consult; C = Transfer	
Uncertain dates after 20 completed weeks	B/C
Laparotomy during pregnancy	C
Abnormal cervical cytology – CIN II or higher	B/C
Mental health disorders	B/C
Hyperemesis gravidarum requiring hospital admission or > 5% weight loss	B/C
Suspected fetal abnormality or increased risk for fetal abnormality	B/C
Spontaneous rupture of membranes before 37 completed weeks	C
Hypertension arising in pregnancy – Systolic BP > 140 mmHg and/or Diastolic > 90 mmHg	B/C
Eclampsia	C
Significant cardiovascular symptoms	B/C
Coagulation disorders	B/C
Vaginal bleeding in the second or third trimester or suspected placental abruption	B/C
Placental abruption	C
Size/date discrepancy	
Small for dates	B/C
Large for dates	B/C
(Symphysis fundal height > 3 cm or < 3cm from gestational age)	

Key: A = Discuss; B = Consult; C = Transfer	
Post term pregnancy – longer than 41 completed weeks	B/C
Threatened preterm labour	B/C
Suspected cervical incompetence	C
Multiple pregnancy	C
Abnormal presentation at 36 completed weeks	B/C
Breech presentation – consideration for ECV at 37 weeks	C
Suspected cephalic pelvic disproportion	B/C
No prior antenatal care prior to 28 completed weeks	B/C
Fetal death in utero	C
Endocrine disorders	
Diabetes – including gestational diabetes	C
Thyroid disease	B/C
Endocrine disorders (other)	B/C
Gastroenterology	
Cholestasis	C
Inflammatory bowel disease	B/C
Abnormal liver function tests (LFTs)	B/C
Haematological	
Thrombosis	B/C
Coagulation disorders	B/C
Anaemia	B/C
Infectious diseases	
Hepatitis from all causes	B/C
HIV - infection	C
Rubella	B/C
Toxoplasmosis	B/C
Cytomegalovirus	B/C
Parvo virus infection	B/C
Varicella Zoster virus infection	C
Tuberculosis – this refers to an active tuberculous process	C

	Key: A = Discuss; B = Consult; C = Transfer
Herpes genitalis Primary infection/recurrent	B/C
Syphilis	B/C
Renal function disorders	
Recurrent urinary tract infections	B/C
Pyelonephritis	B/C
Respiratory disease	
Asthma	A/B
Severe chest infection	B/C
Pyrexia of unknown origin	B/C
Abdominal pain of unknown origin	B/C
Baby for adoption	B/C
Symphysis pubis dysfunction	B/C
Fibroids	B/C

This table, has been developed in consultation with Karin Lust (Obstetric Medicine Physician RBWH), adapted from the Mater Mothers' Hospital GP Maternity Shared Care Guideline May 2014 and the ACM National Midwifery Guidelines for consultation and referral 3rd edition Issue 2. 2014

7. Booking in to a birthing facility

1. Complete relevant MNHHS Central Patient Intake (CPI) OUTPATIENT REFERRAL FORM available from https://www.health.qld.gov.au/metronorth/refer/services/antenatal-maternity/ or alternatively, go to www.brisbanenorthphn.org.au → Hospital eReferral Templates → Maternity shared care.

   The referral form will be triaged by Metro North CPI and forwarded to the appropriate facility. Please note: if the referral form is incomplete or does not contain sufficient information, the receiving facility will not support the referral and will send it back to CPI.

   Referrals are triaged by the facility daily and appointments are allocated according to urgency and due date. GPs are to indicate:

   - if the woman is high risk,
   - GP shared care has been offered and requested or
   - if the woman has a preference for Birth Centre care at RBWH

2. Order initial tests. Refer to Appendix 1: *Metro North Antenatal Shared Care* for guide to initial tests required
3. To enable women to make an informed choice GPs are encouraged to discuss all model of care options with the woman. GPs are encouraged to be familiar with the various models of care and know where to send women for information. Likewise Metro North birthing facilities have a responsibility to inform GPs of changes to their models of care.

   Metro North birthing facilities provide detailed information on available models of care on their Women's and Newborn Services homepage.

   RBWH:
   http://www.health.qld.gov.au/rbwh/services/maternity-q2.asp
   http://www.health.qld.gov.au/rbwh/docs/models-of-care.pdf

   Caboolture:
   http://www.health.qld.gov.au/caboolture/maternity/options-of-care.asp
   http://www.health.qld.gov.au/caboolture/maternity/docs/options-of-care.pdf

   Redcliffe:
   http://www.health.qld.gov.au/redcliffe/services/wns-maternity.asp

A hospital booking-in appointment with a midwife will be arranged and an appointment with an obstetrician will be scheduled if necessary.

Following the booking-in appointment, RBWH sends a *GP Notification of Visit* Form to the referring GP.

At hospital booking-in women will be offered a login to enable 12 months access to GLOW which is an online education resource.

