Funding: The Australian Government Department of Health is acknowledged as a funding body for Medicare Locals.

Disclaimer: Whilst every reasonable effort has been made to ensure that the information given in this resource is accurate, Sydney Local Health District and Inner West Sydney Medicare Local will not accept liability for any injury, loss or damage arising directly or indirectly from any use or reliance on this information.

This Antenatal Shared Care (ANSC) GP Resource Manual is intended as a guide for general practitioners participating in the SLHD/IWSML Antenatal Shared Care Program. Protocols and guidelines have been developed in conjunction with the Sydney Local Health District (SLHD) maternity facilities in an effort to provide consistent care for GP shared care patients.

The guidelines are expressed in broad principles, which allow for flexibility in clinical judgement in individual cases. Participation in shared care implies acceptance of the agreed guidelines.

This version has been updated and restructured to reflect service, configurations, contact numbers and clinical practice at the time of production

Information may change over the life period of the document. Updated protocols and guidelines will be published on the Inner West Sydney Medicare Local website – www.iwsml.org.au/antenatal

The contents of this publication are not subject to copyright.
All information can be considered to rest in the public domain.

Acknowledgement and thanks to all those who contributed to this document.

Sydney Local Health District (SHLD)
Inner West Sydney Medicare Local (IWSML)

Inner West Sydney Medicare Local
Level 1, 158 Liverpool Rd
ASHFIELD
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Introduction to Antenatal GP Shared Care

The aim of this manual is to provide guidelines for general practitioners (GPs) involved in the shared care of low-risk antenatal patients with RPA Women and Babies and Canterbury Hospital. Women with moderate risk pregnancies will require individually tailored care, and may receive most of their care from the antenatal clinic or high-risk clinics. Pregnancy risk may also alter during the course of the pregnancy.

An overall principle of shared maternity care requires that all parties provide comprehensive care, adequate documentation and maintain effective communication.

Overview

The Antenatal Shared Care (ANSC) program is a joint initiative of the Sydney Local Health District (SLHD) and the Inner West Sydney Medicare Local (IWSML).

All women attending the RPA Women and Babies and Canterbury Hospital for management of their pregnancy and delivery have the option of having their antenatal care provided collaboratively by a Recognised ANSC GP and the hospital based services. This is dependent upon:

- their wishes
- agreement by their GP
- agreement by the hospital after assessment of risk factors

For women, some of the benefits of shared care is the continuity and coordination of care; care provided within an established relationship; catering for the preferences and needs of women from culturally and diverse backgrounds, less travelling time; flexibility and convenience.

For GPs, shared care provides the opportunity to provide total patient care, including postnatal; development of linkages and communication with specialists and hospital staff; and access to continuing professional development in antenatal care.

Registration

GPs wishing to participate in antenatal shared care need to be registered on the program. Registration for ANSC requires:
- Completion of an ANSC Program Application Form
- Current medical registration.
- Current membership of a medical defence association.
  - It is important that each GP participating in ANSC check with their insurance company to ascertain indemnity coverage for shared care.
- Attendance at an antenatal shared care orientation session facilitated by the GP Liaison Midwife
- Ongoing educational requirements.

GPs participating in the ANSC program are referred to as a Recognised ANSC GP. ANSC GP lists are sent to the antenatal clinics at RPA Women and Babies and Canterbury Hospital.

Clinical Advice and Support

GPs participating in antenatal shared care will be supported by, and must follow the agreed protocols as outlined in this ANSC GP Resource Manual. SLHD ANSC protocol of scheduled visits page 17

1. Clinical issues, concerns or advice which arise during the care of patients
   - Clare Jordan : SLHD GP Liaison Midwife (ph. 0425 230 662 or ph. 9515 7416) Mon-Thurs
   - Hospital obstetric team (Registrars ph. RPA ph. 9515 6111 or Canterbury ph. 9787 0000)

2. General program advice
   - Karen Wheeler: IWSML ANSC Project Officer ph. 9799 0933 Mon-Thurs
3. ANSC Program Advisory Group (PAG)
The ANSC (PAG) is a forum of ANSC representatives (including a panel of experienced ANSC GPs) which supports the ANSC project officer in developing program standards, education priorities and ongoing evaluation of SLHD ANSC activities. If you wish to contact an ANSC GP representative for advice or have issues you would like discussed, please contact IWSML for their details.

Information and Updates

Laminates
The SLHD ANSC Protocol guideline and other useful resources are available as laminated copies to keep on your desk for easy reference.

IWSML Website: www.iwsml.org.au/antenatal
The IWSML ANSC website provides access to latest news, updated resources, protocols, guidelines and referral templates. All ANSC GPs are encouraged to visit the website regularly.

IWSML Email distribution list:
Those GPs participating in the program are encouraged to join the ANSC GP email distribution list. Important information and updates are distributed (as required) via this email group.

IWSML Newsletter:
The monthly newsletter provides regular program updates including upcoming ANSC CPD events

Ongoing Educational Requirements

There are on-going educational requirements to remain a Recognised ANSC GP. Each ANSC GP is required to attend at least three ante/postnatal specific Continuing Professional Development (CPD) education events or achieve at least 12 Category 2 points for each Royal Australian College of General Practitioners (RACGP) triennium.

ANSC educational events will be advertised by the organising Medicare Local. From 2014, GPs must be financial members of the IWSML to attend educational events at no cost. Contact IWSML ph. 9799 0933 for information regarding membership.

To fulfil educational requirements, attendance is not restricted to those only offered by IWSML. Participation in ANSC events with other hospitals, Medicare Locals or online courses are accepted. Attendance at a clinical activity or placement is highly recommended but is not compulsory.

Opportunities to attend clinical placements or tutorials are available. The NSW Ministry of Health requires a criminal record check (CRC) to be completed before participating in a hospital based activity. For further information, please contact ANSC Project Officer ph. 9799 0933.

RANZCOG Qualifications
GPs interested in extending their skills in this field may choose to undertake a Certificate of Women’s Health or a Diploma with the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG). For more information go to www.ranzcog.edu.au/education-a-training/certificate-diploma-training.html

Quality Assurance

GPs participating in program will be expected to adhere to agreed policies and procedures as outlined in the ANSC GP Resource Manual when caring for their antenatal shared care patients. Breaches of protocol that affect patient outcomes will be recorded for quality assurance purposes. GPs may be contacted by the GP Liaison Midwife if policies and protocols are breached in order to maintain appropriate standards. Repeated breach of protocols will be addressed by the Clinical Director of Women’s Health, Neonatology and Paediatrics, SLHD.
# Key Contacts

Clare Jordan: SLHD GP Liaison Midwife  
clare.jordan@sswhs.nsw.gov.au  
ph. 0425 230 662 / 9515 7416

Karen Wheeler: IWSML ANSC Project Officer  
kwheeler@iwsmi.com.au  
ph. 9799 0933

IWSML website: www.iwsml.org.au/antenatal/  
For access to current information

## RPA Women and Babies  
ph. 9515 6111

- General enquiries
- Paging medical and nursing staff

### Antenatal Clinic

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal Appointment Bookings</td>
<td>ph. 9515 7101</td>
<td>fax. 9515 3454</td>
</tr>
</tbody>
</table>

- Faxing results to ANC  
  ph. 9515 8090  
  9515 7175

- Midwives Desk  
  ph. 9515 7935  
  urgent # 80837

- Midwifery Unit Manager  
  ph. 9515 8420  
  ph. 9515 8444

### Birth Centre

- ph. 9515 6405

### Delivery Ward

- General enquiries  
  ph. 9515 8420

- Direct line for GPs  
  ph. 9515 8444

### Gynaecology Clinic  

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone</th>
<th>Fax</th>
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</thead>
<tbody>
<tr>
<td>Diabetes Centre</td>
<td>ph. 9515 5888</td>
<td>fax. 9515 5820</td>
</tr>
<tr>
<td>Genetic Counselling</td>
<td>ph. 9515 5080</td>
<td>fax. 9515 5490</td>
</tr>
<tr>
<td>Lactation Consultant</td>
<td>ph. 9515 8422</td>
<td></td>
</tr>
<tr>
<td>Parent Education</td>
<td>ph. 9515 5284</td>
<td></td>
</tr>
<tr>
<td>Sexual Health Clinic</td>
<td>ph. 9515 3131</td>
<td></td>
</tr>
</tbody>
</table>
| Aboriginal Liaison Midwife | ph.9515 6586 | # 87292
| Perinatal Mental Health| ph. 9515 5873  |                  |
| Social Work           | ph. 9515 6616  |                  |
| Thyroid Clinic        | ph. 9515 7225  | fax. 9515 8728   |
| Hepatitis B (HBV)     | ph. 9515 6228  | fax. 9515 5182   |
| Hepatitis C (HCV)     | ph. 9515 7049  | fax. 9515 5182   |
| Physiotherapy         | ph. 9515 9853  | fax. 9515 9751   |
| Hand Physiotherapy    | ph. 9515 9829  | fax. 9515 9751   |

### Early Pregnancy Assessment Service (EPAS)

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early pregnancy bleeding (&lt; 20 weeks pregnant)</td>
<td>ph. 9515 7101</td>
<td>urgent # 87403</td>
</tr>
</tbody>
</table>

### Fetal Medicine Unit

- cFTS, NIPT, CVS, Amniocentesis, Ultrasound  
  ph. 9515 6042  
  urgent # 81668

### RPA Women and Babies Executive Unit  

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone</th>
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</thead>
<tbody>
<tr>
<td>Director of Women’s Health, Neonatology and Paediatrics, SLHD</td>
<td>ph. 9515 8356</td>
</tr>
</tbody>
</table>
Canterbury Hospital  ph. 9787 0000

- General enquiries
- Paging medical and nursing staff

Antenatal Clinic
- Antenatal Appointment Bookings:  
  ph. 9787 0250  
  9787 0560

Faxing results to ANC  
Midwives Desk  
ph. 9787 0183  
fax. 9787 0431

Midwifery Unit Manager  
ph. 9787 0558

Birthing Unit  
ph. 9787 0555  
9787 0554

Midwife Practitioner  
ph. 9787 0572  
# 82220 via switch

Social Work  
ph. 9787 0121

Perinatal Mental Health  
ph. 9787 0000  
# 82062 via switch

Diabetes Educator CNC  
ph. 9787 0248

Other Services

Mothersafe.  
ph. 9382 6539
Counselling service for women and healthcare providers concerned about exposures and medications during pregnancy and lactation. Further information: www.mothersafe.org.au

RPA Gynaecology Service  
fax. 9515 3454
Referrals by FAX ONLY. Referrals will be triaged to appropriate clinic. Staff will make ONLY two attempts to contact a woman for appointment time. Contacted within three business days after referral received.

Smoking Cessation Clinics  
RPA ph. 9515 7611  
Croydon CHC ph. 9378 1306

Aboriginal Health Service  
ph. 9319 5823
Service provision for all Aboriginal women within Inner West/Central Sydney

RPA Breast Clinic  
ph. 9515 8844
Women with breast related problems.

RPA Colposcopy  
ph. 9515 5270
Women with abnormal pap smear results that require colposcopy such as CIN, HPV infection during pregnancy.

RPA Fertility Unit  
General Enquires  
ph. 9515 8824
Appointments  
ph. 9515 7101

Interpreter Service  
ph. 131 450

Multicultural Health  
ph. 9562 0500

Poisons information service  
ph. 13 11 26

Domestic Violence Hotline  
ph. 1800 65 64 63

Australian Breastfeeding Association Helpline  
ph. 1800 686 268

Pregnancy, Birth and Baby Helpline  
ph. 1800 882 436

SIDS and KIDS  
ph. 1800 651 186
Communications

Antenatal record card

SLHD maternity facilities use the hand-held “yellow” antenatal record cards. These cards are issued to the woman by her GP at her initial visit and must be taken by the woman to her hospital booking visit.

At each visit, the antenatal record card should be updated with routine findings and examinations and be sufficient to meet the care provider’s duty of care. Entries should be clear, concise and legible. If using Medical Director or other software, please print out each visit and include this in the hand-held record. GP’s should stamp their details on the top right hand corner of the card so their contact details are easily accessible.

Completion of the antenatal record card is a requirement of the SLHD ANSC Protocol and is an important aspect of the communication process between the GP and the hospital. Women should be encouraged to carry their record card with them at all times throughout their pregnancy and to bring it to every appointment with all health professionals.

Investigations

To ensure adequate communication, each request form should note the GP details. GPs ordering investigations should request copies of results be sent or faxed to the relevant hospital from external pathology providers or give copies for the woman to bring to next antenatal clinic visit.

RPA Women and Babies  Fax  9515 7452
Canterbury Hospital  Fax  9787 0431

Abnormal results

Any investigations requested by the GP for the woman under his/her care must be followed up by the GP concerned. Remember that at all times, it is the primary responsibility of the provider ordering the test or noting an abnormal finding to ensure appropriate follow-up management and communication, irrespective of whether a copy has been sent to the participating hospital. The GP Liaison Midwife can be contacted to discuss appropriate referral pathways.

Non-Attendance at the antenatal clinic

If a woman does not attend an antenatal visit and no substitute appointment has been made, the Antenatal Clinic (ANC) may attempt to contact the woman to arrange an alternative appointment. If the ANC are unable to contact the woman or she refuses to attend, the referring GP will be notified.

Admission during pregnancy

If a woman is admitted to hospital during the antenatal period, she will receive a copy of the discharge summary and a copy sent to her GP.
Maternity Unit booking process

NB: This is only for public patients. It does not apply to women electing to have care from a private obstetrician. Private obstetricians practising at RPA Women and Babies and Canterbury Hospital are listed on page 131.

At the first appointment, the GP should explain the obstetric shared care protocol, including the timing and nature of the antenatal visits shared between the participating hospital and the GP. This will also be emphasised at the woman’s “booking in” hospital appointment.

The “booking in” hospital appointment should be made ASAP. The GP should ensure that the woman has arranged this hospital appointment before 18 weeks gestation. Hospital booking page 14 & 15

It is important that if you see a woman in the first trimester who you may consider a risk of complication of pregnancy that they can be referred for early review in pregnancy and do not have to wait until their booking in visit. This is officially called a “consultation in pregnancy” and these consultations are seen in the various high risk pregnancy clinics at the hospital.

For referral: RPA Contact GP Liaison Midwife ph. 0425 230 662 or (urgent) O&G Registrar. Fax referral to ANC. Fax. 9515 3454. Canterbury Hospital: Contact Midwifery Unit Manager ph. 9787 0558 or GP Liaison Midwife ph. 0425 230 662 to discuss or (urgent) O&G Registrar. Fax referral to ANC Fax : 9787 0431. Upon assessment women, may be referred to RPAH.

