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Disclaimer

Bendigo Health (BH) has taken all reasonable care in the preparation of these guidelines for their intended use, which is to facilitate the effective and efficient clinical management of pregnant women, where their management and care is shared between it and other health service providers.

Each health service provider involved in shared maternity care of a patient must individually exercise professional judgement at all times in selecting the most appropriate care for a pregnant woman and subsequent management of her pregnancy. These guidelines have been developed to assist these health service providers in the discharge of that duty.

BH has used all reasonable endeavours to ensure that the content of these guidelines was correct at the time they were produced in 2007 and at review in 2013; however, BH does not warrant that the information contained in the guidelines is in every respect accurate, complete or appropriate for every woman and her pregnancy. The information contained in these guidelines are not intended by BH to represent medical or general health advice.

Acknowledgements

These guidelines are based on “Guidelines for Shared Maternity Care Affiliates 2002, (Mercy Hospital for Women, The Royal Woman’s Hospital and Sunshine Hospital), and reviewed in 2010 by Affiliate organisations Mercy Health, The Women’s, Northern Health and Western Health. Copies of the revised guidelines are published by each of the organisations.

Permission to use the original guidelines was obtained from the State of Victoria as owner of copyright to those guidelines (2002).

Acknowledgement of contributors to the original affiliate guidelines can be found in that document at <http://www.health.vic.gov.au/maternitycare>

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Introduction

There are many models of care available to pregnant women, these are tailored to suit their individual needs and provide the most appropriate care to ensure the health and well being of both the mother and her unborn child throughout the pregnancy.

These guidelines have been developed to assist General Practitioners (GP), and Maternity Services Midwives, including those working in the Caseload Midwifery Program (mamta), who are involved in Shared Maternity Care (SMC) at BH.

BH Shared Maternity Care is a model of care provided by a collaborative group of health professionals comprising the Obstetric team, a GP, staff from Women's Health Clinic (WHC) and on occasion's midwives from the mamta program.

Whilst the birth and immediate postnatal care are managed by BH, the aim of SMC is to provide a community-based, holistic, safe and culturally appropriate model of care for women throughout their pregnancy and extended postnatal recovery. This model of care acknowledges the benefits derived from care provided by a known practitioner whilst supporting the practitioner to deliver timely, contemporary, evidenced based care to women who are eligible for and choose SMC.

These guidelines are the result of local modification to the original template which was the result of a two-year collaborative project, between a number of metropolitan hospitals and Divisions of General Practice, and sponsored by the then Department of Human Services (DHS) Maternity Services Project. That project was funded by DHS in response to the 1999 Review of Shared Maternity Care in Victoria (1) (2)

Shared Maternity Care Model

Definition

Shared maternity care is a model of care in which the majority of antenatal visits take place in the community with a hospital affiliated GP. The GP together with hospital based doctors (BH Obstetric Team and Women's Health Clinics) and midwives act as a team to provide women with care throughout pregnancy. Women attend the hospital for complex antenatal assessments, birth and immediate postnatal care, all of which are managed by hospital based care practitioners.

Wherever possible, women should be offered continuity of care, including continuity of carer (Level I evidence). Midwife and GP-led models of care are sage for low risk women (Level I, II & III evidence). Shared Maternity Care is available to all low-risk women at BH.

The Model

For SMC to be successful it is necessary for care providers (community and hospital based practitioners) to take a team approach and shared responsibility for all aspects of the

woman's care, including timely and appropriate communication and management of results and abnormal findings.

Whilst the primary responsibility for management of results rests with the practitioner who orders a test, all care providers should check that follow up of abnormal results or findings has occurred and actioned appropriately.

Accreditation and re-accreditation of SCM affiliates

The hospital has an application form for GP's who wish to provide shared care. This form can be obtained from the Chief Medical Officer, or downloaded from the hospital web site, www.bendigohealth.org.au

Cessation of shared maternity care

In some cases the management of an abnormal result will include the cessation of SMC. The GP involved will be notified in this event.

Support and infrastructure for Share Maternity Care

The following systems are in place to assist GP's in the provision of shared maternity care.

1. *Victorian Maternity Record (VMR) a patient hand held pregnancy record:*

Women enrolled in SNC will be given a VMR to take to all antenatal care visits, it is essential that all providers complete this at each visit. All entries (including test requests) should be dated and signed.

The VMR is a key method of communication between the hospital and GP and women should be encouraged to carry it with them at all times throughout their pregnancy and to bring it with them to all appointments during the pregnancy, including those with other health practitioners.

2. *The Shared Care Midwife:*

The shared care midwife is the key person for non-urgent contact for women and their GP. The shared care midwife responds to issues that may arise for women and ensures that non-urgent queries from GPs are dealt with in a timely manner.

To contact the shared care midwife:

Phone 54547289 or 0400561149 (Monday – Friday 8.30 am to 4.30 pm)

All calls outside these hours will automatically be diverted to the Maternity Unit.

3. *The Registrar:*

The Obstetric Registrar can be contacted via the hospital switchboard (54546000), if the Registrar is unable to take the call and the matter is urgent, the GP should ask to be put through to the Consultant Obstetrician on duty. For non-urgent queries the GP can contact the shared care midwife who will arrange for the Registrar to return the call within an appropriate timeframe.

GPs should be aware that after hours obstetric cover in the hospital may be at either RMO or Registrar level, however there is always on call Consultant back up provided.

4. Assessment Clinic:

GPs are able to refer women enrolled in shared care for assessment and management of common pregnancy related problems e.g.

- Hyperemesis
- Hypertension
- Sub-optimal fundal height
- Decreased fetal movements

The service provides maternal and fetal assessment including:

- BP monitoring
- CTG
- Ultrasound
- Pathology
- Obstetric assessment

GPs choosing to refer women for assessment through the clinic are requested to liaise with the shared care midwife to arrange an appropriate time and provide relevant information regarding the need for assessment.

An Obstetrician, Registrar or Resident Medical Officer will assess all referred women prior to discharge and the GP will be notified within 48 hours regarding the assessment outcome or if the woman is admitted. Non-GP referred assessment outcomes will be recorded in the VMR.

It should be noted that this service does not replace referral to the Emergency Department for problems requiring urgent resuscitative attention e.g. ruptured ectopic.

5. Women's Health Clinic (WHC):

The WHC is the outpatient department for Obstetric & Gynaecological services at Bendigo Health providing hospital based Midwifery, gynaecology and colposcopy clinics and functions as the first point of contact for women attending our service. WHC can be contacted via hospital switchboard on 54546000 or direct line 54547288.

6. Genetics service:

A genetics service is available at Mercy Hospital for Women and The Royal Women's Hospital. Patients requiring this service are referred, via the shared care midwife, who will liaise with the Registrar/Treating Obstetrician to arrange a referral.

Eligibility for Share Maternity Care

SMC is an option for healthy women having a normal pregnancy and who do not have any of the complications listed in the **exclusion criteria** below:

Table 1: SMC exclusion criteria

| Medical and social exclusions | Obstetric history exclusions |
|---|--|
| Cardiac disease, including hypertension | Recurrent miscarriage or mid-trimester loss |
| Renal disease | Grand multiparity |
| Endocrine disorder or diabetes requiring insulin | Severe pre-eclampsia including HELLP syndrome |
| Some psychiatric disorders (requires discussion with treating Obstetrician) | Rhesus isoimmunisation or other significant blood group antibodies |
| Haematological disorder, including thromboembolic disease | Antenatal haemorrhage on two occasions |
| Epilepsy requiring anticonvulsant medication | Intra Uterine Growth Restriction (IUGR) |
| Severe asthma | Previous stillbirth or neonatal death |
| HIV | Birth weight <2500g or >4500g |
| Auto-immune disorders | Pre-term delivery <34/40 |
| Gross obesity or grossly underweight (BMI>40 or <20) | Uterine surgery |
| Malignant disease | Placental abnormalities e.g. placenta accreta, placenta praevia, molar pregnancy |
| Alcohol &/or drug dependence | Some congenital abnormalities |
| Infectious diseases of clinical significance | Multiple pregnancy |
| Respiratory disease | |
| Uncontrolled thyroid disease | |

Occasionally, a woman who would normally be excluded from SMC will be best served under this model. In such situations, an individual care plan should be negotiated with the nominated consultant Obstetrician and recorded in the VMR.

The pre-pregnancy consultation

GPs are in a unique position of seeing the woman in the context of her life prior to pregnancy and are therefore able to provide opportunistic advice, counselling, undertake investigations and introduce preventative measures prior to the commencement of pregnancy.

The aims of the pre-pregnancy consultation and interventions that potentially result in improved health and pregnancy outcomes are outlined in the table below.

Table 2: Pre-conception visit

| | |
|-----------------------|---|
| Timing | Preferably the pre-pregnancy consultation should occur at least three months prior to planned conception. |
| Aim | <ul style="list-style-type: none"> • Provide a situation for conception and pregnancy to occur in order to optimise the health of mother and child. • Identify and manage potential problems for the fetus and mother, based on personal and family history. • Provide education about the health care system and choices available. • Develop rapport with a woman and her family. |
| Clinical assessment | <p>General history and examination with appropriate follow-up if problems identified.</p> <ul style="list-style-type: none"> • Medical history • Obstetric history • Family/genetic history • Drug and alcohol use • Nutritional history • Social-economic and demographic history |
| Investigations | <p>Immunisation e.g. rubella, hepatitis B, influenza, varicella Pap test (if due)</p> |
| Issues for discussion | <p>Smoking cessation and management of drug and alcohol use Folate supplementation Genetic screening e.g. cystic fibrosis, Fragile X (3), thalassaemia Weight management and exercise Dental hygiene Listeria infection and toxoplasmosis Health insurance Models of pregnancy care</p> |

Dietary supplementation

Folate:

Most women: 0.5 mg/day, ideally beginning at least 1 month prior to conception and for the 1st trimester.