8. Maternity shared care visit schedule

"Determine the schedule of antenatal visits based on the individual woman's needs. For a woman's first pregnancy without complications, a schedule of ten visits should be adequate. For subsequent uncomplicated pregnancies, a schedule of seven visits should be adequate".[2]

The maternity shared care visit schedule may differ slightly between facilities. As a general guide; at/or following the hospital booking-in visit before 18 weeks, the woman may require a consultation with an obstetrician (if need identified in chart review) but will otherwise see her GP:

- every 4 weeks between 12 – 28 weeks (more often if required)
- then as per the PHR (more often if required)
- At 30 weeks the RBWH requests the woman attend a booked appointment in antenatal clinic to commence a birth plan.
- At 36 and 41 weeks, all facilities will review the woman in the antenatal clinic

All other visits will be with the GP who will (as per the PHR):

- conduct a routine antenatal assessment which will include;
  - BP, oedema, fundal height (for RBWH patients also complete a customised growth chart from 24 weeks), fetal movement, fetal heart rate, presentation/position (from 3rd trimester), maternal weight and urine dipstick as required and reassess identified risks e.g. smoking, alcohol, depression.
- provide information and facilitate discussion
- order and review tests as required
- document in the PHR
- reassess planned schedule of care and identify women who may require additional care as per guidelines for consultation and referral.
- if computerised, print updated antenatal record summary and attach to PHR

For additional information related to antenatal care processes, refer to the PHR and Appendix 1 Metro North Antenatal Shared Care

9. Screening tests

9.1 Tests for fetal chromosome abnormalities e.g. Down syndrome

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 dating; if dates are uncertain a 'dating scan' is required for appropriate screening tests to proceed. (Refer to *Table 5*).

- **Biochemical tests** in first and second trimester are available at all pathology providers and the timing of tests is outlined in the table below.
- **Combined first trimester screen (CFTS)** consisting of Papp-A, free B-HCG and nuchal translucency ultrasound.

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. 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 biochemistry and nuchal translucency risks but always as a 'combined' adjusted risk only.

Please refer to MBSonline.gov.au for Medicare rebate eligibility.

A risk of > 1 in 300 is considered high risk for a chromosomal abnormality and the woman should be referred to the antenatal clinic in the first instance, so counselling about options for invasive diagnostic testing or NIPT can be arranged.[2]

- **A low Papp-A <0.4MoM** increases the risk of pregnancy complications such as IUGR and PET. Independently from management required for the risk of aneuploidy, women with a low papp-A should be offered an extra scan at 24 weeks for fetal growth and uterine artery Dopplers. If the uterine artery Dopplers is normal with no protodiastolic notching, no further scans are required except if indicated by new clinical findings. If the uterine artery Dopplers are abnormal, the women should be offered growth scans at 28 and 34 weeks, or more often if the growth pattern is abnormal.

- **Non Invasive Prenatal Testing (NIPT)** is an option for those women who are able to self-fund their testing, after appropriate pre-test genetic counselling. NIPT are tests for aneuploidy based on the detection of free fetal DNA in the maternal circulation. Compared to other screening tests available they are highly accurate for trisomy 21 with an overall sensitivity of 99.5% and specificity of 99.8%. However, they are still considered screening tests and a positive test should be followed up by a diagnostic test. There are several tests offered through different providers. All offer screening for T21, T18 and T13. Some also offer sex determination, screening for monosomy X, triploidy and microdeletions (e.g. 22q11.2 Di George).

  NIPT is not covered by Medicare and as such will incur significant costs to the pregnant woman.

  For more information refer to:

  – RANZCOG College Communiqués *DNA-based Non-invasive Prenatal Testing for Fetal Aneuploidy*
  – RANZCOG Scientific Impact Paper No. 15 March 2014 *Non-invasive Prenatal Testing for Chromosomal Abnormality using Maternal Plasma DNA*

- **The 'triple test'** consisting of free B-HCG, AFP and unconjugated estriol is an alternative test in second trimester. (*note for optimal triple test screen a dating scan is required). The sensitivity is much lower than the CFTS but can be offered if the patient presents too late for CFTS.

Table 5. Screening for fetal chromosome abnormalities

Screening Test	Appropriate timing—gestational age
First trimester biochemistry—Papp-A, free B-HCG	9+0 to 13+6 weeks
Nuchal translucency scan	11+0 to 13+6 weeks
Non Invasive Prenatal Testing (NIPT)	10 weeks and over Contact your local provider for details
Women who require and/or request counselling about invasive testing i.e. CVS or Amniocentesis can be referred to local birthing facility.	CVS from 11 weeks Amniocentesis from 16 weeks
2nd trimester Triple test— free B-HCG, AFP, unconjugated estriol	15 to 22+6 weeks (optimal time 16 weeks)

9.2 Routine morphology ultrasound screening

All pregnant women should be offered a morphology ultrasound scan performed between 18+0 and 20+6 weeks gestation. Follow the increased BMI protocol for women with a BMI ≥ 40.The routine morphology scan is not endorsed as a screening test for Down syndrome and if screening for Down syndrome is requested by the woman then the only endorsed screening tests at this gestation is the triple test or NIPT (Refer to Table 5).

10. Supplements

10.1 Folate

Dietary supplementation with folic acid, from 12 weeks before conception and throughout the first 12 weeks of pregnancy, reduces the risk of having a baby with a neural tube defect. Recommended dose is 500 micrograms per day.[2]

Women with a history of previous pregnancies and/or babies with neural tube defects, women with pre-existing diabetes (Type 1 or Type 2) and women taking antiepileptic medication are ideally commenced on high dose folate pre conception as they have very high requirements in the first trimester of 5mg/day.

10.2 Iodine

The current recommendation is for women who are pregnant to take an iodine supplement of 150 micrograms each day. Women with pre-existing thyroid conditions should seek advice from their medical practitioner before taking a supplement.[2, 3]

10.3 Vitamins and minerals

Vitamin D screening is to be offered to women who are at risk for vitamin D deficiency. I.e.:

- limited exposure to sunlight
- dark skin
- a pre-pregnancy BMI of >30

Advise women that taking vitamins A, C or E supplements is not of benefit in pregnancy and may cause harm. Do not routinely offer iron supplementation to women during pregnancy.[2]

11. Antenatal services

11.1 Maternal Fetal Medicine

Metro North HHS's only fully comprehensive Maternal Fetal Medicine (MFM) service is delivered by the Centre for Advanced Prenatal Care (CAPC), situated at RBWH.