Referral postcodes

The SLHD maternity facilities have a system where patients are restricted in access to a facility by postcode of residence as well in some instances by number of births.

For women with private health insurance but not electing care from a private obstetrician, the same restricted access by postcode exists.

RPA Women and Babies

| ABBOTSFORD | 2046 | ENMORE | 2042 | RODD POINT | 2046 |
| ANNANDALE | 2038 | ERSKINVILLE | 2043 | ROZELLE | 2039 |
| ALEXANDRIA | 2015 | FIVE DOCK | 2046 | RUSSELL LEA | 2046 |
| ASHFIELD | 2131 | FOREST LODGE | 2037 | ST PETERS | 2044 |
| BALMAIN | 2041 | GLEBE | 2037 | STANMORE | 2048 |
| BIRCHGROVE | 2041 | HABERFIELD | 2045 | STRATHFIELD | 2135 |
| BREAKFAST POINT | 2137 | HAYMARKET | 2000 | STRATHFIELD NORTH | 2137 |
| BURWOOD | 2134 | HOMEBUSH | 2140 | STRAWBERRY HILLS | 2010 |
| BURWOOD HEIGHTS | 2136 | HOMEBUSH WEST | 2140 | PROOF OF RESIDENCE REQUIRED (2012 PO BOX ONLY) |
| CABARITA | 2137 | LEICHHARDT | 2040 | SUMMER HILL | 2130 |
| CAMPERDOWN | 2050 | LEWISHAM | 2049 | SYDNEYHAM | 2044 |
| CANADA BAY | 2046 | LIBERTY GROVE | 2138 | TAVERNS HILL | 2040 |
| CHIPPELDALE | 2008 | LILYFIELD | 2040 | TEMPE | 2044 |
| CHISWICK | 2046 | MACDONALDTOWN | 2042 | ULTIMO | 2007 |
| CONCORD | 2137 | MARRICKVILLE | 2204 | WAREEMBA | 2046 |
| CONCORD WEST | 2138 | MARRICKVILLE METRO | 2204 | WATERLOO | 2017 |
| CROYDON | 2132 | MARRICKVILLE SOUTH | 2204 |
| CROYDON PARK | 2133 | MORTLAKE | 2137 |
| DARLINGTON | 2008 | NEWTOWN | 2042 |
| DOBROYD POINT | 2045 | PETERSHAM | 2049 |
| DRUMMOYNE | 2047 | PYRMONT | 2009 |
| DULWICH HILL | 2203 | REDFERN | 2016 |
| ENFIELD | 2136 | RHODES | 2138 |
| ENDFIELD SOUTH | 2133 | | | |
Canterbury Hospital

<table>
<thead>
<tr>
<th>Ashbury</th>
<th>2193</th>
<th>Clemton Park</th>
<th>2206</th>
<th>Punchbowl</th>
<th>2196</th>
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</thead>
<tbody>
<tr>
<td>Bardwell Park/</td>
<td>2207</td>
<td>Croydon Park/</td>
<td>2133</td>
<td>Riverwood/Lugarno/Peakhurst Hts</td>
<td>2210</td>
</tr>
<tr>
<td>Bardwell Valley</td>
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<tr>
<td>Belfield</td>
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<td>Roselands</td>
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<td>Enfield South</td>
<td>2133</td>
<td>South Belmore</td>
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<tr>
<td>Beverly Hills</td>
<td>2209</td>
<td>Hurlstone Park</td>
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<td>Strathfield South</td>
<td>2136</td>
</tr>
<tr>
<td>Bexley/Bexley</td>
<td>2207</td>
<td>Kingsgrove/Kingsway West</td>
<td>2208</td>
<td>Undercliffe</td>
<td>2206</td>
</tr>
<tr>
<td>North/South</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campsie</td>
<td>2194</td>
<td>Lakemba</td>
<td>2195</td>
<td>Wiley Park</td>
<td>2195</td>
</tr>
<tr>
<td>Canterbury</td>
<td>2193</td>
<td>Narwee</td>
<td>2209</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Maternity Unit bookings: RPA Women and Babies

To book for delivery at RPA Women and Babies, the woman must reside in the suburbs covered by the RPA Women and Babies Antenatal Clinic. The referral postcodes are listed on previous page.

Some women requiring complex or specialised care who may live in suburbs not covered by RPA Antenatal Clinic may be referred to RPA Women and Babies by their doctor. A letter of request is to be sent to the Clinical Director of Obstetrics and Gynaecology c/o Executive Unit RPA Women and Babies.

First hospital /booking in appointment: Ensure women book first hospital appointment ASAP

Arrange booking by either:


b. Using the same on-line form: print, complete and Fax: 9515 3454 page120 or

c. Contact Clinic reception ph: 9515 7101. There is no “message mailbox” service available.

RPA Women and Babies booking follow up

Hospital staff will contact the woman via mail (~ 2 weeks) with a letter noting appointment date and outlining further information that is required to bring to the appointment.

What to bring to the first hospital appointment

At the first antenatal visit, the woman must provide the following documents. Failure to do this will result in the booking not being accepted.

- **“Yellow” Antenatal Record Card**
  - Obtained and completed by Recognised ANSC GP. The EDB must be noted in the appropriate place on this card before it can be accepted.

- **All pathology and ultrasound results**
  - Note external pathology provider to “cc” results to ANC Fax 9515 7452
  - Document external pathology provider on antenatal record card

- **Medicare Card**
  - For those patients that do not hold a Medicare card, charges will apply.

- **Health Insurance** (if any)

- **Photo Identification**
  - Drivers licence or Passport etc.

- **Recent documentation confirming home address**
  - An official rental receipt, current residential tenancy agreement or council rate notice
At their first appointment, women will be provided with the Hospital’s Maternity Information Package which contains resources and a number of patient information brochures. Allow ~ 2hrs for this appointment.

**Booking for Delivery process**

All antenatal patients need to book their bed for delivery after 20 weeks gestation (usually after the obstetric review visit). The woman will need to take her antenatal record card and registration form to the Booking Office: RPA Medical Centre Suite 210, Level 2, cnr Carillon Avenue and Missenden Road.

Whilst every effort will be made to accommodate all our expectant mothers, once the hospital reaches maximum capacity they will no longer be able to accept any additional bookings.

The Booking Office is open from 7.30am till 5.00pm Monday to Friday.

**Maternity Unit bookings : Canterbury Hospital**

To book for delivery at Canterbury Hospital, the woman **must reside** in the suburbs covered by the Canterbury Hospital Antenatal Clinic. The referral postcodes are listed on previous page.

**First hospital /booking in appointment:** Ensure women book first hospital appointment ASAP

- Contact hospital: ph. 9787 0250 or ph. 9787 0560  
  o At time of booking, women will be given their appointment date and time.

- Canterbury Maternity and Pregnancy History Form [page 122](#)  
  - This form is to be completed by GP and brought with the woman for her first hospital visit.  
    ▪ **DO NOT** fax or post the form as it is not a booking request.

**What to bring to the first hospital appointment**

- **Canterbury Maternity Health and Pregnancy History Form**  
  - GP to complete form

- **“Yellow”Antenatal Record Card**  
  - Obtained and completed by Recognised ANSC GP

- **All pathology and ultrasound results**  
  - Note external pathology provider to “cc” results to ANC Fax 9787 0431.
  - Document external pathology provider on antenatal record card

- **Medicare Card**  
  - For those patients that do not hold a Medicare card, charges will apply.

- **Health Insurance** (if any)

- **Photo Identification**  
  - Drivers licence or Passport etc.

- **Recent documentation confirming home address**  
  - An official rental receipt, current residential tenancy agreement or council rate notice

At their first appointment, women will be provided with the Hospital’s Maternity Information Package which contains resources and a number of patient information brochures.
# Antenatal Shared Care Protocol

**“At a glance”**

A checklist for the Antenatal Shared Care (ANSC) Protocol

To ensure essential procedures are undertaken in regards to antenatal care, this “at a glance” checklist has been developed to outline important points in the SLHD ANSC protocol. It is intended to be used in conjunction with the ANSC protocol.

The needs of each pregnant woman should be reassessed at each visit throughout the pregnancy. The timing of antenatal visits may alter at the discretion of the GP and if the woman develops any risk factors.

Please ensure you consult the ANSC Protocol (page 17) for more details regarding each antenatal encounter.

## Early pregnancy

<table>
<thead>
<tr>
<th>Have you:</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Arranged all routine screening bloods (as per ANSC protocol)</td>
</tr>
<tr>
<td>- Blood group and antibody screen, FBC</td>
</tr>
<tr>
<td>- VDRL screen, rubella titre, varicella IgG</td>
</tr>
<tr>
<td>- Hep B surface antigen, Hep C and HIV</td>
</tr>
<tr>
<td>- Thalassaemia screening, include Hb EPG- screen partner if result abnormal</td>
</tr>
<tr>
<td>✔ Arranged early FGTT for women identified as “at risk” for gestational diabetes (as per GDM screening guidelines)</td>
</tr>
<tr>
<td>✔ Discussed prenatal screening including Combined First trimester Screening (cFTS)</td>
</tr>
<tr>
<td>✔ Referred to genetic counselling (if relevant)</td>
</tr>
<tr>
<td>✔ Arranged an “early consultation in pregnancy” appointment if considered a risk of complication</td>
</tr>
<tr>
<td>✔ Completed the antenatal record card (at each visit)</td>
</tr>
<tr>
<td>✔ Referred patient to arrange hospital booking appointment at relevant hospital</td>
</tr>
</tbody>
</table>

## Second trimester

<table>
<thead>
<tr>
<th>Have you:</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Arranged gestational diabetes screening : GCT or FGTT (timing as per ANSC protocol)</td>
</tr>
<tr>
<td>✔ Arranged blood tests (as per ANSC protocol)</td>
</tr>
<tr>
<td>✔ Monitored fetal wellbeing especially fetal movements (at each visit)</td>
</tr>
<tr>
<td>✔ Completed the antenatal record card (at each visit)</td>
</tr>
</tbody>
</table>

## Third trimester

<table>
<thead>
<tr>
<th>Have you:</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Arranged blood tests (as per ANSC protocol)</td>
</tr>
<tr>
<td>✔ Attended GBS swab: 35-37 weeks</td>
</tr>
<tr>
<td>✔ Monitored fetal well-being especially fetal movements (at each visit)</td>
</tr>
<tr>
<td>✔ Completed the antenatal record card (at each visit)</td>
</tr>
</tbody>
</table>

Any investigations requested by the GP for the woman under his/her care must be followed up by the GP concerned. It is the primary responsibility of the provider ordering the test or noting an abnormal finding to ensure appropriate follow-up management and communication, irrespective of whether a copy has been sent to the participating hospital.

REMEMBER: Clare Jordan, GP Liaison Midwife ph. 0425 230 662 can be contacted if you have any clinical questions or concerns.
# Antenatal Shared Care Protocol: Schedule of visits

**SLHD ANTENATAL SHARED CARE PROTOCOL**  (Revised July 2013)

**Antenatal Clinics: RPA Women and Babies, Canterbury Hospital**

Any investigations requested by the GP for the woman under his/her care must be followed up by the GP concerned. It is the primary responsibility of the provider ordering the test or noting an abnormal finding to ensure appropriate follow-up management and communication, irrespective of whether a copy has been sent to the participating hospital.

<table>
<thead>
<tr>
<th>Stage of Pregnancy</th>
<th>Antenatal Encounter</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-10 weeks</td>
<td>Confirm pregnancy</td>
<td>GP</td>
</tr>
<tr>
<td></td>
<td>- Discuss pregnancy nutrition and health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Discuss antenatal care options with patient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Complete investigations including:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Routine antenatal screening blood tests</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Blood group and antibody screen, FBC, VDRL Screen, Rubella titre, Varicella IgG</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Hep B surface antigen, Hep C and HIV</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Thalassaemia Screening, include HbEPG – screen partner if result abnormal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Weight</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- MSU – MC &amp; S</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Recommend seasonal influenza vaccination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Pap smear (if due)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Refer to genetic counselling if family history of hereditary condition, consanguinity, abnormal thalassaemia screen in both parents, recurrent miscarriages, previous baby with a genetic, chromosomal or congenital abnormality, cannot decide about prenatal screening (Ph. 9515 5060)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Discuss Combined First Trimester Screening (cFTS); nuchal translucency and biochemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Phone and arrange early “consultation in pregnancy” appointment - i.e. considered a risk of complication of pregnancy (GP Liaison Midwife: Ph. 0425 230 682 or O&amp;G Registrar)</td>
<td></td>
</tr>
<tr>
<td>If required</td>
<td>- Review routine antenatal screening blood results</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- In the event 1st Hospital Visit &gt; 20 weeks, arrange EFGTT (75gm) for identified at risk patients</td>
<td></td>
</tr>
<tr>
<td>12-18 weeks</td>
<td>Midwife Booking 1st Hospital visit</td>
<td>Hospital/Clinic</td>
</tr>
<tr>
<td></td>
<td>- Complete history and administrative details, discuss antenatal parent education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Psychosocial assessment completed and referral if appropriate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Complete investigations including:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Blood group and antibody screen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 14-20 weeks: EFGTT (75gm) for identified at risk patients</td>
<td></td>
</tr>
<tr>
<td>18-20 weeks</td>
<td>Screening ultrasound at booked hospital or external provider</td>
<td>Hospital/Clinic</td>
</tr>
<tr>
<td>20-22 weeks</td>
<td>Obstetrician Visit</td>
<td>Hospital/Clinic</td>
</tr>
<tr>
<td></td>
<td>- Confirms suitability for GP Shared Care - GP contacted via letter</td>
<td></td>
</tr>
</tbody>
</table>

* Use of a fetal doppler for fetal heart rate monitoring is recommended

* Concerns regarding reduced or absent fetal movements, contact relevant hospital labour ward or birthing unit

<table>
<thead>
<tr>
<th>Stage of Pregnancy</th>
<th>Antenatal Encounter</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-28 weeks</td>
<td>- Routine antenatal visit every four to six weeks or as required: Monitor maternal and fetal well-being including maternal weight, B/P, fundal height, fetal movements and fetal heart sounds (from 20 weeks onwards preferably to use a fetal doppler)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Investigations including:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 26-29 weeks: OCT (50gm) or FGTT (75gm) as per guidelines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- FBC and antibodies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Refer any problems to the appropriate hospital Specialist Clinic</td>
<td></td>
</tr>
<tr>
<td>30 weeks</td>
<td>Hospital review</td>
<td>Hospital/Clinic</td>
</tr>
<tr>
<td></td>
<td>- Anti D injection given if indicated</td>
<td></td>
</tr>
<tr>
<td>32-36 weeks</td>
<td>- Routine antenatal visit every two weeks or as required: Monitor maternal and fetal well-being including maternal weight, B/P, fundal height, fetal movements and fetal heart sounds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Complete investigations including:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- FBC, antibodies if required for Rh negative women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Genital swab for Group B Streptococcus (GBS) : 35-37 weeks</td>
<td></td>
</tr>
<tr>
<td>37 weeks</td>
<td>Hospital review</td>
<td>Hospital/Clinic</td>
</tr>
<tr>
<td></td>
<td>- Anti D injection given if indicated</td>
<td></td>
</tr>
<tr>
<td>38-40 weeks</td>
<td>- Routine weekly visits or as required: Monitor maternal and fetal well-being including maternal weight, B/P, fundal height, fetal movements and fetal heart sounds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Seek advice if any abnormality or concern</td>
<td></td>
</tr>
<tr>
<td>41+ weeks</td>
<td>Visits as arranged with the hospital clinic</td>
<td>Hospital/Clinic</td>
</tr>
<tr>
<td>Postnatal</td>
<td>Baby check (2 weeks)</td>
<td>GP</td>
</tr>
<tr>
<td></td>
<td>Maternal postnatal check (6 weeks)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychosocial assessment (6-8 weeks)</td>
<td></td>
</tr>
</tbody>
</table>

GP Liaison Midwife: 0425 230 662 / 9515 7416
RPA Women and Babies: 9515 8420
Appointments: 9515 7101
Inner West Sydney Medicare Local: 9799 0933
Website: www.iwsml.org.au
Canterbury Hospital: 9787 0000
Appointments: 9787 0250 / 9787 0560

Once printed, this document is no longer controlled - February 2014
## RPA BIRTH CENTRE: ANTENATAL SHARED CARE PROTOCOL

(Reviewed July 2013)

Any investigations requested by the GP for the woman under his/her care must be followed up by the GP concerned.

