Disclaimer

These guidelines have been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach.

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Although the clinical material offered in this guideline provides a minimum standard it does not replace or remove clinical judgement or the professional care and duty necessary for each specific patient case. Where care deviates from that indicated in the guideline contemporaneous documentation with explanation should be provided.

This guideline does not address all the elements of guideline practice and assumes that the individual clinicians are responsible to:

- Discuss care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes the use of interpreter services where necessary
- Advise consumers of their choice and ensure informed consent is obtained
- Provide care within scope of practice, meet all legislative requirements and maintain standards of professional conduct
- Document all care in accordance with mandatory and local requirements
ACKNOWLEDGEMENTS

The GP Obstetric Shared Care SA Program (GP OSC SA) was established in 2002 as a result of an initiative by SA Health, facilitated by the Healthy Start Clinical Reference Group (now known as the SA Maternity & Neonatal Clinical Reference Work Group).

This document outlines the clinical protocols that support the GP OSC SA.

These protocols have been developed in accordance with contemporary professional standards of care and outline the minimum standards of clinical practice required by General Practitioners providing maternity services in South Australia.

The SA Perinatal Practice Guidelines underpin the SA GP Obstetric Shared Care Protocols outlined within.

The members of the group that participated in the review of the GP OSC SA Protocols 2014 were:

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ADMINISTRATION SECTION

1 OBSTETRIC SHARED CARE

‘Shared Maternity Care represents an opportunity to practise collaborative holistic obstetric care by combining the varied skills of Midwife, GP and Obstetrician to the benefit of the community and mutual understanding between colleagues’. RANZCOG statement WPI-November 2011.

Women wishing to attend a South Australian public hospital (in metropolitan Adelaide, and Gawler) for childbirth have the option of GP obstetric shared care if they meet the designated criteria. In this model, the General Practitioner (GP) provides most of the antenatal and postnatal care, while the public hospital staff provides the inpatient and some outpatient obstetric care.

An obstetric shared care arrangement should be recommended for all low risk women who have access to an accredited GP and a participating public hospital.

A GP wishing to participate in an obstetric shared care arrangement must be accredited as competent in obstetric care and be familiar with the policies of the participating hospital.

A GP who is accredited for OSC can provide antenatal care in collaboration with the participating public hospital throughout the pregnancy in accordance with these protocols and the enclosed visit schedule. A shared care arrangement requires additional effort to be given to communication between all parties involved in the shared care arrangement, this should include the pregnant woman.

It is essential that the GP ensures that their current details are accurate and available on the SA Health Provider Registry: http://www.generalpracticesa.org.au/pages/hpry.html and any changes to their details are made available to GP partners Australia www.gppaustralia.org.au/osc

The GP should ensure, the pregnant woman opting for GP OSC secures a reference number from the Pregnancy SA Referral Line (Ph: 1300 368 820) so she can be scheduled her first antenatal visit at a participating public hospital.

In a shared care arrangement, a woman who develops complications can be referred to the hospital for assessment at any time.

2 GP OSC SA PROTOCOLS

The GP OSC SA Protocols outline the framework for the provision of Obstetric Shared Care in South Australia. The protocols are updated every 3 years and the clinical practices outlined in these protocols have been developed in accordance with the SA Perinatal Practice Guidelines (SA PPG), which provide perinatal care providers with evidence-based standards to support clinical practice. The GP OSC SA Protocols are available on the website at: www.gppaustralia.org.au/osc and along with the SA PPGs on the SA Health website www.sahealth.sa.gov.au/perinatal.
3 MEDICAL INDEMNITY

The risk of litigation in the practice of obstetrics mainly relates to the conduct during labour, although litigation has occurred when antenatal screening tests have been omitted, or when serious medical problems or obstetric complications have not been detected during the pregnancy.

While the responsibility for the health of the woman and her baby is shared in obstetric shared care, medical indemnity insurance related to this care remains the responsibility of the medical officer(s) involved. Medical insurers have specific requirements related to this care and it is recommended that GPs clarify these with their medical indemnity insurers.

To be indemnified for the practice of obstetric shared care, the appropriately qualified GP must adhere to the requirements of their insurance provider.

4 ACCREDITATION & CONTINUING PROFESSIONAL DEVELOPMENT (CPD) REQUIREMENTS

GP partners Australia facilitates the management of the GP accreditation for the GP OSC SA in liaison with SA Health.

4.1 Initial Accreditation

All GPs undertaking obstetric shared care in South Australia are required to meet the accreditation requirements of the GP OSC SA and be familiar with both the program protocols and the policies of the participating hospital.

Approval for full accreditation is subject to both:

- Satisfactory obstetric experience, and
- Completion of an Accreditation Seminar.

Provisional accreditation may be approved for a period of up to 12 months on the basis that the GP attends and fulfils the requirements for a Category 1 Accreditation Seminar in that time. Provisional accreditation will usually be approved for GPs who have one of the following:

- DRANZCOG with current recertification, or equivalent qualification;
- Diploma Obstetrics RACOG, or CSCT in Women’s Health, plus recent involvement in antenatal care provision;
- FRANZCOG, FRACOG or FRCOG;
- GPs who can demonstrate recent significant obstetric experience such as having spent a minimum 3-month placement in obstetrics at a teaching hospital.

GPs who do not meet the obstetric experience requirements may apply to undertake a supervised obstetric clinical attachment at one of the public metropolitan maternity hospitals. If subsequent satisfactory clinical performance is demonstrated, provisional accreditation will be granted.
4.2 Ongoing Accreditation

The ongoing accreditation of GPs for the GP OSC SA Program is managed within a 3-year accreditation cycle, which is conducted in parallel with the Continuing Professional Development (CPD) triennium as defined by the RACGP and ACRRM.

To maintain accreditation a GP must demonstrate over the 3 year period that they have engaged in CPD activities equivalent to a minimum of 12 CPD points specific to Obstetric Shared Care. Four (4) of these points are allocated for participation at the CPD events organised by GP partners Australia over the three years.

Assessment of CPD activities is a role undertaken by the GPOS SA Advisors and the two (2) CPD points per hour will be allocated; (in accordance with RACGP QA & CPD Program). The records management of CPD accreditation points will be managed by the GPOS SA Coordinator.

CPD activities could include:

1. GP OSC (SA) Accreditation Seminar
2. GP OSC (SA) CPD events
3. RANZCOG Diplomats Days
4. DRANZCOG Revision course
5. Online CPD activities eg GP learning
6. Women’s health activities and other events conducted by GP Networks
7. Other educational activities that can be demonstrated to be relevant to OSC eg part of a 40 point Active Learning Module

Rural GPs unable to meet this requirement need to contact the Obstetric Shared Care GP Coordinator.

4.3 Compliance - Accreditation

The GP accredited to GPOS SA program must ensure they remain current with perinatal practice as per the SA Perinatal Practice Guidelines and the GPOS SA protocols.

The GPOS SA Advisors facilitate the review of the accreditation status of a GP who is deemed to be non-compliant with the GP OSC SA accreditation.

5 GP OSC SA MIDWIFE CO-ORDINATORS

GP OSC SA Midwife Coordinators are available at five (5) public maternity hospitals across SA (listed below). Each GP OSC SA Coordinator is a Registered Midwife, who through experience and education is an expert clinical practitioner in antenatal/postnatal management.

The Midwife Coordinators will facilitate and liaise with a range of health workers to support antenatal/postnatal activities for women and staff involved in the GP OSC SA Program, ensuring that relevant professional standards and appropriate documentation are maintained.
The GP OSC SA Midwife Coordinators support antenatal clinics held at:
- Women’s and Children’s Hospital
- Flinders Medical Centre
- Lyell McEwin Hospital
- Modbury Hospital
- Gawler Hospital

The GP OSC SA Midwife Coordinator acts as an advocate, both for women and the GP involved in the GP Obstetric Shared Care Program. The GP OSC SA Midwife Coordinator is also available to rural GPs who require information even if the woman is not giving birth at a metropolitan hospital.

The GP is encouraged to contact the GP OSC SA Midwife Coordinator for advice or information regarding the program.

A database of accredited GPs across South Australia is maintained by GP partners Australia and is available to the Midwife Coordinators.

**CONTACT DETAILS FOR THE GP OSC SA MIDWIFE COORDINATORS CAN BE FOUND ON Pg 4**
6 SOUTH AUSTRALIAN (SA) PREGNANCY RECORD

SA Health has endorsed the SA Pregnancy Record as the substantive record of a woman’s pregnancy. The aim of the SA Pregnancy Record is to improve continuity of care, involve the woman’s family in the care, and promote early and appropriate use of antenatal services, particularly amongst disadvantaged groups. The SA Pregnancy Record must be used to document the care provided for all women involved in GP Obstetric Shared Care.

The perinatal care provider must record at each visit all relevant antenatal information in the SA Pregnancy Record. Information must be sufficient to meet the care provider’s duty of care in diagnostic and treatment decisions.

Information need not be duplicated, but clinicians may do so by choice. If duplication is required, it is recommended that the SA Pregnancy Record be photocopied. Pathology and ultrasound results are to be filled in and included in the SA Pregnancy Record.

The SA Pregnancy Record should be given to the woman at her first antenatal visit after confirmation of pregnancy. She should be instructed to carry this with her to all appointments during her pregnancy, including those with other health professionals. The woman should be made aware that the SA Pregnancy Record is the ONLY complete medical record maintained for her antenatal care, and it is vital that it is used to record the care given to her at each visit. The woman should also be aware that the SA Pregnancy Record will become part of the hospital’s medical records after the birth of her child.

As the substantive record, the SA Pregnancy Record will be filed in the medical records at the hospital where the birth occurs. The SA Pregnancy Record is not to be destroyed under any circumstances.

The Guidelines for the use of the SA Pregnancy Record can be viewed at www.sahealth.sa.gov.au/wps/pregnancyrecord
7  RELATIVE CONTRAINDICATIONS TO SHARED CARE

Obstetric shared care arrangements can be provided for most pregnant women. GPs should seek advice from the GP OSC SA Midwife Coordinator or an Obstetric Registrar / Consultant to clarify the recommended management of the women presenting with any of the relative contraindications listed below:

The following conditions, identified before or during pregnancy, present a relative contraindication for the woman to be managed in an obstetric shared care arrangement:

From General History
- endocrine disease including diabetes mellitus
- cardiac disease
- renal disease
- hypertension
- respiratory disease
- neurological disease including epilepsy on medication
- thrombo-embolic disorders or antiphospholipid syndrome
- illicit drug use
- haematological disorders including haemoglobinopathy, thrombocytopenia, significant anaemia
- psychiatric disorders
- gastro-intestinal disease
- obesity – BMI > 35.9 kg/m² with co-morbidities
- obesity – BMI > 40 kg/m²

From Obstetric History
- severe pre-eclampsia
- perinatal death
- placental abruption
- preterm birth at less than 34 weeks
- intra-uterine growth restriction
- recurrent pregnancy loss
- suspected cervical incompetence

From Early Pregnancy Assessment
- Rh or other blood group antibodies
- anaemia
- multiple pregnancy
- haemoglobinopathy
Arising During Pregnancy any of the above conditions and/or

- antepartum haemorrhage
- fetal abnormality
- suspected intra-uterine growth restriction
- recurrent urinary tract infection
- gestational diabetes
- deep vein thrombosis or embolism
- placenta praevia
- non-cephalic presentation after 36 weeks
- gestational hypertension or pre-eclampsia
- threatened preterm labour
- cholestasis of pregnancy

8 BOOKING THE OBSTETRIC SHARED CARE WOMAN AT THE PARTICIPATING HOSPITAL

The GP should ensure the GP OSC SA woman is referred to a participating hospital as soon as possible to ensure the 1st antenatal visit is scheduled before 20 weeks gestation and preferably in the 1st trimester.”

As with all pregnant women wishing to birth in a public hospital in metropolitan Adelaide (including Gawler and Mt Barker hospitals), the pregnant woman opting for GP OSC is required to secure a reference number from the Pregnancy SA Referral Line before she can be scheduled her first antenatal visit. This first antenatal appointment will be undertaken by the GP OSC Midwife Co-ordinator at the participating hospital. (This does not apply to rural women coming to a metropolitan hospital to birth)

The Pregnancy SA Referral telephone number is: 1300 368 820. The service is available 9am-4pm Monday to Friday (excluding public holidays).

The GP OSC Midwife Co-ordinator can assist with determining a management plan for all pregnant woman, including those deemed to be ‘at risk’.
9 OBSTETRIC SHARED CARE VISIT SCHEDULE

This is the suggested antenatal visit schedule for all ‘normal’ risk nulliparous and parous women who have been determined as suitable for GP OSC SA either at the first hospital visit or following obstetric review. Additional visits can be scheduled for the ‘at risk’ woman.

<table>
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<tr>
<th>SCHEDULED VISIT</th>
<th>OUTLINE OF ASSESSMENT/TASKS REQUIRED</th>
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| 1st visit may be with GP Preferably before 10 weeks | □ Calculate EDC by dates and cycle. If uncertain, order dating ultrasound  
□ Commence SA Pregnancy Record  
□ Order routine blood and urine tests  
□ Complete blood picture  
□ Blood group and antibody  
□ Rubella titre  
□ Syphilis serology  
□ Hepatitis B  
□ Screen for perinatal mental health as per the National Perinatal Mental Health Initiative  
□ Recommend prophylactic influenza vaccination  
□ Commence iodine supplement  
□ Commence Vitamin D regimen (for at risk women)  
□ Discuss breastfeeding and antenatal education  
□ Offer first trimester Down syndrome screening if woman 11 – 136 weeks  
□ Discuss options of CVS or amniocentesis to women at increased risk  
□ Offer second trimester Down syndrome and NTD screening if woman 14 – 206 weeks if indicated  
□ Book morphology ultrasound for 18-20 weeks. |
| 20 weeks | □ Discuss prophylactic Anti-D with Rh (-) negative women  
□ Discuss maternal blood screening, morphology & ultrasound results & refer as appropriate |
| 28 weeks | □ Order (copy to the hospital)  
□ Complete blood picture  
□ Blood group antibodies  
□ Oral glucose challenge test  
□ Vitamin D (if previously deficient)  
□ Administer prophylactic Anti-D to Rh (-) women without antibodies  
□ EPDS Score – to be repeated if previous score >13 |
| 32 weeks | □ Check-up  
□ Discuss breastfeeding |
| 34 weeks | □ Administer prophylactic Anti-D as per protocol for Rh (-) women |
| 36 weeks | □ Discuss birthing plan  
□ Repeat Complete blood picture if anaemic  
□ Undertake Group B strep screening (copy to GP if GP Shared Care) |
| 38 weeks | □ Check-up |
| 40 weeks | □ Discuss induction of labour |
10  FIRST APPOINTMENT WITH OBSTETRIC SHARED CARE

The GP managing the woman in an obstetric shared care arrangement should commence documentation in the SA Pregnancy Record at the woman’s first antenatal visit. www.sahealth.sa.gov.au/pregnancyrecord

The GP should ensure the pregnant woman opting for GP OSC secures a reference number from the Pregnancy SA Referral Line (Ph: 1300 368 820) so she can be scheduled for her first antenatal visit at the participating public hospital.