Women at high risk: 5 mg/day, ideally beginning at least 1 month prior to conception and for the 1st trimester.

Iron:

Iron supplement is not recommended routinely unless there is evidence of iron deficiency anaemia on routine tests throughout the pregnancy.

Iodine:

The National Health and Medical Research Council (NHMRC) recommend the following:

“Women who are pregnant have 220 micrograms of Iodine per day (and women who are breastfeeding should have 270 micrograms per day)”.

“The NHMRC recommends supplementation of 150 micrograms per day to ensure all women who are pregnant, breastfeeding or contemplating pregnancy have adequate iodine status.”

Women with pre-existing thyroid conditions should seek advice from their GP prior to taking a supplement.

Further information on Iodine supplementation is available at:

<http://www.nhmrc.gov.au/filesnhmrc/file/publications/synopses/new45statementpdf>

Confirmation of pregnancy

Women may present to their GP at any stage to confirm pregnancy, it is best if this is done early in order to allow for preventative health interventions and offer appropriate counselling for prenatal screening.

The aims of early pregnancy consultation are to:

- Confirm pregnancy
- Develop rapport with the woman and her family
- Ensure the woman is in optimal health
- Provide education into the health care system and choices available
- Discuss options for first trimester screening and diagnosis of abnormalities and refer for testing
- Refer for counselling for inheritable conditions
- Identify and manage potential problems for the mother and fetus based on personal and family medical and obstetric history
- Prompt referral, with written medical referral, to the WHC Clinic Bendigo Health – the initial visit is carried out at the Midwife Clinic between **10-14 weeks** (see Table 7)

Referral to hospital

A summary of the models of maternity care and maternity care hospitals available in Victoria can be found at “Having a Baby in Victoria” on the Department of Health website.

It is not necessary for women to have chosen a model of maternity care prior to their first hospital visit, although it is helpful if they have discussed their options with their GP. It is important that both hospital and community providers are respectful and professional in their approach to a woman’s decision and do not attempt to divert her into another model of care unless this is medically required.

If the woman has chosen Bendigo Health as her preferred hospital, the GP can refer her for a pregnancy Booking-in visit by completing a Pregnancy Care referral form (available on the Bendigo Health Care website). To ensure we are able to process the referrals in a timely manner please ensure all relevant clinical and demographic information is included. It should be noted that *inappropriate or incomplete referrals will be returned to GP’s for further action.*

The referral form and a copy of results of any investigations performed by the GP are given to the woman who can make an appointment by telephoning the WHC on 54547288. Alternatively doctors can make the initial appointment for the woman by phone 54547288, fax 54547286 or letter, PO Box 126, Bendigo 3552. Appointments at community clinics can be made via the central booking system at the WHC using the same phone/fax details as listed above.

It is preferable for the first hospital visit to occur at about 10 weeks. Where possible, contact should be made with the hospital when the woman is about 7 – 8 weeks pregnant or as soon as possible after confirmation of pregnancy, as often there is a waiting time of 4 – 6 weeks. This will enable the first antenatal clinic/booking-in visit to occur between 10 – 16 weeks.

Women and their partners are welcome to participate in a conducted tour of the hospital, including the birthing suite, prior to deciding the hospital and model of care they desire. The tour can be arranged via the WHC.

Table 3: Confirmation of pregnancy

| | |
|-----------------------|---|
| Timing | 4 – 10 weeks |
| Who | GP |
| Clinical | <p>General history and examination including:</p> <ul style="list-style-type: none"> • Obstetric history • Family/genetic history • Drug and alcohol history • Nutritional history • Socioeconomic and demographic history • Appropriate follow-up of identified problems • Referral for counselling of inheritable conditions • Review medication and management of existing conditions and consider early referral to Obstetrician • Confirm Estimated Date of Delivery (see appendix 3) |
| Investigations | <p>Initial investigations (see Table 3)</p> <ul style="list-style-type: none"> • <i>First trimester combined screening (blood test at 9 – 11 weeks, US scan between 11+3 and 13+6 weeks)</i> • Consider dating US |
| Issues for discussion | <ul style="list-style-type: none"> • Models of care • Booking into hospital • Diet and exercise • Drug and alcohol use • Smoking cessation • Medication & vitamins (prescription and OTC including Vit A derivatives) • Folate supplementation • Listeria infection and Toxoplasmosis • Dental hygiene and review |

Antenatal tests

Most antenatal tests and prenatal screening can be performed either in the community or at the hospital. When tests are performed in the community, a copy of the results should accompany the woman to her Booking-in visit.

As a rule of courtesy, tests ordered in the community should request a copy of results to be sent to WHC and tests ordered from the hospital should request a copy of results to be sent to the treating GP.

Table 4: Recommended initial investigations

| | Tests | Notes |
|-------------------|--|--|
| For all women | <ul style="list-style-type: none"> FBE (including MCV, MCHC, (Thalassaemia screen)) Blood group & antibody screen Hep B screening Rubella antibodies Urine testing (MSU MC&S) Pap test if due Hep C serology HIV serology Syphilis serology | <p>Ferritin and haemoglobin electrophoresis is performed if low MCV/MCHC is detected on FBE, this should be followed up by the service ordering the initial test.</p> <p>Hep C and HIV screening requires counselling by a doctor or accredited counsellor prior to ordering</p> |
| Consider | <ul style="list-style-type: none"> Ferritin Additional Thalassaemia and other hemoglobinopathy screening Vit D deficiency screening Dating US | <p>Vit D deficiency risk: Dark skinned women, women who cover up e.g. some Muslim women and women who have low sunlight exposure</p> <p>Where date of LNMP is uncertain/unreliable</p> |
| Discuss and order | First trimester combined screening | See notes below re screening and diagnostic tests. |

Prenatal screening and diagnostic tests for birth abnormalities

Most babies are born healthy, however about 4 percent are born with a birth defect that may require medical care. There are a number of prenatal screening and diagnostic tests available to determine the risk of or to diagnose, certain congenital problems in the baby (not all conditions can be excluded through prenatal screening). It is important that if a woman or her partner has an inheritable condition, or there has been a congenital abnormality in a previous child, the woman is referred for genetic counselling as early as possible, preferably pre-pregnancy.

Screening versus diagnostic tests

Prenatal screening tests can be performed to determine who may be at increased risk of having a baby with chromosomal abnormalities such as Down's syndrome and neural tube defects. Normal test results do not exclude an abnormality; rather they indicate the likelihood of a problem existing but do not provide a definitive diagnosis. If a screening test gives a comparatively high likelihood of a problem existing then a diagnostic test should be offered.

Prenatal diagnostic testing can diagnose Down's syndrome, most chromosomal abnormalities and certain genetic conditions and structural abnormalities.

Counselling

Community providers are encouraged to offer early advice and counselling around all tests but this is especially pertinent to prenatal screening and diagnostic tests.

Early in pregnancy all women should receive appropriate written information concerning available screening (including potential risks and benefits, the difference between screening and diagnostic testing and possible financial costs of both). (Level II & IV evidence)

Shared care GP's and midwives should discuss all the available routine tests, the nature of the tests, the disease(s) being tested for, the possibility of false positive and negative results and the advantages and disadvantages of testing, taking into account maternal age, medical, family and pregnancy history. Women should be advised regarding the costs and limitations of the services that are available both locally and in Melbourne.

Ultrasound scanning in pregnancy

Ultrasound scanning may be provided either in the community or in the Medical Imaging department at the hospital, depending on the preference of the woman. In the case of early ultrasound the woman will be advised whether the hospital is able to provide a requested service, the woman should also be made aware that there may be some cost attached to this service.

If possible, a copy of all ultrasound results should be forwarded to WHC for inclusion in the medical record or alternatively the woman should be asked to bring a copy of the written report with her when attending appointments at the hospital.

If an abnormality is found on ultrasound in the community, **urgent follow-up should be arranged by contacting the Obstetric Registrar or the Shared Care Midwife.**

"Soft Signs" on ultrasound

Recent advances in prenatal ultrasound have led to the discovery of a growing number of minor anomalies or "soft" markers of developmental abnormality such as choroid plexus cysts. When multiple anomalies are present karyotyping of the foetus with amniocentesis is usually recommended.

The role of sonographically isolated "soft" markers on the other hand can be controversial especially in younger women who have a low background risk of chromosomal abnormality.

When such a “soft” marker is detected, the first priority is to exclude any associated abnormalities with a detailed anatomical survey of the mid-trimester foetus. Where there is a question of a single “soft” marker a referral is likely to be made by the hospital to one of the tertiary centres for a detailed scan. A Genetic Counselling referral may also be made to provide the parents with information about the individual risks for that pregnancy, based on maternal age, other screening tests and the specific ultrasound findings or combination of findings.

Urgent referral to the Obstetric Registrar (or via the Shared Care Midwife) is therefore indicated if there is any abnormality detected on ultrasound.

Screening for Down’s syndrome

The offer of screening for Down’s syndrome should be made available to all pregnant women, irrespective of age (Level III & IV evidence).

Pre-screening counselling must be given by appropriately trained staff and should be specific to the age of each woman (Level III & IV evidence). If, after counselling a woman chooses to proceed with screening tests then:

- The expected date of delivery (EDD) needs to be known with reasonable certainty. If there is any doubt a first trimester ultrasound should be done to confirm dates
- Screening is preferably by Nuchal translucency in combination with first trimester biochemistry. Note that screening by Nuchal translucency (alone or in combination with first trimester biochemistry) cannot be ordered through the hospital. If presentation is late, second trimester maternal serum screening may be used.
- Women should be notified of their screening result, irrespective of the risk, in a format that they understand (Level II evidence)
- Women for whom the results indicate an increased risk of Down’s syndrome should be offered further counselling and diagnostic testing within 72 hours or as soon as possible (Level IV evidence). This should be arranged by contacting the Obstetric Registrar or the Shared Care Midwife.