It is the primary responsibility of the provider ordering the test or noting an abnormal finding to ensure appropriate follow-up management and communication, irrespective of whether a copy has been sent to the participating hospital.

<table>
<thead>
<tr>
<th>Stage of Pregnancy</th>
<th>Antenatal Encounter</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-10 weeks</td>
<td>Confirm pregnancy:</td>
<td>GP</td>
</tr>
<tr>
<td></td>
<td>- Discuss pregnancy nutrition and health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Discuss antenatal care options with patient</td>
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</tr>
<tr>
<td></td>
<td>- Complete investigations including:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Routine antenatal screening blood tests</td>
<td></td>
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<td></td>
<td>- Blood group and antibody screen, EBC, VDRL Screen, Rubella titre, Vancella IgG</td>
<td></td>
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<td></td>
<td>- Hep B surface antigen, Hep C and HIV</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Thalassaemia Screening, include HbEPG - screen partner if result abnormal</td>
<td></td>
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<tr>
<td></td>
<td>- Weight</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- MSU – MC &amp; S</td>
<td></td>
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<tr>
<td></td>
<td>- Recommend seasonal influenza vaccination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Pap smear (if due)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Refer to genetic counselling if history of hereditary condition, consanguinity, abnormal thalassaemia screen in both parents, recurrent miscarriages, previous baby with a genetic, chromosomal or congenital abnormality, cannot decide about prenatal screening (Ref 911506080)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Discuss Combined First Trimester Screening (cFTS) nuchal translucency and biochemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Phone and arrange early ‘consultation in pregnancy’ appointment – i.e. considered a risk of complication of pregnancy (GP Liaison Midwife Ph. 0425 230 662 or hospital O&amp;G Registrar)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Complete patient antenatal record card (incl medical history) and note external pathology provider</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Complete ultrasound request forms – Nuchal translucency (cFTS) (11-13 gest wks) and 18-20 week scan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Refer patient directly to RPA Birth Centre (Ph. 9515 6405)</td>
<td></td>
</tr>
<tr>
<td>If required</td>
<td>Review routine antenatal screening blood results</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In the event 1st Birth Centre visit &gt;20 weeks, arrange EFGTT (75gm) for identified at risk patients</td>
<td></td>
</tr>
<tr>
<td>ASAP</td>
<td>First Information Session</td>
<td>Birth Centre</td>
</tr>
<tr>
<td>16-18 weeks</td>
<td>Birth Centre Visit</td>
<td>Birth Centre</td>
</tr>
<tr>
<td></td>
<td>Complete history and administrative details</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14-20 weeks: EFGTT (75gm) for identified at risk patients</td>
<td></td>
</tr>
<tr>
<td>18-20 weeks</td>
<td>Screening ultrasound at booked hospital or external provider</td>
<td>RPAH</td>
</tr>
<tr>
<td>22 weeks</td>
<td>Birth Centre Visit</td>
<td>Birth Centre</td>
</tr>
<tr>
<td></td>
<td>VMO visit as appropriate</td>
<td></td>
</tr>
<tr>
<td>24-28 weeks</td>
<td>Birth Centre Visit</td>
<td>Birth Centre</td>
</tr>
<tr>
<td></td>
<td>Routine antenatal visit – monitor maternal and fetal well-being including maternal weight, B/P, fundal height, fetal movements and fetal heart sounds (from 20 weeks onwards preferably to use a fetal doppler)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete investigations including:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 20-23 weeks: GCT (50gm) or FGT (75gm) as per guidelines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Repeat FBC and antibody screen</td>
<td></td>
</tr>
<tr>
<td>30 weeks</td>
<td>Birth Centre Visit</td>
<td>Birth Centre</td>
</tr>
<tr>
<td></td>
<td>Review results of 28 week tests</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anti D if indicated</td>
<td></td>
</tr>
<tr>
<td>32 weeks</td>
<td>Birth Centre Visit</td>
<td>Birth Centre</td>
</tr>
<tr>
<td></td>
<td>Routine antenatal visit: Monitor maternal and fetal well-being including maternal weight, B/P, fundal height, fetal movements and fetal heart sounds</td>
<td></td>
</tr>
<tr>
<td>34 weeks</td>
<td>Birth Centre Visit</td>
<td>Birth Centre</td>
</tr>
<tr>
<td>36 weeks</td>
<td>Second Information Session</td>
<td>Birth Centre</td>
</tr>
<tr>
<td></td>
<td>Routine antenatal visit: Monitor maternal and fetal well-being including maternal weight, B/P, fundal height, fetal movements and fetal heart sounds.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete investigations including:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Repeat FBC and antibody screen if Rh negative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Genital Swab for Group B Streptococcus (GBS) : 35-37 weeks</td>
<td></td>
</tr>
<tr>
<td>From 37 weeks</td>
<td>Weekly visits with the Birth Centre</td>
<td>Birth Centre</td>
</tr>
<tr>
<td></td>
<td>Anti D if indicated at 37/40</td>
<td></td>
</tr>
<tr>
<td>Postnatal</td>
<td>Birth Centre Visit</td>
<td>Birth Centre</td>
</tr>
<tr>
<td></td>
<td>Baby check (2 weeks)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maternal postnatal check (6 weeks)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychosocial assessment (6-8 weeks)</td>
<td></td>
</tr>
</tbody>
</table>

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Use of a fetal doppler for fetal heart rate monitoring is recommended

*Concerns regarding reduced or absent fetal movements, contact hospital labour ward

---

GP Liaison Midwife: 0425 230 662 / 9515 7416
Birth Centre: RPA Women and Babies: 9515 6405
Inner West Sydney Medicare Local: 9799 0933
Website: www.iwsml.org.au
## Hospital Clinics

### RPA Women and Babies: Key Clinics  
**ph 9515 7101**

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Details</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Antenatal Booking Clinic</strong></td>
<td>This clinic is the first contact women have with the hospital.</td>
<td>(Held regularly)</td>
</tr>
<tr>
<td><strong>Midwives Antenatal Clinic</strong></td>
<td>Low risk antenatal women are encouraged to attend. Patients are seen by a doctor at the VMO visit and may be referred back to Registrar or high risk clinics if required. ANSC women are seen at 30 weeks</td>
<td>Monday, Tuesday, Wednesday, Thursday, Friday and Saturday</td>
</tr>
<tr>
<td><strong>Registrars Antenatal Clinic</strong></td>
<td>Shared Care patients are seen at 37 and 41 weeks or as required clinically. Women with a breech presentation from 34 weeks gestation 35 week external cephalic version review.</td>
<td>Monday AM, Wednesday AM, Thursday PM</td>
</tr>
<tr>
<td><strong>VMO Visit Clinic</strong></td>
<td>Women with low risk pregnancies are referred to this clinic from the midwives booking clinic for obstetric review and confirmation of care option for the remainder of their pregnancy</td>
<td>Monday AM/PM Wednesday and Thursday PM</td>
</tr>
<tr>
<td><strong>Birth after Caesarean (BAC)</strong></td>
<td>For women who have had a previous Caesarean Section for review for possible vaginal birth. Women with known: - uterine fibroids - placenta praevia</td>
<td>Thursday PM Dr de Vries</td>
</tr>
</tbody>
</table>

### Conditions not suitable for antenatal shared care

Antenatal shared care arrangements can be provided for most pregnant women but may not be recommended for women with specific contraindications. It is recommended that GPs seek advice from an Obstetric Registrar and/or Consultant to clarify the required management of women with these contraindications. With obstetric consultant support, some GPs may be able to manage women with these conditions.

It is important that if you see a woman in the first trimester who you may consider a risk of complication of pregnancy that they can be referred for early review in pregnancy and do not have to wait until their booking visit. This is officially called a “consultation in pregnancy” and these consultations are seen in the various high risk pregnancy clinics at RPAH.

**RPA Women and Babies**: Contact GP Liaison Midwife ph. 0425 230 662 or (urgent) O&G Registrar. Fax referral to ANC Fax. 9515 3454.

**Canterbury Hospital**: Contact Midwifery Unit Manager ph. 9787 0558 or GP Liaison Midwife ph. 0425 230 662 to discuss or (urgent) O&G Registrar. Fax referral to ANC Fax. 9787 0431. Upon assessment women, may be referred to RPAH. Direct referrals to RPA include pre-existing Type 1 diabetes, MC twins or a major medical problem.
## RPAH Specialist Pregnancy Related Clinics

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Identified With</th>
<th>Referral Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diabetic Clinic</strong></td>
<td>- pre-existing diabetes (including pre-conception) or newly diagnosed&lt;br&gt;- Patients identified as Gestational Diabetic by either SGTT/FGTT will be seen at this clinic as per protocol.&lt;br&gt;- Other endocrine disorders</td>
<td>Women with pre-existing diabetes or newly diagnosed GDM should be referred by GP directly to Diabetic Centre&lt;br&gt;ph: 9515 5888  fax : 9515 5820. These women can be seen prior to their first antenatal hospital appointment.</td>
</tr>
<tr>
<td><strong>Genetics Clinic</strong></td>
<td>- Personal or family history of genetic conditions (e.g. mental retardation, consanguinity, cystic fibrosis)&lt;br&gt;- Chromosomal disorders (e.g. trisomy, translocations)&lt;br&gt;- Congenital abnormalities or physical malformations&lt;br&gt;- Personal or family history of genetic haematology conditions (e.g. thalassemia, sickle cell disease, haemophilia, coagulation or platelet disorders)</td>
<td><strong>Referral Form is required to be completed page 121</strong></td>
</tr>
<tr>
<td><strong>Hypertensive/Renal Disorders of Pregnancy Clinic (HDP)</strong></td>
<td>- Booking BP 140/90 or greater&lt;br&gt;- Known renal disease&lt;br&gt;- History of recurrent UTI’s in childhood or in pregnancy&lt;br&gt;- History of essential /chronic hypertension&lt;br&gt;- Previous pregnancy complicated by hypertension&lt;br&gt;- Family history of eclampsia&lt;br&gt;- Follow-up from hospital eg prescribed antihypertensives</td>
<td>When to admit :&lt;br&gt;- symptomatic hypertension&lt;br&gt;- biochemical abnormalities&lt;br&gt;- neurological symptoms&lt;br&gt;- pharmacological treatment refinement&lt;br&gt;The are options for referral depending on clinical urgency:&lt;br&gt;<strong>Urgent</strong>: Day Stay Unit – same day&lt;br&gt;<strong>Semi-urgent</strong>: Day Stay Unit – ring O&amp;G Registrar on call&lt;br&gt;<strong>Elective</strong>: next HDP Clinic</td>
</tr>
</tbody>
</table>

**Thursday AM**<br>Dr Ross<br>Dr Birrell<br>Dr Kowalski<br>Dr de Vries<br>

**Monday PM; Thursday PM**

**Tuesday AM**<br>Dr Ogle<br>Dr Hyett
<table>
<thead>
<tr>
<th>Clinic</th>
<th>Identified with:</th>
<th>Referral Required</th>
<th>Available Times</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medical Obstetric Clinic</strong></td>
<td>Women identified with:</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>Pre-pregnancy conditions:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Anomalies- uterine, acquired, congenital</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Pre-existing medical condition <em>(other than hypertension or diabetes)</em></td>
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<tr>
<td></td>
<td><strong>Previous pregnancy complications:</strong></td>
<td></td>
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<tr>
<td></td>
<td>- 2nd trimester M/C, TOP or neonatal death</td>
<td></td>
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<tr>
<td></td>
<td>- Previous spontaneous pre-term delivery &lt; 34 weeks, no subsequent term delivery <em>(these women need to be seen by 12 weeks to offer cervical assessment)</em></td>
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</tr>
<tr>
<td></td>
<td><strong>Current pregnancy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Complex fetal anomaly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ante partum haemorrhage (APH)</td>
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<tr>
<td></td>
<td>All pregnant women satisfying one or more criteria will be transferred for review and/or management by this clinic.</td>
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<tr>
<td><strong>Perinatal Psychiatry</strong></td>
<td>Women identified with:</td>
<td></td>
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<tr>
<td></td>
<td>- pre-existing mental illness or at risk of developing a perinatal mental health problem</td>
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<td></td>
<td><em>Referral Form is required to be completed page125</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perinatal and Family Support Clinic</strong></td>
<td>Women identified with:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- substance use risk for this pregnancy and/or other psychosocial issues.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Women sharing care between RPA Women and Babies and Aboriginal Medical Service, Redfern</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Twin + pregnancies</strong></td>
<td>Women identified with:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Twin + pregnancy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women should be referred at the time of diagnosis or by 12 weeks. This allows maximum time for appropriate assessment, counselling and discussion of management (including consideration of multifetal reduction)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thyroid Antenatal Clinic</strong></td>
<td>For referral criteria: <em>Flowchart page 68</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Referral Form is required to be completed page126</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Young Parent’s Clinic</strong></td>
<td>Women identified:</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>- Aged &lt;21 years and/or vulnerable i.e. intellectual disability, social difficulties</td>
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<tr>
<td></td>
<td><em>Flowchart page 86</em></td>
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</tbody>
</table>
Fetal Medicine: Antenatal Assessment Unit

Offered as an outpatient service.