The GP should book all required blood tests and ensure copies of results are addressed to the antenatal clinic at the participating hospital and give consideration to a ‘dating’ ultrasound if clinically necessary.

At the first appointment, the GP should also explain the obstetric shared care protocols, including the timing and nature of the antenatal visits shared between the participating hospital and GP. It is suggested that the GP also spends time early in the pregnancy discussing breastfeeding with the woman.

The following areas must be addressed in the early antenatal appointments.

10.1  History

Personal details and history should be obtained and must be recorded in the SA Pregnancy Record.

10.2  Family History of Genetic Condition

Wherever possible, appropriate genetic counselling is best undertaken prior to a pregnancy. An increasing number of genetic conditions can be screened for and/or diagnosed. If the woman has a relevant history, the GP should contact the GP OSC Midwife Co-ordinator at the participating hospital for advice before any testing.

10.3  Examination

A general examination must be performed. Blood pressure should be assessed (measured on the right arm with the woman seated, with appropriate size cuff i.e. large cuff when arm circumference is > 32 cm). Weight (kg), height (cm) and BMI must be measured and calculated. As per the SA Health’s Standards for the Management of the Obese Obstetric Woman in SA; available at www.sahealth.sa.gov.au/pregnancypolicies

The GP OSC Midwife Co-ordinator at the referring hospital should be contacted for advice upon presentation of any pregnant woman with a BMI > 39.9 kg/m² with co-morbidities or any pregnant woman with BMI > 40 kg/m² (at any time during the pregnancy).

The GP should immediately transfer the care of the pregnant woman with BMI > 60 kg/m² or who weighs 170kg to a level 6 maternity site with an adult intensive care unit. i.e LMH or FMC

A cervical smear should be performed, if this has not been done within the last 18 months. All findings must be recorded in the SA Pregnancy Record.
10.4 Booking Tests
The GP ordering and booking the antenatal tests must ensure that copies of the woman’s results are available at the participating hospital at the time of her first antenatal visit. The GP should ensure that any investigations requested are followed up and that there is no expectation that these results will be followed up and acted upon by the participating hospital.

10.5 Booking Investigations
The GP should provide appropriate counselling and secure consent before booking the following investigations for the woman:

- Complete blood picture
- Blood group and antibody screen
- Rubella titre
- Syphilis serology
- Hepatitis B screen
- Hepatitis C screen
- HIV test
- Mid stream sample of urine (MSSU)
- Vitamin D Screen for those identified at risk (i.e. women who are darker skinned, wear veils, are housebound or are newly arrived refugees)
- Morphology ultrasound 19 – 20 weeks
- Pap Smear – consider if not done in last 18 months

All women should be offered screening for chromosomal anomalies. If the woman presents in the 1st trimester nuchal translucency should be offered 11-13w6d and biochemistry at 9w0d – 13w6d. However, if the woman presents later in pregnancy at 14w0d – 20w6d the second trimester biochemistry screening should be offered.

It should be remembered that the first trimester nuchal translucency ultrasound scan is not available at all maternity hospitals, and are mostly ordered by the GP through private medical imaging services.

The blood test is arranged through the SAMSAS (South Australian Maternal Serum Antenatal Screening) Program, which provides services accredited by the Maternal Fetal Medicine Foundation. SAMSAS uses the information from the blood tests and nuchal translucency scan to calculate the risk of chromosomal anomalies for a particular woman and sends the result to the referring doctor.

Non Invasive Prenatal Testing
Non-invasive prenatal testing (NIPT) is a test which uses cell-free fetal DNA of placental origin in maternal serum to screen for fetal aneuploidy. NIPT is now commercially available in Australia and New Zealand via several overseas-based laboratories. Due to public awareness of this technology and widespread advertising, many of the consultations regarding NIPT are likely to be initiated by pregnant women themselves. NIPT is offered as a second tier screen following a combined first trimester screen. NIPT is available from 10 weeks gestation. There is no upper gestational limit. However, consideration needs to be given should women wish to proceed to termination.
**Important Points**

- NIPT is a screening test during early pregnancy to detect Down Syndrome and other chromosome conditions
- The test is safe and does not pose any risk to mother or baby
- Currently only offered through specialist centres at a cost to the patient. No Medicare rebate is available
- NIPT, like all prenatal tests is optional
- The accuracy of NIPT tests is high although not 100%
- A definitive diagnosis of a chromosome condition in the baby can only be made following an invasive prenatal diagnosis test like CVS or amniocentesis

A pregnant woman with an abnormal maternal serum screening result must be promptly referred to the participating hospital for counselling with a view to offering NIPT, Chorionic Villus Sampling (CVS) or Amniocentesis. This can proceed through the GP OSC Midwife Co-ordinator.

It is suggested that GPs read and are familiar with the section on “Risks and screening for Down Syndrome” and the table “Maternal Age and Risk”.

It is suggested that the GP discusses Chorionic Villus Sampling (CVS) and Amniocentesis with any woman who has an increased risk of a chromosomal disorder or those with a family history of genetic disorder. This should be undertaken at 10w0d – 13w6d, and amniocentesis should be undertaken from 15w0d onwards. The GP should refer the woman to the participating hospital for appropriate counselling as soon as possible. This can proceed through the GP OSC Midwife Co-ordinator.

**10.6 Medications in Pregnancy**

The pregnant woman should be advised to only take medications that have been prescribed by a doctor. Likewise, she should not stop any necessary medication without prior discussion with the doctor concerned. The pregnant woman should only use paracetamol for the treatment of pain and fever, not aspirin or other non-steroidal anti-inflammatory drugs, e.g. ibuprofen.

The GP can seek advice regarding the woman taking long term medication in pregnancy from the Medicines and Drug Information Centre at the Women’s and Children’s Hospital Pharmacy (Phone (08) 8161 7222 Monday- Friday 9 am – 5 pm).

**10.7 Immunisations in Pregnancy**

The National Immunisation Program Schedule recommends:

- influenza vaccination for all pregnant women including those in the first trimester at the time of vaccination,
- dTpa (pertussis) vaccination be administered in the third trimester for those women who have a lapse of 5 years or more since their previous dose.

The GP should refer to the Australian Government, Department of Health & Ageing; The Australian Immunisation Handbook for further information. www.immunise.health.gov.au
10.8 Supplements in Pregnancy
The GP should consider the following suggestions regarding advice given to the woman for the use of vitamins in pregnancy:

- Calcium, vitamins and fluoride are not usually necessary
- Supplemental iron will be required if haemoglobin is below 100g/L
- Folic Acid 0.4-0.5 mg; although it is recommended to be taken at least one month prior to conception it is also recommended until 12 weeks gestation. If the woman is at increased risk of neural tube defect, on antiepileptic drugs or has hyperhomocysteinaemia, a daily dose of 5 mg is recommended
- Vitamin D if required, as per the SA Perinatal Practice Guidelines
- Iodine 150mcg(ug)/day should be taken during pregnancy and for the duration of breastfeeding

The GP should refer to SA Health Perinatal Practice Guidelines for additional information, refer website at: www.sahealth.sa.gov.au/perinatal

10.9 Perinatal Mental Health
The recognition of depression and other mental health conditions in the antenatal period is important as it may require treatment during the pregnancy and is a strong predictor for post partum depression. It is appropriate to use the Edinburgh Postnatal Depression Scale (EPDS) to assess antenatal depression (see Section 17.5). The SA PPGs Perinatal anxiety and depressive disorder (including postnatal depression) recommend routine screening of all women in the antepartum and postpartum period using the Edinburgh Postnatal Depression Scale as well as psycho-social risk questions eg Antenatal Risk Questionnaire (ANRQ) or Post Natal Risk Questionnaire (PNRQ). See Appendix (ANRQ;PNRQ;EPDS and scoring.)

The SA PPGs outlines the guidelines for perinatal mental health, including screening for perinatal anxiety and depression. These guidelines should be referred to directly www.sahealth.sa.gov.au/perinatal
SA Health guidelines are consistent with National guidelines developed from a collaboration between beyondblue and NHMRC. These guidelines and other resources may be downloaded via [www.beyondblue.org.au](http://www.beyondblue.org.au)

<table>
<thead>
<tr>
<th>EPDS score</th>
<th>0-9</th>
<th>10-12</th>
<th>&gt;13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood of depression</td>
<td>Considered low</td>
<td>Considered moderate</td>
<td>Considered high</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Very high scores can be suggestive of a woman in crisis or with a personality disorder. It warrants further investigation</td>
</tr>
<tr>
<td>Referral – Tertiary &amp; Rural</td>
<td>Mothers group for support. Child and Family Health Service for help with baby issues. Involve family and friends for support</td>
<td>GP Perinatal Mental Health Team Post natal Depression Group</td>
<td>GP ACIS - 131465 Emergency Department Perinatal Mental Health Team\nConsider risk to child/ren</td>
</tr>
<tr>
<td>Referral timeframe</td>
<td>As needed</td>
<td>As soon as able</td>
<td>Immediate – especially if risk of suicide / infanticide</td>
</tr>
<tr>
<td>Symptoms</td>
<td>Normal anxiety, particularly about baby and mothering, possible transient lowered mood but also some ‘good days’</td>
<td>Anxiety, particularly about baby and mothering, overwhelmed, lowered mood, panic attacks, hopelessness and helplessness, life not worth living, lowered mood much of the time.</td>
<td>Anxiety - vague and not necessarily directed, overwhelmed, labile, low or elevated mood, preoccupied, vague and distracted, possible psychotic symptoms (delusions and hallucinations), suicidal ideation</td>
</tr>
<tr>
<td>Risk assessment</td>
<td>Risk of harm to self or others must still be inquired about</td>
<td>Risk of suicide but baby often protective. Neglect of baby and/or poor parenting secondary to the depression or underlying risk factors (e.g. history of child abuse leading to subsequent personality issues)</td>
<td>May be significant to self and baby due to poor judgement, severe depression, suicidal ideation, command hallucinations or delusional beliefs- needs urgent assessment of need for hospitalisation.</td>
</tr>
<tr>
<td>Differential diagnosis</td>
<td>Consider other causes for symptoms such as anaemia, poor sleep and lack of energy. Thyroid function, anaemia or bereavement should be excluded before diagnosing depression.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thirty six translated versions of the EPDS have been developed for use with non-English speaking women. Digital copies may be requested from the Western Australian Department of Health at wapmhu@health.wa.gov.au or phone (08) 93401795
Referral Services

There are a variety of services available for GP’s seeking assistance with managing perinatal mental health issues. Specific services available may depend on geographic location, but these include:

- Emergency Mental Health Triage (previously known as Assessment and Crisis Intervention Service (ACIS) can undertake urgent assessments, telephone 131465
  
- Helen Mayo House (HMH) is a State-wide acute mother-baby unit which admits parents (usually mothers) and their children 3 years of age or younger, if the parent needs treatment for mental health problems such as depression, anxiety or psychosis following childbirth. Inpatient, outreach day patient and group treatment programs are available, as well as brief telephone consultations for advice regarding patient care. Contact telephone (08) 7087 1030.

- Mental health/perinatal mental health teams at the participating hospitals (see Section18 for contacts).

- GP-PASA 291 offers a one-off psychiatric assessment and management plan in situations where the GP is prepared to continue management after this one-off option. Call 1800 721 899 Mon – Fri, 9am – 5pm to arrange an appointment.

- Access to Allied Psychological Services (ATAPS) Program - The ATAPS Program enables General Practitioners to refer clients with high prevalence disorders (e.g. depression and anxiety) for six sessions of evidence-based mental health care, with an option of a further six sessions following a mental health review by the referring GP. The Program is directed towards clients who are financially disadvantaged (e.g: unemployed, health care card holder, pensioner, single parent, perinatal mental health and chronically ill), youth, children under 12 years and Aboriginal and Torres Strait Islander people. Referral occurs via a faxed Mental Health Treatment Plan.


- Beyond Blue Infoline 1300 22 4636. Beyond blue is a national organisation working to address issues associated with depression & anxiety in Australia. www.beyondblue.org.au

- The Post and Antenatal Depression Association (PANDA) National Helpline provides information, support and referral to anyone affected by depression and anxiety during pregnancy and after childbirth www.panda.org.au
11 SUBSEQUENT ANTENATAL APPOINTMENTS

11.1 Routine Assessment

All designated sections in the SA Pregnancy Record must be completed and documented in the SA Pregnancy Record at each antenatal visit, including the following:

- gestation in completed weeks
- symphysio-fundal height in centimetres, also recorded on graph in SA Pregnancy Record
- blood pressure (measured on the right arm with the woman seated, with appropriate size cuff i.e. large cuff when arm circumference is > 32 cm) at cessation of Korotkoff IV
- presentation and descent (fifths of fetal head palpable) after 30 weeks gestation
- fetal heart and fetal movements
- laboratory test results
- smoking assessment
- use of illicit drugs

It is recommended that the GP refers the woman with any abnormalities of blood pressure, fetal growth or routine tests to the antenatal clinic at the participating hospital.

11.2 Guidelines for Measuring Symphysio-fundal Height

Accurate symphysio-fundal height will aid in antenatal assessment. The GP should ensure the following is undertaken to optimise an accurate symphysio-fundal height measurement.

- Lay the woman in the supine position with her head supported on a single pillow. The couch should be flat.
- Measure the highest point of the fundus to the top of the symphysis pubis. Begin measuring from the fundus since this is the more variable end point.
- Measure with the tape scale facing downwards so avoiding less influence by previous results.
- Record the measurements to the nearest 0.5 centimetre and enter them in the woman’s SA Pregnancy Record.
- Plot the measurement against the gestation in weeks on the symphysio-fundal height chart.