For more information, referral forms and contact details go to: The RBWH website. Click on Obstetrics, then Maternal Fetal Medicine (MFM) - Centre for Advanced Prenatal Care (CAPC)
https://www.health.qld.gov.au/rbwh/services/maternal_fetal_med.asp

11.2 Early pregnancy assessment

Early Pregnancy Assessment Units (EPAU) provide a pregnancy loss service for women who are less than 14 weeks pregnant.

Table 6. Early Pregnancy Assessment Unit

Early Pregnancy Assessment Unit (EPAU)		
RBWH	Caboolture	Redcliffe
Availability • Monday to Friday 08:30 – 09:30	**Availability** • ½ days Monday and Thursday (4 appointments available each day)	**Availability** • Monday to Friday
Location • Gynaecology Outpatients. (GOPD) Ground floor, Ned Hanlon Building	**Location** • A clinic within the maternity ward on level 2	**Location** • General Outpatients
Inclusion criteria • All patients must: – have a written referral – live in RBWH catchment – be Medicare eligible • Diagnosed miscarriage (incomplete or missed) • PV bleeding and/or pain in early pregnancy to 14 weeks gestation. • Less than 14 week size pregnancy on ultrasound and haemodynamically stable • No bleeding but with a non-viable pregnancy	**Inclusion criteria** • GP must provide – Ultrasound results – Pathology results including recent B HCG • Confirmed stable ectopic pregnancy treated conservatively • Pregnancy of unknown location, stable and requiring assessment and follow up	**Inclusion criteria** • Referral required prior to EPAU staff allocating an appointment. • Diagnosed miscarriage (incomplete or missed) • PV bleeding and/or pain in early pregnancy to 14 weeks gestation. • Less than 14 week size pregnancy on ultrasound and haemodynamically stable. • Pregnancy of unknown location – discuss with Gynaecology Registrar on call • Ectopic Pregnancy
Exclusion criteria • Pregnancy of unknown location – discuss with Gynaecology Registrar on call • Ectopic pregnancy	**Exclusion criteria** • Viable intrauterine pregnancy confirmed on Ultrasound • Pregnancy > 14 weeks gestation	**Exclusion criteria** • Viable intrauterine pregnancy confirmed on Ultrasound • Pregnancy > 14 weeks gestation

Early Pregnancy Assessment Unit (EPAU)		
RBWH	Caboolture	Redcliffe
• Heavy bleeding/pain • Complete miscarriage • Threatened miscarriage	• Haemodynamically unstable • Negative pregnancy test	• Haemodynamically unstable • Negative pregnancy test • Hyperemesis
How to refer • GPs consulting a woman who meets inclusion criteria may refer directly to GOPD • For discussion call switchboard on (07) 3646 8111 and ask for Gynaecological Registrar on call to be paged • External referral can be faxed via CPI on 1300 364 952 • Inform the woman she will be contacted by clinic within 48 – 72 hours	**How to refer** • Fax referrals to (07) 5433 8710 • Contact EPAU directly to speak with midwife (07) 5433 8213	**How to refer** • GPs consulting a woman who meets the inclusion criteria may refer directly to EPAU • Fax referrals to (07) 3883 7041 • Contact EPAU directly to speak with midwife (07) 3883 7108 • For discussion with Registrar call switchboard on (07) 3883 7777 and ask for O & G Registrar • Inform the woman she will be contacted by EPAU within 24 hours (Monday – Friday)

NB: Advise the woman to present to nearest hospital emergency department if bleeding is heavy (> 1 pad/hour), or severe pain or fever is experienced prior to scheduled EPAU appointment.

Give Anti-D to all pregnant women who have an Rh negative blood group if bleeding. Correspondence will be forwarded to referring GP at completion of care. For information refer to*:* Queensland Clinical Guideline: *Early pregnancy loss* located at: https://www.health.qld.gov.au/qcg/

11.3 Second and third trimester assessment

Table 7 Second and third trimester assessment

Facility	RBWH* Obstetric Review Centre (ORC)	Caboolture Antenatal Day Assessment Unit (ANDAS)	Redcliffe Antenatal Day Assessment Unit (ANDAS)
Days/hours of operation	ORC 7 days 24 hours	Monday to Friday 08:30 and 17:00	Monday to Friday 08:00 and 16:00
How to contact/refer	ORC triage midwife (07) 3647 3932	ANDAS midwife (07) 5433 8213	ANDAS midwife (07) 3883 7108
Criteria	Pregnant women ≥ 20/40 (RBWH14/40) who are haemodynamically stable and require assessment for any pregnancy related concerns including: • Reduced fetal movements • Pregnancy Induced Hypertension – Blood pressure checks • Proteinuria • Prolonged pregnancy • Suspicion of fetal growth restriction • Prelabour rupture of membranes • Breech presentation requiring External Cephalic Version • Diabetes • Cholestasis of Pregnancy • Poor obstetric history • Prolonged rupture of membranes declining labour induction • Requirement for steroid administration* • Bleeding • Contractions		

11.4 RBWH Continence Advisory Service

The Women's and Newborn Services Continence Advisory Service is available to antenatal and postnatal women who are booked into the RBWH.