Further information can also be obtained from RACGP, RANZCOG and Human Genetics Society of Australasia web sites. (See Table 13)

Table 5: Prenatal screening and diagnostic tests

| Test | Notes |
|--|---|
| Early Combined Screening Test: 1 st trimester MSST & early ultrasound | <p>Accredited services are available privately in Melbourne and Bendigo. Contact details for accredited providers (see Table 18).</p> <p>1st trimester Maternal Serum Screening Test (MSST) is performed between 9 – 11 weeks</p> <p>Early ultrasound for Nuchal translucency is a screening test for a number of disorders and gives a prediction of risk for Down's syndrome. The measurement is performed between 11+3 and 13+6 weeks.</p> <p>There is limited access to early ultrasound for Nuchal translucency within Melbourne hospital imaging departments. Individual hospitals should be contacted for details and availability.</p> |
| Early ultrasound | Not routinely available at Bendigo Health but is available privately (see note above) |
| 2 nd trimester MSST | Should be offered to all women who have missed the opportunity for 1 st trimester screening. It is performed at 14 – 20 weeks (preferably 15 – 17 weeks) and is best during the 15 th week. |
| Foetal anomaly scan | <p>Offered to all women. Performed at 19 – 20 weeks.</p> <p>It is a poor screening test for Down's syndrome; however, it can detect many physical malformations including some neural tube, cardiac, gastrointestinal, limb and CNS defects.</p> <p>Where there is a history of past foetal/congenital anatomical abnormality consideration should be given to referral to a tertiary centre for a detailed scan to be done.</p> |

Schedule of visits

Table 6: Clinic overview

| | |
|---|---|
| Midwife booking-in clinic | Provides initial booking-in visit with a midwife where required paperwork is completed, history collected, education is commenced and appropriate referrals are made e.g. Bendigo & District Aboriginal Cooperative (BDAC), Maternity Support Worker (MSW) and dietician etc. |
| Antenatal clinic | Provides initial obstetric visit following patient booking-in, where the patient is assessed by obstetric staff, history reviewed and model of pregnancy care assigned. |
| Antenatal clinic – Consultant Care | Provides consultant-led care for women with a high risk pregnancy or undertaking shared care. Women are seen by obstetric staff at every visit and a midwife or other relevant health care providers as required. |
| Antenatal clinic – Midwife Care | Predominantly provides midwife-led care for women with a low risk pregnancy. Women are seen by a midwife at every visit and referred to the consultant clinic at 20, 34 & 40 weeks and beyond for review. Also provides appropriate additional midwife visits for women in the high risk model of care |
| Maternity Day Assessment Service | Provides a service for women, with complications or risks in pregnancy who require a short admission for further monitoring or assessment. Care provided by obstetric staff, midwives and ultrasonographer. |
| Early Pregnancy Assessment Service (EPAS) | The Early Pregnancy Assessment Service is a service to guide the initial assessment, investigation and referral process and support safe, supportive and consistent provision of care for women with pain and bleeding in early pregnancy. Care is provided by the Registrar in the Women’s Health Centre |

Purpose of visits

The booking-in visit:

All women having a baby at Bendigo Health have a detailed health and social assessment performed by a midwife at this visit, ideally around 10 weeks gestation. The visit provides the opportunity to explore many aspects of maternity care and for women to express their choice of care model. At this visit the woman is officially booked for birth at the hospital.

Women who choose and are eligible for SMC are given detailed written information and women who have chosen GP shared care are asked to give consent to transfer relevant information between the GP and the hospital. The GP who is participating in shared care is contacted by letter within 72 hours of the first visit.

First hospital Antenatal Clinic (ANC) visit:

This visit routinely occurs at 20 weeks and again involves a detailed clinical assessment, by a member of the Obstetric team, of the woman. As part of this process a decision is made as to whether SMC continues to be appropriate. The information given in the medical referral is crucial in identifying those women who need to be seen in antenatal clinic (ANC) prior to 20 weeks (e.g. those with significant medical, obstetric or social history that may put the

woman at high risk). Where a GP feels an earlier ANC review is appropriate this should be clearly indicated in the referral letter or communicated with the Shared Care Midwife.

Subsequent visits:

The purpose of these visits can be viewed according to each trimester. If at any time the pregnancy appears to be moving outside the limits of “normal” then additional appointments should be arranged at the hospital ANC or the assessment clinic, this can be arranged by contacting the Shared Care Midwife.

First trimester visits are primarily to assess maternal and foetal well-being, to date the pregnancy, take a comprehensive history, assess the risk of complications, discuss smoking behaviour and establish care options. The visits are scheduled in order to offer timely screening tests.

Second trimester visits are scheduled to monitor foetal growth, maternal well-being and signs of pre-eclampsia. Ultrasound is routinely offered and should be performed at 19 weeks. Screening for anaemia, antibodies and gestational diabetes should be undertaken at the 26 – 28 week visit.

- Women who are Rhesus negative will be recalled to WHC at 28 and 34 weeks for administration of Anti-D, if their serum antibodies remain low.

Third trimester continue to monitor foetal growth, maternal well-being, signs of pre-eclampsia and to assess and prepare women for admission, labour and discharge after birth. These visits include bacteriological screening for GBS at 35 – 37 weeks.

Table 7: Antenatal care visits

| When | Visit location | Antenatal Visits – what is expected |
|---------------|--|---|
| 10 – 14 weeks | Visit 1 WHC (Midwives booking-in clinic) | Clinical <ul style="list-style-type: none"> Review GP referral letter if available Obtain obstetric and social history Complete physical examination: BP, height & weight, calculate BMI Assess EDD Flag & discuss 28 week Rh negative follow up for Anti-D |
| | | Investigations <ul style="list-style-type: none"> Review and document results of investigations Discuss early combined screening (see below for detail) and refer to GP if wishing to proceed with screening Consider dating ultrasound (if indicated) MSU MC&S |
| 14 – 16 weeks | Visit 2 GP | Issues for discussion <ul style="list-style-type: none"> VMR Models of care Give Bendigo Health Maternity Handbook Routine antenatal care and investigations Prenatal genetic testing Discuss prenatal screening tests: <ul style="list-style-type: none"> MSST 15 – 17 weeks Foetal anomaly scan 19 week U/S Discuss prenatal diagnostic tests: <ul style="list-style-type: none"> CVS/amniocentesis Other if relevant (see Table 4) Information regarding hospital and community supports re: <ul style="list-style-type: none"> Smoking, alcohol and other drugs Medications (prescription, OTC and vitamins) Diet and nutrition, Vit D supplementation in at risk group Listeria infection Toxoplasmosis Childbirth education classes (discuss and book) Breastfeeding Indications for the use of RH immunoglobulin Driving and seatbelt use |
| | | Clinical <ul style="list-style-type: none"> Standard antenatal check* Confirm agreed EDD Follow-up result of early combined screening test OR ensure MSST discussed/organised if not yet done Review and document results of investigations |
| | | Investigations <ul style="list-style-type: none"> Order fetal anomaly scan for 18 – 19 weeks with a copy of results to go to the ANC Offer 2nd trimester screening if 1st trimester screening not done |

| | | |
|---|-----------------------------------|---|
| | | <p>Issues for discussion</p> <ul style="list-style-type: none"> • Exercise and rest in pregnancy • Sex in pregnancy • Work in pregnancy • Travel in pregnancy • Information sources |
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">20 weeks</p> | <p>Visit 3 WHC/ANC</p> | <p>Clinical Standard antenatal check*</p> <ul style="list-style-type: none"> • Full obstetric and medical history and examination and risk assessment • Confirm EDD • Review and document results of all antenatal investigations to date, particularly foetal anomaly scan • Discuss Anti-D prophylaxis and ensure Rh negative women are on the register for recall at 28 weeks • Check placental position on 19 week U/S, if low lying arrange for further scan at 32 – 34 weeks to assess placental position |
| | | <p>Investigations</p> <ul style="list-style-type: none"> • Nil routine |
| | | <p>Issues for discussion</p> <ul style="list-style-type: none"> • Expectations of pregnancy & birth |
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">26 weeks</p> | <p>Visit 4 GP</p> | <p>Clinical Standard antenatal check*</p> <ul style="list-style-type: none"> • Review and document results of investigations |
| | | <p>Investigations</p> <ul style="list-style-type: none"> • FBE • Antibodies • Glucose Challenge Test (GCT) <p>Tests to be done at 28 weeks (just prior for patients who are RH negative so that results are available before Anti-D administration at this time) GCT results to be followed up by the care provider and if necessary recall the woman for a full GTT, if GTT positive need to refer to ANC by 29 weeks for management</p> |
| | | <p>Issues for discussion</p> <ul style="list-style-type: none"> • Expectations of pregnancy/birth • Childbirth education – make appointment for classes • Discuss labour and birth including: <ul style="list-style-type: none"> ▪ When to come to hospital ▪ What to bring ▪ Birth plan ▪ Pain relief ▪ Monitoring ▪ Episiotomy ▪ Breastfeeding |