An antenatal assessment comprises: Urinalysis, PET bloods, 3 x blood pressure readings at 1 hr intervals, CTG (>28 weeks), USS - either Growth & Wellbeing or Wellbeing, Medical review

Following guidelines for booking:

- Contact Fetal Medicine Unit: Ph. 9515 8258
- Complete pathology form (mark urgent) and give to patient for blood collection prior to assessment
- Complete ultrasound / CTG form (include referring doctor and type of USS, if required) and give to patient.
- Patient to bring antenatal record card, ultrasound / CTG referral and Medicare card to FMU at time of appointment

Advise patients that this is assessment takes ~ three hours and there are no child minding facilities available.

Specialist Women’s Clinic

Referral Form is required to be completed page 124

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Initial assessment of:</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endometriosis Clinic</td>
<td>Endometriosis</td>
<td>Monday PM once/month</td>
</tr>
<tr>
<td>Pelvic Floor</td>
<td>Initial assessment of:</td>
<td>Friday AM twice/month</td>
</tr>
<tr>
<td></td>
<td>- pelvic floor weakness/prolapse</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- postnatal follow up of 3rd and 4th degree tears</td>
<td></td>
</tr>
<tr>
<td>Pelvic Floor</td>
<td>Women with:</td>
<td>Monday PM; Wednesday PM</td>
</tr>
<tr>
<td></td>
<td>- pelvic masses</td>
<td></td>
</tr>
<tr>
<td>Gynaecology Clinic</td>
<td>- other noncancerous gynaecological conditions.</td>
<td>Wednesday AM</td>
</tr>
<tr>
<td>Recurrent Miscarriage</td>
<td>Women who have had:</td>
<td>Tuesday PM once/month</td>
</tr>
<tr>
<td>Abnormal Uterine Bleeding Clinic</td>
<td>- recurrent miscarriages (usually three or more)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- previous stillbirth (one or more) who are pregnant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seeking pre-conception advice and investigations</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fertility Unit</td>
<td>GP referral required</td>
<td>Tuesday PM Thursday PM</td>
</tr>
<tr>
<td></td>
<td>For couples with concerns regarding their fertility: investigate, review and plan the appropriate treatment.</td>
<td></td>
</tr>
</tbody>
</table>
Women requiring complex or specialised care may be transferred to RPA Women and Babies. Contact Midwifery Unit Manager ph. 9787 0558 to discuss further. Women with BMI >50 or weight 150kg, pre-existing Type 1 diabetes, MC twins or a major medical problem would be referred directly to RPA.

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Description</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midwives Clinic</td>
<td>Includes antenatal booking visit. Low risk antenatal women are encouraged to attend. Patients are seen by a medical practitioner in the “Doctors Clinic”</td>
<td>Monday, PM; Tuesday AM; PM; Wednesday PM; Thursday AM; Friday AM, PM</td>
</tr>
<tr>
<td>Doctors Clinic (RMO, SRMO, VMO)</td>
<td>Women with low risk pregnancies are referred to this clinic for obstetric review and confirmation of care option for the remainder of their pregnancy. Antenatal Shared Care patients are seen at 30, 37 and 41 weeks or as required clinically.</td>
<td>Monday AM; Wednesday AM; Thursday AM</td>
</tr>
<tr>
<td>Birth after Caesarean (BAC)</td>
<td>For women who have had a previous Caesarean Section for review for possible vaginal birth.</td>
<td>Thursday AM; PM; Friday AM; Monday PM (fortnightly)</td>
</tr>
<tr>
<td>Endocrine Clinic</td>
<td>Women identified with: • pre-existing diabetes (including pre-conception) should be referred directly to RPA Diabetic Centre ph: 9515 5888  fax : 9515 5820. • Patients identified as Gestational Diabetics by either SGTT/FGTT will be seen at this clinic as per protocol Small group education for women newly diagnosed with GDM facilitated by Diabetes Educator and Dietitian.</td>
<td>Wednesday AM; PM; Friday AM</td>
</tr>
<tr>
<td>Preconception – Endocrine Clinic</td>
<td>Preconception advice for women with pre-existing diabetes, thyroid conditions, polycystic ovaries.</td>
<td>Outpatient Clinic</td>
</tr>
<tr>
<td>Genetics Clinic</td>
<td>Women identified with: • Personal or family history of genetic conditions (e.g. mental retardation, consanguinity, cystic fibrosis) • Chromosomal disorders (e.g. trisomy, translocations) • Congenital abnormalities or physical malformations • Personal or family history of genetic haematology conditions (e.g. thalassaemia, sickle cell disease, haemophilia, coagulation or platelet disorders)</td>
<td>Referrals to RPA (From Mar 2014) Tuesday PM Once/month (non-urgent) Urgent Prenatal referrals – RPA ph 9515 5080</td>
</tr>
</tbody>
</table>

**Language Specific Clinics**

<table>
<thead>
<tr>
<th>Doctors Clinic</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengali</td>
<td>Wednesday AM</td>
</tr>
<tr>
<td>Arabic</td>
<td>Wednesday PM</td>
</tr>
</tbody>
</table>
Preconception Planning

Pre-Pregnancy Counselling Checklist ........................................ 26
Advice for prospective parents.................................................. 26
Immunisation and pregnancy..................................................... 28
Influenza vaccination............................................................... 28
Pre-conception advice for women with pre-existing diabetes ........ 29
Advice for Prospective Parents
Pre-pregnancy counselling is an important and integral part of any woman's health care if she is contemplating a pregnancy. It is recognised that situations may require specialist advice including an obstetrician, geneticist or paediatrician.

**Preconception Planning**

**GP guide for those planning a pregnancy**

| Physical Examination | Physical examination including breast examination  
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PAP smear</td>
</tr>
<tr>
<td></td>
<td>Discuss routine and recommended screening tests.</td>
</tr>
<tr>
<td></td>
<td>FBC, blood group and antibodies, Hb EPG, syphilis and hepatitis B SAg; Hep C antibodies(HcV), HIV, if U/A positive for nitrates, then urine M/C/S</td>
</tr>
<tr>
<td></td>
<td>All women with previous history GDM to have FGTT (75 gm)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Immunisation</th>
<th>Check immunisation status: measles, mumps, rubella, varicella, diphtheria, tetanus, pertussis, Hep B,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recommend to wait 4 weeks after receiving MMR and/or varicella before trying to fall pregnant</td>
</tr>
<tr>
<td></td>
<td>Recommend seasonal flu vaccination (also for other adult carers) and pertussis history</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Genetics</th>
<th>Offer referral for genetic counselling if family history of hereditary condition, consanguinity, previous baby with genetic, chromosomal or congenital abnormality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Discuss options for prenatal screening tests i.e. Combined First Trimester Screening (cFTS)</td>
</tr>
<tr>
<td></td>
<td>Discuss with women aged 35 years and older (at the time of delivery) the risk of chromosome abnormalities, in particular Down's Syndrome. Discuss screening versus diagnostic testing i.e. CVS; amniocentesis</td>
</tr>
<tr>
<td></td>
<td>Discuss history of ethnic origins i.e. haemoglobinopathy screening if in high-risk racial groups at risk of thalassaemia, Hb sickle cell anaemia</td>
</tr>
<tr>
<td></td>
<td>If the pregnant woman is thalassaemia positive, her partner must be tested</td>
</tr>
<tr>
<td></td>
<td>Medical Genomics (Clinical Genetics) ph. 9515 5080</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past medical history</th>
<th>Discuss pre-existing or past medical conditions on pregnancy</th>
</tr>
</thead>
</table>

| Pre-existing diabetes, Type 1 or Type 2 | Discuss potential pregnancy risks if complicated by sub-optimal glycamic control or unplanned  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All women with pre-gestational diabetes(Type 1 or Type 2) should be referred for preconception planning: RPA Diabetes Centre ph. 9515 5888 ; Canterbury Outpatient (Endocrinology) ph. 97870161 or an Endocrinologist with expertise in diabetes and pregnancy</td>
</tr>
</tbody>
</table>

| Diet                                | Balanced diet – eat foods from each food groups daily  
|-------------------------------------|--------------------------------------------------|
|                                     | Importance of increased leafy green vegetables  
|                                     | Increased Calcium and Iron. Especially for vegetarian- check iron stores and B12 |
|                                     | Include iodine (iodised salt) and fluoride (fluoridised water) in diet. |
|                                     | Discuss foods to avoid and risks of listeria containing foods: chicken, salamis and sushi etc |
Folic Acid and Iodine supplements

- When to commence and recommended dosage
- Check B12 level prior to commencing folic acid

<table>
<thead>
<tr>
<th>Supplement</th>
<th>Dose</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Folate</td>
<td>0.5mg per day</td>
<td>Preconception to 14 weeks gestation</td>
</tr>
<tr>
<td></td>
<td>5mg per day</td>
<td>Preconception to 14 weeks gestation for women considered at high risk for an open neural tube defect:</td>
</tr>
<tr>
<td>Iodine</td>
<td>150mcgms/day</td>
<td>Women who are pregnant, breastfeeding or considering pregnancy. Women with pre-existing thyroid conditions should seek advice from their medical practitioner before taking a supplement.</td>
</tr>
</tbody>
</table>

Weight

- Obesity – risk of infertility, PCOS
  Further information " Obesity and pregnancy" page 60
- Underweight – possible period cessation, irregularity

Dental Check

- Dental hygiene and annual check-up recommended. Further information on oral health in pregnancy page 54

Workplace

- Advice regarding any potential work place hazards, risks

Fluoride Supplement

- Reinforce drinking tap water not bottled water

Alcohol and Substance Use

- Discuss alcohol and substance use

Smoking Cessation

- Encourage smoking cessation
  Smoking Cessation Clinic : ph. 9515 8613 Further information page 84

Medication Usage

- Present and future use of medications including alternative therapies.
  Mothersafe ph. 9382 6539 for further advice if required.

Exercise

- 30 minutes moderate exercise most days if patient already does regular exercise
- If patient hasn’t been physically active gentle exercise like walking, swimming

Psycho-Social

- Assess family and social circumstances
- Screen and initiate an appropriate management plan for those with a pre-existing mental health disorder or history of mental illness.
- Strongly encourage her partner’s involvement.
- Screen for domestic violence.

Back to Table of Contents
Immunisation and pregnancy

All women, considering pregnancy or pregnant, should be aware of their vaccination status and, if uncertain, liaise with their general practitioner.

Screening for Varicella Zoster Virus (VZV) should be attended in the pre-conceptual period based on the negative history of previous unknown varicella infection. Women who have had a reliable history of varicella infection should be considered immune. Women who do not have a reliable history of varicella exposure or are VZV seronegative, should be offered VZV vaccination. **These women should be advised to avoid pregnancy for one month after vaccination.**

Live attenuated vaccines are **not** recommended during pregnancy (e.g. MMR, varicella, rotavirus, BCG, oral typhoid vaccine). Women should be advised to **wait at least 4 weeks** after receiving these vaccinations before trying to fall pregnant. If given inadvertently, specialist consultation is advised.

See previous table for preconception immunisation recommendations.

**Further information:**

The Australian Immunisation Handbook  

The Australian Immunisation Handbook Pregnancy  

**Patient Information Brochure:**  
*Thinking Pregnancy, Think Immunisation* page 148  
“Patient Information” tab

*IWSML has hard copies of this brochure.*

Influenza Vaccination

Pregnant women are at an increased risk of influenza related complications for their unborn baby and themselves. Some pregnant women have died from influenza.

Influenza vaccination is recommended for **all pregnant women regardless of gestation**. Flu vaccination during pregnancy should be routine. Safety is well established and both maternal and infant benefit are now proven.

**Further information:**

RANZCOG statement:  
*Influenza vaccination for pregnant women*  

Mothersafe : Fact Sheets  

**Patient Information Brochure:**  
*Influenza Vaccination in Pregnancy* page 142  
Or  

*IWSML has hard copies of this brochure.*
Women with Pre-Existing Diabetes (Type1 /Type 2)

Pregnancy in women with pre-existing Type 1 (insulin dependent) and Type 2 (non insulin dependent, though may be insulin treated) diabetes continues to have a 4-11 times greater likelihood of major congenital malformations [see Appendix A] and 3-5 times greater likelihood of perinatal mortality than pregnancies in women without diabetes.

- All women with pre-gestational diabetes (Type 1 and Type 2) should be referred for PRE-PREGNANCY PLANNING: RPA Diabetes Centre ph. 9515 5888; Canterbury Outpatient (Endocrinology) ph. 97870161 or an Endocrinologist with expertise in diabetes and pregnancy
- If a woman finds she is pregnant, she should be referred as soon as possible.

As Type 2 diabetes becomes more common in younger age groups, pregnancies in women with Type 2 diabetes:
- are now more frequently seen than pregnancies in women with Type 1 diabetes
- are tending to be associated more often with adverse outcomes than Type 1 diabetes, despite the widespread perception that Type 2 diabetes is a less serious condition are less often planned

Essential components of pre-pregnancy planning:
- Optimise glycaemic control: Target A1c < 7.0% - preferably lower, while minimising hypoglycaemia risk
- Complication assessment pre-pregnancy
- Folic Acid
- Review other medications (including oral diabetes agents, statins, ACE-I, A2RA)
- Revise self-management skills
- Contraception until optimal glycaemic control, stable complication status, optimum concomitant medications
- Cooperation of GP, endocrinologist, diabetes educator, dietitian, obstetrician ± renal physician ± ophthalmologist with the woman with pre-existing diabetes

Aims:
1. The aim of pre-pregnancy planning is to improve the outcome of pregnancies complicated by pre-existing Type 1 and Type 2 diabetes to equate with that of pregnancies without diabetes
2. The aim of this document is to provide guidelines for pre-pregnancy planning, counselling and management

Pre-Pregnancy Counselling and Planning have been shown to have the following benefits:
- Reduce congenital malformation rate by up to 75%
- Reduce perinatal mortality by up to 80%
- Reduce pre-term delivery by up to 50%

Avoid unplanned pregnancies.
- Advise all women with diabetes who are of child-bearing age to use contraception unless actively planning a pregnancy when glycaemic control is optimal and complication status stable.
- Inform all women with diabetes who are of child-bearing age of the potential risks of pregnancies complicated by diabetes when glycaemic control is sub-optimal and/or pregnancies unplanned.
- Metformin may improve fertility, so before commencing on the medication to improve glycaemic control, women need to be alerted to the increased possibility of a pregnancy and the need to use contraception until glycaemic control is optimal for pregnancy.