Symphysio-Fundal Chart

11.3 Schedule of Visits
It is recommended that the GP schedule the pregnant woman for antenatal assessment as per the guidelines provided in Section 9 of this document. Refer website: www.sahealth.sa.gov.au/perinatal

12 HOW TO MANAGE ABNORMAL RESULTS

Any investigations requested by the GP for the pregnant woman under his/her care must be followed up by the GP concerned. It is the GP’s responsibility to follow up all abnormal results irrespective of whether a copy has been sent to the participating hospital.

12.1 Complete Blood Picture
When a pregnant woman presents with a haemoglobin ≤110 g / L in the first trimester and ≤ 105 g / L in the second and third trimesters, or particularly if red cell abnormalities are present, fasting iron, folate and B12 studies are recommended as follow up for the woman.

The GP should also consider testing for thalassaemia (haemoglobin electrophoresis) where appropriate. Low white cell or platelet counts should prompt discussion with, and/or referral to the participating hospital.

12.2 Blood Group and Antibody Screen
Any positive test for antibody levels should prompt immediate referral to the participating hospital.

12.3 Rubella Titre
In the instance that the pregnant woman shows a "non immune" level in a Rubella Titre, the GP should discuss with the woman the need for immunisation in the postnatal period. Under no circumstances should immunisation be given in pregnancy. The pregnant woman should be advised to avoid contact with young children with rubella.

12.4 Syphilis Serology
In the instance that the pregnant woman shows a positive result to Syphilis, the GP should promptly refer the woman to the participating hospital.

12.5 Hepatitis B and C and HIV Tests
In the presence of complications, a pregnant woman with positive result to Hepatitis B, C or HIV may warrant referral to an Infectious Diseases Consultant and/or consultant obstetric advice at the participating hospital.

12.6 Maternal Serum Screening
A pregnant woman with an abnormal maternal serum screening results must be promptly referred to the participating hospital for counselling with a view to offering CVS or Amniocentesis.

12.7 Morphology Ultrasound
In the instance that an abnormality is noted on the Morphology Ultrasound the GP should seek obstetric advice from and/or referral to the participating hospital.
12.8 Oral Glucose Challenge Test

The GP should follow the SA Perinatal Practice Guidelines to assess and manage the pregnant woman with suspected glucose intolerance.

The GP should diagnose gestational diabetes and immediately refer the pregnant woman to the OSC Midwife Coordinator at the participating hospital. A copy of all blood test results should be sent to the participating hospital, where diabetes education and monitoring will promptly be arranged.

For more information refer to the SA Perinatal Practice Guideline “Diabetes mellitus and abnormal glucose tolerance” - www.sahealth.sa.gov.au/perinatal

13 HOW TO MANAGE ABNORMAL FINDINGS/SYMPOTOMS

While most women will have a normal pregnancy, it is imperative that thorough, comprehensive antenatal assessments are undertaken to ensure early and accurate detection of adverse clinical outcomes. The GP should, where required, contact the obstetric Registrar/Consultant at the participating hospital for additional management advice.

13.1 Intrauterine Growth Restriction (fetal growth restricted)

GPs should ensure they measure the woman’s symphysio-fundal height (SFH), and plot this on the Growth Chart in the SA Pregnancy Record (Refer Section 11.2). It should be remembered if the SFH <10th percentile or serial SFH measurements are flattening, then the GP should refer the woman for an ultrasound and request at the earliest opportunity:

- fetal size/growth compared with previous ultrasound (BPD, abdominal circumference);
- Doppler of umbilical artery flow; and
- amniotic fluid index (ask for normal range).

The ultrasound results should be ‘plotted’ on the appropriate graph in the SA Pregnancy Record.

Further to this, if any parameters are abnormal, the GP should contact the GP OSC Midwife Co-Ordinator at the participating hospital for advice. Refer: “fetal growth restricted” website www.sahealth.sa.gov.au/perinatal

13.2 Large for Gestational Age (fetal growth accelerated)

Management of the Large for Gestational Age fetus can be complex.

The ultrasound results should be ‘plotted’ on the appropriate graph in the SA Pregnancy Record.

Further to this, if any parameters are abnormal, the GP should contact the GP OSC Midwife Co-Ordinator at the participating hospital for advice. Refer: “fetal growth accelerated” website www.sahealth.sa.gov.au/perinatal

13.3 Reduced Fetal Movements/Fetal Wellbeing

Assessment of fetal movements is recognised as difficult. If concerned, the GP should refer the woman to the GP OSC Midwife Co-Ordinator at the participating hospital for advice and appropriate assessment, including a Cardiotocograph (CTG).
13.4 Hypertension
Hypertension in pregnancy requires careful assessment. Hypertension is defined when the systolic BP is greater than or equal to 140 mm Hg and/or diastolic BP is greater than or equal to 90 mm Hg. Chronic hypertension is diagnosed prior to pregnancy or before 20 weeks. Gestational hypertension is diagnosed after 20 weeks (without pre-existing hypertension). Pre-eclampsia is diagnosed in the presence of gestational hypertension that is also associated with any sign of a multi-system disorder including proteinuria and/or one of the following:

- persistent cerebral symptoms (headache, visual disturbances, increased reflexes);
- epigastric or right upper quadrant pain;
- intrauterine growth restriction; or
- thrombocytopenia or abnormal liver function tests (LFT’s).

Before a diagnosis of pre-eclampsia is made it is recommended that the GP completes a comprehensive history and clinical assessment of the pregnant woman to identify symptoms and signs of neurological and other systematic manifestation specific to pre-eclampsia.

A diagnosis of pre-eclampsia dictates immediate referral to the participating hospital. It is recommended in this instance, the GP contact the participating hospital and discuss referral with the on call Obstetric Registrar.

To assist in the diagnosis of pre-eclampsia it is recommended that the GP arranges the following laboratory investigations: Ultrasound, Urea & Electrolytes, Complete Blood Examination, LFT’s, Urate and Urine Protein Creatinine Ratio. The GP should refer to the SA Perinatal Practice Guideline “Hypertensive Disorders in Pregnancy” www.sahealth.sa.gov.au/perinatal

13.5 Vaginal Bleeding
Bleeding in pregnancy is recognised as a potential emergency. If there are any concerns in this regard, the GP should seek Obstetric advice from the participating hospital.

If the woman is Rh negative she will require Anti-D. The GP should refer to the SA Perinatal Practice Guideline “Anti-D prophylaxis” www.sahealth.sa.gov.au/perinatal

13.6 Abnormal Presentation
If the woman presents at >36 weeks gestation and has a suspected breech or transverse lie, the GP should refer her to the participating hospital for an assessment as soon as possible.

14 CARE FOR WOMEN WHO ARE Rh D NEGATIVE

Pregnant women who are Rh D negative fall into two categories: those with and those without Anti-D antibodies. Women with Rh D antibodies are not suitable for shared care. The following information therefore relates only to women who are Rh D negative and have no preformed antibodies. The GP should refer to the SA Perinatal Practice Guideline “Anti-D prophylaxis” www.sahealth.sa.gov.au/perinatal
14.1 Testing for Anti-D Antibodies

The GP should test the woman for blood group antibodies at the first antenatal visit. If the woman is Rh negative and had no Rh D antibodies in early pregnancy, the GP should ensure she is tested again for the presence of antibodies at the end of the second trimester of pregnancy.

Testing should precede administration of Anti-D. The GP should note that if antibody testing was undertaken at 26 or 27 weeks, there is no need to repeat this screening before Anti-D administration at 28 weeks.

The GP should note that further testing later in pregnancy (after administration of Anti-D) is superfluous because the test cannot distinguish between endogenous and administered Anti-D.

14.2 Anticipating Prophylactic Anti-D Administration in Pregnancy

If the woman is Rh D negative and has no preformed Anti-D antibodies, the GP should inform her about the need to prevent Rh D sensitisation. This includes:

- Anti-D administration if a sensitising event occurs in pregnancy;
- routine prophylaxis at 28 and 34 weeks gestation; and
- further prophylaxis after birth if the baby is not Rh D negative.

If recurrent vaginal bleeding is apparent, the GP should contact the GP OSC Midwife Co-Ordinator at the participating hospital for advice before administering doses of Anti-D.

The GP should note that informed consent for prophylaxis should be obtained early in pregnancy (as soon as the Rh D status has been determined). This is to cover any and all occasions on which Anti-D may become indicated during pregnancy. The woman’s consent for prophylaxis must be documented in her South Australian Pregnancy Record.

14.3 Obtaining Informed Consent

The GP should ensure that the woman understands what Rh D sensitisation means and the consequences it may have, if not necessarily for the current pregnancy, then at least for future pregnancies. It is suggested that the pregnant woman be provided with an information leaflet to assist her understanding. Refer www.nba.gov.au/pubs/pdf/pelines-anti-d.pdf

Antenatal administration of Anti-D to all Rh negative women is recommended by the NHMRC. Administration of Anti-D to all Rh negative women who give birth to an Rh positive baby has been practised for many years in Australia.

As Anti-D is a blood product and is made from human blood, there is a theoretical risk of transmission of blood borne diseases. However, the risk of transmission is extremely small because of the careful selection of blood donors and because of the way in which Anti-D is produced from the blood. More than 1½ million doses of Anti-D have been given in Australia without a single viral transmission thus far. The risk of HIV transmission, for example, is currently estimated to be less than 1 in 5 million Anti-D ampoules administered. Thus far, HIV has never been transmitted through Anti-D injections. There has been one reported case of transmission of Hepatitis C attributed to Anti-D administration, but this occurred overseas.
14.4 Anti-D Prophylaxis for Potentially Sensitizing Events

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

- any uterine bleeding in pregnancy ranging from (threatened) miscarriage to antepartum haemorrhage;
- any abdominal trauma in pregnancy; and
- any uterine or intra-uterine intervention (such as external cephalic version, amniocentesis, etc). However, the responsibility for prophylaxis rests with the hospital at which these interventions are performed.

If a sensitising event occurs before 13 weeks gestation the recommended prophylaxis consists of 250 IU (international units) Commonwealth Serum Laboratory (CSL) Rh D immunoglobulin.

If a sensitising event occurs at or after 13 weeks gestation the recommended prophylaxis consists of 625 IU (international units) CSL Rh D immunoglobulin.

If a woman has a sensitising event after routine prophylaxis at 28 weeks, she should have a dose of Anti-D regardless of when the prophylactic dose was administered.

The GP should refer to the SA Perinatal Practice Guideline “Anti-D prophylaxis” www.sahealth.sa.gov.au/perinatal

14.5 Routine Prophylaxis at 28 and 34 Weeks (with or without previous sensitizing events)

Rh D negative women without preformed Anti-D antibodies should receive 625 IU CSL Rh D immunoglobulin at 28 weeks (after or simultaneously testing for preformed Rh D antibodies) and again at 34 weeks.

Anti-D can be administered before the result of the test for endogenous Anti-D at 28 weeks becomes available provided that the woman had no Anti-D antibodies at the beginning of pregnancy.

Basic principles about the timing of the routine prophylaxis are:

- the Anti-D administration will provide cover for a minimum of 6 weeks
- the risk of sensitisation increases as pregnancy progresses

Thus, if the woman has received Anti-D slightly before 28 weeks, the 34 weeks injection should still be given as planned at 34 weeks.

If the woman has missed out on receiving Anti-D at 28 weeks (for example because they did not attend) Anti-D should be given at the next visit (better late than never). In that case, the second injection should be planned 6 weeks later, provided that the woman is still pregnant.

If the woman has received Anti-D for a potentially sensitising event, e.g. antepartum haemorrhage or trauma, before 28 weeks, she should still receive Anti-D at 28 and 34 weeks as scheduled unless the Anti-D for the sensitizing event was administered less than 1 week before the prophylactic dose being due.

The GP should refer to the SA Perinatal Practice Guideline “Anti-D prophylaxis” www.sahealth.sa.gov.au/perinatal
14.6 Administration of Anti-D

Rh D immunoglobulin should be given slowly by deep intramuscular injection, using a 20 gauge needle.

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

If the Rh D status of the woman is known at the time of her first visit at the participating hospital, the GP OSC Midwife Co-Ordinator at the participating hospital will ensure that the shared care GP receives the Anti-D for routine administration at 28 and 34 weeks; provided that the woman has given her consent to the prophylaxis.

Table: Summary of Dose Recommendations for Rh D Negative Women

<table>
<thead>
<tr>
<th>Sensitising events</th>
<th>Dose of CSL Rh D immunoglobulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>before 13 weeks</td>
<td>250 IU</td>
</tr>
<tr>
<td>at or after 13 weeks</td>
<td>625 IU</td>
</tr>
<tr>
<td>Routine prophylaxis</td>
<td>at 28 and at 34 weeks</td>
</tr>
</tbody>
</table>

15 LABOUR AND BIRTH

The care of the woman during labour and birth is the responsibility of the maternity team at the participating hospital.

The participating hospital is expected to provide a discharge summary of the pregnancy and birth outcome for the GP at discharge of the woman. Some hospitals perform this task electronically.

16 POSTNATAL CARE

Breastfeeding advice should be readily available during the immediate postnatal period whilst the woman is in hospital, and follow-up support post discharge is commonly arranged through the Domiciliary Midwifery Service.

A universal contact visit by Child and Family Health Nurses should occur.

Women should be advised to seek follow-up postnatal visits with their GP at 2 and 6 weeks, unless needed prior to this. Some women may be required to return to the participating hospital if they have experienced particular problems during pregnancy or childbirth. This appointment should be made for the woman prior to discharge.

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

16.1 Postnatal Visits

The GP should endeavour to see the woman and baby two weeks after the birth. This is an opportunity to check how the woman is coping, sleeping and what support is available to her, as well as the baby’s health and development.
The GP should assess the **mother’s obstetric and medical history and that of her baby** including:

- pregnancy, birth and delivery history including any complications
- recheck family history
- neonatal history, e.g. resuscitation needed, nursery admission
- feeding – breast/bottle/mixed; frequency; any difficulties
- feeding pattern – vomits/spills, “wind” colic, stools
- behaviour between feeds
- CYH contact/centre
- baby safety checks and SIDS advice, including sleeping (site, position), hygiene (bathing site, frequency), travel (pram, car)
- family and social supports
- any questions or concerns the mother/father/carer may have

The GP should **examine the baby** and review the following:

- weight, length and head circumference including percentiles
- head – shape, mobility, control
- eyes – movement, conjunctiva, cornea
- mouth – tongue, cheeks, ? thrush
- CVS – colour, heart sounds, murmurs, pulses (femoral)
- respiratory – effort, noises such as stridor or cough
- GIT/GUT – umbilicus, abdomen, groin (hernias), perineum, genitalia
- CNS – alertness/awareness, movement, tone
- MSS – jaundice, skin rashes, hips, feet position
- Observe parent’s handling technique and attachment (confidence, interaction)

The GP should **document the visit**, including examination findings, in the baby’s **CYH Child Health Record** (“blue book”).