| | | |
|-----------------|--|--|
| | | <ul style="list-style-type: none"> ▪ Labour support ▪ Community support services ▪ Neonatal screening tests/vitamin K/Hepatitis B ▪ Child safety/car restraints |
| 30 weeks | <p>Visit 5 GP</p> | <p>Clinical Standard antenatal check*</p> <ul style="list-style-type: none"> • Confirm Anti D given at 28/40 in ANC if RH negative (Anti-D should be given every 6 weeks from 28 weeks, the timing may be altered if Anti- D was necessary some time prior to 28 weeks e.g. following bleed) • Review and document results of investigations • Confirm GCT followed up and GTT ordered and actioned if necessary • Arrange for Fe supplementation if Hb \leq 110, with low MCV <p>Investigations</p> <ul style="list-style-type: none"> • Follow up investigations for anaemia (according to indicators on FBE) • Order 34/40 antibody screen for Rh negative women; antibody screen to be taken 2 – 3 days prior to appointment at 34/40 to ensure results available prior to administration of Anti-D <p>Issues for discussion</p> <ul style="list-style-type: none"> • Expectations of pregnancy/birth • Follow up on issues discussed at previous appointment including: <ul style="list-style-type: none"> ▪ Birth plan ▪ Pain relief ▪ Breastfeeding ▪ Labour support ▪ Community support services ▪ Child safety/car restraints ▪ Signs of premature labour |
| 34 weeks | <p>Visit 6 WHC Consultant Obstetrician Clinic</p> | <p>Clinical</p> <ul style="list-style-type: none"> • Standard antenatal check* • Reconfirm EDD • Review and document results of investigations in VMR • Administer Anti-D <p>Investigations</p> <ul style="list-style-type: none"> • GBS swab request and instructions for 36 /40, women self collect swab (copy results to GP) • Antibody screen if RH negative <p>Issues for discussion</p> <ul style="list-style-type: none"> • Expectations of pregnancy/birth • Follow up on issues discussed at 30/40 GP visit including: <ul style="list-style-type: none"> ▪ Birth plan ▪ Pain relief ▪ Monitoring in coming weeks and during labour ▪ Breastfeeding |

| | | |
|----------|---------------|---|
| | | <ul style="list-style-type: none"> ▪ Labour support ▪ Signs of premature labour • Next ANC visit as close as possible to 40/40 • Plans/recommendations for post-dates monitoring • Indications for induction of labour • Timing of elective caesarian section (if appropriate) • Indications for emergency caesarian section • If anticipate breastfeeding/lactation problems refer to Lactation Consultant |
| 36 weeks | Visit 7 GP | Clinical <ul style="list-style-type: none"> • Standard antenatal check* • Review and document results of investigations |
| | | Investigations <ul style="list-style-type: none"> • Confirm GBS swab taken and requested and sent to Healthscope pathology |
| 38 weeks | Visit 8 GP | Clinical <ul style="list-style-type: none"> • Standard antenatal check* • Review and document results of investigations |
| | | Investigations <ul style="list-style-type: none"> • Investigations only as indicated based on previous results/clinical presentation |
| | | Issues for discussion <ul style="list-style-type: none"> • Expectations of pregnancy/birth • Follow up on issues discussed previously • Signs of labour • Childcare • Postnatal care/immunizations • Postnatal check for mother and baby by GP |

| | | |
|----------|-----------------------------|---|
| 40 weeks | Visit 9 WHC/ANC | Clinical Standard antenatal check* <ul style="list-style-type: none"> • Review and document results of investigations |
| | | Investigations <ul style="list-style-type: none"> • Book CTG for 40+4 days with assessment midwife • Book U/S to assess fetal growth and liquor volume and CTG for 41/40 |
| | | Issues for discussion <ul style="list-style-type: none"> • Birth plan • Follow up on issues discussed previously • Labour support • Childcare • Postnatal care/immunizations • Postnatal check for mother and baby by GP |
| 41 weeks | Visit 10 WHC/ANC | Clinical Standard antenatal check* <ul style="list-style-type: none"> • Review and document results of investigations |
| | | Investigations <ul style="list-style-type: none"> • Vaginal examination • CTG if required |
| | | Issues for discussion <ul style="list-style-type: none"> • Induction of labour |

* Standard antenatal check to incorporate the following assessments:

- General well-being
- Blood pressure check
- Measurement of fundal height in centimetres
- Foetal movements and auscultation of foetal heart from 20 weeks
- Check foetal presentation from 30 weeks
- Inspect legs for oedema (a sign of pre-eclampsia and thromboembolic disease)
- Consider urine testing
- Reassess identified risk factors e.g. smoking, alcohol and other drug use, depression

Routine weighing is not advised unless there are concerns about increased BMI.

Routine antenatal investigations:

- | | |
|---|--|
| <ul style="list-style-type: none"> • FBE • Blood group and RH antibodies • Urinalysis – MSU MC&S • Hepatitis B screening • Hepatitis C screening | <ul style="list-style-type: none"> • HIV serology • Syphilis serology • Rubella antibodies • Pap test • 17 – 22 week ultrasound |
|---|--|

GPs are requested to order these screening tests and **request copy to be sent to WHC/ANC**
All results and finding must be recorded in the VMR

Management and referral of abnormal findings

The Shared Care Midwife (SCM) can assist in obtaining results and informing GPs of care/management changes that have taken place following review in ANC. The SCM can also facilitate assistance for GPs in relation to all other non-urgent issues of antenatal care.

Management of abnormal investigations

It is primarily the responsibility of the provider ordering a test, or noting any abnormal finding, to ensure appropriate follow-up, communication and management occurs. However, all care providers should check to make sure any abnormal investigations or findings have been followed up appropriately. Community based and hospital providers need to clearly document, date and sign, the following information in the VMR:

- Investigations ordered
- Results of investigations
- Action taken

Prenatal screening tests

Management of prenatal screening tests (e.g. MSST) requires great vigilance from both community based and hospital providers. It is important that women are counselled and the results are documented, communicated and followed up adequately and appropriately. In the event of any concerns regarding abnormal results the SCM or the Obstetric Registrar can be contacted to facilitate further advice.

Abnormality on ultrasound

If an abnormality is found on ultrasound or if urgent counselling, support or further management is required the SMC or the Obstetric Registrar can facilitate appropriate follow up either at Bendigo Health or by referral to a tertiary centre in Melbourne.

Gestational diabetes

If gestational diabetes develops SMC is usually ceased (unless individual arrangement is made between the GP and the Consultant Obstetrician in charge of the woman's care). If the GP diagnoses diabetes the SCM or the Obstetric Registrar **must** be informed to facilitate ongoing management. (more detailed information follows refer to Table 8 & below)

Abnormal presentation

If at 36 weeks (or greater) abnormal presentation, position or lie e.g. breech, transverse lie is diagnosed or suspected, a referral to the Obstetric Registrar should be made for assessment as soon as possible. Contact can be made via the SCM or directly with the Obstetric Registrar.

Reduced foetal movements

Check the fundal height and the foetal heart rate using a Doppler. Referral can be made to midwife assessment clinic WHC for initial CTG for assessment of foetal well-being. If the foetal movements are appropriate, but the GP and/or woman feels uneasy about the situation, or if there is previous history of stillbirth or foetal death in-utero (FDIU), referral to the ANC for further assessment is encouraged.

Intrauterine growth restriction and other abdominal assessment findings

Routine measurement of the symphysial-fundal height from 20 weeks onwards:

- Ensure the woman is comfortable, lying in a semi-recumbent position and has an empty bladder
- Use the unmarked side a non-elastic tape measure
- Measure from the top of the fundus to the top of the symphysis pubis
- Measure the longitudinal axis of the uterus, avoid “correcting” for the midline
- Record (and plot) the measurement in centimetres in the VMR and/or chart

If serial symphysial-fundal measurements are flattening, a referral for ultrasound should be made requesting measurement of the following parameters:

- Growth – foetal size and growth compared with previous ultrasound
- SD ratio – Doppler scan of the umbilical artery flow
- AFI – amniotic fluid index

Other considerations include:

- Transverse lie
- Multiple pregnancies
- Obesity

If any parameters are abnormal contact the SCM or Obstetric Registrar to arrange further follow up through the WHC/ANC

Referral of problems

All providers of SMC have a responsibility to appropriately assess, document and respond to problems as they arise during the woman’s pregnancy.

In general, GPs should refer women for hospital assessment if the pregnancy deviates from normal. This should be discussed with the SCM and may involve having women attending the assessment clinic in the WHC or on the maternity ward, or attending an early/urgent appointment at the ANC.

Women who require **urgent assessment on the maternity ward** include those with:

- Threatened preterm labour
- Premature rupture of membranes
- Antepartum haemorrhage

Emergency Department assessment (available 24 hours) is recommended for the following conditions:

- Unusual migraines, visual disturbances
- Seizures
- Undiagnosed abdominal pain
- 1st trimester bleeding or pain that cannot be appropriately diagnosed/managed in the community*

*Note: Anti-D is available 24 hours via the Emergency Department if required.