Women with diabetes presenting for IVF/other assisted reproduction should have their diabetes status reviewed and optimised before proceeding further.
General Measures:
1. Start folic acid **5mg** daily 1-2 months before conception and continue it until at least 16 weeks’ gestation.
2. Encourage regular exercise.
3. Discuss weight management when appropriate.
4. Advise to cease smoking, limit alcohol (see current NHMRC safety recommendations), avoid illicit drugs.
5. Statin therapy should be ceased [see Appendix B].
6. Generally stop ACE inhibitors and A2 receptor antagonists pre-pregnancy, unless a renal physician with expertise in pregnancy specifically requests that they be continued in early pregnancy, after carefully assessing the risk: benefit ratio for that individual. However, they must be stopped by end of 1st trimester.[see Appendix C] If these agents were used for hypertension management (and not just nephroprotection), stabilise blood pressure on other anti-hypertensive agents suitable for pregnancy (examples include clonidine, methyldopa, oxprenolol, labetalol, nifedipine, prazosin. Women with diabetes and known hypertension or diabetes renal disease should be referred pre-pregnancy to a renal physician with expertise in hypertensive disorders of pregnancy.
7. Review all medications (including any complementary preparations) for safety in pregnancy.
8. Screen for infectious diseases and immune status as per the NHMRC guidelines for general pre-pregnancy management.

Glycaemic control:
1. Tight glycaemic control is essential. Target A1c pre-pregnancy is < 7.0%.
     - A1c should be as close as possible to the normal range while still minimising the risk of hypoglycaemia.
     - Women with Type 1 diabetes may have some difficulty in their attempts to achieve this target. Tight glycaemic control in people with type 1 diabetes is associated with increased risk of major hypoglycaemia. It is imperative to minimise this risk when optimising control in the pre-pregnancy period, so great care must be taken.
     - Most women with Type 2 diabetes, however, should be able to reach this target A1c.
     - Women should not actively try for a pregnancy unless the target A1c has been met.
     - If a woman is unable to achieve this target despite optimum efforts to improve glycaemic control over a 6-12 month period, she should be referred to a physician experienced in management of diabetes in pregnancy to discuss the risks of proceeding to a pregnancy. A continuous sc insulin infusion pump may be an option for some women.
   - Discuss potential effects of diabetes on pregnancy outcome (increased risk of miscarriage and of congenital malformation), especially if there is suboptimal glycaemic control.
   - Review with a dietitian of overall diet including adequate calcium and iron intake. Advice on measures for dealing with morning sickness should be given.
4. Oral anti-hyperglycaemic agents: *(see also Appendix D)*
   4.1. Glitazones (Category B3) – cease pre-pregnancy. Lack of adequate safety data.
   4.2. Sulphonylureas (Category C) – usually cease pre-pregnancy. Neonatal hypoglycaemia has been reported. Animal studies have reported embryotoxicity and/or birth defects.
   4.3. α-glucosidase inhibitors (Category B3) – cease pre-pregnancy. Lack of adequate safety data.
   4.4. Miglitinides (Category C) – cease pre-pregnancy. Safety has not been established.
   4.5. Metformin (Category C) – there is current debate about the safety / potential benefit of metformin in pregnancy, especially early pregnancy.
      - Oral agents should be ceased except in the situation that a diabetes physician may make a decision to continue an oral agent following a detailed discussion with the woman about the uncertainty regarding safety of oral anti-hyperglycaemic agents in pregnancy (including metformin). If an oral agent has been continued until pregnancy has been achieved, the oral agent should not be stopped abruptly. The changeover from metformin / sulphonylurea to insulin
needs to be undertaken slowly and carefully to avoid destabilising glycaemic control at this critical time for organogenesis.

5. Insulin treatment should be commenced in women who have Type 2 diabetes if glycaemic control is not optimal and in women who have been treated with oral agents that need to be ceased.

6. A multiple insulin regimen is generally preferable to the use of pre-mixed insulin. This will allow for flexibility of insulin dose adjustment in pregnancy when there tends to be relatively higher meal-time insulin requirement and lower basal insulin requirement.

7. Minimise risk of hypoglycaemia and its potential dangers to the woman. Also, although there has not been a definite link between maternal hypoglycaemia and adverse pregnancy outcomes, hypoglycaemia in animal models has been associated with an increased rate of fetal malformations.

8. Discuss the effect of pregnancy on glycaemic control.
   i. Warn about the early pregnancy fall in insulin requirement especially overnight (anticipate with reduced insulin doses to avoid hypoglycaemia), sharper post-prandial glucose peaks, lower pre-prandial glucose.
   ii. Advise that there will be a steady increase in insulin requirement in 2nd and 3rd trimesters, and that insulin requirement may be very high if Type 2 diabetes.
   iii. Alert women with Type 1 diabetes to the possibility of ketoacidosis occurring in pregnancy with only modestly elevated BGLs.

9. Prompt review once a pregnancy is confirmed.

**Diabetes Self-Management Skills:**

1. Revise hypoglycaemia prevention and management (including for women with Type 1 diabetes the need for in-date glucagon with appropriate education of relevant family members in its use); warn re altered hypoglycaemia symptoms; caution re driving risk.

2. Revise ketoacidosis prevention and sick day management (including need for in-date urinary ketodiastix, or ketone strips if using Optium blood glucose meter).

3. Review insulin injection technique and injection sites (lipohypertrophy alters insulin absorption).

4. Blood glucose monitoring techniques should be reviewed and accuracy of reported readings regularly checked (meter memory vs. written record).

5. Discuss monitoring of diabetes during the pregnancy (self blood glucose monitoring, A1c, possibly fructosamine, possibly ketone testing).

**Diabetes Complication Assessment:**

1. **Eyes:** Dilated fundal examination by a person experienced in retinal examination. If retinopathy is present, and laser photocoagulation required, treat prior to pregnancy. Retinopathy may progress during pregnancy especially if there is pre-existing retinopathy, hypertension, long duration of diabetes, rapid improvement in glycaemic control. Aim for stable glycaemic control for 6 months before conception.

2. **Kidneys:** Baseline creatinine, early morning spot urine for albumin to creatinine ratio (ACR) or timed urinary microalbumin and protein excretion and creatinine clearance. If early morning spot urinary ACR > 3.5 mg/mmol creatinine, do timed urine collection. If microalbuminuria is present there is an increased risk of preeclampsia. If serum creatinine > 200 μmol/l, there is an increased likelihood of the renal disease progressing in pregnancy. Women with nephropathy have a significant risk of pre-eclampsia, prematurity and fetal growth restriction. They must be under the care of a renal physician experienced in pregnancy-related disorders.

3. **Peripheral neuropathy.** This does not appear to be a specific concern in pregnancy.

4. **Autonomic neuropathy** – if present, significant increase risk of maternal morbidity and adverse pregnancy outcome. Gastroparesis may lead to hyperemesis, inadequate nutrition and significant difficulties with glucose control.

5. **Macrovascular disease.** If present, seek specialist assessment and advice. Specific counselling about the risks that a pregnancy will pose to the mother and infant is essential.

6. Discuss the potential effect of pregnancy on diabetes complications. Explain that ongoing complication screening will be needed in pregnancy: eye and renal status at least each trimester, review with renal physician and cardiologist on individual need. Blood pressure will need ongoing monitoring.
Associated conditions if Type 1 diabetes:

1. Check TFT and thyroid antibodies as 10-20% women with Type 1 diabetes also have autoimmune thyroid disease. Ensure euthyroid pre-pregnancy. If require thyroxine replacement or if positive thyroid antibodies, will need ongoing TFT monitoring in pregnancy as hypothyroidism may appear in pregnancy if inadequate thyroid reserve.

2. Screen for coeliac disease (present in up to 10% women with Type 1 diabetes); often asymptomatic.

[Also, consider screening for Vitamin D deficiency (25OH Vitamin D) in all pregnancies, especially if the women has little sun exposure of her skin]

Relative contraindications to pregnancy

- Retinopathy requiring laser treatment until treatment undertaken, eye status stable and glycaemic status stable for 6 months or more.
- Nephropathy with serum creatinine > 200μmol/l
- Pre-existing cardiac disease, especially previous myocardial infarction

**Appendix A**

**Major Congenital Abnormalities in Offspring of Women with Pre-Existing Type 1 or Type 2 Diabetes**

<table>
<thead>
<tr>
<th>Major Congenital Abnormalities</th>
<th>Incidence per 1000 Infants of Non-Diabetic Women</th>
<th>Relative Risk compared to infants of non-diabetic mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac (Transposition, VSD, ASD, coarctation)</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Anencephaly</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Arthrogryphosis</td>
<td>0.3</td>
<td>28</td>
</tr>
<tr>
<td>Ureteral Duplication</td>
<td>0.7</td>
<td>23</td>
</tr>
<tr>
<td>Cystic kidney</td>
<td>0.6</td>
<td>4</td>
</tr>
<tr>
<td>Renal agenesis</td>
<td>0.3</td>
<td>5</td>
</tr>
<tr>
<td>Anorectal atresia</td>
<td>0.3</td>
<td>4</td>
</tr>
<tr>
<td>Caudal regression</td>
<td>1.3</td>
<td>212</td>
</tr>
<tr>
<td>Pseudohermaphroditism</td>
<td>0.6</td>
<td>11</td>
</tr>
</tbody>
</table>


**Overall:** Major congenital malformations occur in 5-11% infants of diabetic mothers, compared to 1-2% in infants of non-diabetic mothers.1,2

1Plehwe WE, Storey CN, Sharman RP, Turtle JR. Outcome of pregnancy complicated by diabetes: experience with 232 patients in a 4 year period. Diabetes Res 1984;1:67-73. (This is RPAH data)


**Appendix B**

- **Statins (HMG-CoA reductase inhibitors)** are Category D drugs in pregnancy.
- Category D drugs are drugs that have caused or may be expected to cause an increased incidence of human fetal malformations or irreversible damage.
- Cholesterol and its by-products are essential components of fetal development including synthesis of steroids and cell membranes.
- Possible malformations or fetal loss have been reported though the rates of these adverse events have not clearly exceeded the rates of these events in the general population.
Appendix C

- **Angiotensin converting enzyme (ACE) inhibitors and Angiotensin II receptor antagonists (A2RA)** are Category D drugs in pregnancy.
- Category D drugs are drugs that have caused or may be expected to cause an increased incidence of human fetal malformations or irreversible damage.
- ACE Inhibitors and A2RA cross the placenta.
- It is not known whether exposure to ACE Inhibitors only in 1st trimester causes adverse fetal effects.
- Fetal exposure to ACE Inhibitors in 2nd and 3rd trimesters may lead to problems with the functional development of the kidneys leading to fetal hypotension, decreased renal perfusion in the fetus, renal failure, skull hypoplasia, oligohydramnios (which is presumably from decreased fetal renal function and which, in this setting, may be associated with fetal limb contractures, craniofacial deformities, hypoplastic lung development and intrauterine growth retardation), fetal death in utero.

(References for Appendices B & C: MIMS Annual 2004; Prescribing Medicines in Pregnancy, ADEC, 4th edition)

Appendix D

**Oral Hypoglycaemic Agents**

<table>
<thead>
<tr>
<th>Generic name</th>
<th>Trade name</th>
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<tbody>
<tr>
<td>Biguanide</td>
<td>Metformin</td>
</tr>
<tr>
<td></td>
<td>Diabex</td>
</tr>
<tr>
<td></td>
<td>Diaformin</td>
</tr>
<tr>
<td></td>
<td>Glucophage</td>
</tr>
<tr>
<td></td>
<td>Glucohexal</td>
</tr>
<tr>
<td></td>
<td>Glucomet</td>
</tr>
<tr>
<td>Sulphonylureas</td>
<td>Longer-acting</td>
</tr>
<tr>
<td></td>
<td>Glimepiride</td>
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<tr>
<td></td>
<td>Daonil</td>
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<tr>
<td></td>
<td>SemiDaonil</td>
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<tr>
<td></td>
<td>Gilme</td>
</tr>
<tr>
<td></td>
<td>Gliclazide MR</td>
</tr>
<tr>
<td>Shorter-acting</td>
<td>Gliclazide</td>
</tr>
<tr>
<td></td>
<td>Diamicron</td>
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<tr>
<td></td>
<td>Glyade</td>
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<tr>
<td></td>
<td>Nidem</td>
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<tr>
<td></td>
<td>Glipizide</td>
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<tr>
<td></td>
<td>Minidiab</td>
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<tr>
<td></td>
<td>Melizide</td>
</tr>
<tr>
<td></td>
<td>Tolbutamide</td>
</tr>
<tr>
<td></td>
<td>Rastinon</td>
</tr>
<tr>
<td>Combination sulphonylurea &amp; biguanide</td>
<td>Glibenclamide + Metformin</td>
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<tr>
<td>Non -Sulphonylurea Insulin Secretagogues</td>
<td>Repaglinide</td>
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<tr>
<td></td>
<td>Nateglinide</td>
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<tr>
<td>A-Glucosidase Inhibitor</td>
<td>Acarbose</td>
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<td>Thiazolidinediones</td>
<td>Rosiglitazone</td>
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<td></td>
<td>Pioglitazone</td>
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Pregnancy Assessment and Management

RPA : Early Pregnancy Assessment Service (EPAS)

The aim of EPAS is to identify and manage ectopic pregnancies, vaginal bleeding in pregnancy, or miscarriage < 20 weeks gestation.

The Gynaecology Registrar (RPA 95156111 # 80355) on call should be contacted for all pregnant patients <20 weeks who need urgent review or for a woman being sent to the Emergency Dept (If over 20 week’s gestation women should be sent to the Delivery Ward – after contacting the O&G Reg on 95156111 # 80444)

The EPAS service is available to assist you with the management of your haemodynamically stable patient.

Where: RPA Woman and Babies Womens Ambulatory Care - Level 5

Clinic Time: 7:30 (ONLY) Monday to Fridays excluding public holidays

Must Bring: Copy of Blood Group, serum quantitative BHCG, previous ultrasound report

Who to refer: Pregnant women (less than 20 weeks gestation) who are bleeding and/or have pain BUT are haemodynamically stable.

Enquiries: Ph: 95157101 Fax: 9515 7452
Clinical Midwifery Consultant (CMC) in Early Pregnancy is available Monday to Sunday. Pager: # 87403

IMPORTANT
• Do not send patient’s to ED or EPAS for Anti D without a pathology copy of their Blood Group
• Do not send women to EPAS for a Termination of Pregnancy
• Do not send women for a dating scan to ED, EPAS or Fetal Medicine
• Do not send women to EPAS for management of Hyperemesis
• Advise women to present to the Womens Ambulatory Care reception desk at 7.30 ONLY
• In EPAS, she will be assessed by either Doctor or Midwife Consultant
• She may have blood tests and/or a vaginal ultrasound so will NOT need a full bladder
• A report will be faxed to the GP on the day of consultation – if woman desires this.
• Waiting time varies as we are a very busy service, patience is required.