At the **six-week visit** the GP should examine and review the **baby** as per the two week visit outlined above, as well as:

- check if any parental concerns about baby’s hearing or vision
- discuss immunisation plans
- developmental screen/guidelines
- eyes – appearance, fixation, following

The six-week visit should also be documented in the baby’s **My Health Record**.

The GP should **consider referral** if appropriate for the mother or baby:

- Women’s & Children’s health Network (Child & Family Health)
- Paediatrician
- community health centre
- lactation consultant
- Australian Breastfeeding Association
- Social worker
16.2 Postnatal Visits – Mother
The GP should endeavour to assess the woman two weeks after the birth to examine the woman and review the following:

- lochia
- BP (if hypertension during pregnancy)
- examine perineum +/- abdominal wound (if caesarean section delivery)
- breastfeeding
- contraception
- administer the Edinburgh Postnatal Depression Scale, if necessary (see Section 10.8)

The GP should endeavour to assess the woman and baby again, six weeks after the birth. The GP should review the woman as per at the two week visit, as well as:

- intercourse
- urinary or faecal incontinence
- breasts, nipples
- abdomen – fundus, uterus involuted, caesarean section delivery scar
- perineum, vaginal examination, uterus involuted, Pap smear if due
- follow-up on pregnancy complications e.g. gestational diabetes, hypertension
- administer the Edinburgh Postnatal Depression Scale, if necessary (see Section 10.8)

These visits can be documented on the Postnatal Check Forms that follow or that can be accessed from the GP partners website. www.gppaustralia.org.au/osc

Consideration should be given to any referrals that may be appropriate (as per 10.8).
16.3 Two Week Postnatal Check Form (Mother)

General Practitioner to complete; also available: www.gppaustralia.org.au/osc

<table>
<thead>
<tr>
<th>Date of Consult</th>
<th>Weeks postnatal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Mother’s Last Name</th>
<th>Mother’s First Name</th>
<th>D.O.B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

* (Mother to fill in before seeing doctor)

1. How are you feeling about yourself?
   ........................................................................................................................................
2. How are you feeling about the baby and how is baby going?
   ........................................................................................................................................
3. How are you sleeping?
   ........................................................................................................................................
4. How is your partner feeling?
   ........................................................................................................................................

* (Doctor to complete: this is a guide for assessing the mother)

1. Review above questions with the mother ..............................................................
2. Lochia: Normal ☐ Excessive ☐
3. Breasts and Nipples: Breastfeeding ☐ Cracks/Grazes ☐
   Suppression ☐ Pain/discomfort (? Mastitis) ☐
4. Contraception: Yes ☐ No ☐
5. Perineum: (healing/sutures/pain)............................................................................
6. Family supports/relationships with: ........................................................................
7. National Perinatal Mental Health Initiative Tool: Yes ☐ No ☐
   Result: ....................................................................................................................
8. Blood Pressure: .................................................................................................
9. Perineum: (healing/sutures/pain) ............................................................................
10. Abdominal Wound: (sutures left?) ...........................................................................
11. Referral: Child & Youth Health ☐ Australian Breastfeeding Assoc. ☐
    Lactation Consultant ☐ Social Worker ☐
12. Other Issues (e.g. headaches, backache, haemorrhoids, incontinence)
   Comments:....................................................................................................................

Comments:....................................................................................................................

SA GP Shared Care Program Protocols
ISBN number: 978-1-74243-730-9
Endorsed by: South Australian Maternal & Neonatal Clinical Network
Last Revised: 09/12/14
Contact: cywhs.perinatalprotocol@health.sa.gov.au
### 16.4 Six Week Postnatal Check Form (Mother)

General Practitioner to complete; also available: [www.gppaustralia.org.au/osc](http://www.gppaustralia.org.au/osc)

<table>
<thead>
<tr>
<th>(Date of Consult)</th>
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<td>.........../........../.........</td>
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<table>
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<tr>
<th>Mother’s Last Name</th>
<th>Mother’s First Name</th>
<th>D.O.B</th>
</tr>
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</tr>
</tbody>
</table>

1. **General Health / Comments**

*How do you feel about yourself and your baby? How is your partner coping? Supports?*

2. **Feeding:**

- Breast   
- Formula  
- Mixed

3. **Rubella Status:**

- Immune
- Not Immune
- Vaccinated: Yes  
- No

4. **Intercourse:**

- Resumed: Yes  
- No
- Problems: Yes  
- No

5. **Contraception:**

- Yes
- No

6. **Incontinence:**

- Urinary: Yes  
- No
- Faecal: Yes  
- No

7. **Follow up complications:** *eg gestational diabetes, hypertension*

8. **Last Pap Smear:**

- Date: .................................................
- Result: .............................................

9. **Menstrual Cycle has returned?**

- Yes
- No

10. **B.P:** ........................................ 

11. **Breast/Nipples:**

- Breastfeeding
- Cracked/grazes
- Suppressions
- Pain/Discomfort 

12. **Abdomen Palpation:**

- Wound *(if C-section):* ......................

13. **Perineum/Pelvic Examination:**

- Vagina
- Vulva
- Pelvic Floor
- Adnexae
- Uterus
- Perineum

14. **National Perinatal Mental Health Initiative Tool**

- Result and action taken: ......................

15. **Referrals to other services:**

- Child & Youth Health
- Community Health
- Lactation Consultant
- Australian Breastfeeding Assoc.
- Social Worker
- Other *(please state)* .................................. 

16. **Other Issues** *(e.g. headaches, backache, haemorrhoids, incontinence)* ........................................

**Comments:** ...............................................................................................................................................

---

**SA GP Shared Care Program Protocols**

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Endorsed by: South Australian Maternal & Neonatal Clinical Network

Last Revised: 09/12/14

Contact: cywhs.perinatalprotocol@health.sa.gov.au
17    FURTHER INFORMATION FOR THE GP

17.1 Perinatal Practice Guidelines
The SA Perinatal Practice Guidelines are available on the web at www.sahealth.sa.gov.au/perintal, or via the APP ‘practices guideline’ that can be downloaded for free to an iPhone or iPad device. As they are continually being updated web access is the most appropriate means of accessing this information. The perinatal practice guidelines cover a broad range of topics that have not been repeated in these protocols.

17.2 Patient Assistance Transport Scheme (PATS)
The PATS is a subsidy program that provides money to pay for some travel, escort and accommodation costs when rural and remote South Australians travel over 100 kilometres each way to see a specialist.

- The scheme is intended to subsidise the unavoidable financial costs for those residents of South Australia that have no option but to travel a long distance to receive essential medical specialist services from an approved medical specialist.
- The scheme is not intended to support choice of specialists. Patients should be treated as close to home as possible without compromising the safety and quality of the care provided. The scheme will not support the additional costs of travel if a patient makes a choice to travel beyond their closest specialist services.
- Assistance should be targeted towards those considered to be most disadvantaged with regard to access to specialist health services.
- Country Health SA Health Network acknowledges the National Policy Principles in regard to the eligibility, principles and administration of the South Australian Patient Assistance Transport Scheme.

Application forms are available from referring local doctors, your local PATS office or online at www.countryhealthsa.sa.gov.au/pats

A patient information brochure can also be found on the PATS website.

To optimise safety and birth outcomes, women who live more than a two hour drive from their maternity hospital should be advised to temporarily relocate closer to the hospital from 36 weeks of pregnancy. A PATS subsidy may be available to assist the woman with the costs associated with this relocation.

NB: The GP must sign the PATS form before the woman travels to see her specialist to ensure the woman can qualify to receive the reimbursement.
Adelaide PATS Office (includes advice about accommodation and support services)

Health Consumer Support Service
SA Health
11 Hindmarsh Square
ADELAIDE SA 5000

(08) 8226 6550   Free call (office hours) on 1800 188 115

Email: CHSAPATS@health.sa.gov.au or contact your local PATS office:

Adelaide Central Office
PO Box 3017
Rundle Mall
Adelaide SA 5000
Telephone: (08) 8226 7215
Fax: (08) 8226 5580

Mount Gambier & Districts Health Service
Wehl Street North
PO Box 267
Mount Gambier SA 5290
Telephone: (08) 8721 1551
Fax: (08) 8721 1555

Port Lincoln Health and Hospital Services
PO Box 630
Port Lincoln SA 5606
Telephone: (08) 8683 2266
Fax: (08) 8683 2060

Pt Augusta Hospital & Regional Health Services
Hospital Road
Port Augusta SA 5700
Telephone: (08) 8668 7623
Fax: (08) 8668 7643

Riverland Regional Health Service
Maddern Street
Berri SA 5343
Telephone: (08) 8580 2400
Fax: (08) 8580 2498

Whyalla Hospital & Health Services
Wood Terrace
PO Box 267
Whyalla SA 5600
Telephone: (08) 8648 8533
Fax: (08) 8648 8529
17.3 Infections

A woman’s pregnancy may be complicated by any common infection. There are however infections which can impact adversely on fetal well-being. Discussion with an Obstetric Registrar/Consultant is required where these infections are suspected or there is a history of exposure.

Infections include:

- Coxsackie (Hand, Foot and Mouth Disease)
- Cytomegalovirus
- Epstein-Barr virus (Glandular Fever)
- Genital herpes simplex (HSV)
- Hepatitis B
- Hepatitis C
- HIV/AIDS
- Listeria
- Measles and measles contacts
- Mycobacterium tuberculosis
- Parasitic diseases
- Parvovirus (Slapped Cheek syndrome)
- Rubella infection
- Syphilis
- Toxoplasmosis
- Varicella–zoster (Chicken Pox)

For more information refer to the SA Perinatal Practice Guidelines; Infection in Pregnancy www.sahealth.sa.gov.au/perinatal

17.4 Management of Minor Conditions

The GP may find the following information useful when advising the pregnant woman on the following minor pregnancy-related conditions.

Morning Sickness

Morning sickness can be managed by:

1. Eating small, frequent meals and drinking plenty of fluids.
2. Using acupuncture and ginger
3. Taking Vitamin B₆, 25mg three times daily.
4. Taking Prochlorperazine /Metoclopramide if necessary.
5. Receiving IV fluids (if the woman is becoming dehydrated)
6. Ondansetron Hydrochloride administration orally.
Heartburn
Heartburn can be managed by:

1. Eating small, frequent meals.
2. Avoiding fatty foods, coffee, tea, and alcohol.
3. Sleeping propped by tilting head end of bed up.
4. Avoiding eating prior to bedtime.
5. Antacids or ranitidine may be used as necessary.

Constipation
Constipation can be uncomfortable during pregnancy and after the birth, but can be helped by:

1. Eating plenty of fresh fruits, vegetables and wholegrain breads and cereals.
2. Drinking plenty of water and exercising regularly.
3. Taking extra fibre if needed.
4. Metamucil capsules or plain Coloxyl if needed

Tiredness
Pregnant women may be more tired than usual in the first few weeks of pregnancy and need more rest than usual. The GP can recommend the pregnant woman tries:

1. Lying down during the day or going to bed early.
2. Lightening the load when doing household chores.
3. Sitting down while working, whenever possible.

Body Temperature
Any febrile illness in pregnancy should be treated with Paracetamol (not Aspirin) in appropriate doses. Pregnant women who exercise in pools should be advised they ensure the water temperature is less than 30°C and to avoid hot spas and saunas. This is particularly important in early pregnancy.

Leg cramps
Leg cramps can be alleviated by:

1. Increasing fluid intake.
2. Calcium supplementation.
3. Drinking a small glass of tonic water or bitter lemon before bedtime.

Dental care
The GP should advise the woman to attend the dentist for a check up if she has not had a dental examination within the last six months or shows evidence of dental disease. Examination of the woman’s mouth is now a requirement for the SA Pregnancy Record.
17.5 Edinburgh Postnatal Depression Scale (EPDS)
(Refer Section 10.9)

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

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

Here is an example, already completed:
- I have felt happy
- Yes, most of the time
- Yes, some of the time
- No, not very often
- No, not at all

**In the past seven days**

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

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

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

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

**I have felt scared or panicky for no good reason:**
- Yes, quite a lot
- Yes, sometimes
- No, not much
- No, not at all
Things have been getting on top of me *
- Yes, most of the time I haven’t been able to cope at all
- Yes, sometimes I haven’t been coping as well as usual
- No, most of the time I have coped quite well
- No, I have been coping as well as ever

I have been so unhappy that I have had difficulty sleeping *
- Yes, most of the time
- Yes, sometimes
- Not very often
- No, not at all

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

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

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

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

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

### 17.6 Risks and Screening for Down Syndrome

Most participating hospitals do not undertake First Trimester Screening to assess a woman’s risk of her fetus having Down syndrome. The GP should make arrangements with the woman to have this screening between 11w0d – 13w6d. The following information as per SAMSAS is provided to assist with the process and is available from the website [www.wch.sa.gov.au/services/az/divisions/labs/geneticmed/samsas.html](http://www.wch.sa.gov.au/services/az/divisions/labs/geneticmed/samsas.html)

**Requesting First Trimester Screening**
Two request forms are required, one for the blood analysis and one for the nuchal translucency ultrasound scan.
Blood Analysis
1. 5-10 mls clotted blood sample, taken between 9w0d – 13w6d is required. A list of collection centres is provided on the reverse of the SA Maternal Serum Antenatal Screening (SAMSAS) request form. Telephone (08) 8161 7285 to secure copies of the form
2. Use a SAMSAS request form:
   (a) the test request is for ‘first trimester screen’ – however, SAMSAS recommends ticking both the ‘first trimester screen’ and the ‘second trimester screen’ boxes on the request form. This will assist with provision of the appropriate screen if the gestation on ultrasound scanning is different to expected gestation.
   (b) complete the gestational age information, the gestation must be between 9w0d – 13w6d
   (c) specify the ultrasound practice performing the nuchal translucency scan
   (d) refer patient to the Privacy Disclosure on the SAMSAS request form
   (e) give the patient the SAMSAS pre-test information booklet
   (f) send the blood specimen to Women’s and Children’s Hospital. For interstate or remote areas check with SAMSAS on what services are available.
   (g) request a copy of the results to be sent to the booking/participating hospital

Ultrasound
3. Book a Nuchal Translucency scan with the imaging group of choice. The fetus must be between 11w0d – 13w6d gestation at the time of the scan.
4. Complete an ultrasound request form, specifying “risk of fetal abnormality”; and “Copy to SAMSAS and also request a copy of the results to be sent to the booking/participating hospital”. To comply with the National Privacy Legislation and Fair Information Code, refer patient to the Privacy Disclosure on the SAMSAS request form.