WHC Assessment Clinic referral to this service is recommended if the woman has:

- Hypertension i.e. a persistent reading of $\geq 140/90$ mmHg or a rise of ≥ 30 mmHg systolic and 15 mmHg diastolic from baseline
- Fundal height unusually large or small for dates
- Intractable vomiting
- Increased uterine activity
- Decreased foetal movements
- Jaundice or severe pruritis
- Non cephalic presentation $\geq 36/40$ gestation

Please note the above lists are not exhaustive, GPs should seek advice, from the SCM or Obstetric Registrar, as to the best course of management if they have any concerns

Seeking advice this can be done by contacting the following:

- SCM for non-urgent issues
- Obstetric Registrar, in hours and when on duty after hours
- Obstetric Consultant on duty (when the Registrar is not available and the matter is urgent)
- Emergency Department Consultant or After Hours Manager (when none of the above is available and the matter is urgent)

(Refer to Table 12 for contact numbers)

Infectious diseases in pregnancy

Infectious Disease Guidelines for Pregnancy are available through RANZCOG in hard copy only. These guidelines cover management algorithms for some infectious diseases in pregnancy including:

- Tuberculosis
- HIV
- CMV
- Enteroviruses
- Herpes Simplex
- Hepatitis B & Hepatitis C
- Group B Streptococcus
- Listeria
- Rubella
- Syphilis
- Toxoplasmosis
- Varicella Zoster

Varicella (chickenpox)

Foetal infection occurs in 10 – 15% of cases of varicella in pregnant women but is usually transient and asymptomatic. The most common clinical manifestation, if any occurs, is shingles in the first year of life. However, 2 – 3% of infants of women who have chickenpox in the first half of pregnancy develop foetal varicella syndrome, with potentially severe defects, including skin scarring in the dermatomal distribution, ipsilateral limb hypoplasia, visceral, neurological and eye lesions.

Maternal varicella with a few days before or after delivery can result in potentially severe varicella in the infant, who should be given zoster immune globulin (ZIG) as soon as possible after birth.

More than 90% of women of child-bearing age in Australia are immune to varicella virus, with a history of infection providing reliable evidence of immunity. If in doubt when contact occurs, pregnant women should be tested for varicella IgG as soon as possible (include those who have been vaccinated, if seroconversion has not been confirmed). If seronegative, they should be offered ZIG, preferably within 48 hours of contact (maximum 72 hours). ZIG may not prevent infection but does reduce illness severity. It is not effective after onset of rash.

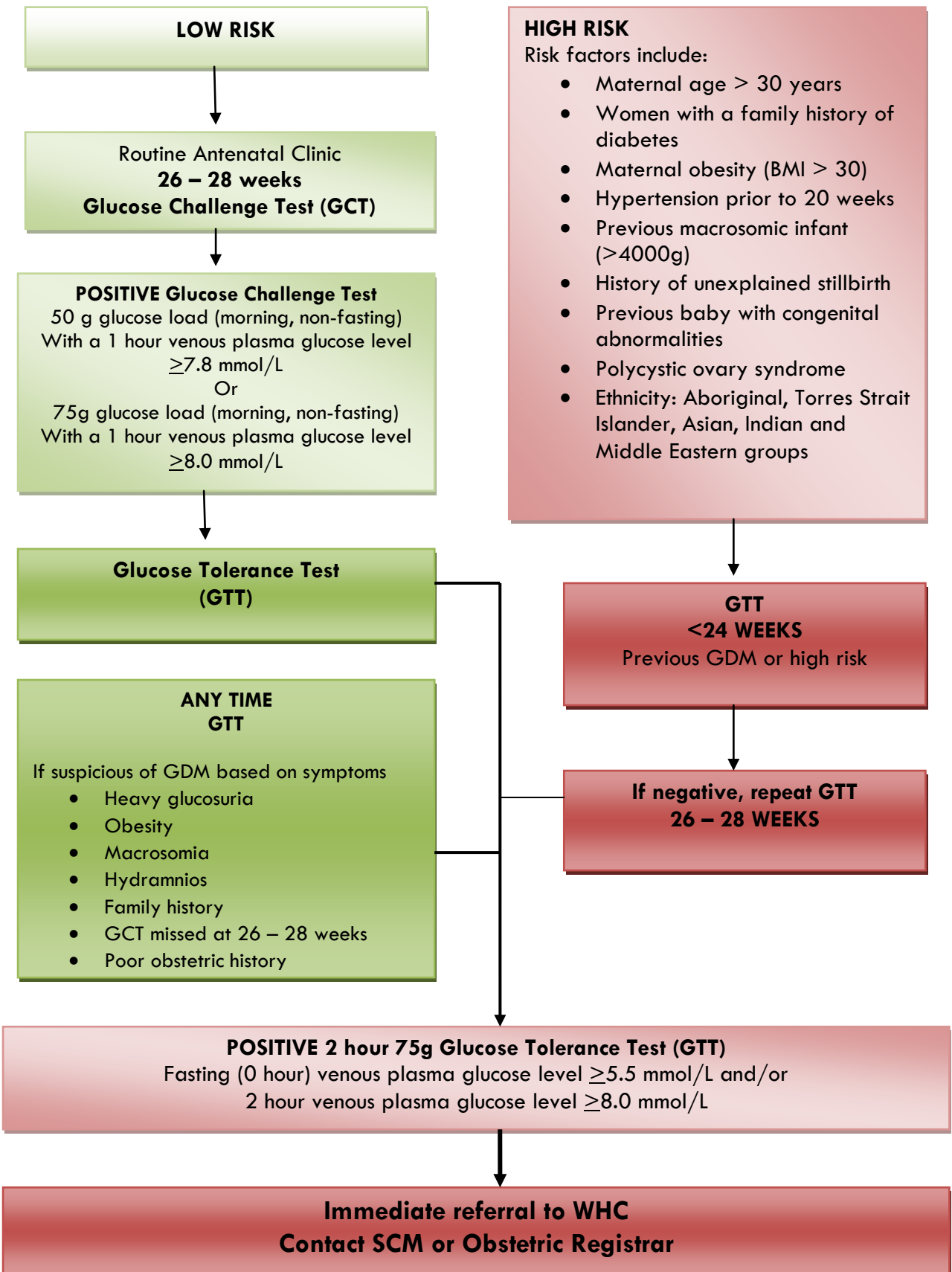
The diagnosis of chickenpox is usually obvious. The disease is more likely to be severe in adults than in children and may be complicated by pneumonia, especially in smokers and in the latter half of pregnancy, and is occasionally fatal.

Use of acyclovir is not recommended during pregnancy, but evidence is accumulating that it has no adverse foetal effects. Given during the incubation period or within 24 hours of rash onset, it can reduce risk of infection or illness duration and severity. Its use should be considered during the incubation for women who have not received ZIG, or soon after rash onset, especially in women with risk factors for severe disease, such as chronic lung disease, smoking or impaired immunity, or in the latter half of pregnancy. If disease progresses admission to hospital and intravenous acyclovir is indicated.

The recommended use of varicella vaccine in susceptible women of child-bearing age will reduce the incidence of congenital and neonatal varicella in Australia.

Gestational diabetes – screening, diagnosis and follow up

Table 8: Gestational diabetes (Source: Ballarat Health Services Shared Care Guidelines 2011)



Important points for management of women with diabetes

- All women should perform blood glucose monitoring 4 times a day, before breakfast and 2 hours after each meal.
- Aim to maintain blood glucose levels <5.0 mmol/L (fasting) and <6.7mmol/L after meals.
- Hba1c should be measured at the first visit and repeated monthly. Aim for level of <6.0%.

Follow up for women with gestational diabetes

Women who have a history of gestational diabetes mellitus (GDM) should have regular screening:

All women with GDM should be offered testing for diabetes with a 75g GTT 6 – 8 weeks post delivery.

Repeat testing should be performed every 1 – 2 years among women with normal GTT and the potential for further pregnancies.

Women with an abnormal GTT should be reviewed by the diabetes physician and have annual GTT thereafter.

Lifestyle counselling

Approximately 40 – 50% of women who have had gestational diabetes develop Type 2 diabetes mellitus later in life. Lifestyle counselling for the prevention of diabetes is therefore vital.

All women with gestational diabetes should be offered information regarding:

- Healthy eating (small frequent low fat meals and snacks)
- Regular physical activity (30 minutes/day of moderate intensity)
- Weight control
- Contraception
- Long term follow up
- Preconception counselling for future pregnancies

Source: Ballarat Health Services GP Antenatal Shared Care Manual 2011.

Management plan for pregnant women with BMI > 35

Table 9: BMI > 35

| | BMI 35 – 39 | BMI 40 – 44 | BMI > 45 |
|---------------------------------|---|---|--|
| Preconception or first GP visit | Consider 5 mg folate | | |
| First ANC visit at WHC | Dietitian referral | | |
| | Routine booking bloods plus 75 gm 2 hour GTT | | |
| | Consider 5 mg folate | | |
| | Routine model of care with shared care GP or midwifery model | Modified care including consultant/registrar visits 36 & 40/40 | Modified care including consultant/registrar visits 24, 30, 36 & 40/40 |
| Second trimester | Consider low-dose aspirin if additional risk factors for pre-eclampsia | | |
| | Consider low molecular weight heparin (LMWH) if additional risk factors for DVT | | |
| | Repeat 75 gm 2 hour GTT if previous testing negative | | |
| Third trimester | Additional scan for growth in third trimester if unable to assess clinically | Scan for growth at 28 and 34/40 Anaesthetic referral at 36 weeks | |
| | | Consider notification of wards and theatre of the need for bariatric equipment if required for patient's perinatal care | |
| Intrapartum | Notify anaesthetic and obstetric medical staff of patient's admission | | |
| Postpartum | Consider LMWH if operative delivery or mobility compromised | | |
| | Consider TED stockings | | |
| | Dietitian referral | | |
| | 2 hour GTT 6 weeks postpartum if gestational diabetes mellitus | | |

The management of patients with a BMI between 35 & 39 may be able to be shared with the GP. Many of those patients whose BMI is above this range will still be suitable for shared care but will need to be seen more frequently in the ANC. Further treatment, investigations and other consultations e.g. with the anaesthetic department for pre-anaesthetic assessment, will be organised through the ANC.

Source: Mater Mothers' Hospital GP maternity Shared Care Guidelines October 2010

Care of the woman who is RhD negative

The role of the RhD negative blood group in the causation of haemolytic disease of the newborn is well understood and as a result of the routine screening of all pregnant women, together with the administration of Anti-D Immunoglobulin, the incidence of this condition within the community has been greatly reduced.