Reasons for referral may include:

- Lower urinary tract symptoms:
  - Frequency
  - Urgency
  - Urge incontinence
  - Stress incontinence
  - Voiding difficulties; i.e. poor stream, feeling of incomplete emptying

- Bowel symptoms
  - Constipation or Diarrhoea
  - Faecal soiling
  - Flatus incontinence
- Issues with 3rd and 4th degree tears

A pre work up for referral acceptance is required and includes:

- Bladder symptoms – MSU M/C/S
- Bowel symptoms – Stool M/C/S if indicated

Referrals can be sent via:

- Fax (07) 3646 0888 – attention to Continence Advisory Service WNBS
- Email account RBWH-Continence-Advisor-WNBS@health.qld.gov.au

To speak to the Continence Advisor phone: (07) 3646 2325

11.5 Perinatal mental health support

The recognition of mental health disorders in the antenatal period is important as treatment may be required during pregnancy.

Antenatal depression is a strong predictor for post-partum depression. It is appropriate to use the Edinburgh Postnatal Depression Scale (EPDS) to assess antenatal depression.[2] This does occur at the first midwifery visit and is to be repeated by the GP routinely at 34 weeks, 6 weeks post-partum and at any time concerns are identified. It is the GPs responsibility to arrange appropriate referrals if needed and to document in the PHR.

For support and information contact the appropriate Metro North Perinatal Mental Health Liaison Service.

RBWH: 0417 819 949

Caboolture and Redcliffe: 0408 151 138

For urgent referral required out of business hours, contact the Department of Emergency Medicine at the nearest hospital and ask for the Psychiatric Registrar on call.

11.6 Ngarrama

Ngarrama is a Metro North HHS Aboriginal and Torres Strait Islander Maternity Service which offers care for women who are Aboriginal and/or Torres Strait Islander and/or whose partner identifies as Aboriginal and/or Torres Strait Islander.

It is important to identify on the antenatal referral form, those women who are Aboriginal or Torres Strait Islander or women whose baby will be Aboriginal or Torres Strait Islander to enable Ngarrama services to be offered to the woman.

At the first hospital visit women will be offered all models of care available with the hospital and also additional support of this service.

RBWH

Ngarrama Royal: (07) 3646 3759 or 0428 404 875

Caboolture

Ngarrama North (Caboolture): (07) 5433 8118

Redcliffe

Ngarrama East (Peninsula): (07) 3049 6849

11.7 Antenatal lactation support

GPs play an 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.

Throughout the pregnancy, you will be prompted by the PHR to discuss topics such as:

- Normal breast changes
- Reasons why breastfeeding is importance
- The importance of early skin to skin contact
- How to position baby for effective breastfeeding
- The importance of rooming-in
- Expressing and safe storage of breast milk

Refer to Appendix 2 for a list of breastfeeding resources for health professionals and consumers.

RBWH

Breastfeeding education is included in the childbirth education curriculum.

Women who have risk factors for breastfeeding difficulty and are booked into the RBWH can be referred to the RBWH Lactation Service for both antenatal and postnatal support.

An antenatal consultation enables assessment, advice and care planning with an International Board Certified Lactation Consultant (IBCLC). Antenatal contact also enables relationship building between the woman and the lactation team to streamline postnatal support. Refer to section 18.1 for contact details.

Caboolture

Women who are booked into the Caboolture hospital are invited to attend an informal breastfeeding class. Following class attendance, women can be referred for an individual lactation appointment if required.

Breastfeeding classes are also available and can be booked via Antenatal Clinic.

All women are given *"Caboolture Hospital Baby Booklet: a Resource for Mums".* This booklet contains both practical information and contacts for infant feeding support.

Redcliffe

Breastfeeding classes are incorporated into the childbirth education curriculum. Women can book to attend via Antenatal Clinic. Written resources are available to reinforce knowledge.

11.8 Obstetric medicine

RBWH

The Obstetric Medicine Unit is part of the Departments of Maternity Services and Internal Medicine.

The Obstetric Medicine Unit provides an inpatient and outpatient consultative service for pregnant women with medical conditions specific to pregnancy or coincidental to pregnancy.

Referrals are accepted from around the state.

Services include:

- general obstetric medicine clinics
- specialised endocrine, epilepsy and cardiac clinics
- preconception counselling

These clinics are coordinated by the Maternity Outpatients Department complex case manager/midwife.

During office hours an obstetric medicine registrar can be contacted.

Call switch on (07) 3646 8111 and ask for the Obstetric Medicine Registrar.

After hours, an obstetric medicine consultant is on call.

For matters relating to diabetes in pregnancy; contact the Women's and Newborn Services Diabetes Educator on (07) 3646 2158.

Caboolture and Redcliffe

Additional clinics for high risk conditions include:

- Obstetric Medical
- Diabetes in pregnancy
- Special Needs (for patients with adverse outcomes)

11.9 Allied health services

Metro North HHS birthing facilities provide essential allied health support which includes:

- Pharmacy
- Physiotherapy
- Dietetics
- Social Work

11.10 Other antenatal specialist services

RBWH

As a quaternary and tertiary referral teaching hospital, the RBWH provides additional specialist services and clinics. These include:

- Obstetric Medicine, Endocrine and Gestational Diabetic Mellitus Clinics
- Obstetric Anaesthesia clinics
- Specialist Hospital Alcohol & Drug Service (SHADES)
- Queensland Genetic Service
- Psychology

12. Management of abnormal results and findings

Any investigations requested by a GP for any pregnant woman under his/her 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.

12.1 Complete blood picture

Consider iron studies if the haemoglobin is 110g/L or less and the MCV is low or red blood cells are microcytic. Check B12/folate levels if the MCV is high or 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 hospital antenatal clinic.