SAMSAS will coordinate the results with the ultrasound practice and you will receive a single report giving the risks calculated for the pregnancy. Post-test information booklets are provided with all reports issued by SAMSAS on pregnancies found at increased risk of fetal abnormality.

Availability of first trimester screening
Combined ultrasound and biochemistry screening is not currently offered through all hospitals/clinics. Check with the hospital/clinic concerned. The GP will be expected to organise the screening through private radiology services.

Costs
For privately insured patients SAMSAS continues its policy of accepting ‘Medicare only’ for the serum biochemistry analyses. There may be a gap payment for the ultrasound measurement. Check with the practice providing this service.

Second trimester screening
Second trimester screening for Down Syndrome should only be offered if the woman presents too late for 1\textsuperscript{st} Trimester screening. Screening for the risk of fetal Down syndrome and neural tube defects should be undertaken between 14w0d and 20w6d. The GP should remember that if a pregnancy is screened in first trimester then any request in second trimester should be confined to neural tube defect (NTD) screening only. First trimester screening does not include a risk assessment for fetal NTDs.
Prenatal Screening for Down Syndrome

Table: Down Syndrome Maternal Age & Risk Assessment

<table>
<thead>
<tr>
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17.7 Non Invasive Prenatal Testing

Non-invasive prenatal testing (NIPT) is a test which uses cell-free fetal DNA of placental origin in maternal serum to screen for fetal aneuploidy. NIPT is now commercially available in Australia and New Zealand via several overseas-based laboratories. Due to public awareness of this technology and widespread advertising, many of the consultations regarding NIPT are likely to be initiated by pregnant women themselves. NIPT is offered as a second tier screen following a combined first trimester screen. NIPT is available from 10 weeks gestation. There is no upper gestational limit. However, consideration needs to be given should women wish to proceed to termination.

Important Points
- NIPT is a screening test during early pregnancy to detect Down Syndrome and other chromosome conditions
- The test is safe and does not pose any risk to mother or baby
- Currently only offered through specialist centres at a cost to the patient. No Medicare rebate is available
- NIPT, like all prenatal tests is optional
- The accuracy of NIPT tests is high although not 100%
- A definitive diagnosis of a chromosome condition in the baby can only be made following an invasive prenatal diagnosis test like CVS or amniocentesis

17.8 Chorionic Villus Sampling and Amniocentesis

Chorionic villus sampling (CVS) and amniocentesis can be used early in pregnancy to detect whether the fetus has a chromosomal abnormality. CVS services are offered at FMC & WCH, whereas amniocentesis is offered at all 3 metropolitan public maternity units. Both techniques are based on obtaining some cells from the fetus for chromosomal analysis. With chorionic villus sampling, cells are obtained from the developing placenta (chorion); with amniocentesis cells are obtained from the amniotic fluid. The advantages and disadvantages of each technique can be summarised as follows:
- overall the risk of miscarriage after the procedure is approximately 1:100 with chorionic villus sampling and 1:200 with amniocentesis.
- chorionic villus sampling is performed between 10 weeks and 13w6d; amniocentesis after 15 weeks.
- results from chorionic villus sampling are usually available within a few days of the procedure; final results from amniocentesis can take two weeks.
- because chorionic villus sampling detects an abnormality earlier than amniocentesis early termination of the pregnancy is possible.
- Rhesus negative women require Anti-D at the time of chorionic villus sampling or amniocentesis.

**Chorionic Villus Sampling (CVS)**

CVS is performed as an outpatient procedure. A small sample of chorionic villi is obtained in a syringe, via either the abdominal wall or the vagina route under ultrasound guidance.

The procedure is not painful and does not require fasting. After the procedure, patients should be advised to rest for 48 hours, abstain from strenuous activity or exercise, including intercourse and contact their booking hospital if they experience any cramping pain, blood loss or loss of clear fluid. Patients should be instructed to contact their participating hospital if they develop a fever, bleeding or loss of fluid.

**Amniocentesis**

Amniocentesis is performed as an outpatient procedure after 14 weeks gestation, as there is an increased risk of fetal malformations if carried out earlier. A sample of amniotic fluid is obtained for chromosomal analysis via the abdominal route under ultrasound guidance. Sometimes the procedure may need to be postponed for up to a week if there is inadequate amniotic fluid.

The procedure is not painful and does not require fasting. After the procedure the patient should be advised to abstain from strenuous activity for about 48 hours and to avoid intercourse for a week. About 1 in 10 women experience some cramping after the procedure, which can usually be managed with simple analgesia. Patients should be instructed to contact their participating hospital if they develop a fever, bleeding or loss of fluid.

**18 INFORMATION RELATING TO INDIVIDUAL HOSPITALS**

While the participating hospitals maintain the GP OSC Program in accordance with agreed standards and protocols, each unit has some specific services that the GP may wish to discuss with the pregnant woman and/or her family.

**18.1 Flinders Medical Centre (FMC)**

The Flinders Medical Centre (FMC) provides a comprehensive perinatal service for women, neonates and their families, catering for most pregnancy and neonate conditions. Some of the perinatal services provided at FMC include:

**Obstetric Clinics**

Clinics are conducted mornings and afternoons at FMC and afternoons and evenings at the Noarlunga Health Service.

**Medical Complications of Pregnancy Clinics**

Clinics are conducted jointly by obstetric registrar/consultants and other medical specialists for women with complicated pregnancies.

**Childbirth and Parenting Education**

This program offers a wide range of childbirth classes designed to meet the woman’s needs.
Perinatal Mental Health Service
All pregnant women are assessed in the antenatal period for anxiety and depression. Follow-up care in the antenatal period can be offered with a Mental Health Nurse for women booked in to deliver at FMC. A referral is required.

Southern Midwifery Group Practice
FMC offers a community based midwifery model of care where midwives lead the continuity of care throughout pregnancy, labour and the postnatal period for pregnant women assessed as low risk of complications. Women are supported through pregnancy, birth and the postnatal period by a primary midwife team of midwives.

Maternity Outreach Service
Through this service, midwives provide a home visiting service for women during their pregnancy and after the birth.

Postnatal Support Service
This service is conducted by a lactation consultant/midwife and is designed to help with unexpected feeding and settling difficulties that may arise in the early days after birth.

Multiple Birth Support Service
Through this service, a midwife is available to support and educate families with multiple births.

DASSA Clinic
FMC conducts registered nurse led weekly drug and alcohol clinic to support women during their perinatal period.

Baby-Friendly Hospital Initiative (BFHI) Accredited
A World Health Organisation (WHO) initiative to promote, support and encourage breastfeeding. FMC has been accredited as a BFHI hospital since 2003.

Telephone and fax lists for Flinders Medical Centre
- Flinders Medical Switchboard: (08) 8204 5511  Fax: (08) 8204 5450
- Birthing & Assessment (BAS) Unit: (08) 8204 5511 – ask for BAS
- Childbirth Education: (08) 8204 4680
- Continence Nurse: (08) 8204 4680
- Maternity Outreach: (08) 8204 5189
- Mental Health Nurse: (08) 8204 5511  Pager: 38903
- Multiple Birth Co-ordinator: (08) 8204 5511  Pager: 2761
- Obstetric Bookings: (08) 8204 5197  Fax: (08) 8204 5210
- Obstetric Clinic Appointments: (08) 8204 5197
- Postnatal Support Service: (08) 8204 4216
- Radiology (Ultrasound appointments): (08) 8204 5367
- Shared Care Midwife Coordinator: (08) 8204 4650
- Noarlunga Health Service: (08) 8384 9222
- Noarlunga Health Service Maternity: (08) 8384 9454

18.2 Lyell McEwin Hospital (LMH)
The Lyell McEwin Hospital (LMH) provides a comprehensive perinatal service for women, neonates and their families, catering for ‘normal’ and ‘high’ risk pregnant women > 32 weeks gestation, including care for most pregnancy related illnesses. The service also accommodates care for singleton and/or twin babies > 1500g. The management model is multidisciplinary and provides for the holistic needs of mothers and babies. LMH has been accredited as a Baby-Friendly Hospital since 2000.
Antenatal Clinics
Registered midwives manage the low-risk antenatal clinics in the birthing and assessment unit at LMH. This is a midwifery led model of care. The obstetric registrar/consultants conduct the medium/high-risk antenatal clinics in conjunction with medical staff in training programs. In addition, a midwife clinic is undertaken in the family clinic attending to those women who are scheduled for an elective caesarean section delivery, or are planning to have an epidural in labour or do not wish to birth with the assistance of the team midwifery model of care.

Northern Area Midwifery Group Practice Program
LMH offers a community based midwifery model of care where midwives lead the continuity of care throughout pregnancy, labour and the postnatal period.

Pregnancy Complications Clinic
High Risk pregnancy clinics are conducted jointly by obstetric consultants/registrars and obstetric medical specialists for women with complicated or ‘high risk’ pregnancies. This includes a specific “DANCE” clinic which caters exclusively to gestational/insulin dependent Diabetes.

DASSA Clinic
LMH conducts a weekly drugs and alcohol clinic managed by a Medical Officer and Registered Nurse experienced in this field, who liaise with the Obstetricians and Registered Midwives to support women during their perinatal period.

Northern Aboriginal Birthing Program
A comprehensive, community based care midwifery model of care for Aboriginal Women. Care if facilitated by a Registered Midwife who coordinates the multidisciplinary team.

Childbirth and Parenting Education
A wide range of childbirth classes designed to meet the woman’s needs, lifestyle and information preference are provided. Includes a tour of the maternity unit.

Perinatal Mental Health Service
A mental health team consisting of a mental health midwives plus a psychiatrist provide support for women during and after their pregnancy. Women may self-refer to the service. The midwife also provides in-patient and home visits. Support groups are also run by the team ‘You Are Not Alone’ (YANA).

Booking Procedures for Shared Care
To book a woman for Shared Care, the GP should send a fax to the Family Clinic on (08) 8282 1612 marked “Attention Shared Care”; or alternatively, as early as practical and especially before 12 weeks gestation, telephone the appointments number (08) 8282 0255 and ask for an appointment for “shared care new” (currently these are on Monday, Wednesday, and Friday). Prompt appointments can be arranged at short notice via a phone call to the Midwife Coordinator on (08) 8182 9000, pager 6470/0417840062.

Birth Centre/Team Midwifery
This is an option for women assessed as low risk of complications and who prefer a more natural approach to childbirth with little intervention. Women and their families are supported through pregnancy and birth by a team of midwives who support active birth in a relaxed, homely environment.

Women wishing to use the birth centre and have shared care with their GP ideally should make their wishes known at the shared care booking visit. If undecided at this time, later bookings can be made by negotiation. An initial visit to the team midwives should be made at 30 weeks so that the woman can be allocated a birthing team. Women usually continue to see their GP until the 36 week consultant visit then transfer to the team midwives for remaining visits. This plan is negotiable.
Complex Case Multidisciplinary Meeting
A weekly forum presents complex cases and discusses antenatal and postnatal management for women with complex medical and/or psychosocial problems. This multidisciplinary team consists of obstetricians, paediatricians, shared care liaison midwife, midwives, mental health midwives, social workers, CYH, Families SA, Anglicare, Drug and Alcohol Services (DASSA) representative and invited care providers, as the need arises.

Continence Clinic
Coordinated by a team of continence nurse advisors, to assess, educate and support women with continence issues (both faecal and urinary). All women who have had previous 3rd or 4th degree tear or significant perineal trauma are referred to this team during the antenatal period for support and advice regarding the mode of delivery for the current pregnancy. This clinic interlinks with the colorectal and urodynamic team.

Mothercarer Program
The LMH is the only metropolitan maternity service in Australia to offer the Mothercarer Program. Women who are discharged after a ‘short stay’ are eligible for the Program which provides a carer in the home for up to 6 hours per day for up to 6 days, and a daily visit by the domiciliary midwife. The Mothercarer, trained in mother and baby basic health, will link with the home visiting midwives and also assist with normal household duties.

Breastfeeding Day Assessment and Support Unit
Available to all breastfeeding mothers of babies of up to 8 weeks. The unit is staffed by experienced midwives. The unit is operational Tuesday & Friday by appointment only. Phone 81829380 for an appointment.

Baby Friendly Hospital Initiative (BFHI) Accredited
A World Health Organisation (WHO) initiative to promote, support and encourage breastfeeding.

Telephone list for Lyell McEwin Hospital

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone Number</th>
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</thead>
<tbody>
<tr>
<td>Hospital number</td>
<td>(08) 8182 9000</td>
</tr>
<tr>
<td>O&amp;G Department Office Tel</td>
<td>(08) 8182 9306</td>
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<tr>
<td>O&amp;G Department Office Fax</td>
<td>(08) 8182 9337</td>
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<tr>
<td>Birthing Centre Low/Team Midwives</td>
<td>(08) 8182 9326</td>
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<tr>
<td>Clinic Midwife</td>
<td>(08) 8282 1613</td>
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<tr>
<td>Clinic Receptionist</td>
<td>(08) 8282 1611</td>
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<td>Continence Midwife</td>
<td>(08) 8282 9000 Pager 6187(Mon-Fri)</td>
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<td>High-risk pregnancies</td>
<td>(08) 8182 1607</td>
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<tr>
<td>Mental Health Midwife</td>
<td>(08) 8182 9000 Pager: 6006 (Mon-Fri)</td>
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<td>Phone appointments</td>
<td>(08) 8282 0255</td>
</tr>
<tr>
<td>Shared Care Midwife Coordinator</td>
<td>(08) 8182 9000 Pager: 6470 Mobile 0417840062</td>
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<td>Ultrasound appointments</td>
<td>(08) 8182 9999</td>
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<td>Antenatal Educator</td>
<td>(08) 8182 9431</td>
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<td>Birthing Assessment Unit High</td>
<td>(08) 8182 9111</td>
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<td>(08) 82821301</td>
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<td>Home Visiting Midwifery Service</td>
<td>(08) 81829252</td>
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<td>Email: <a href="mailto:jennifer.niven@health.sa.gov.au">jennifer.niven@health.sa.gov.au</a></td>
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<tr>
<td>Email: <a href="mailto:bronwyn.klaer@health.sa.gov.au">bronwyn.klaer@health.sa.gov.au</a></td>
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SA GP Shared Care Program Protocols
ISBN number: 978-1-74243-730-9
Endorsed by: South Australian Maternal & Neonatal Clinical Network
Last Revised: 09/12/14
Contact: South Australian Perinatal Practice Guidelines Workgroup at: cywhs.perinatalprotocol@health.sa.gov.au
18.3  Modbury Hospital (MH)

Modbury Hospital only provides antenatal services.