Consequently, all pregnant women should be tested for their blood group and for blood group antibodies at their first antenatal visit.

Further testing for RhD antibodies is undertaken at 26 – 28 weeks to ensure antibodies have not developed.

Women who have RhD antibodies are not suitable for antenatal shared care.

The following information therefore relates only to women who are RhD negative and have no pre-formed antibodies.

Anticipating prophylactic Anti-D administration in pregnancy:

- All women who are RhD negative and have no pre-formed Anti-D antibodies should be informed about the need to prevent RhD 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 RhD positive

Potentially sensitising events and the role of prophylactic Rh Anti-D immunoglobulin:

- Potentially sensitising events are defined as any situation in which there is an increased likelihood of foetal red blood cells entering the maternal circulation.

These include:

- Any uterine bleeding in pregnancy, ranging from threatened miscarriage to Antepartum haemorrhage
- Any abdominal trauma in pregnancy
- Any uterine or intra-uterine intervention (such as external cephalic version (ECV), amniocentesis, chorionic villous sampling)
- Multiple pregnancy
- Ectopic pregnancy
- Termination of pregnancy

Additional notes:

- In the case of a history of recurrent vaginal bleeding, the need for Anti-D Immunoglobulin should be discussed with the Obstetric Registrar or the Consultant Obstetrician
- It should be noted that there is insufficient evidence to indicate that a woman who has a threatened miscarriage before 12 weeks requires Anti-D Immunoglobulin
- The risk of sensitisation increases with the progress of the pregnancy

- Administration of Anti-D Immunoglobulin will provide cover for a minimum of 6 weeks

Administration of Anti-D Immunoglobulin will be administered in the ANC at Bendigo Health.

Further information is available at the RANZCOG website:

www.ranzcog.edu.au/womenshealth/anti-d.shtml

Taken from Ballarat Health Services GP Antenatal Shared Care Manual 2011.

Prescription Medicines

During pregnancy prescribing medicines involves the balance between the benefit to the pregnant woman and the potential harm that may occur to the foetus. There have only been a small number of drugs that have well documented and proven safety in pregnancy. The general principles in prescribing medications should focus on only prescribing well-known and tested drugs at the smallest possible doses and only when the benefit to the woman outweighs the risk to the foetus.

The Therapeutic Goods Administration has categorised medications commonly used within Australia, taking into account the known harmful effects on the developing baby, including the potential to cause birth defects, unwanted pharmacological effects around the time of the birth and future health problems.

Therapeutic Goods Administration (TGA) categorisation of medications ⁽⁷⁾

Table 10: TGA medication categories

| Category | |
|-----------|---|
| A | Drugs which have been taken by a large number of pregnant women and women of childbearing age without any proven increase in the frequency of malformations or other direct or indirect harmful effects on the foetus having been observed |
| B1 | Drugs which have been taken by only a limited number of pregnant women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human foetus having been observed. Studies in animals have not shown evidence of an increase occurrence of fetal damage |
| B2 | Drugs which have been taken by only a limited number of pregnant women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human foetus having been observed. Studies in animals are inadequate or may be lacking, but available data show no evidence of an increased occurrence to foetal damage |
| B3 | Drugs which have been taken by only a limited number of pregnant women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human foetus having been observed. Studies in animals have shown evidence of an increased occurrence of fetal damage, the significance of which is considered uncertain in humans |
| C | Drugs which, owing to their pharmacological effects, have caused or may be suspected of causing, harmful effects on the human fetus or neonate without causing malformations. These effects may be reversible. Accompanying texts should be consulted for further details |
| D | Drugs which have caused or are suspected to have caused or may be expected to cause, an increased incidence of human foetal malformations or irreversible damage. These drugs may also have adverse pharmacological effects. Accompanying texts should be consulted for further details |
| X | Drugs which have such a high risk of causing permanent damage to the foetus that they should not be used in pregnancy or when there is a possibility of pregnancy |

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Over the counter medications

There are only a few medicines that have been established as safe to be taken during pregnancy, and a general principle is that as few as possible should be used. Advice should be sought from a Pharmacist and from reference material such as the 'The Royal Women's Hospital: Pregnancy and Breastfeeding Medicines Guide' available from the RWH Pharmacy Department.

Telephone: 03 9345 3190 or email: rwh.pharmacy@thewomens.org.au

Drugs in pregnancy information services

Royal Women's Hospital,
Medicines Information Centre,
Cnr Grattan St & Flemington Road,
Parkville, VIC 3052
Telephone: 03 8345 3190
Fax: 03 8345 3195

Monash Medical Centre,
Obstetric Drug Information,
246 Clayton Road,
Clayton, VIC 3168
Telephone: 03 9594 2361
Fax: 03 9594 2595

Websites

- Therapeutic Goods Administration Prescribing Medications in Pregnancy Database:
<http://www.tga.gov.au/hp/medicines-pregnancy.htm>
- Mothersafe: (NSW)
<http://www.sesiahs.health.nsw.gov.au/Mothersafe/>
- Medsafe: (NZ)
<http://www.medsafe.govt.nz/>
- Guidelines for Shared Maternity Care Affiliates 2010
<http://www.health.vic.gov.au/maternitycare/smcguidelines-2010.pdf>

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(4)

Mental health and wellbeing

Depression

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 is an appropriate tool to use to assess antenatal depression and is available through medical software. A proforma may also be downloaded from the following sites:

Beyond Blue

http://beyondblue.org.au/index.aspx?link_id=103.885

The Black Dog Institute

<http://www.blackdoginstitute.org.au/docs/CliniciansdownloadableEdinburgh.pdf>

All women will have a depression assessment at their first midwifery visit. This can be repeated at any time if there are ongoing concerns.

Perinatal Emotional Health Program

The Perinatal Emotional Health Program (PEHP) is funded by the State Government as part of the National Depression Initiative Program. PEHP clinicians are employed by BHS Psychiatric Services and their role is to provide prevention, early intervention, secondary consultation and assessment of women in the perinatal period who are experiencing emotional health concerns. GPs can refer women to the program prior to pregnancy for a planning session if they have a past mental health history, and from early pregnancy through to 12 months post birth.

PEHP clinicians will provide short term time limited psychological interventions to the woman, or can assist referral to existing services within the woman's community. PEHP is an outreach program allowing women to be seen either in their local antenatal clinic or maternal child health centre, or within their home environment.

The program is designed to treat women with symptoms of a mild to moderate mental health illness. PEHP is a non-crisis based service. If immediate follow up is required, please contact Bendigo Health Mental Health Service on **1300 363 788**
Hours of operation are Monday to Friday 8.30 am - 5.00 pm

Source: Ballarat Health Services GP Antenatal Shared Care Manual 2011.

Post natal care

Average length of hospital stay, at Bendigo Health, after the birth of a baby is:

- 24 – 48 hours for vaginal birth
- 3 – 4 days for a caesarian section

Immediate postnatal care is undertaken at the hospital, with post discharge follow up provided with one visit through the Maternity Home Care (MHC) service. The local maternal Health Child Nurse (MHCN) is notified of each birth and again when the women and her baby have been discharged from the home care program.

An Obstetric Discharge Summary is faxed to the nominated GP by the Maternity Unit. Prior to discharge from hospital, contraception and the need for other follow up care and investigations will have been discussed with the woman; however, **these issues may be referred to the GP to action.**

If the mother is discharged under 48 hours after the birth she will be asked to arrange for a GP review of the baby at 5 – 7 days to check the general health of the baby, in particular to check that the ductus arteriosus has closed. The findings of the examination should be recorded in the baby health record booklet.

Most postnatal care is by GPs in the community and the hospital encourages all mothers to attend, with their baby, a 6 week check with their GP (earlier if needed). On occasion some women, with specific issues, will be followed up in the Gynae Clinic (WHC) at the 6 week point.

Recommendations for timing and content of postnatal care

The timing of visits should be individualised and reflect the needs of the woman. The mother and baby should both be assessed keeping in mind the following four areas of health and well-being:

- Physical assessment of the mother and baby, including feeding and settling
- Emotional well-being of mother and baby
- Developmental assessment of the baby
- Relationship and social

A woman-centred approach is encouraged so that the woman is able to raise issues most relevant to her.

For a list of useful contacts for GPs, women and their families see Table 12 – 15

Table 11: Postnatal care

| | | |
|-------------------------------|--|--|
| 6 week Postnatal Check | GP (may also have Gynae Clinic/WHC appointment) | Aim <ul style="list-style-type: none"> • Assessment of physical and emotional health of mother and physical health and development of the baby • Anticipation of likely problems • Provision of support |
| | | Clinical <ul style="list-style-type: none"> • Physical assessment • Follow-up complications of pregnancy (e.g. hypertension, pre-eclampsia (PE), GDM, wounds) • Check for fever, anaemia and vaginal loss • Assess for breastfeeding complications • Emotional assessment (clinical depression) • Growth of baby (length, weigh, head circumference) • Development of baby (smiling, eye contact/following, head control etc) • Physical examination of the baby (heart, testes, hips, squint) |
| | | Investigations <ul style="list-style-type: none"> • GTT if GDM • FBE if anaemia in pregnancy or post partum haemorrhage • Pap test if due • Renal studies if history of PE |
| | | Issues for discussion <ul style="list-style-type: none"> • Physical well-being • Sleep and rest • Contraception • Continence/pelvic floor exercises • Breast care and breastfeeding support • Infant feeding (artificial feeding) • Relationship and social issues • Emotional issues, Postnatal Depression • Parenting information/resources/support • Maternal nutrition • Exercise • Smoking • Liaison with other community services • Settling issues • SIDS prevention • Accident prevention/sun protection • Immunisation for baby • MMR for mother if rubella antibody titre low and not given in hospital |
| | | Referral <ul style="list-style-type: none"> • If significant physical issues detected may refer back to Gynae Clinic/WHC • If neonatal problems consider referral to Paediatric Outpatients or private Paediatrician |

(Parts of this table adapted from (7))

Table 12: Bendigo Health contact numbers

| Department | Contact number |
|-------------------------------|---------------------------------|
| Hospital switchboard | 5454 6000 |
| Shared Care Midwife | 5454 7288 0400 561 149 (mob) |
| Women's Health Clinic (WHC) | 5454 7288 |
| Emergency Department | 5454 8104 |
| Pathology | 5454 8955 |
| Radiology | 5454 8630 |
| Special Care Baby Unit (SCBU) | 5454 7148 |
| Maternity Unit | 5454 8582 |
| Diabetes Educator (DE) | 5454 6000 ask to page the DE |
| Dietitian | 5454 8234 |
| Physiotherapy | 5454 8783 |
| Childbirth Educator | 54547285 |
| Lactation Consultant | 5454 7293 (mob) 0427 356 675 |

Breastfeeding

Breastfeeding is the normal method of infant feeding and it is accepted that it positively influences the physical and emotional health of both the mother and her infant, providing nutrition for normal growth and development, as well as protection for many diseases and infections in both the mother and baby.