12.2 Blood group and antibody screen

Any positive test for antibody levels should prompt immediate referral to hospital antenatal clinic.

12.3 Rubella titre

A “non immune” level should prompt a note to discuss immunisation with the woman post birth.

Under no circumstances should immunisation be given in pregnancy. Contact with young children with rubella should be avoided.

12.4 Syphilis serology

A positive result should prompt referral to hospital antenatal clinic.

12.5 Hepatitis B and C, and HIV tests

A positive result should prompt referral to the hospital antenatal clinic. The obstetrician will refer to the appropriate specialist services.

12.6 Maternal serum screening

Abnormal maternal serum screening results must be referred urgently to the participating hospital for counselling with a view to offering CVS, Amniocentesis or NIPT if appropriate.

12.7 Morphology ultrasound

Any abnormality should prompt discussion with/referral to the hospital antenatal clinic.

Following a phone call, fax the ultrasound report and previous results e.g. nuchal translucency, with a cover letter to the antenatal clinic. If the abnormality concerns the fetus the referral can be sent directly to the MFM department at RBWH. For consultation or advice phone the Obstetric Registrar or Maternal Fetal Medicine Department.

12.8 Oral glucose tolerance test (OGTT)

The diagnosis of gestational diabetes should prompt immediate referral to the antenatal clinic and transfer from GP shared care to hospital obstetric care.

Fax a referral letter and a copy of the OGTT result to the GP Liaison Midwife or Clinical Nurse (Diabetes) c/- ANC. Highlight that this referral is for the management of gestational diabetes in a previously booked shared care woman.

Do not use the antenatal new patient referral form if the woman is already booked into the facility.

Women who identify pre conception or in the first trimester as high risk for diabetes in pregnancy, should be offered a first trimester OGTT and referred urgently if OGTT abnormal.

12.9 Intrauterine growth restriction (IUGR)

Measure fundal height[4]

1. Mother semi-recumbent with an empty bladder
2. Palpate to determine the fundus with two hands
3. Secure tape with hand at top of fundus
4. Measure to top of symphysis pubis
5. Measure along longitudinal axis of the uterus

Image source: Perinatal Institute, Birmingham

Other considerations include transverse lie, multiple pregnancies and obesity.

If serial Symphysis Fundal Height (SFH) measurements are identified as flattening when plotting GROW chart, refer the woman for an ultrasound and request:

- fetal size/growth compared with previous ultrasound (bi parietal diameter, abdominal circumference),
- doppler of umbilical artery flow,
- amniotic fluid index (ask for normal range).

If any parameters are abnormal refer to hospital by communicating with the obstetric registrar.

12.10 Reduced fetal movements

If fetal movements are reduced check fundal height and fetal heart rate and refer to hospital for assessment of fetal wellbeing.[5]

If fetal movements are appropriate but either the GP or the woman is concerned, or there is a previous history of stillbirth or fetal death in utero, refer to the hospital by communication with the obstetric registrar. Refer to Appendix 1 for contact number.

To assist clinicians with the management of women who report decreased fetal movements, the Australian and New Zealand Stillbirth Alliance (ANZSA) have published; *The Clinical practice guideline for the management of women who report decreased fetal movements.*

The most recent version of this document is published on the ANZSA website and can be located at:

http://www.stillbirthalliance.org.au/guideline4.htm

12.11 Hypertension

For information related to the management of Hypertension during pregnancy refer to the Queensland Clinical Guideline: *Hypertensive disorders of pregnancy*

www.health.qld.gov.au/qcg/documents/g-hdp.pdf

If elevation of BP persists or there is any suggestion of pre-eclampsia or growth restriction, contact the obstetric registrar to arrange hospital assessment.

12.12 Vaginal bleeding ≥ 20 weeks

(Refer to EPAU advice for bleeding < 14 weeks)

For woman who are haemodynamically stable:

- Perform a physical assessment of the woman and record fetal heart rate
- Review ultrasound result for placenta site (clear of os) and if no scan refer for one if stable (a speculum examination can be performed with placenta praevia but avoid digital examination)
- Use a speculum to view cervix and PAP if no normal PAP result in last two years
- Consider need for Anti D if rhesus negative and arrange Kleihauer test to ascertain amount to give. For further information refer to: National Blood Authority http://www.blood.gov.au/system/files/documents/glines-anti-d.pdf
- If spotting ceased and examination is normal, reassure and encourage observation at home
- For ongoing bleeding or anything other than light spotting contact Birth Suite and/or obstetric registrar on call.
- If heavy blood loss and/or patient appears clinically compromised obtain IV access, arrange urgent transfer to hospital and contact on call obstetric registrar/consultant.

12.13 Abnormal presentation

If 36 weeks or more and suspected breech or transverse lie contact the antenatal clinic coordinator to discuss an ultrasound and arrange an obstetric assessment as soon as possible.

13. Management of Rh D negative women

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

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) recommend *Guidelines on the prophylactic use of Rh (D) immunoglobulin (Anti-D) in obstetrics* available at: http://www.blood.gov.au/system/files/documents/glines-anti-d.pdf

This document, produced by the National Blood Authority (NBA) and approved by the National Health and Medical Research Council (NHMRC), updates previous guidelines on the use of Rh (D) immunoglobulin (Anti-D). Hard copies of the guidelines are obtainable from the NBA.