**Antenatal Clinics**

Currently antenatal clinics are conducted 4 mornings per week Monday to Thursday by consultants/registrars. Midwives clinic is conducted Monday to Thursday mornings. Shared care bookings are conducted on Tuesday and Thursday. Normal clinic booking visits are conducted daily.

**Obstetric Psychiatry Clinic**

This clinic is conducted weekly by a psychiatrist, providing both antenatal and postnatal care for those women who feel the need for counselling regarding any psychological issues or concerns, such as postnatal depression.

**Antenatal Classes**

Classes are held in conjunction with the antenatal educator from Lyell McEwin and are held at Modbury in the evenings. A dedicated breast-feeding education session is held fortnightly on Friday afternoons. For bookings phone (08) 8161 2154.

**Telephone and Fax lists for the Modbury site**

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<tr>
<th>Service</th>
<th>Phone</th>
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<tbody>
<tr>
<td>Hospital Number</td>
<td>(08) 8161 2000</td>
<td>8161 2227</td>
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<tr>
<td>Antenatal Appointments</td>
<td>(08) 8161 2593</td>
<td>8.30am - 4.30pm</td>
</tr>
<tr>
<td>Shared Care Coordinator</td>
<td>(08) 8182 9000</td>
<td>Pager 6470 Mobile 0417 840 062</td>
</tr>
<tr>
<td>Antenatal Educator</td>
<td>(08) 8182 9431</td>
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18.4  Women’s and Children’s Hospital (WCH)

The Women’s and Children’s Hospital (WCH) provides a comprehensive obstetric service, providing all levels of care.

**Community Clinics**

Midwifery care is delivered by the Women’s and Children’s Hospital midwives in community based locations.

**Midwives Clinic (Public Patients)**

Women who attend the midwives clinic will see the same midwife for most visits. Women may ask to see a doctor at any time during their pregnancy. The birth will occur in the hospital delivery suite, and care will be provided by the duty medical and midwifery team.

**Shared Antenatal Care with a General Practitioner**

It may be possible for women to visit their own GP for most of their pregnancy and after the birth of their baby, provided their GP is accredited with the GP Obstetric Shared Care Program. Women will need to visit the hospital at least once before the 20th week of their pregnancy and again at 36 and 40 weeks. From 40 weeks all visits will be at the WCH. The WCH encourage women to see their GP two weeks and again six weeks after the birth of their baby.

**Midwifery Group Practice (Public Patients)**

Sometimes known as “Caseload Midwifery”, Midwifery Group Practice (MGP) enables women to be cared for by the same midwife (primary midwife) supported by a small team of midwives throughout their pregnancy, during childbirth and in the early weeks at home with a new baby. The primary midwife will continue to provide care regardless of the need for medical involvement. Where a baby is born will depend on availability of rooms and specific needs at the time of labour.
**Medical Antenatal Care (Private Patients)**
Women may be referred for private antenatal care at the Women’s and Children’s Hospital. Patients will require a letter of referral addressed to one of the participating obstetricians by name. Further information can be obtained by phoning (08) 8161 7633.

**High Risk Pregnancy Service**
This service provides assessment and management for women with pregnancies complicated by medical, surgical or psychiatric problems, or by fetal complications. Obstetric registrar/consultants provide the care.

**Maternal Fetal Medicine Unit**
The Maternal Fetal Medicine Unit at the Women’s and Children’s Hospital in Adelaide provides a sub-specialist referral centre to women who are experiencing complicated pregnancies and problems with their unborn babies.

**Warinilla**
Warinilla is available to women who are drug dependent or have had a previous problem with drugs and/or alcohol. The Women’s and Children’s Hospital can provide antenatal care for pregnant women attending the clinic if required.

**Parent Education**
Tours of the obstetric facilities are available Monday to Friday mornings (with the exception of public holidays). Women should be at the Women’s Outpatient Clinic, 1st Floor Queen Victoria Building, prior to 9 am on the day of their choice. There is a large range of choices for women wanting antenatal education, ranging from evening classes to a Saturday workshop. There are also classes on specific topics. Classes are held intermittently for different languages as demand requires.

**Pregnancy to Parenting Group Antenatal Care**
Young women less than 20 years can have midwifery care provided in a group setting. Antenatal care is provided together with pregnancy labour and birth education in multiple two hour group sessions during pregnancy.

**Domiciliary Midwife**
The postnatal domiciliary care service is offered to all women who live within a 20km radius of the WCH, when they leave the Hospital after their baby is born. WCH provides a midwifery home visiting service for up to 5 days.

**Neonatal Clinic**
Babies who have been admitted to the WCH nurseries or who have other complications will be seen in the neonatal outpatient clinic for up to 12 months.

**Perineal Clinic**
Women who have had difficult births or complications can have a postnatal assessment at the WCH outpatient clinic. This is arranged prior to discharge. Generally, women are encouraged to attend their GP for their routine postnatal 6-week check with their babies. The Women’s and Children’s Hospital is unable to accommodate any postnatal checks that have not previously been arranged prior to discharge.

**Allied Health Physiotherapy**
Physiotherapists provide services within Allied Health’s Paediatric and Women’s Health Programs. Services include assessment, diagnosis and management of children and women in the areas of neonatology, perinatal medicine, gynaecology, obstetrics and paediatrics.
Contact Numbers for the Women’s and Children’s Hospital

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<tr>
<th>Service</th>
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<tr>
<td>Admissions</td>
<td>(08) 8161 7508</td>
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<tr>
<td>Antenatal Bookings</td>
<td>(08) 8161 7590</td>
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<tr>
<td>Antenatal/Gynaecology Ward</td>
<td>(08) 8161 7726</td>
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<tr>
<td>Breastfeeding Day Assessment Unit</td>
<td>(08) 8161 7971</td>
<td></td>
</tr>
<tr>
<td>Core Laboratory</td>
<td>(08) 8161 6704</td>
<td></td>
</tr>
<tr>
<td>Cytopathology (Amnio/CVS results)</td>
<td>(08) 8161 7413</td>
<td></td>
</tr>
<tr>
<td>Day Assessment Unit</td>
<td>(08) 8161 7530</td>
<td></td>
</tr>
<tr>
<td>Director of Obstetrics &amp; Gynaecology</td>
<td>(08) 8161 7000</td>
<td></td>
</tr>
<tr>
<td>Drug Information</td>
<td>(08) 8161 7222</td>
<td></td>
</tr>
<tr>
<td>Maternal Fetal Medicine (MFM)</td>
<td>(08) 8161 9263</td>
<td>Fax: (08) 8161 9264</td>
</tr>
<tr>
<td>Medical Genetics</td>
<td>(08) 8161 6281</td>
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<tr>
<td>Midwifery Group Practice</td>
<td>(08) 8161 8406</td>
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<tr>
<td>Multiple Births Co-ordinator</td>
<td>(08) 8161 7520</td>
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</tr>
<tr>
<td>Parent Educator</td>
<td>(08) 8161 7571</td>
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<tr>
<td>Physiotherapy</td>
<td>(08) 8161 7579</td>
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<tr>
<td>Private Referrals</td>
<td>(08) 8161 7633</td>
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<tr>
<td>Shared Care Midwife Co-ordinator</td>
<td>(08) 8161 7000</td>
<td>Pager 4259 (8am-4.00pm M - F)</td>
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<tr>
<td></td>
<td></td>
<td>Fax: (08) 8161 8189</td>
</tr>
<tr>
<td>Social Work</td>
<td>(08) 8161 7580</td>
<td></td>
</tr>
<tr>
<td>South Australian Maternal Serum</td>
<td>(08) 8161 7285</td>
<td>Fax: (08) 8161 8085</td>
</tr>
<tr>
<td>Antenatal Screening Program (SAMSAS)</td>
<td>(08) 8161 6055</td>
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<tr>
<td>Ultrasound Bookings</td>
<td>(08) 8161 7391</td>
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<tr>
<td>Ultrasound Results</td>
<td>(08) 8161 7530</td>
<td></td>
</tr>
<tr>
<td>Women’s Assessment Service (Emergency)</td>
<td>(08) 8161 7530</td>
<td></td>
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Booking Procedures for Obstetric Shared Care

1. Patient to obtain Pregnancy Referral Number from 1300 368 820

2. GPs may send a referral via fax to the midwife coordinator’s office on (08) 81618189; or

3. GPs may wish to contact the Midwife Coordinator directly on (08) 8161-7000, pager 4259 to arrange appointments; or

4. GPs may wish to advise their patients to contact the midwife coordinator directly on (08) 81617000, pager 4259 prior to 12 weeks to schedule an appointment convenient to the patient. Antenatal clinic days are held on Tuesday, Wednesday and Friday.

18.6 Gawler Hospital (GH)

Gawler Hospital provides comprehensive care of women deemed to be ‘low risk’, whereby the woman delivers her baby at a gestation greater than or equal to 37 weeks and the newborn weight is greater than or equal to (i.e. ≥) 2500gms.

Antenatal Service

Midwives manage many low risk ante-natal women in ‘Zadow Suite’. For GP Shared Care women, a triage appointment with a midwife is the woman’s first contact. GP Shared Care clients are seen by a consultant either at this visit or an additional appointment is made for this prior to 20 weeks gestation. Obstetric clinics are held in Zadow Suite on Wednesday mornings. GP clinical attachments are able to be offered on these days.
Midwifery Group Practice (One 2 One)
This One 2 One midwifery service enables women to be cared for by the same midwife (primary midwife) supported by a small team of midwives throughout their pregnancy, during childbirth and in the early weeks at home with a new baby.

Postnatal Service
For most normal births women are discharged within 3 days of admission. Each woman will be visited by a community midwife at least once (and more if needed) within the first week of discharge.

Women who are experiencing difficulties with breastfeeding after discharge, or have any other concerns, are encouraged to contact GH or to see their GP at the first instance.

Baby Friendly Hospital Initiative (BFHI) Accredited
A World Health Organisation (WHO) initiative to promote, support and encourage breastfeeding. GH has been accredited as a BFHI hospital since 2007.

Childbirth and Parenting Education Sessions
Various programs are available, including overview sessions and breastfeeding sessions. Alternatively, 1:1 sessions are available through the community midwifery service.

Community Midwifery Service
A home visiting program operates Monday – Friday, with women being visited in their homes for care and support. Breastfeeding is supported by this service.

Postnatal Clinic
This is run in the Zadow Suite on a weekly basis. All women who undergo caesarean section delivery are seen at 2 and 6 weeks. Women can choose to have their routine 6 week check with their GP, or at the health service. Well baby checks are not available at the Health Service, and women are referred back to their GP.

Postnatal Coffee Group
A monthly group is held at the Health Service, for antenatal and postnatal social support. This is run by the community midwives, who are available for advice and support during this group.

Booking Procedures
GPs may send new patient referrals via fax to Zadow Suite on (08) 8521 2069. The referrals are reviewed by a consultant and an appropriate appointment time arranged. Please indicate ‘shared care’ on the referral to enable the midwife coordinator to be advised.

Contact Numbers for GH
Hospital switchboard (08) 8521 2000
Antenatal Clinic (Zadow Suite) (08) 8521 2369 Fax: (08) 8521 2069
Forgie Ward (Inpatients) (08) 8521 2060
Community Midwives (08) 8521 2011
19 SUPPORT SERVICES FOR WOMEN

The GP may wish to provide the pregnant woman with the contact details for the following services upon request.

19.1 Breastfeeding Day Services and Support Services

National Breastfeeding Helpline provides 7day a week service for advice: 1800 686 268

www.breastfeeding.asn.au

<table>
<thead>
<tr>
<th>Location</th>
<th>When</th>
<th>Staffed by</th>
<th>Available to</th>
<th>Contact</th>
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<tr>
<td>Child &amp; Family Health Venues throughout S.A</td>
<td>Mon to Fri</td>
<td>Child &amp; family Health Nurses (At some venues may also be a Lactation Consultant)</td>
<td>Day Services metro &amp; country venues. Parents of babies 0-12 months old Clinic Services B/F support for any age</td>
<td>1300 733 606 Essential to book</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>When</th>
<th>Staffed by</th>
<th>Available to</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lyell McEwin Hospital</td>
<td>Tues &amp; Fri</td>
<td>Midwife</td>
<td>All breastfeeding mothers of babies up to 8 weeks old</td>
<td>(08) 81829380 Essential to book</td>
</tr>
<tr>
<td>Gawler Hospital</td>
<td>Arrange via Midwife</td>
<td>Midwife</td>
<td>All breastfeeding mothers of babies up to 6 weeks of age</td>
<td>(08) 8521 2011</td>
</tr>
<tr>
<td>Flinders Medical Centre Postnatal (Ward 4C)</td>
<td>Tues/Thurs/Fri &amp; Alt Monday</td>
<td>Midwife/Lactation consultant</td>
<td>All breastfeeding mothers and babies where bay born at FMC and &lt; 8 weeks old</td>
<td>(08) 8204 4216 Essential to book</td>
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<tr>
<td>Mt. Barker Hospital</td>
<td>Tues 9.00 - 4.00pm</td>
<td>Midwife/Lactation Consultant</td>
<td>All breastfeeding mothers and babies – no age limit</td>
<td>(08) 8393 1777 Essential to book</td>
</tr>
<tr>
<td>Gilles Plains Primary Health Care Services</td>
<td>Mon-Fri</td>
<td>Midwife</td>
<td>All mothers &amp; babies including referral to Aboriginal Health Services – no age limit</td>
<td>(08) 8334 8400 Essential to book</td>
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<tr>
<td>Parks Community Centre</td>
<td>Mon-Fri</td>
<td>Midwives &amp; Doctors</td>
<td>Anyone living in area with a Health Care Card “Wed is ‘Nunga’ clinic only</td>
<td>(08) 82435611 Walk in or appointment available</td>
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19.2 Private Practice Lactation Consultants

Details available through http://www.alca.asn.au/index.asp
APPENDICES – INFORMATION FOR WOMEN

Appendix A: Chorionic Villus Sampling and Amniocentesis

Early in pregnancy chorionic villus sampling (CVS) and amniocentesis can be used to detect whether the fetus has a chromosomal abnormality, such as Down syndrome. Because these procedures carry a certain risk, especially of miscarriage, they are only used when the risk of a chromosomal abnormality appears to outweigh the risk of the procedure itself. This can be because of advanced maternal age, a high risk on a screening result, a specific family history, or risk factors detected on ultrasound.