Canterbury Hospital

The Gynaecology Registrar on call (ph 9787 0000) should be contacted for all pregnant patients <20 weeks who need urgent review (experiencing vaginal bleeding) or are being sent to the Emergency Dept

Miscarriage/Perinatal Death Counselling

Stillbirth and Neonatal Death Support (SANDS)
Services for parents, families and health professionals. Promote awareness and support following the death of a baby from the time of conception through to infancy. www.sands.org.au ph.1300 072 637

SIDS and KIDS
Bereavement support services to assist families who have experienced the sudden and unexpected death of a baby or child, during birth, pregnancy or infancy, regardless of the cause.
Web: www.sidsandkids.org.au ph. 1300 308 307 (24 hour support line)

Patient Information Brochures:
• EPAS Services at RPA page 140, or visit www.iwsml.com.au/antenatal
Management Protocol for Early Pregnancy Assessment Service

**Aim:** To optimise management of ectopic pregnancy and miscarriage

**EPAS Protocol**

- **Routine ANC**
- **viable intrauterine pregnancy**
- **Follow-up EPAS 2 weeks**
- **IPUV**
  - MGSD <25 mm and no YS or fetal pole, or CRL<7mm and no FHB
- **Miscarriage Diagnosed**
- **D&C**
  - if ET>50mm
- **Follow-up EPAS in 2 weeks**
- **Conservative or Medical management**
- **RPOC**

**Legend**
- EPAS early pregnancy assessment service
- IUP intrauterine pregnancy
- IPUV intrauterine pregnancy of uncertain viability
- EP ectopic pregnancy
- MM missed miscarriage
- RPOC retained products of conception
- ET endometrial thickness in sagittal plane

**For every visit to EPAS send/FAX proforma letter and ultrasound report to GP / share care GP / Obstetrician**

**Positive serum beta HCG confirmed**

- **Gp & hold**
- **History proforma completed**

**Ultrasound form completed by GP or Staff Specialist and sent with client to Ultrasound Dept for scan at 8am.**

**Send client with a completely empty bladder as a vaginal scan will be performed.**

**Intrauterine pregnancy**

- **Progesterone <20nmol/L (3% EP) risk**
  - Spontaneous resolution of pregnancy
    - (Sens 93% Sp 94%)
  - Weekly serial HCG levels until <5 IU/L

**Ectopic pregnancy, miscarriage or IUP**

- **Progesterone 20-60nmol/L (33% EP)**
  - 48hr serial HCG levels
  - HCG falling at >50% in 48hr (>0.71/day)
  - HCG falling at >50% in 48hr (>0.71/day)
  - HCG increasing at >66% in 48hr (>0.71/day)
  - HCG increasing at >66% in 48hr (>0.71/day)

**Probable viable intrauterine pregnancy**

- Progesterone >60nmol/L (8% EP)
  - Progesterone 2000IU/L
  - 48hr serial HCG levels
  - Symptomatic hypotensive
    - (Sens 93% Sp 99%)
  - asymptomatic adnexal mass on ultrasound
  - asymptomatic haemoperitoneum on ultrasound
  - FBC gp& hold +/−X-match

**Ectopic pregnancy**

- HCG>2000IU/L
  - develops symptoms
  - 48hr serial HCG levels plateau or symptoms
  - Ultrasound scan when HCG >2000 IU/L or develops symptoms
  - Empty uterus
  - Laparoscopy
  - If meets criteria Methotrexate
  - Medical Oncology

**Follow up EPAS 2 weeks**

**RPA Women and Babies**

**EPAS Protocol**

Reviewed May 2013
Prenatal Screening

All women, regardless of age should be counselled and offered the option for screening for chromosomal anomalies.

Women should be given information about the purpose and implications of testing for chromosomal abnormalities to enable them to make informed choices about whether or not to have the tests. Information should be provided in a way that is appropriate and accessible to the individual woman, with particular regard given to language and literacy. See below for available “Prenatal Screening Resources”

All ANSC GPs can directly refer women to Fetal Medicine Unit (FMU) for the following tests
  • Combined First Trimester Screening (cFTS)
  • Non-Invasive Prenatal testing (NIPT)
  • Chorionic Villus Sampling (CVS)
  • Amniocentesis

Timing of procedures:

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Gestation (weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined First Trimester Screening (cFTS)</td>
<td>11'1 - 13'6</td>
</tr>
<tr>
<td>Chorionic Villus Sampling (CVS)</td>
<td>11-13</td>
</tr>
<tr>
<td>Amniocentesis</td>
<td>15-19</td>
</tr>
</tbody>
</table>

Combined First Trimester Screening (cFTS)

Combined First Trimester Screening (cFTS) : nuchal translucency ultrasound scan and biochemistry is available at RPA Women and Babies. The service is also provided by private appropriately credentialed medical imaging facilities (out-of-pocket expense). For local external certified NT operators page 134

For those women undertaking the procedure at RPA Fetal Medicine Unit, the biochemical component of the cFTS will be arranged by the FMU prior to NT scan. The information from the blood test and nuchal translucency scan is used to calculate the risk of chromosomal anomalies for a particular woman.

Bookings:
For appointment bookings, contact  Fetal Medicine Unit (FMU) on ph. 9515 6042.
Eligible: Women planning to deliver at RPA Women and Babies or Canterbury Hospital

Non-Invasive Prenatal Testing (NIPT)

Combined First Trimester Screening and Non-Invasive Prenatal Testing: Changes in risk assessment advice at Royal Prince Alfred Hospital.

In 2014, there will be some changes to the Down syndrome screening program run through RPA Obstetric and Gynaecological Ultrasound.

These changes are designed to facilitate access to non-invasive prenatal testing (NIPT). NIPT, or molecular testing of cell free fetal DNA in the maternal circulation, is highly effective at screening for Downs with reported sensitivity of 99% and specificity >99%. The current cost of this test ($495 :3/2/14) makes it prohibitive for first line screening in a public health program. Access to this test will be as a second line screening tool, for women at high or intermediate levels of risk after combined first trimester screening.

The major change will be in the manner in which risks from cFTS are reported. Risks are currently calculated from maternal age, nuchal translucency measurement, defining presence or absence of the nasal bone and from assessment of maternal serum BhCG and PAPP-A concentrations. This process will
not change, but the counseling based on risk stratification (currently either described as a high or low risk for Down syndrome) will be different. **Risks will now be defined in four groups. This model of screening has been described as a “contingent” model; the use of NIPT being contingent on the outcome of combined first trimester screening** (see flowchart page 40)

The NIPT test is not available through Medicare and women will have to fund this test themselves. The tests have reduced in price significantly over the last year and are currently retailing around $500.

There is currently no on-shore provider of NIPT and samples to laboratories in the United States. The laboratories used are accredited to American pathology standards. The laboratory’s also have comprehensive educational resources, for both clinicians and patients, on the internet eg.

*The Ariosa “Harmony” test:*
Patient information: [http://www.ariosadx.com/for-pregnant-women/](http://www.ariosadx.com/for-pregnant-women/)

*The Natera “Panorama” test:*
Patient information: [http://www.panoramatest.com/prenatal_test_overview](http://www.panoramatest.com/prenatal_test_overview)
Information for healthcare providers: [http://www.panoramatest.com/welcome_clinicians](http://www.panoramatest.com/welcome_clinicians)

**NIPT tests can be arranged by contacting:**
*Genetics Counselors:* ph. 9515 5015  pager # 81213 or ph. 9515 6999 pager # 88569

*FMU Administration Manager:*  ph.9515  8887  Fax  9515  3811

**Urgent matters: Fetal Medicine Unit**
The FMU Admin : RPA Hospital Switch ph 9515 6111 pager # 81668 ( Mon - Fri: 7am -3.30pm)

Urgent matters include :
- Second Opinion
- Urgent ultrasound booking
- Urgent report
- Require further advice from a Fetal Medicine Specialist

Alternatively page Fetal Medicine/Ultrasound Fellow ph. 9515 1111, pager # 87253 or # 81645

**Prenatal Screening Resources:**
- NSW Health Centre for Genetics Education [www.genetics.edu.au](http://www.genetics.edu.au) provides educational materials that may assist in advising your patients about the benefits/risks associated with prenatal screening/testing.

**Patient Information Brochures:**
Combined First Trimester Screening  page 136

Non-Invasive Prenatal Testing (NIPT)  page 138
RPA Screening Policy:
NIPT offered ‘contingent’ on combined first trimester screen result

All women offered cFTS as primary test
Risks interpreted in four rather than two groups

Very low risk: reassure
cFTS Risk <1 in 1000
(86% of women)

Low risk: advise of availability of NIPT
cFTS 1:301 to 1:1000
(9% of women)

Increased risk: offer NIPT or CVS
cFTS 1:50 to 1:300
(4% of women)

High risk women: offer CVS
cFTS Risk ≥1 in 50
(1% of women)

NIPT ‘negative’
(estimate 12.7%)

NIPT ‘positive’
(estimate 0.3%)

No further testing
(a total of 98.7% of women)

Invasive test (CVS)
(a total of ≈1.3% of women)
**RPA screening policy: NIPT offered ‘contingent’ on combined first trimester screen result**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Very low risk women</strong></td>
<td>(&lt;1 in 1000) ‘Combined first trimester screening has given a very low (&lt;1 in 1000) risk for Down syndrome. No further testing is recommended.’</td>
</tr>
<tr>
<td><strong>Follow-up:</strong></td>
<td>Result provided by GP</td>
</tr>
<tr>
<td><strong>High risk women</strong></td>
<td>(&gt;1 in 50) ‘Combined first trimester screening has given a high (&gt;1 in 50) risk for Down syndrome. Diagnostic testing, such as chorionic villus sampling is recommended. NIPT could be used as an alternative; this has the advantage that there is no risk of miscarriage but it does not detect all chromosomal anomalies. NIPT is not available through Medicare. We will inform the patient of this result and discuss their options for further testing.’</td>
</tr>
<tr>
<td><strong>Follow-up:</strong></td>
<td>Result provided by RPA FMU</td>
</tr>
<tr>
<td><strong>Increased risk women</strong></td>
<td>(1 in 50 to 1 in 300) ‘Combined first trimester screening has given an increased (1 in 50 to 1 in 300) risk for Down syndrome. Further testing is recommended. This could be by either an invasive (CVS) or non-invasive (NIPT) approach. NIPT is not available through Medicare. We will contact the patient to discuss the advantages and disadvantages of these tests and their options for further testing.’</td>
</tr>
<tr>
<td><strong>Follow-up:</strong></td>
<td>Result provided by RPA FMU</td>
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<tr>
<td><strong>Low risk women</strong></td>
<td>(1 in 301 to 1 in 1000) ‘Combined first trimester screening has given a low (1 in 301 to 1 in 1000) risk for Down syndrome. Further testing, through NIPT, could be considered for further reassurance. NIPT is not available through Medicare. We would be happy to arrange NIPT if the patient wants to have this test.’</td>
</tr>
<tr>
<td><strong>Follow-up:</strong></td>
<td>Result provided by GP</td>
</tr>
</tbody>
</table>

**Process of result disclosure following first trimester screening for early onset pre-eclampsia (as part of cFTS)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Procedure</th>
</tr>
</thead>
</table>
| **Low Risk** (<1 in 50) for early onset pre-eclampsia | - Result forwarded by post to GP  
- Result given to patient by GP  
- Re-refer if further review needed  
- Urgent matters 951506111 P# 81668 |
| **Increased Risk** (>1 in 50) for early onset pre-eclampsia | - Results given to patient by FMU  
- Patient advised to take aspirin 150mg nocte up to 36 weeks  
- If BP increased appointment in HDP clinic will be arranged  
- Result copied by post to GP |
Fetal Anomaly Scan (FAS)

**Timing of procedure**: 18-20 weeks gestation.

**Bookings:**

**RPA Women and Babies**:
For women planning to deliver at RPA Women and Babies contact Fetal Medicine Unit (FMU) on ph. 9515 6042 or ph. 9515 8258.

There are a limited number of appointments available so it is recommended to book early.

**Canterbury Hospital:**
There are limited ultrasound services within the hospital. Referrals are to external credentialed imaging services.

- Diagnostic Imaging Campsie: 308-312 Beamish St Campsie ph 9787 1011 (next to Fire Station)
- Campsie Medical Imaging: 17-21 Campsie St Campsie 9789 0333 (same street as Police station)

Both Medicare charge
1ST Trimester Screening

- This involves an ultrasound scan (NT and nasal bone) at 11+1-13+6 weeks gestation.
- The ultrasound department will arrange the biochemical component of the combined first trimester test.
- We are particularly keen to see women with multiple pregnancies at this stage of pregnancy.

2ND Trimester Morphology Scan

- Performed at 18-20 weeks gestation.
- There are a limited number of appointments available – we would recommend booking early.

3RD Trimester Growth and Wellbeing Scans

Performed as clinically indicated, to:
- Check fetal presentation
- Check fetal growth (small or large for dates)
- Check placental location (at 34 weeks gestation)
- Check cervical length

Please make sure the patient has a completed ultrasound request form to bring to their appointment.
FETAL MEDICINE SERVICES

Non-Invasive Prenatal Diagnosis (NIPT):
Suitable for women with combined first trimester screening risks
Between 1 in 50 and 1 in 1000
This is a new service, we are happy to see and counsel patients about this test.

Diagnostic testing for Chromosomal abnormality:
CVS (11-15 weeks)
Amniocentesis (≥16 weeks)

Follow up of high-risk first trimester screens:
Detailed anatomical assessment for increased NT (at 20 weeks)
Monitoring growth and wellbeing for abnormal biochemistry

Focused service for twin pregnancies:
Fortnightly surveillance of monochorionic twins
Monitoring growth / risk of preterm delivery in all twins
Endoscopic laser ablation available for twin twin transfusion syndrome

For appointments contact:
- Ultrasound Unit on 9515 6042
- MFM Fellow (RPA pager #81645)
- COGU fellow (RPA pager #81227)
- Fetal Med Admin (RPA Pager #81668)

Lead Clinician: Prof Jon Hyett

Review / Management of Fetal Anomalies
Review after diagnosis made by other service
Development of strategies for ongoing management

Fetal Echocardiography:
Early assessment for very high-risk patients (14-16 weeks)
Standard assessment for high-risk patients (20 weeks)

Please make sure the patient has a completed ultrasound request form to bring to their appointment
Early Pregnancy Assessment Ultrasound:
- For women with PV Bleeding / Pain in early pregnancy: 
  Access via the EPAS service / Department of Gynaecology
- For women with previous pregnancy complications: 
  Access by direct referral to ultrasound

2D and 3D pelvic scans
- For women with symptoms of benign / malignant gynaecological pathology and for infertility patients.