The NBA has released *Module 5 Obstetrics and Maternity* as part of a series of patient blood management guidelines. Current modules and more information can be located at: http://www.blood.gov.au/pbm-guidelines

Additional information can be located at http://www.rcog.org.uk/guidelines

RANZCOG Green-top Guideline No. 65 titled *The Management of Women with Red Cell Antibodies during Pregnancy* May 2014

To obtain Anti D contact:

- QML (delivered free as part of their routine courier service). An order form can be accessed from www.qml.com.au (or by phoning 07 3146 5122) and faxed to the QML blood bank on 07 3371 9029.
- Red Cross (if no QML service available) phone 07 3838 9010 – courier or taxi fees apply
- Please record the routine administration at 28 and 34 – 36 weeks on page a4 of the PHR

14. Infections and immunisations

Pregnancy may be complicated by any of the common infections. Many impact adversely on fetal well-being. Discussion with a consultant obstetrician or obstetric medicine physician is required when infections are suspected or there is a history of exposure.

For current evidence based information related to perinatal infections refer to:

- South Australian Perinatal Practice Guidelines

  http://www.sahealth.sa.gov.au/wps/wcm/connect/Public+Content/SA+Health+Internet/Clinical+resources/Clinical+topics/Perinatal+practice+guidelines/
- Australasian Society for Infectious Diseases (2006) *'Management of Perinatal Infections'* pathways at

  https://www.asid.net.au/resources/clinical-guidelines
- 10th Edition Immunisation Handbook

  http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home
- Queensland Clinical Guideline: *Early onset Group B streptococcal disease*

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

14.1 Cytomegalovirus (CMV)

Evidence is limited to support screening for CMV during pregnancy.

As CMV may be transmitted to the baby and can have serious consequences, the focus is on giving women advice about hygiene measures that reduce risk of infection.

Consensus-based recommendations include:[6]

- Advise pregnant women about hygiene measures to prevent CMV infection such as frequent hand

washing, particularly after exposure to a child's saliva or urine.

- Only offer screening to pregnant women if they come into frequent contact with large numbers of very young children (e.g. child care workers).

14.2 Pertussis vaccine (dTpa)

Vaccination is recommended to be given in the 3rd trimester (optimal time 28 – 32 weeks) of each pregnancy to provide maximum protection to every infant; this includes pregnancies which are closely spaced (I.e. < 2 years apart). Vaccination during pregnancy has been shown to be more effective in reducing the risk of pertussis in young infants than vaccination of the mother post-partum. If the pregnant woman has already received dTpa earlier in her pregnancy there is no need to repeat this in the third trimester as her antibody levels should be sufficient to offer protection for this pregnancy.[7]

14.3 Influenza vaccine

Influenza vaccination is recommended for pregnant women and is safe to administer during any stage of pregnancy or while breastfeeding.[7]

16. Smoking

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.

Effective smoking cessation intervention should be offered to pregnant smokers at the first antenatal visit and throughout pregnancy and post-partum. This includes not only advice to quit but extended psychosocial interventions.

A lowest dose intermittent nicotine replacement therapy can be considered after the first trimester using a risk/benefit approach.

If the woman is identified as a smoker, the PHR prompts assessment using the Tobacco Screening Tool on page a10 of the PHR.

Whilst mothers who smoke whilst breastfeeding are encouraged and supported to stop, they are concurrently educated about the benefits of breastfeeding and encouraged to continue breastfeeding.[8]

The Queensland Government Quitline provides support and resources.

Website: http://www.health.qld.gov.au/quitsmoking/

Email: 13QUIT@health.qld.gov.au

Phone: Quitline **13 QUIT (13 7848**) for free information, practical assistance and support.
Trained counsellors are available seven days a week to help with the process of quitting.

17. Weight status and gestational weight gain

At the initial visit, record height, pre-pregnancy weight, and calculate BMI.[2, 9]

Include pre-pregnancy BMI on hospital referral.

Inter-pregnancy weight gain should also be documented. Recalculate BMI at 36 weeks

It is recommended that women with BMI:

- > 35 or BMI < 18 be referral for hospital care
- > 50 birth in a tertiary hospital.

Table 8. Target weight gains[9]

Pre-pregnancy BMI (kg/m2)	Rate of gain 2nd & 3rd trimester (kg/week)*	Recommended total gain range (kg)
< 18.5	0.45	12.5 to 18
18.5 to 24.9	0.45	11.5 to 16
25.0 to 29.9	0.28	7 to 11.5
≥ 30.0	0.22	5 to 9

* Calculations assume a 0.5-2 kg weight gain in the first trimester

For information regarding the assessment and management of obesity in the perinatal period refer to:

Queensland Clinical Guideline: *Obesity* located at: http://www.health.qld.gov.au/qcg/

18. Nutrition and physical activity

Pregnant women are advised to eat a healthy diet as per the *Australian Dietary Guidelines.*
Antenatal nutrition education materials are available @
https://www.health.qld.gov.au/nutrition/nemo_antenatal.asp
Pregnant women are encouraged to:

- undertake safe general exercise (i.e. walking, swimming) or a specific pregnancy exercise class in the community.
- attend a physiotherapy antenatal class at their respective hospital

19. Postnatal care and supports

The care of the woman during labour and birth will be the responsibility of the hospital health care team.

At discharge, a summary of the pregnancy and birth outcome will be sent to the referring GP.

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 hospital outpatient appointment if specific problems have been experienced during pregnancy or birth e.g. 3rd or 4th degree tear.

During the postnatal period, the GP may identify problems that require referral back to the hospital.

19.1 Feeding support

GPs have an important role in not only encouraging and supporting breastfeeding; and in supporting women to overcome breastfeeding difficulties.

Timely support and management is the key to overcoming feeding problems to ensure continued breastfeeding.