The two techniques are based on obtaining some cells from the fetus and sending them to the laboratory for chromosome analysis. With chorionic villus sampling, these cells are obtained from the developing placenta. With amniocentesis these cells are obtained from the fluid that surrounds the fetus. This determines the basic differences and the advantages and disadvantages of both techniques. These can be summarised as follows:

- The overall risk of miscarriage after the procedure is about twice as high with chorionic villus sampling (approximately 1:100) than with amniocentesis (approximately 1:200).
- For chorionic villus sampling to be conducted as safely as possible, it needs to be done at a specific time in pregnancy which is mostly between 10 weeks - 13 weeks 6 days.
- Amniocentesis is too risky when conducted before 14 weeks of pregnancy and is therefore conducted a few weeks later than a chorionic villus sampling.
- With chorionic villus sampling the results are usually available within a few days of the procedure, but with amniocentesis it can take two weeks before the final results become available. This is because the cells that are obtained need to grow in the laboratory before they can be analysed and this process cannot be hurried up.
- As a result chorionic villus sampling will detect an abnormality earlier than amniocentesis making it easier to terminate the pregnancy if necessary.
- Your blood group needs to be known before undergoing either chorionic villus sampling or amniocentesis and, if you are Rhesus negative, you will need to receive an injection of Anti-D.

Chorionic Villus Sampling (CVS)

Although it does not look like it, the placenta basically resembles a large tree with very many tiny branches named chorionic villi (the plural for chorionic villus). Chorionic villus sampling means that a small number of these branches (<1% of the entire placenta) is removed for analysis. Because the placenta has the same chromosomes as the fetus this can be used to detect chromosomal abnormalities in the fetus.

The CVS test is performed at around 10 weeks - 13 weeks 6 days. The first step is to have an ultrasound examination to determine the position of the fetus and decide where the chorionic villi can be obtained. To limit the risk of infection the sample is usually obtained through the abdominal wall. This means that the skin is cleaned with an antiseptic solution. A needle is passed through the abdomen into the uterus to draw up a small sample of chorionic villi into a syringe. This is done under ultrasound guidance to ensure that the right location is reached. Contrary to common belief the procedure is not painful although it tends to be scary and somewhat uncomfortable. You do not need to be admitted to hospital for it and it is usually conducted as an outpatient procedure. It is not necessary to fast before the procedure, but you should bring someone with you who can drive you home afterwards. You
have to remain under observation for about 30 minutes and you should not drive yourself home afterwards.

It is advisable to rest at home for about 48 hours after the procedure and to abstain from strenuous activity or exercise. It is also advisable to avoid intercourse within the first week after the procedure. You should also contact your doctor if you experience any cramping pain, blood loss or loss of clear fluid after the procedure.

**Amniocentesis**

Amniocentesis is not carried out before 14 weeks of pregnancy because amniocentesis earlier in pregnancy carries a risk of causing deformities in the baby. The exact timing may depend on the amount of amniotic fluid present as determined by ultrasound. The procedure is always preceded by ultrasound to determine where the placenta is and where the needle needs to be inserted to obtain a good sample with minimal risk. On occasions this may mean that the procedure will be postponed for up to a week to ensure that a clear sample of amniotic fluid (the fluid around the baby) can be obtained. The procedure involves putting a needle through the abdominal wall into the uterus to draw up some of the fluid surrounding the baby into a syringe.

There is no need to fast, from food or fluids, before undergoing an amniocentesis, but you should not drive yourself home afterwards. Amniocentesis is done as an outpatient procedure but you will have to remain in hospital for at least 30 minutes before you can return home. At home it is important to abstain from strenuous activity for about 48 hours and to avoid intercourse for a week.

About 1 in 10 women experience some cramping after the procedure, which usually requires no more than some rest and simple analgesics (Paracetamol is quite safe). Such cramps do not mean that you are likely to have a miscarriage. However, if you develop a temperature, pain or shivering, or if you have some bleeding or loss of fluid you should consult your doctor or the hospital where the amniocentesis was performed.

**Important notes**

You should note that chorionic villus sampling and amniocentesis check only the chromosomes of the fetus. In some special circumstances they can also detect some inherited diseases in people who are known to be at risk of passing the disease on to their baby. However, they cannot guarantee that the baby will not have another abnormality at the time of birth or will be one hundred percent healthy. Not everything in life, either before or after birth, is determined by chromosomes.

Both amniocentesis and chorionic villus sampling will reveal whether the fetus is male or female, but you will not be told the sex of the fetus unless you specifically ask. Please think carefully whether you want to know the answer before you ask the question.
Appendix B: Folic Acid and the Prevention of Neural Tube Defects

Neural Tube Defects

Neural tube defects (spina bifida, anencephaly and encephalocele) are a major group of serious birth defects. The abnormality occurs when the spinal cord and brain are forming during the fourth week after conception (in the sixth week after the last normal menstrual period).

Over 95% of neural tube defect cases are born into families which have had an affected baby. The total prevalence of neural tube defects (NTDs) is 1 in every 500 babies in South Australia. This figure is similar in other states of Australia. There has been no upward or downward trend since 1966. There are about 40 cases each year in South Australia, 20 of which are spina bifida.

While the total prevalence of NTDs in South Australia has remained stable, prenatal diagnosis and termination of pregnancy has resulted in an 84% fall in birth prevalence during 1966-1991.

In South Australia tests before 28 weeks can detect 85% of NTD affected pregnancies.

Folic Acid

Folic Acid is one of the B group vitamins and has an essential role in the very early development of the human nervous system.

Good sources of dietary folic acid are green vegetables, wholegrain breads and cereals, nuts, dried beans, peas and lentils and some fruits such as oranges, bananas and strawberries.

Folic acid is the name for standard pharmaceutical preparation. The different forms, which occur naturally in food, are collectively called folate.

Neural Tube Defects and Folic Acid

Prevention of the occurrence of NTDs is the ideal and research has shown that up to 70% of NTDs can be prevented by taking folic acid around the time that you plan to become pregnant.

Supplementation needs to begin before conception for it to be effective. It is recommended that you start increasing your folic acid intake one month before you intend to become pregnant and continue it until you are three months pregnant. Usually supplementation involves taking a tablet to ensure adequate intake.

There is no evidence that other vitamins or minerals will reduce your chance of having a baby with a NTD. There is no evidence that folic acid is effective in preventing a NTD if a woman starts taking it after she has become pregnant.

There is almost certainly more than one cause for NTDs. Taking folic acid around the time that you intend to become pregnant cannot prevent all cases of neural tube defects.

Groups with Increased Risk of Neural Tube Defects

Couples who have had a child with a neural tube defect are at an increased risk of having a second affected child. The risk is approximately 1 in 30. You should receive genetic counselling and it is recommended that the woman should take a higher dose of folic acid (5 mg daily) before becoming pregnant. If prenatal diagnosis is an option, the available methods should be discussed.

Couples with a close family history of NTD, and individuals with spina bifida, also have an increased chance of having an affected child.

If you have epilepsy and are taking sodium valproate or carbamazepine, you are at an increased risk of having a baby with spina bifida. This risk is estimated to be about 1 in 100 for sodium valproate and probably also for carbamazepine. It is recommended that if you are taking anticonvulsant medications that you should also take the higher dose (5 mg daily) of folic acid, following discussion with your doctor.
Recommendations

Health professionals, especially GPs, have a key role in helping to prepare women for conception.

All women of reproductive age, especially those planning a pregnancy, should be encouraged to increase their intake of folic acid, particularly one month before and during the first three months of pregnancy. This will greatly reduce a woman’s chance of having a baby with NTD (up to 70%).

For low risk women (those with no close family history of NTD), taking a daily low dose folic acid tablet (.04-0.5 mg/500 mcg) as a supplement to their normal diet will ensure a satisfactory intake of folic acid. Women who do not take folic acid supplements in tablet form can achieve similar daily folic acid intake by eating a diet enriched in folate foods, though many women will find the necessary changes in diet difficult to maintain.

Health professionals have an important role in helping to alleviate anxiety in those pregnant women who have not increased their intake of folic acid prior to conception. The very low individual risk of having a baby with a NTD should be stressed to these women. There could be potential benefit from folic acid supplementation (0.4-0.5 mg/day) to women whose pregnancies are diagnosed before six weeks of pregnancy. It is recommended that women continue to take 0.5mg folate (folic acid) per day during the first three months of pregnancy to help prevent neural tube defects.

Safety Issues

Folic acid is generally regarded as non toxic to humans. There have been very few reported cases of adverse reactions from folic acid. Toxicity has only been reported with high doses of folic acid (15 mg daily).

If you have the vitamin B₁₂ deficiency (pernicious anaemia) you will need to discuss your specific requirements with your doctor.

Availability of Folic Acid

All pharmacies will stock at least one brand of folic acid. Purchase does not require a prescription. Customers may have to ask for the folic acid as it is sometimes held in the dispensary. No one brand is recommended over another.

Important Note:

Multi vitamin preparations rarely contain the recommended 500 mcg of folic acid and women will generally require a specific folic acid preparation. Check the label if unsure.
Appendix C: Listeria and Pregnancy

What is a Listeria Infection?
You can get a listeria infection from eating contaminated food. The Listeria bacteria are found in nature and in some foods. Listeria is not a new disease but it is only over the last ten years that it has been recognised that the bacteria can be transmitted through food.

Listeria infection is uncommon and causes few or no symptoms in healthy people. If infected, pregnant women may experience a mild, brief episode of illness. A Listeria infection during pregnancy has a higher risk of transmission to the unborn child and can lead to miscarriage, stillbirth, pre-term birth or can make a newborn baby very ill.

It is important that you see your doctor in the early stages of your pregnancy if you think you may have a temperature or if you are feeling unwell generally.

Prevention is Better than Cure
It is important you reduce the risk of contracting this infection during your pregnancy. You can do this by taking simple food hygiene steps at home, being careful about what you eat when eating out, and avoiding certain foods at higher risk of Listeria contamination (see guide to foods).

How You Can Reduce the Risk of Listeria Infection during Pregnancy
For the health of you and your baby during pregnancy, it is important that you select a nutritious diet from a wide variety of foods such as vegetables, fruit, dairy foods, bread, cereals, pasta, lean meat, fish, eggs and nuts.

However, you should eat freshly cooked or freshly prepared food only. It’s important that you do not eat food where there is any doubt about its hygienic preparation and/or storage.

Avoid eating foods during pregnancy which could contain Listeria. These are mostly chilled, ready to eat foods including:

- soft cheese such as brie, camembert and ricotta (these are safe if cooked and served hot);
- takeaway cooked chicken;
- cold meats;
- pate;
- pre-prepared or stored salads;
- raw seafood (such as oysters and sashimi);
- smoked seafood such as smoked salmon, smoked oysters (canned are safe);
- soft serve ice-cream; and
- unpasteurised dairy products.

Source: Food Standards Australia New Zealand at www.foodstandards.gov.au

Other Precautions:
Make sure all food is fresh. Listeria is destroyed by conventional cooking so freshly cooked foods are safe to eat.

However, listeria is one of the few bacteria that will grow in refrigerated foods. This is why chilled ready-to-eat foods should be avoided.

Do not eat food that has been prepared and then stored in a refrigerator for more than 12 hours. When re-heating food in the microwave at home, make sure it is steaming hot throughout.
Eating Out
It’s best not to use salad bars in restaurants, supermarkets or delicatessens. Avoid pre-prepared salads.

Refrigerated foods that are past their “use by” or “best before” date should also not be eaten.

If you buy ready-to-eat, hot food, make sure it is served steaming hot throughout. Only eat food that is served hot. Do not eat food that is served lukewarm.

It is best to avoid smorgasbords. If this is not possible, choose the hot foods only.

Good Food Hygiene
Take these simple food hygiene steps to reduce the risk of Listeria infection and other food-borne illnesses:

1. Always thaw ready-to-eat frozen food in the fridge or microwave – do not thaw at room temperature.
2. Keep raw meat covered and separate from cooked food and ready-to-eat food.
3. Always store raw meat below other food in the refrigerator to prevent it dripping onto food.
4. Wash hands, knives and cutting boards in hot soapy water after handling raw food to avoid cross contamination of cooked and ready-to-eat food.
5. Thoroughly cook all raw food of animal origin.
6. Keep hot food hot (above 60°C) and cold food cold (at or below 5°C).
7. Do not let cooked foods cool down on the bench. Put them in the fridge to cool.
8. Thoroughly reheat food until steaming hot.
9. Avoid un-pasteurised milk, or food made from un-pasteurised milk.
Appendix D: Healthy Eating and Pregnancy

Weight gain during pregnancy

It is healthy and normal to put on about 10–13 kg when you are pregnant. You may gain less or more weight. If you eat healthy food and only eat when you are hungry you will put on the right amount of weight for you.

As a general guide:
- First 3 months: you will usually gain about 1 or 2 kilograms, or possibly less if you have morning sickness.
- 6 months: During the next 3 months you will probably gain about 6 kilograms.
- 9 months: During the last 3 months you will probably gain about 5 kilograms.

Healthy eating

Eating healthy food is important in helping your baby to grow and develop. The guidelines for healthy eating are to eat:
- A wide variety of different healthy foods — not just the same foods every day.
- Base your diet around more bread, rice, pasta, oats and cereals (especially wholemeal and wholegrain types), fruits and vegetables.
- Low fat dairy products.
- Lean meat, chicken, fish, eggs, nuts and legumes.
- Less fat (less chips, snack foods, fried food and fatty takeaways).
- Less sugar (less cakes, biscuits, soft drinks and lollies).
- Less salt, by choosing reduced-salt processed food (by reading labels), using less salt in cooking and at the table.
- It’s also important to drink plenty of water, about 6 - 8 glasses each day.