The World Health Organisation states that: 'Exclusive breastfeeding is recommended up to 6 months of age, with continued breastfeeding along with appropriate complementary foods up to two years of age or beyond'(6)

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

The initial antenatal consultation 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 or partner supports breastfeeding
- they attend antenatal classes
- they have access to support in the postnatal period

The benefits of breastfeeding include:

For the mother

- Accelerated weight-loss and return to pre-pregnancy body weight
- Protection against premenopausal breast cancer, ovarian cancer and osteoporosis
- Promotion of a loving bond between mother and baby
- It is convenient and inexpensive
- Contributes to a period of reduced postpartum fertility

For the infant

Increases the level of protection against bacteraemia, meningitis, urinary tract infection, otitis media, and SIDS

Possible reduced risk of developing obesity, coronary vascular disease, cancer, Type II diabetes, asthma and a delayed onset of coeliac disease

Reduces the incidence and duration of diarrhoeal illness

Improves cognitive development

Reduces the risk of developing cow's milk allergy and other allergy-related illnesses

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, together with referral to breastfeeding support services are the keys to overcoming these problems and to ensure the continuation of breastfeeding. Contact details for a number of services are provided below.

Australian Breastfeeding Association: 1800 6862 686

CAFS Early Childhood Parenting Centre: 03 5331 7556

Table 13: Community support services

| Organisation | Phone number |
|---|---------------------------|
| Maternal Child Health Nurse (MCHN) 24 hour line: Phone advice for families with children up to 6 years. Provides advice, support, counselling, and referral to local agencies on issues such as breastfeeding, parenting, and childhood illness. Also has access to telephone interpreter service and National Relay Service | 13 22 29 |
| Centrelink: Information on family tax benefit, maternity payment, immunisation allowance and childcare benefit | 13 61 50 |
| Immunisation Line: Information on vaccinations and their side effects | 9345 6399 |
| Parent Line: Counselling, information and referral service for parents who have children up to 18 years of age and have parenting issues | 13 22 89 |
| Women's Health Information Centre: Free confidential state-wide service for all women providing health information, support and referral | 9344 2007 |
| Women's Health Victoria: Free confidential state-wide service for all women, provides health information, support and referral | 9662 3755 |
| Young Pregnant and parenting Program: Program run by Bendigo Community Health Service | 5435 0500 |
| Women's Health Loddon Mallee: Counselling, pap testing and health information | 1800 350 233 |
| CentraCare Family Services: Counselling and support | 5443 9577 |
| Australian Breastfeeding Association (ABA): 24 hour recorded message with names and phone numbers of breastfeeding counsellors | 54493894 |
| National Continence Helpline: Confidential advice about bladder and bowel control problems, referral to local services and product information | 1800 330 066 |
| Postnatal & Antenatal Depression Association Inc (PANDA) Helpline: Information and pamphlets for health professionals. Telephone support, information and referral for clients and their families | 1800 130 026 |
| QUITline: Provides information, resources, support and encouragement to assist people trying to quit smoking. Also resources for health professionals | 13 78 48 |
| SIDS (sudden Infant Death Syndrome): Counselling, education, support and research for parents and families who have lost a child under 6 years of age to SIDS or any other cause. Also information for health professionals | 9819 4595 |
| Loddon Mallee Kids (LMK): Local support group for families with premature infants | 5443 2556 0407 522 877 |

Table 14: Web addresses – Hospital and professional bodies

| Organisation & web link | Information |
|---|--|
| Mercy Hospital for Women www.mercyhealth.net | Information on services offered at Mercy Hospital for Women |
| The Women's The Royal Women's Hospital www.thewomens.org.au | Information on services offered at The Women's |
| Sunshine Hospital www.wh.org.au | Information on services offered at Sunshine Hospital |
| 3 Centres www.3cnetres.com.au | Consensus Guidelines on Antenatal Care (October 2001) evidence based guidelines for some aspects of antenatal care |
| RACGP www.racgp.org.au/publications/ | Contains: "The Genetic File" which provides information on prenatal screening and diagnosis |
| "The Red Book" Guidelines for Preventative Activities in General Practice. This includes preventative activities prior to pregnancy, genetic screening and health promotion and prevention in newborns and children | |
| RANZCOG www.ranzcog.edu.au | Includes College statements/guidelines on: <ul style="list-style-type: none"> • Screening in pregnancy • Antenatal screening for Down's syndrome and other Foetal Aneuploidy • Prenatal diagnosis interim policy • Guidelines for the use of RhD immunoglobulin (Anti-D) in obstetrics |
| Genetic Health Services Victoria www.genetichealthvic.net.au | Provides information on genetic services, testing and diagnosis, counselling and support. Provides useful information for health professionals |
| Human Genetics Society of Australasia www.hgsa.com.au | Has policies covering: <ul style="list-style-type: none"> • Antenatal screening for Down's syndrome and other Foetal Aneuploidy • Guidelines for the Practice of Genetic Counselling • Newborn Screening • Pre-natal Diagnosis Policy |
| Infectious Diseases – "The Blue Book" www.dhs.vic.gov.au | Contains general guidelines for the control of infectious diseases including: <ul style="list-style-type: none"> • CMV • Hepatitis B & C • Herpes Simplex • Listeriosis, Toxoplasmosis, Tuberculosis • Rubella • Varicella |
| Accredited Practitioners for provision Nuchal Translucency www.nuchaltrans.edu.au | Contains a list of centres credentialed by RANZCOG Nuchal Translucency Program in Australia |

Table 15: Web addresses – Pregnancy information and child safety

| Organisation & web link | Information |
|--|--|
| Better Health Channel www.betterhealth.vic.gov.au | General information on a variety of health topics including current issues and searching for health professionals and services |
| Breastfeeding Department of Health www.dh.vic.gov.au | Guidelines for professionals on promoting breastfeeding and solving problems |
| Australian Breastfeeding Association www.breastfeeding.asn.au | Information for women on breastfeeding |
| Exercise in pregnancy www.sma.org.au | Guidelines for sport in pregnancy and fact sheet on exercise in pregnancy |
| Folate information www.dh.vic.gov.au | A guide for health professionals on folate and supplementation. Contains a pre-pregnancy checklist |
| Having a baby in Victoria http://maternity.health.vic.gov.au | Covers models of maternity care and pregnancy and birth care options available to Victorian women |
| Pharmacy www.rwh.org.au/pharmacy_rwh | Information about drugs during pregnancy and breastfeeding, including natural medications. Also provides details on available services, education and training |
| SIDS www.sidsandkids.org | Information on risk reduction strategies, information on counselling, support and fundraising activities |
| Toxoplasmosis www.dhs.vic.gov.au | General information on the prevention and diagnosis of toxoplasmosis |
| Women's Health Victoria www.whv.org.au | General information on women's health issues |
| Child Safety www.childsafety.com.au | Information on many common areas of concern including: <ul style="list-style-type: none"> • Animals • Water safety • Care restraints • Web sites • Electrical safety Also provides information on safety products and contact numbers |
| Immunisation www.health.gov.au | Information on common vaccines, vaccination schedules for children, side effects and government benefits |
| Australian Physiotherapy Association www.physiotherapy.asn.au | General information for health professionals and patients |
| QUIT www.quit.org.au | Resources and information on QUIT campaigns and how to quit smoking |

Appendix 1: Levels of Evidence in Medical Practice

The evidence for intervention questions presented in these guidelines was systematically assessed and classified according to the NHMRC “A Guide to the Development, Implementation and Evaluation of Clinical Practice Guidelines” (1998).

Evidence for other questions was generally given the equivalent of Level IV status by consensus of the steering group and clinical epidemiologist.

| | |
|---------------|--|
| Level I | Evidence is obtained from systematic review of all relevant randomised controlled trials |
| Level II | Evidence is obtained from at least one properly designed randomised controlled trial |
| Level III – 1 | Evidence is obtained from well-designed pseudo-randomised controlled trials (with alternate allocated or some other method) |
| Level III – 2 | Evidence is obtained from comparative studies with concurrent controls and allocation not randomised (cohort studies), case control studies or interrupted time an series with a control group |
| Level III – 3 | Evidence is obtained from comparative studies with historical controls, two or more single are studies or interrupted time series without a parallel group |
| Level IV | Evidence is obtained from case series, opinion of respected authorities, descriptive studies, reports of expert committees’ and case studies |

Appendix 2: Referral for Obstetric Care at Bendigo Health

The preferred referral template for maternity care is provided on the Bendigo Health Website.