The RBWH has a Lactation Service available to women who have birthed at the RBWH. Women can access the Lactation Service during the 1st 28 days post birth.. The Lactation Service is staffed by midwives who are also International Board Certified Lactation Consultants.

For an appointment or to talk to a Lactation Consultant phone: (07) 3646 2250
Breastfeeding support is also offered by the Child and Youth Community Health Service

Refer to Appendix 2 for contact details.

In Caboolture and Redcliffe post discharge breastfeeding support is provided by the Child and Youth Community Health Service.

Postnatal women are invited to attend “Breastfeeding Hour” between 08:00 and 09:00 Monday to Friday at the Caboolture Community Child and Youth Community Health Clinic.

The Child and Youth Health Service also provide an outpatient infant feeding clinic for women requiring more intensive support. This is by appointment only. Phone: (07) 5433 8300

19.2 Home visiting

Following birth, support is continued in the community by midwives and child health nurses. Depending on geographical boundaries and circumstances, contact may be either a home visit or a telephone consult.

To speak to a home visiting midwife phone:

RBWH

Community Midwifery Service (CMS): (07) 3646 3435

A CMS midwife will ring soon after discharge to arrange a post natal home visit if applicable

Caboolture

Home Maternity Service (HMS): (07) 5433 8923

Redcliffe

Home Maternity Service (HMS): (07) 3883 7803 or 0414 577 154

19.3 Postnatal GP appointment 5 - 10 days

Mother

Early contact is encouraged to assess wellbeing, social risk factors, and level of support.

Examine/Review:

- BP
- Lochia
- Perineum (if indicated)

- Abdominal wound if caesarean section (CS)
- Bladder and bowel function
- Medical conditions (hypertension, diabètes etc.)
- Calves for deep vein thrombosis (DVT)
- Breasts
- Mobility. Enquire about back pain and refer women who are experiencing musculoskeletal pain and/or pelvic floor dysfunction to hospital physiotherapy department or a Women's Health Physiotherapist in the community.
- Feelings. Apply Edinburgh Postnatal Depression Scale if indicated.

Discuss:

- Relevant parenting and health education topics
- Feelings and family support
- Birth and any complications
- Contraception and intercourse resumption
- Routine tests
- Infant feeding
- Healthy Hearing
- NNST
- Role of the GP, hospital community midwife, child health nurse, lactation consultant
- Risk of injury
- SIDS
- Requirement for six week baby check
- Use of the Infant Personal Health Record including information contained within
- Immunisations and immunisation schedule (Offer mother MMR and/or Pertussis immunisation as indicated)

Refer (if indicated) to:

- Child and Youth Community Health Service
- Lactation Service
- Paediatrician
- Allied Health Services (Physiotherapy, Social work, Dietetics)
- Perinatal Mental Health Liaison Service
- Continence Advisory Service

Baby

Review by GP between five and ten days of age if baby discharged from hospital < 72 hours of age.

To assist newborn follow up and assessment refer to:

- Infant Personal Health Record

- Queensland Maternity and Neonatal Clinical Guideline titled: *Routine newborn assessment* http://www.health.qld.gov.au/qcg/
- Queensland Maternity and Neonatal Clinical Guideline titled: *Neonatal jaundice* http://www.health.qld.gov.au/qcg/
- Queensland Maternity and Neonatal Clinical Guideline titled: *Establishing* b*reastfeeding* http://www.health.qld.gov.au/qcg/

19.4 Postnatal GP appointment - 6 weeks

Mother

Assess wellbeing, social risk factors, and level of support.

Apply Edinburgh Postnatal Depression Scale.

Examine/Review:

- BP
- Breasts and nipples
- Abdominal examination, check wound if CS, refer to physiotherapist if abdominal diastases
- Perineum if tear or episiotomy
- Perform Pap smear if due
- Enquire about urinary or faecal incontinence
- Enquire about back problems and refer women who are experiencing musculoskeletal pain and/or pelvic floor dysfunction to hospital physiotherapy department or a Women's Health Physiotherapist in the community.
- Review any medical conditions/concerns e.g. gestational diabetes, hypertension

Discuss:

- Family planning /contraception/intercourse
- Feeding and mother's/parents satisfaction with baby's progress
- Immunisation schedule
- Community supports I.e. Child and Youth Community Health Service, Australian Breastfeeding Association

Baby

- Complete relevant sections of the Infant Personal Health Record

Appendix 1.
Decision support tool

(A quick reference guide)

Metro North Antenatal Shared Care

Process

Pre-conception

- Folate and iodine supplementation
- Rubella serology +/- vaccination
- Varicella serology if no history +/- vaccination
- Influenza vaccination in season
- Pap smear if due
- Chlamydia if age < 25
- Smoking cessation
- Alcohol cessation
- Consider preconception clinic at hospital if medical condition

First GP visit(s)
(may require more than one consultation)

- Confirm pregnancy and dates
- Scan if dates uncertain or risk of ectopic (previous ectopic, tubal surgery)
- Folate and iodine supplementation for all
- Review medical/surgical/psych/FHx/obstetric/medications/allergies and update GP records
- Identify risk factors for pregnancy
- Discuss aneuploidy screen vs. diagnostic test
- Order first trimester screening tests
- Perform physical examination as per Pregnancy Health Record (PHR)
- Weigh, calculate BMI and discuss weight gain, nutrition and physical activity
- Discuss breast changes, smoking, alcohol, other drugs, Listeria, Toxoplasmosis etc
- Influenza vaccination in season
- Discuss models of care
- Complete referral. Indicate if high risk, you wish to share care or preference is for Birth Centre RBWH
- Send referral to Central Patient Intake (CPI)
- Ask woman to complete online registration (Caboolture only)