If your diet hasn’t been as healthy as it could be, pregnancy is a great time to make some changes. Here are some simple, practical ideas to make your eating healthier:
- Have a piece of fruit for a snack instead of chocolate or biscuits.
- Carry a bottle of water with you so you can avoid buying soft drinks while you’re out.
- Trim visible fat from meat. Try grilling or dry roasting meat.
- Try stir frying (a great way to eat vegetables).
- Experiment with different grains such as barley, faro, couscous and brown rice to add more variety to your diet.
- Cut up raw salad vegetables such as carrots, celery and mushrooms - store them in the fridge for snacking on throughout the day.
- Choose reduced or low fat dairy products instead of the full cream type.
- Try snacking on air-popped popcorn instead of chips and other fatty snacks.

Fish

Fish are a valuable source of protein, minerals, vitamin B12, and iodine, are low in saturated fat and contain omega-3 fatty acids. Omega-3 fatty acids are important for the development of the central nervous system in babies, before and after they are born.

Most fish in Australia have low mercury levels, but some fish contain mercury levels that may harm an unborn baby or young child’s developing nervous system.
Pregnant and breastfeeding women, and women planning pregnancy, can have:

- 2-3 serves per week of any fish and seafood (other than those listed below), 1 serve being equal to 150g; or
- 1 serve per week of Orange Roughy (Deep Sea Perch) or Catfish, and no other fish that week; or
- 1 serve per fortnight of Shark (Flake) or Billfish (Broadbill, Swordfish and Marlin), and no other fish that fortnight.

Source: Food Standards Australia New Zealand at www.foodstandards.gov.au

**Prepared meats and unpasteurised dairy products**

Listeriosis is an uncommon food-borne illness caused by a widespread bacterium called Listeria monocytogenes (Gilbert 2002) particularly found in unpasteurised dairy products, pre-prepared cook-chill meals, pate and raw vegetables (Langford 2002). Listeria can grow in temperatures as low as 0.5°C Celsius (eg can grow in the refrigerator), but is easily destroyed by cooking. Listeria may take up to 70 days to develop (usually around 3 weeks) following ingestion of food infected with Listeria (Child and Youth Health 2002). Usually asymptomatic, Listeriosis may present as diarrhoea or influenza-like illness, or may present as a febrile illness associated with pre-term labour and meconium staining of the amniotic fluid (Langford 2002).

**Alcohol**

*No alcohol is the safest choice.* Alcohol from your blood enters your unborn child’s blood. This may negatively affect the child from conception onwards. It is not known whether there is a safe level of alcohol to drink during pregnancy.

Drinking alcohol during pregnancy may increase your chances of miscarrying, having a baby with a low birth weight, fetal alcohol syndrome, congenital (birth) defects and cognitive (learning) defects.

**Tea, Coffee and Cola drinks**

These drinks contain significant amounts of caffeine. The developing baby is not able to break down large amounts of caffeine very well. It is recommended during pregnancy and breastfeeding that you limit your intake of caffeine by having no more than 2 - 3 cups in total of tea, coffee, or cola per day. Some caffeine is passed through breast milk and high doses may make babies irritable.

**Vitamin Supplements**

Apart from folic acid and iodine, vitamin supplements are not generally necessary.

**Do you have to eat any special food when you are pregnant?**

The following nutrients are important when you are pregnant:

- Calcium is needed for your baby’s bones and teeth. Calcium-rich foods include dairy products such as milk, cheese and yoghurt. If you drink soy milk or rice milk, ensure it is calcium enriched. Almonds and bony fish such as sardines and salmon also contain calcium.
- Iron is important for healthy blood (to prevent anaemia). Good sources of iron include red meat, fish, chicken, eggs and wholegrain foods. A vitamin C source such as tomato or orange juice with every meal will help the iron to be absorbed.
- Fibre and plenty of fluid help to prevent constipation. There is fibre in fruit and vegetables (especially if you do not peel them), wholemeal and wholegrain bread, rice, pasta and cereal (like porridge, Weetbix and VitaBrits).
- Protein is needed to help the baby grow. Meat, fish, chicken, eggs, milk, cheeses, nuts, tofu, dried beans and peas are all good sources of protein.
- **Folic acid or folate** helps prevent spina bifida in your baby and is also important for your blood. Folate is in many green vegetables, chickpeas, soybeans, oranges, bananas, strawberries, cereals, nuts and Vegemite. Supplements are usually required.

### AUSTRALIAN GUIDE TO HEALTHY EATING FOR PREGNANT WOMEN

<table>
<thead>
<tr>
<th>Food group</th>
<th>Daily number of serves</th>
<th>Sample serving sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread, cereals, rice, pasta &amp; noodles</td>
<td>4–6</td>
<td>2 slices of bread or 1 medium bread roll</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 cup cooked rice, pasta or noodles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 1/3 cups breakfast cereal flakes</td>
</tr>
<tr>
<td>Vegetables &amp; legumes (dried beans, lentils or peas)</td>
<td>5–6</td>
<td>1 small potato</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 cup salad vegetables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>½ cup cooked vegetables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>½ cup cooked dried beans, lentils or peas</td>
</tr>
<tr>
<td>Fruit</td>
<td>4</td>
<td>1 medium apple, pear, orange or banana</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 fresh apricots, plums or kiwi fruit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 dried apricot halves</td>
</tr>
<tr>
<td>Milk, yoghurt &amp; cheese (You need an extra 300mg of calcium or about 1 extra glass of milk each day when pregnant)</td>
<td>2</td>
<td>1 250mL cup milk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 200g tub yoghurt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 slices (40g) cheese</td>
</tr>
<tr>
<td>Meat, fish, poultry, eggs, nuts, tofu, legumes (dried beans, lentils or peas)</td>
<td>1–1 ½</td>
<td>½ cup lean mince or 2 small chops</td>
</tr>
<tr>
<td></td>
<td></td>
<td>½ cup cooked dried beans, lentils/peas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 medium fish fillet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 small eggs</td>
</tr>
<tr>
<td>Extra foods</td>
<td>0–2 ½</td>
<td>2 tablespoons cream or mayonnaise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 plain sweet biscuits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 tablespoon butter, margarine or oil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 can soft drink</td>
</tr>
</tbody>
</table>

If you are concerned about your diet, ask your doctor to refer you to a dietitian or look under dietitian in the Yellow Pages. Your health professional can help you to develop eating plans that will help you cope with eating the food needed to make sure you and your baby are well nourished.
Appendix E: Smoking and Pregnancy

If you are already pregnant and you smoke, you and your baby will still benefit greatly if you can quit now. Giving up smoking is one of the best things that you can do for your own health and for the health of your baby.

What happens when you smoke?

The umbilical cord is your baby’s lifeline. Blood flow through this cord provides your baby with oxygen and all the nutrients it needs to grow. Smoking cigarettes increases the level of carbon monoxide in your bloodstream. Carbon monoxide replaces oxygen in your blood, so the amount of oxygen made available to your baby through the umbilical cord is reduced when you smoke.

The nicotine in cigarettes increases your heart rate and your baby’s heart rate. It also causes your blood vessels to narrow, reducing the flow of blood through the umbilical cord. Nicotine also causes a reduction in breathing movements in your baby.

Carbon monoxide and nicotine make it harder for your baby to get the oxygen and nourishment it needs and places unnecessary stress on the baby’s heart and reduces its breathing exercises.

Other problems smoking may cause:

During pregnancy

- Higher risk of miscarriage.
- Smokers are more likely to have complications during the birth.
- Higher risk of a low birth weight baby. Low-weight babies are more vulnerable to infection and other health problems.
- Higher chance of having pre-term birth (baby born early).
- Higher chance of having a stillbirth (baby born dead).

After the birth

- Maternal smoking may be a risk factor for sudden infant death syndrome (SIDS).
- Babies of smokers are more likely to suffer from asthma and other respiratory infections than are those of non-smokers.
- After your baby is born, the poisons you inhale through cigarettes are passed on to the baby though your breast milk, and through passive smoking.

Sometimes it can be very hard to give up smoking, especially if your friends or your partner are still smoking. But it is something that you need to do for yourself and your baby. There are many qualified people who can offer information and support to help you give up smoking.

Smoke Free Pregnancy Project
1300 889 010

Call the Quitline on 131 848 for help
Appendix F: Mothers – Benefits of Breastfeeding

Breastfeeding is the normal method of feeding infants. It has a positive influence on both their immediate and long-term health. Current recommendations are:

- exclusive* breastfeeding for the first 6 months
- continued breastfeeding into the 2nd year of life
- introduction of solids around 6 months of age

* Exclusive breastfeeding means the baby is receiving only breast milk and if required, medications, including vitamins or minerals.

**A healthier baby** – babies fed breast milk get less gastroenteritis (tummy upsets), and are less likely to get allergies, asthma, juvenile diabetes and respiratory or urinary tract infections. Mother’s milk may also help protect from sudden infant death syndrome (SIDS). You will have a healthier and happier baby and fewer trips to the doctor or sleepless nights tending to a sick baby.

**Breast milk is the perfect food for your baby** – breast milk contains important nutrients/elements that are not found in formula and that help your baby grow, develop and learn in the best possible way.

**Mother’s milk is best for your baby’s physical development** – Babies fed mother’s milk have the best possible food to help them grow and develop well. Even the sucking action used by breastfeeding babies helps to develop their mouth, teeth and jaw.

**Save money and time** – artificial substitutes for mother’s milk can cost up to $1,200 a year, including bottles, teats and other equipment. And with a healthy baby, you’ll need to spend less on health care. Breastfeeding is quick, efficient and hygienic. You don’t have to spend time washing or disinfecting bottles and teats or wait for the bottle to heat up while your baby is hungry in the middle of the night.

**Your health** – breastfeeding may protect against some diseases such as cancer of the breast or ovaries and osteoporosis later in your life. Breastfeeding uses up more energy than when you are pregnant, therefore it will help you return to your pre-pregnancy weight.

**Loving bond between mother and baby** – breastfeeding helps you and your baby feel close to each other and develop a loving bond.

**BREASTFEEDING IS THE NORMAL WAY TO FEED A BABY**

Common problems with breastfeeding and where to go for help

Breastfeeding your infant is the best thing you can do for your child. Most women can breastfeeding and it can take a few weeks to establish good breastfeeding practice. Most problems encountered during breastfeeding can be overcome. Some common problems with breastfeeding are listed below with suggestions about how to deal with them.
Attachment

Correctly positioning and attaching the infant at the breast are vital in helping the infant develop an effective suck. Infants who suck well empty the breast effectively and stimulate ample milk supply. When good milk drainage has been established mothers are less likely to experience blocked ducts or mastitis. If feeding hurts, your baby is almost certainly not ‘on the breast’ or ‘attached’ properly.

Engorgement

When your milk first ‘comes in’ your breasts may feel full and uncomfortable. An engorged breast becomes very tight and hard.

Engorgement usually happens during the first week after the birth or if you suddenly feed the baby a lot less than usual. Keep feeding often and your milk supply will settle down. You may need to express a little milk before feeding so your baby can attach to the breast properly.

Engorgement is less likely if the baby has unrestricted access to the breast from birth.

Engorgement is mostly preventable and always manageable.

Blocked milk ducts

A blocked duct feels like a tender (or sore) lump in your breast. When you start making milk, your breasts may feel very full and uncomfortable. The milk banks up and part of your breasts may become tender, hardened and reddish.

It can be caused by:

- missed or rushed, interrupted feeds
- not feeding at regular times
- not having the baby in the right position
- pressure from clothes or bra
- an awkward sleeping position
- pressing your finger on your breast during the feed
- injury or bumps to the breast

Try feeding your baby more frequently or feeding in slightly different positions. Gently massage the sore part from behind and towards the nipple during the feed and if you need to, use a cold pack afterwards.

Mastitis

If your breast gets inflamed (hot) and sore you may have mastitis. There is usually a red, sore, lumpy area in the breast while the mother feels as if she has the flu and may have a fever.

Mastitis is caused by:

- an inflammation or infection in blocked ducts that have not got better
- cracked nipples
- stress
- mother not being well

See your doctor if you are feeling unwell, but do not stop breastfeeding.
**Insufficient milk**

How often does my baby need to feed? It’s best to feed whenever your baby seems hungry. The baby will feed at least 8 times in 24 hours including during the night in the first few weeks. As the baby grows, your supply and the baby’s needs will change and you may find that the baby does not need to be fed as often.

Babies are hungry at some times more than at others. When babies are growing fast (growing spurts) they get hungry more often. If you feed your baby more often you make more milk to meet their needs.

Do I have enough milk? Sometimes mothers feel that they don’t have enough milk or that their milk is not good enough and therefore they stop breastfeeding. Your milk is the perfect food for your baby. Let your baby feed for as long or as often as they like. The more the baby sucks, the more milk you will make.

These are the signs that your baby is getting enough milk:

- 6 - 8 wet nappies in 24 hours and several poos a day in the first few weeks of life. After this some babies can go a few days without a poo.
- Baby is putting on weight. Average the weight gains over several weeks to allow for weekly differences.
- The baby seems bright and there are some times when the baby is awake and happy.

**Sore and damaged nipples**

Many mothers have sore nipples when they start breastfeeding but this should get better quickly. If soreness goes on, or lasts through the whole feed or if there are cracks in the nipple, seek advice from a trained lactation consultant.

Breastfeeding should not hurt. Wash breasts only with water – soaps or shampoo will dry them out. A little breast milk on the nipple allowed to air can help sore or dry nipples. If your nipples become very sore or cracked your baby may not be attaching properly when feeding.

Get early assistance from a health professional experienced in breastfeeding management, such as a lactation consultant or breastfeeding counsellor.

**Crying babies**

Crying is a baby’s way of communicating a need. Some babies cry with no evident cause, however prolonged crying needs careful evaluation. There may be medical reasons why your baby continues to cry and your doctor should investigate this. Mothers of infants who are seen to cry often may lose confidence in breastfeeding. Ensuring your baby is receiving enough milk by feeding more often may help.

Mothers should be aware of the changing nature of infants feeding patterns, development and behaviour. If you have concerns about your infant seek counselling from a well-informed health professional, lactation consultant or Australian Breastfeeding Association counsellor.

The following web sites will give you more information about common breastfeeding problems:

- [www.cyh.com/cyh/parenttopics/usr](http://www.cyh.com/cyh/parenttopics/usr)