Hycosy / Sonohystogram
- To define uterine contour / tubal pathology

Please make sure the patient has a completed ultrasound request form to bring to their appointment

For appointments contact:
- Ultrasound Unit on 9515 6042
- Fax request form to 9515 3811
- COGU fellow (RPA pager #81227)
- Fetal Med Admin (RPA Pager #81668)

Lead Clinician: Dr Ritu Mogra
Hypertension

Hypertension is a common condition managed by general practitioners. However, blood pressures that might be acceptable in non-pregnant patients can be quite unacceptable during pregnancy and can be associated with significant risks to the health of both the mother and the baby.

Correct Blood Pressure Measurement

Accurate blood pressure measurement will aid in antenatal assessment. The GP should ensure

- the woman is seated comfortably with her legs resting on a flat surface.
- correct cuff size for accurate blood pressure recording.
- measurement of blood pressure is undertaken at initial visit in both arms to exclude rare vascular abnormalities such as aortic coarctation, subclavian stenosis and aortic dissection. Generally the variation in blood pressure between the upper limbs should be less than 10 mmHg.

In labour, the blood pressure may be measured in the left arm in lateral recumbency. The supine posture should be avoided because of the supine hypotension syndrome.

The systolic blood pressure is accepted as the first sound heard (K1) and the diastolic blood pressure the disappearance of sounds completely (K5). Where K5 is absent, K4 (muffling) should be accepted. Correct cuff size is important for accurate blood pressure recording. A large cuff with an inflatable bladder covering 80% of the arm circumference should be used if the upper arm circumference is greater than 33 cm. This helps to minimise over-diagnosis of hypertension during pregnancy.

Measurement devices

Mercury sphygmomanometers remain the gold standard for measurement of blood pressure in pregnancy however occupational health concerns are limiting their availability. Automated blood pressure recorders have provided major advantages for treatment and diagnosis of hypertension in the general community and they have been advocated for use in pregnant women.

Few studies have compared these self initiated devices with mercury sphygmomanometry in pregnant women. While such automated devices may give similar mean blood pressure values to those obtained with mercury sphygmomanometry, there is wide intra-individual error and their accuracy may be further compromised in pre-eclamptic women. Aneroid sphygmomanometers are also prone to error.

Each practice should maintain a mercury sphygmomanometer for validation of automated and aneroid devices. All devices should be calibrated on a regular basis (ideally monthly), as recommended by the British Hypertension Society.


Assessment

**Hypertension in pregnancy** is defined as:
1. Systolic blood pressure greater than or equal to 140 mmHg and/or
2. Diastolic blood pressure greater than or equal to 90 mmHg (Korotkoff 5)

**Severe hypertension** in pregnancy is defined as:
1. Systolic blood pressure greater than or equal to 170 mmHg and/or
2. Diastolic blood pressure greater than or equal to 110 mmHg.

These measurements should be confirmed by repeated readings over several hours.

At each blood pressure assessment, women should be asked if they have experienced:

- Visual disturbances
- Headaches, especially frontal headaches
- Epigastric pain or discomfort

**When to admit:**

- symptomatic hypertension
- biochemical abnormalities
- neurological symptoms
- pharmacological treatment refinement

There are options for referral depending on clinical urgency:

**Urgent**: Day Stay Unit : same day - contact O&G Registrar on call  
**Semi-urgent** : Day Stay Unit - contact O&G Registrar on call  
**Elective**: next HDP Clinic - contact GP Liaison Midwife

### Asymptomatic bacteriuria

Screening for asymptomatic bacteriuria in pregnancy allows treatment to be offered to decrease the risk of progression to pyelonephritis. Risk factors include history of UTIs, diabetes and anatomical abnormality of the urinary tract.

Mid stream urine culture is considered the standard for testing in pregnancy.

Identification of UTI enables women to be treated with antibiotics and avoid the risks of complications.


### Treatment of asymptomatic bacteriuria and symptomatic UTIs

Treatment of asymptomatic bacteriuria and symptomatic UTIs are essentially the same. Commence Cephalexin 500mg BD for 5 days, and then repeat a MSU at least 2-3 days after the completion of the course.

If organism resistant to cephalexin, other options would include nitrofurantoin 100mg BD or amoxyclavulanate 500/125mg BD, both for 5 days. If the organism is resistant to these then it would be advised for the patient to be discussed/referred to renal physician at the HDP Clinic.

If the women has had two infections during the course of the pregnancy, recommended to continue on cephalexin 250mg once daily as prophylaxis for the duration of the pregnancy. However, it may be problematic if there is resistance, and referral would be appropriate.

Recommendation for all women who have had a UTI to continue to have regular MSUs performed for the duration of their pregnancy at the times of their regular reviews i.e monthly would be appropriate

These are in keeping with the recommendations provided by both the Therapeutic Guidelines and the Cochrane reviews


Examination

Examination of the pregnant abdomen by inspection, measuring symphysio-fundal height, palpation and auscultation, in order to:

1. Equate uterine size with gestational age.
2. Decide the lie, presentation and position of the foetus.
3. Ascertain engagement of the presenting part in the pelvis.

Inspection

Look at the abdomen and ascertain:

1. Uterine size (rough guide only)
2. Uterine shape
3. Skin changes ie.
   - Striae gravidarum
   - Linea nigra
   - Scars

Measuring symphysio-fundal height

This can be assessed and easily felt at 15-16 weeks gestation. After this time it is measured in centimetres (1cm=1 wk) until 36 weeks when the uterus is at its highest level. After this time the fundal height falls. At ‘term’ 3 or 4 fingers can be inserted under the xiphisternum.

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 influenced by previous results.
- Record the measurements to the nearest 0.5 centimetre and enter on antenatal record card

Women who have discrepancy between their fundal height and their gestation of +/- 3cm or no growth over 2 week period should be referred to a Registrar for further investigations

Palpation

The GP should ensure they have warm hands and use finger pads not tips. There are three different ways of palpating the pregnant abdomen.

1. Fundal palpation
   This is used to determine the lie and the presentation. It allows us to determine the part of the foetus that is in the fundus.
   
   - Face the head of the patient.
   - Both hands should be on either side of the fundus, fingers held close together and curving around the uterus. The mass is grasped, using the palmar surfaces of the fingers with definite but gentle pressure.

2. Pelvic palpation
   Used to determine presentation position and engagement. There are two methods:

   a) M" Roberts
      - Face towards the woman's head.
      - Palms of hands grasp the sides of the uterus below umbilicus.
      - Fingers should be pointed downwards and inwards.
b) Pawlick’s manoeuvre
- Face towards the woman’s head.
- The lower pole of the uterus is grasped with the right hand.
- Fingers and thumb should be sufficiently far apart to accommodate the presenting part.

3. Lateral palpation
   To determine the position of the foetus by locating the foetal back:

- Can face either woman’s head or feet.
- Hands should be placed on both sides of the uterus.
- Pressure is applied with the palms to differentiate the degree of resistance between the two sides.
- Keeping hand to steady the uterus, and to press the foetus over towards the examining hand, which determines the presence of either:
  - A broad resistant back.
  - Small parts that slip under the fingers.
  - The back is mapped out as a smooth resistant mass

Lie
This is the relation of the long axis of the foetus to the long axis of the uterus. Can be either: Longitudinal; Transverse; Oblique

Presentation
The part of the foetus, which lies in the pelvic brim. There are five presentations:
- Vertex; Breech; Shoulder; Face; Brow

Position
Position is defined by the relation of the denominator to six areas of the pelvic brim. These are right or left posterior, anterior or lateral. The denominator of the vertex is the occiput, and for the breech it is the sacrum. The lateral and anterior positions are regarded as normal.

Engagement
This is said to occur when the widest part of the presenting part has passed through the brim. Engagement is expressed in fifths. For example if the head is 3/5 above the pelvic brim it is NOT engaged.

Fetal Heart Rate Monitoring: Auscultation

Fetal Doppler use is highly recommended

Auscultation of the FHR at each antenatal visit provides little information other than demonstrating that the fetus is alive, and has no positive predictive value (NICE, 2008). However, listening to the fetal heart at each antenatal visit may be of real value to the woman and her family. It is therefore recommended that the woman be offered the opportunity to hear her baby’s heart beat at each antenatal visit. This should be performed with a hand held Doppler.

Ref : Maternity - Fetal Heart Rate Monitoring – Policy Directive NSW Ministry of Health June 2010

The fetal heart in a cephalic presentation is heard over the area where the scapula and the ribs come into contact with the uterine wall. In a breech position it can be heard at or below the level of the umbilici.

Normal rate: 110-160 beats per minute.
Monitoring of fetal movements

Regular enquiry about the number of fetal movements is an important aspect of ascertaining fetal wellbeing. Clinicians should emphasise the importance of maternal awareness of fetal movements at every routine antenatal visit.

Baby's Movement

The woman is the best person to tell that their baby is alive and well. Listening to the baby’s heartbeat is reassuring to the woman and to the midwife or doctor at the time that listening is occurring but the baby’s movements tell us a lot more information.

All pregnant women should be routinely provided with verbal and written information regarding normal fetal movements during the antenatal period.

Such information should include a description of the changing pattern of movement as the fetus develops, normal sleep/wake cycles, and factors which may modify the mother’s perception of movements such as maternal weight and placental position.

All pregnant women should be advised to contact their maternity care provider if they have any concern about decreased or absent fetal movements and be advised not to wait until the next day to report decreased fetal movements (DFM)

Ref: Maternity - Decreased Fetal Movements in the Third Trimester Guideline–NSW Ministry Of Health Oct 2011

When should the woman start feeling movements?

Babies start moving early in the pregnancy and movements can be felt by most women by about half way through the pregnancy (about 20 weeks). For some women it is a few weeks earlier or later. In subsequent pregnancies, some women say that they recognise movements earlier as they know what they are feeling for.

At first the movements may feel like flutters or wind moving around and may be spaced widely apart. In fact, the woman may feel movements one day and not notice any the next. (In this early part of the pregnancy the baby may be moving and kicking regularly, but many of these movements won’t be strong enough for the woman to feel.) Later those reassuring movements will become stronger and more regular. They include kicks, pushes, stretches and hiccoughs. Each baby has its' own individual pattern of movement. Some are more active and may have busier times in the day.

Monitoring fetal movements

Suggest that the woman chooses a time of day when she can sit and focus on the baby’s movement and pay attention to the number of movements that the baby makes in the hour around that time. Over a number of days, the woman can get a sense of what her baby gets up to in that time period. This is the woman’s baby’s baseline or normal pattern. Request that the woman becomes familiar with her baby’s pattern of movement.

The majority of babies move more than ten (10) times a day. Women too are likely to have periods where they are less able to focus on the baby’s movements as they are busy themselves.

Each woman should get to know the usual pattern and number of movements for her individual pregnancy.
Changes to fetal movements

Closer to the end of the pregnancy the movements may feel less vigorous. It is thought that this is because the baby takes up more of your uterus and doesn’t have as much room to kick and stretch out strongly. Movements may be restricted by the closeness of the walls of the uterus.

But the pattern of activity should be similar in regularity to before. In early labour the baby should continue a similar pattern of movement.

When should a change in fetal movements raise concern?

If there is a significant change in the pattern of movement, a decrease in the amount or strength of movements, it takes a lot longer to move or it has stopped moving altogether.

After discussion, women who remain unsure whether movements are decreased or not should be given guidance on counting movements i.e. to count while lying down on her side and concentrating on fetal movements.

As a rule, when the fetus is awake, if there are less than 10 movements felt in 2 hours she should contact her health care provider.

NB - Maternal concern of decreased fetal movements (DFM) overrides any definition based on numbers of fetal movements and women with a concern about DFM should be encouraged to contact their maternity care provider.

Ref: Maternity - Decreased Fetal Movements in the Third Trimester Guideline–NSW Ministry Of Health Oct 2011

Advice:
Contact the relevant hospital Delivery Ward or Birthing Unit for advice anytime day or night.

RPA Women and Babies : contact ph. 9515 6111 ask for Delivery Ward or Birth Centre
Canterbury Hospital : contact ph. 9787 0000 ask for Birthing Unit

Patient Information Brochure:
Pregnancy : 'Your baby's movements and what they mean page 146
Antenatal breast history and examination

<table>
<thead>
<tr>
<th>Needs and/or Problems</th>
<th>Action</th>
<th>Rationale</th>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prenatal history relevant to</td>
<td>Previous breastfeeding experience:</td>
<td>• Appropriate anticipatory guidance can be given.</td>
<td>Mother makes an informed and feels comfortable about breastfeeding with support</td>
</tr>
<tr>
<td></td>
<td>o How many children</td>
<td>• Correct information on overcoming difficulties will empower the woman</td>
<td>Referral to appropriate resources e.g. Lactation Consultant, Quit Program (if available)</td>
</tr>
<tr>
<td></td>
<td>o Duration of breastfeeding</td>
<td>and increase her confidence to</td>
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<td></td>
<td>o Reason for ceasing</td>
<td>May need advice on how medication and/or tobacco use impact on lactation</td>
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<td></td>
<td>Previous breast surgery, infections, trauma, etc</td>
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<tr>
<td></td>
<td>Chronic diseases or conditions</td>
<td></td>
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<tr>
<td></td>
<td>Regular medication or tobacco use</td>
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<tr>
<td></td>
<td>Plans to return to work</td>
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<td></td>
<td>Family Support</td>
<td></td>
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<tr>
<td></td>
<td>Systematic inspection and assessment of breasts and nipples noting any</td>
<td>• Specific problems may be addressed early and</td>
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<tr>
<td></td>
<td>of the following:</td>
<td>appropriate counselling given.</td>
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<tr>
<td></td>
<td>• Lumps</td>
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<tr>
<td></td>
<td>• Scars</td>
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<td></td>
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<tr>
<td></td>
<td>• Eczema or dermatitis</td>
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<td></td>
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<tr>
<td></td>
<td>• Breast hypoplasia</td>
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<td></td>
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<td></td>
<td>• Nipple anomalies</td>
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<td></td>
<td>Reinforce the information that no breast/nipple preparation is necessary</td>
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</tbody>
</table>