First trimester screening tests (GP)
(cc ANC on all request forms)

- FBC, blood group and antibodies, Rubella, Hep B, Hep C, HIV, Syphilis serology, MSU (treat asymptomatic bacteriuria)
- OGTT (or HbA1c if OGTT not tolerated) if risk factors for GDM
- ELFT, TFT, Vit D for specific indications only
- Varicella serology (if no Hx of varicella or vaccination)
- Pap smear if due
- Discuss/offer aneuploidy screening:
  1. Nuchal translucency scan + first trimester screen (free hCG, Papp-A) K11-13+6 or
  2. Triple test (AFP, estriol, free B-hCG) K15-18 (but up to K22) if desired or if presents too late for first trimester testing. Not if twins or diabetes
  3. NIPT ≥ K10 (not Medicare funded)
- Discuss and refer for CVS/amniocentesis if appropriate

Uncomplicated pregnancy

- Refer privately for detailed scan (dating, morphology) at 18-20 weeks
- Arrange to see woman after scan
- First ANC visit with midwife K16-20
- Obstetrician review if required
- All investigations to be reviewed and followed up by referring clinician
- Referrals made if applicable

GP visits

- Schedule as per PHR or specific facility
- More frequent if clinically indicated
- Record in PHR
- Education / assessment as per PHR
- K26-28: OGTT, (If + refer to ANC), FBC. If Rh negative: blood group/antibodies screen; offer Anti-D
- dTpa in third trimester each pregnancy (optimal time K28-32)
- K34: If Rh neg. offer Anti-D
- K36: FBC

ANC visits

- K36
- K41: Review for membrane sweep and to discuss induction if appropriate

Contacts	RBWH	Caboolture	Redcliffe
For referral or advice			
GP Liaison Midwife	3647 3960 3646 1305	5433 8800	3883 7882
O&G Registrar on call	3646 8111	5433 8120	3883 7777
Obstetric Medicine Registrar	3646 8111	–	–
Perinatal Mental Health	0417 819 949	0408 151 138	0408 151 138
Pregnancy complications			
< 20 weeks: Care of complications, e.g. bleeding, pain, threatened or incomplete miscarriages	3646 8111 O&G on call Registrar	5433 8120 O&G on call Registrar	3883 7777 Early Pregnancy Assessment
< 20 wks: Haemodynamically unstable women to be directed to	3646 8111 DEM	5433 8888 ED	3883 7777 ED
> 20 wks: Complications (RBWH > K14)	3647 3932 Obstetric Review Centre	5433 8670 Birth Suite	3883 7714 O&G on call Registrar

Additional information

Rh negative?

Offer Anti-D

- 28 and 34 weeks
- Sensitising events
- Refer to www.blood.gov.au for details and dosage

High risk for diabetes in pregnancy?

- Previous GDM or baby > 4500g or > 90th centile; previous elevated BGL; PCOS; +ve FHx; BMI >30; maternal age > 40; previous perinatal loss; multiple pregnancy; high risk ethnicity; medications: corticosteroids, antipsychotics
- First Trimester OGTT. Urgent Hospital ANC referral if abnormal
- Specify reason in referral. Fax to CPI - 1300 364 952

Medical disease or obstetric complications? Early/urgent hospital ANC referral

- GP referral letters are triaged by consultant within same week
- Please specify urgency, level of required hospital care and reasons in referral letter
- Fax to CPI - 1300 364 952

Modified by Brisbane North PHN, MNHHS and Mater Mothers' Hospital from an original created by Drs Michael Rice, Mario Horan and Heng Tang.
This is a joint initiative between Metro North Hospital and Health Service and Brisbane North PHN
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Appendix 2. Community resources and contacts

- Australian Breastfeeding Association
  1800 mum 2 mum (1800 686 268) https://www.breastfeeding.asn.au/

- Child and Youth Community Health Service
  Phone: 1300 366 039 Central Intake Service
  Available: 8.30am to 5pm Mon to Fri (excl. public holidays)
  http://www.childrens.health.qld.gov.au/community-health/

- Metro North Perinatal Mental Health Service
  https://www.health.qld.gov.au/metronorth/mental-health/

- Multicultural Health
  http://www.health.qld.gov.au/multicultural/default.asp

- OfficeMax Australia Ltd, 31 Gravel Pit Road, Darra, Queensland, 4076
  Customer Service: 136 MAX (136 629)

- Queensland Health Breastfeeding Website http://www.health.qld.gov.au/breastfeeding/

- 13HEALTH—Queensland Health help-line
  Phone: 13 43 25 84
- Queensland Clinical Guidelines
  http://www.health.qld.gov.au/qcg/

- Queensland Medicines Advice and Information Service (QMAIS)
  Email: QMAIS@health.qld.gov.au
  Phone: 36467098 or 36467599
  Available: 0830-1700 Mon – Fri (except Public Holidays)

- SANDS
  A support organisation for all bereaved parents and families who have suffered the death of a baby anytime from conception through to 28 days after birth - this includes miscarriage, neonatal death, stillbirth, ectopic pregnancy and genetic/medically advised termination.
  http://www.sands.org.au/

  PIPA – Preterm Infants and Parents Association
  A non-profit support group for parents who have a preterm baby http://www.pipa.org.au/
  Phone: 1300 773 672 or email contactus@pipa.org.au

- SIDS
  Provides education resources in relation to SIDS prevention as well as access to bereavement support
  Support line: 1300 308 307 http://www.sidsandkids.org/

- Young Parents Program http://www.encircle.org.au/young-parents-program

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