Information to be included in the referral (preferred):

| | |
|-----------------------------------|---|
| Date of referral: | Refer to ANC |
| Demographics: | Name of patient Address and contact phone number Date of birth |
| Pathology: | Initial blood tests ordered (yes/no) Pathology service used (if yes) Please send copy of results with women or cc copy to WHC |
| Model of Care: | Has this been discussed with the women e.g. Share Care |
| Interpreter: | Is interpreter service required, if yes, which language |
| Current Obstetric History: | LNMP EDD (by dates/US) Problems to date |
| Past Obstetric History: | Gravida : Parity (G:P) Complications of pregnancy Complications of birth Postnatal complications |
| Medical History: | Present Past Social history Medications/allergies Smoking/alcohol/drug history Date and outcome of last Pap test |
| Doctor's details: | Doctors stamp is acceptable Signed Name Address and contact numbers (phone/fax) Provider number |

NB: if referral letter faxed an appointment time will be sent to the patient
OR
Patient can bring referral letter to appointment

Appendix 3: Shared Care Maternity Information (for women)

Shared Maternity Care means that during your pregnancy you can visit both the hospital and your GP or a Midwife Clinic, at the hospital or at a community clinic. Together they will “share” your care. The birth of your baby will be at the hospital.

You can:

- Usually see the same care provider throughout your pregnancy (GP) or the same small group of providers such as the midwives or Obstetric doctors at the hospital or community clinic.
- Establish ongoing care for yourself and your baby with your GP

Some Shared Care GP’s may charge “out of pocket” fees; this amount varies between providers so please discuss any questions you have regarding this issue with your chosen GP.

If you choose shared care:

Your GP **must** be accredited with the hospital to provide Shared Maternity Care.

On registration for Shared Care you will be given a Victorian Medical Record (VMR) which you must bring with you to all visits during your pregnancy, either with the GP or at the hospital, and when you come to hospital to have your baby. This will ensure that your details and information are accurate and up to date. Results of any pathology tests or ultrasounds performed at the hospital will be available at your next visit with your care provider.

You may choose to stop Shared Care at any time during your pregnancy by contacting the hospital Shared Care Midwife or your GP. If you develop problems during your pregnancy you may no longer be suitable for Shared Care and need to continue all care at the hospital clinic.

Delivery and discharge:

When you go to hospital in labour you should take your VMR with you. If you have a Shared Care GP they will be notified of your delivery. Hospital midwives will visit you once at your home after discharge from hospital; this will occur regardless of the model of care you have taken part in during your pregnancy. Your Maternal & Child Health Nurse will also contact you during your first week at home. A postnatal check for you and your baby is recommended with your GP, 6 weeks after the birth. You should ring to make an appointment for this visit.

Remember to:

- Look after your VMR, it is your responsibility
- Keep the VMR with you at all times and bring it to all pregnancy care visits
- Make sure you take your VMR with you when you are admitted to hospital during your pregnancy or in labour.

Appendix 3(a): Antenatal test schedule (for women)

10 weeks – booking in (Bendigo Health Women’s Health Antenatal Clinic)

At this visit you will:

- Be assessed by a midwife
- Receive education from a hospital midwife
- Meet the Shared Care Midwife
- If bloods have not already been taken, this will be done at this visit (a copy of results will be sent to your Shared Care GP)

Tests: Antenatal screening tests will generally have been organised by the GP. If they have not yet been done they will be discussed at this visit. Some tests may need to be ordered by the GP

14 – 16 weeks (GP/Midwife Clinic)

Tests: Maternal Serum Screening Test (if first Trimester screening test not done)
Ultrasound

20 weeks (Bendigo Health Women’s Health Antenatal Clinic)

Obstetric visit
Confirm Expected Date of Delivery (EDD)
Review tests and investigations

26 weeks (GP/Midwife Clinic)

Diabetes check
Blood tests for anaemia and antibodies (blood test done closer to 28 weeks)

30 weeks (GP/Midwife Clinic)

Review test results
Confirm Anti-D status (if negative blood type)

34 weeks (Bendigo Health Women’s Health Antenatal Clinic)

Review EDD
Review all investigations including antibody screen

36 weeks (GP/Midwife Clinic)

GBS swab taken

38 weeks (GP/Midwife Clinic)

40 weeks (Bendigo Health Women’s Health Antenatal Clinic)

Full review

40+4 weeks (Bendigo Health Women’s Health Antenatal Assessment Clinic)

Review
CTG (monitoring)
Ultrasound

41 weeks (Bendigo Health Women’s Health Antenatal Clinic)

CTG
Ultrasound review

Appendix 5: Lifestyle counselling issues

Pregnancy frequently provides motivation for a woman and her family to modify undesirable behaviour and as such is a window of opportunity for behavioural change. It is important that health care providers recognise this and are able to assist the woman and her family in this positive change. These may include:

- Smoking cessation
- Cessation of illicit drugs
- Alcohol minimisation
- Good nutritional and dietary changes
- Improvement in relationships, self esteem, linkages to the community and mental wellbeing.

The “change cycle” below describes smoking cessation. However, it can be applied to any behaviour change.

Smoking Cessation

Smoking cessation interventions should be offered in routine antenatal care to all pregnant women who smoke or who have recently quit. (Level 1 evidence)

At every antenatal visit Midwives and doctors should ask women about their smoking behaviour using a multiple-choice question, and document their response on the antenatal record. (Level II & III evidence)

Approximately one third of pregnant women smoke (6). Interventions during pregnancy can double quitting rates and reduce relapse among spontaneous quitters (7). The risk of poor health outcomes for babies exposed to maternal smoking can be reduced by offering smoking cessation interventions (8). Pooled estimates of relative risk show the following risks for pregnant smokers:

- Low Birth Weight or Intrauterine Growth Retardation is doubled
- Prematurity, still birth and spontaneous abortions are a third more likely
- Risk of Sudden Infant Death Syndrome is almost three times higher.

The evidence suggests that interventions should have multiple contacts, multiple formats supported with written materials and follow-up contacts (8). A five-step strategy is recommended.

- **ASK**
- **ADVISE**
- **ASSESS**
- **ASSIST**
- **ASK AGAIN**

Smoking Cessation Intervention for Pregnant Women

AFFIRM CHOICE

ASK

Have you ever smoked?

NO /YES

Which of the following best describes your smoking?

- I smoke daily now, about the same as before finding out I was pregnant.
- I smoke daily now, but have cut down since finding out I was pregnant.
- I smoke every once in a while.
- I quit since finding out I was pregnant.
- I wasn't smoking around the time I found out I was pregnant, and I don't currently smoke.

RECORD STATUS

ADVISE

At every antenatal visit all women who have recently quit or who are currently smoking:

- about the risks to their own and their baby's health
- benefits of quitting at any stage in pregnancy
- congratulate quitters

ASSESS

All women who are smokers or recently quit, about willingness to quit or stay stopped.

| Record status | Not interested in quitting | Thinking about quitting | Assess interested in quitting | Recently Quit |
|------------------------|----------------------------|----------------------------------|--|------------------------------|
| | Offer written resources | Offer written resources | Set a quit date | Review & re-enforce benefits |
| | | Address concerns | Discuss support available | |
| | | Information for partner | Offer written resources | |
| | | Refer to QUITline using fax form | Information for partner | |
| Reaffirm choice | | | Refer to QUITline pregnancy call-back service using fax form | |

RECORD STATUS/CONGRATULATE/ASK AGAIN
(6, 7, 8, 9)

ASSIST

Some suggestions for providing a brief intervention

Assist deciding to try to quit, assist trying to stop smoking, assist staying stopped

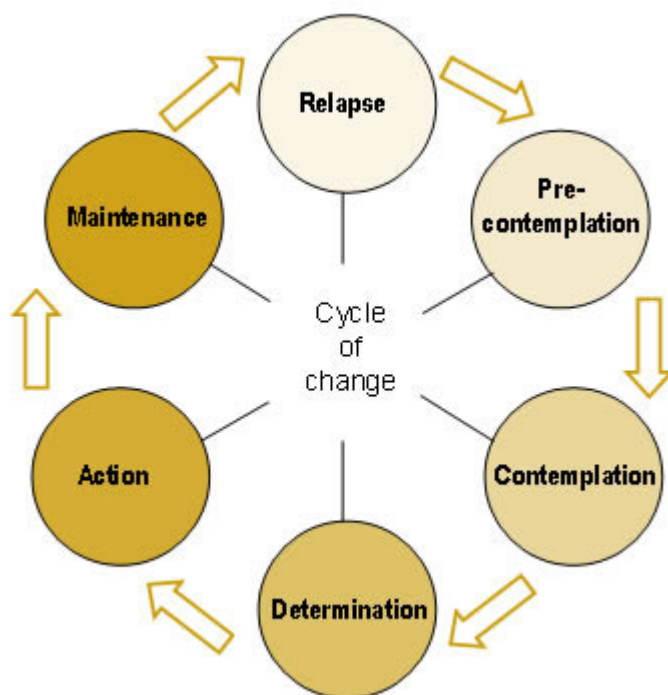
Discuss:

Conflict

- three aspects of addiction
- enhance self confidence
- decision making
- withdrawal symptoms
- review reasons for quitting
- barriers to quitting
- quitting methods
- encourage the non-smoker image
- benefits of quitting at any
- quitting aids

Stage in pregnancy

- importance of quitting for self
- high risk times e.g. late pregnancy as well as for baby post-partum, weaning plan
- remind about resources & supports
- quitting strategies
- reunite system
- support network



ASK AGAIN

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