# Antenatal Breastfeeding Education

<table>
<thead>
<tr>
<th>Needs and/or Problems</th>
<th>Action</th>
<th>Rationale</th>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal breastfeeding education to enable the mother to make an informed decision</td>
<td>Give mother appropriate breastfeeding literature early in pregnancy including information about education providers</td>
<td>Mother is encouraged to think about the importance of feeding for her baby</td>
<td>Mother is able to make an informed decision about breastfeeding</td>
</tr>
<tr>
<td></td>
<td>Encourage mother and her partner or support person to attend antenatal classes</td>
<td>Breastfeeding education in the first or second trimester is more effective as the focus shifts to the birth in the third trimester</td>
<td>Attendance of the partner/support person encourages on-going support</td>
</tr>
<tr>
<td>Appropriate antenatal education</td>
<td>The following information should be included in classes or given individually by the antenatal care provider:</td>
<td></td>
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<tr>
<td></td>
<td>- Why breastfeeding is important for mother and baby</td>
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<tr>
<td></td>
<td>- The risks associated with not breastfeeding</td>
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<td></td>
<td>- Importance of early-uninterrupted skin-to-skin contact and the first feed.</td>
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<tr>
<td></td>
<td>- Why 24 hour rooming-in (staying with the baby) is important</td>
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<tr>
<td></td>
<td>- Why bottles and teats and dummies are discouraged while breastfeeding is being established</td>
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<tr>
<td></td>
<td>- It is recommended that babies be breastfed until two years of age and beyond. The first six months of which should be exclusive breastfeeding followed by the gradual introduction of solids.</td>
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<tr>
<td></td>
<td>- Basic breastfeeding and lactation management, including positioning and attachment, feeding cues and frequency of feeding</td>
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<tr>
<td></td>
<td>- Indications that a baby is getting enough milk</td>
<td></td>
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<td></td>
<td>- Maintaining and increasing milk supply</td>
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<tr>
<td></td>
<td>- Breastfeeding support groups and services in the community and identifying women with previous breastfeeding problems or other special needs</td>
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<tr>
<td></td>
<td>- Parents need to know the advantages of breastfeeding and cost of alternatives. There is considerable evidence to suggest that there are significant health advantages for mothers who breastfeed their infants</td>
<td>Allows mother to respond to baby’s needs and aids initiation of lactation</td>
<td></td>
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<td></td>
<td>- Success is attributed to the ability to cope with problems as they arise</td>
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<td></td>
<td>- Parents need to be aware of how long they can breastfeed for</td>
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<tr>
<td></td>
<td>- Empowering the mother by teaching her practical skills will increase her confidence and she will have an awareness of what is normal.</td>
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<tr>
<td></td>
<td>- Specific nipple preparation is not considered necessary however there are advantages in encouraging women to be comfortable with handling their own breasts</td>
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</tbody>
</table>

Oral health

All GP’s caring for pregnant women should:

1. Discuss oral health with women
   a. Explain that pregnancy does not cause dental problems but may make them more likely.
   b. Advise women to have their oral health checked and to tell the dentist that they are pregnant.
   c. Explain that good oral health protects a woman’s health and treatment can be safely provided during pregnancy

2. Provide advice on oral health to women experiencing nausea and vomiting
3. Explain that vomiting exposes teeth to acid and give tips on how to reduce the impact such as
   a. waiting for at least an hour before brushing teeth after vomiting or rinsing the mouth with a solution of bicarbonate of soda;
   b. using fluoridated mouthwash and toothpaste;
   c. eating small amounts of nutritious yet non-cariogenic foods (snacks rich in protein) throughout the day; and
   d. chewing sugar-free gum (especially gums containing xylitol or casein phosphopeptide – amorphous calcium phosphate [CPP-ACP]) after meals or high sugar or acidic drinks.


Patient Information Brochure :
Keep smiling while you are pregnant

Vitamin D

Offer vitamin D screening to women with limited exposure to sunlight (eg because they are predominantly indoors or usually protected from the sun when outdoors), or who have dark skin or a pre-pregnancy BMI of >30,

Decisions should be based about whether to offer screening on these factors, season and climate.


Any investigations for a women in regards to vitamin D must be followed up and managed by the GP requesting the test.
Screening and Diagnosis of Gestational Diabetes

Current evidence suggests that there is a benefit in reduced perinatal morbidity in screening for and treating gestational diabetes mellitus (GDM).

The Australasian Diabetes in Pregnancy Society’s (ADIPS) guidelines for screening and diagnosis of gestational diabetes (GDM) have been slightly modified in SLHD as the local antenatal population has a relatively high rate of pre-existing undetected glucose intolerance and a high prevalence of risk factors for developing GDM. In particular the local antenatal population has a high proportion of ethnic groups with an increased background prevalence of type 2 diabetes, and there has been an overall increase in maternal age.

Biochemical screening for gestational diabetes should be performed between 26 and 28 weeks of gestation.

Earlier testing should be performed in women at particularly high risk of gestational diabetes. Refer to table below for identified high risk factors and screening procedures.

<table>
<thead>
<tr>
<th>Group 1 Risk Factors</th>
<th>Group 2 Risk Factors</th>
<th>Low risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH RISK FACTORS FOR GESTATIONAL DIABETES</td>
<td>MODERATELY HIGH RISK FACTORS FOR GESTATIONAL DIABETES</td>
<td>0-1 Group 2</td>
</tr>
<tr>
<td>• Ethnicity: South Asian (incl Indian, Pakistani, Bangladeshi, Sri Lankan), Aboriginal, Pacific Islander, Maori, African</td>
<td>• Ethnicity: Arabic, South-East Asian (incl Chinese, Vietnamese, Thai, Cambodian, Laotian, Malaysian, Indonesian, Filipino), North Asian (incl Korean, Japanese)</td>
<td>0-1 Group 2</td>
</tr>
<tr>
<td>• Maternal age ≥ 40 years</td>
<td>• Maternal age 35-39 years</td>
<td>0-1 Group 2</td>
</tr>
<tr>
<td>• Family history diabetes (parents, siblings)</td>
<td>• Family history diabetes (grandparents)</td>
<td>0-1 Group 2</td>
</tr>
<tr>
<td>• Previous gestational diabetes</td>
<td>• Previous large baby (90th – 95th centile or 4000 – 4500g birth weight)</td>
<td>0-1 Group 2</td>
</tr>
<tr>
<td>• Previous very large baby (&gt; 95th centile or &gt; 4500g birth weight)</td>
<td>Maternal Obesity (BMI &gt; 30; BMI = pre-pregnancy weight ÷ height²)</td>
<td>0-1 Group 2</td>
</tr>
</tbody>
</table>

(quick check: ALL women with pre-pregnancy weight > 90 Kg; lower cut-off weight if height < 1.7m)

• Current pregnancy: polyhydramnios, macrosomia, twins, early onset hypertension
• Poor Obstetric History (esp. unexplained late pregnancy losses)
• Polycystic Ovarian Syndrome

High Risk

- any Group 1
- or
- ≥ 3 Group 2

Moderate Risk

- just 2 Group 2

50g GCT at 26 - 28 weeks
If abnormal, do 75g GTT
Just a full 75g GTT can be done at 26-28 weeks rather than a potential 2-step process

Low risk

GCT = Glucose Challenge Test; GTT = Glucose Tolerance Test

**RAMADAN:** Try to screen for GDM just before or immediately after Ramadan. If the GCT needs to be done during Ramadan, do it in the evening (but more chance of false positive result). If abnormal GCT:
(a) Schedule a diagnostic GTT as soon as Ramadan ends
(b) Advise to alter diet (no soft drinks or juice, avoid sweets etc)
(c) Organise some random blood glucose testing at the ANC
Screening and Diagnosis Results

**Screen:** 50g Glucose Challenge Test (GCT)

Do a *venous* blood 1 hour after a 50g glucose load.

If *venous* BGL ≥ 7.8 mmol/l
It is abnormal, proceed to 75g GTT

ADIPS 1991

**Diagnosis:** 75g Glucose Tolerance Test (GTT)

GDM if 1 or more abnormal readings:

- Fasting BGL ≥ 5.5 mmol/l
- 1 hour BGL ≥ 10.0 mmol/l
- 2 hour BGL ≥ 8.0 mmol/l

* RPAH 2002 (Modified after ADIPS 1991)

**Note:**

- If 1 hour BGL on 50g GCT is ever ≥ 11.1 mmol/l, treat as GDM
- If any BGL on GCT or 75g GTT is ≥ 14.0 mmol/l, urgently contact hospital Diabetes team.
- If over 16.0 mmol/l, admission may be needed if immediate clinical assessment by Diabetes team is not possible.
- If 75g GTT is abnormal, treat as GDM
- At ANY stage of the pregnancy, if there is clinical suspicion that diabetes may be present, prompt testing with 75g GTT should be organised – including potentially at the booking visit.

The 50g GCT has a high false negative rate of 18% so women who actually have GDM may be missed - hence the preference for a full 75g GTT rather than the GCT/GTT 2 step process – especially in women with risk factors

**Note:** Women with known 'impaired glucose tolerance' (IGT) or 'impaired fasting glucose' (IFG) prior to pregnancy should **be treated as GDM** once pregnant and do not need to undergo a further GTT in pregnancy.

**What should be done if there is glycosuria but GCT or GTT were normal?**

- If normal 50g GCT or 75g GTT and subsequently glycosuria or polyhydramnios develops, or if there are any other clinical concerns that GDM may be present, promptly organize a repeat 75g GTT.
- If 75g GTT has been repeated, and BGLs are clearly below cut-off levels for diagnosing GDM, and there is glycosuria – no further action should be needed. Discuss with Dr Glynis Ross (via RPAH switchboard).
- If 75g GTT has been repeated, and the BGLs are close to cut-off levels for diagnosing GDM, and there is glycosuria – repeat 75g GTT in 3-4 weeks.

**What should be done if there is an elevated random blood glucose level but GCT or GTT were normal?**

- If normal 50g GCT or 75g GTT and subsequently an elevated blood glucose (>7.0 mmol/l) develops, or if there are any other clinical concerns that GDM may be present, promptly repeat a 75g GTT.
- If random BGL > 9.0 mmol/l, this needs to be promptly discussed:
  1. at RPAH with Dr Glynis Ross or RPAH Diabetes Centre CNS/CNC or RPAH Endocrinology Registrar
  2. at Canterbury Hospital with Visiting Endocrinologist or RPAH Endocrinology Registrar

**What should be done if the patient vomits during the GCT/ GTT?**

- If there is vomiting with GCT or GTT: organise 75g GTT at RPAH Endocrinology and Metabolic Unit, Level 6 West [9515 7226].
  If there are any problems during the GTT at RPAH, the situation will be discussed with Dr Glynis Ross or RPAH Endocrinology Registrar. If necessary, metoclopramide can be given prior to the GTT.
Testing instructions

Screening test : 50g Glucose Challenge Test (GCT)

It is very important that all steps in the glucose challenge test (GCT) are followed correctly.
It is preferable to organize that the GCT be performed at a pathology collection centre.

- It should be done in the morning. Fasting is not necessary but is not a contraindication either.
- Give 50g glucose load – should be consumed within 5 minutes
- Blood Glucose Meters are NOT to be used
- Take venous blood 1 hour after glucose load – time accurately
- Send specimen to lab as soon as possible – delays are unacceptable – it is preferable to organize that the GCT be performed at a pathology collection centre.

Diagnostic test : 75g Glucose Tolerance Test (GTT)

It is very important that all steps in the GTT are followed correctly.
It is preferable to organize that the GTT be performed at a pathology collection centre.

- 3 day preparation – high carbohydrate diet (note: most people eat >150g carbohydrate per day on their usual diet)
- Fast for 8-12 hours prior to test, usually from 10pm (only WATER may be consumed; no tea, coffee etc)
- No smoking on the morning of the test (from 12mn till test completed)
- Should start in the morning before 9.30 am (glucose tolerance worsens later in the day)
- Patient to be seated for the duration of the test **** patients are NOT to be sent home or shopping or to a café etc.….
- Baseline venous blood glucose level
- Give 75g glucose load – should be consumed within 5 minutes
- Blood Glucose Meters are NOT to be used
- Take venous blood at 1 hour and 2 hours after the glucose load – time accurately
- Send specimens to lab as soon as possible – delays are unacceptable.

Dr Glynis Ross RPAH Diabetes Centre  RPAH women and Babies Hospital- Guidelines

Follow-up ( further information on GDM– Post Delivery refer page 114 )

Women who had gestational diabetes should have a repeat 75g oral glucose tolerance test performed 6 to 8 weeks after delivery. This should be evaluated according to standard WHO criteria for the non-pregnant state. Women who do not have diabetes mellitus at this time should still be regarded as at risk of developing diabetes mellitus later in life and should be screened every two to three years. The diagnosis of GDM is an opportunity to counsel women regarding weight management and lifestyle modification to attenuate the risks associated with glucose intolerance in later life.

Ref: RANZCOG College Statement : Diagnosis of Gestational Diabetes

RPA Hospital :
Prior to discharge all women who have had GDM will be:
- given a postnatal information sheet, GTT diet preparation sheet, and an appointment for hospital review at the RPAH Diabetes Centre in ~ 3 months.
- advised to continue on a ‘healthy lifestyle diet’

Canterbury Hospital :
Prior to discharge all women who have had GDM will be:
- given a Gestational Diabetes Follow-up letter to take to their GP indicating the importance of a follow-up appointment, the need to arrange a 75g GTT ~ 3 months post delivery and book an education session.
Diet Preparation for a Glucose Tolerance Test

**APPOINTMENT DATE and TIME:** ........................................................................................................

**START DIET ON:** .................................................................................................................. (3 days before the appointment)

The results of this test will be more reliable if you eat a reasonable amount of carbohydrate on each of the three days before the test. Carbohydrate foods include bread, cereals, rice, pasta, potato, other vegetables and fruit.

On each of the 3 days before the test you should eat **at least 10 ‘serves’ of carbohydrates.**

These carbohydrates should be spread out **over the whole day,** and you can choose whichever ones you prefer. Most people eat more carbohydrate than this in their normal diet.

The following is a list of commonly eaten carbohydrate foods, with a guide to how much approximately makes ‘one serve’.

<table>
<thead>
<tr>
<th>1 carbohydrate serve</th>
<th>= 1 slice of bread = ½ large bread roll or muffin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>= 1/4 lebanese bread</td>
</tr>
<tr>
<td></td>
<td>= 1 apple = 1 orange = 1 small banana</td>
</tr>
<tr>
<td></td>
<td>= 1 punnet strawberries</td>
</tr>
<tr>
<td></td>
<td>= medium mandarin = 2 peach = 3 apricots = 3 prunes</td>
</tr>
<tr>
<td></td>
<td>= 2 weetbix</td>
</tr>
<tr>
<td></td>
<td>= ¼ cup muesli = 1/3 cup Just Right =½ cup bran flakes</td>
</tr>
<tr>
<td></td>
<td>(most people would have 2–3 serves of cereal for a meal)</td>
</tr>
<tr>
<td></td>
<td>= ¾ cup cornflakes (most people would have 2 serves of cornflakes for a meal i.e. a bowlful is about 1½ cups)</td>
</tr>
<tr>
<td></td>
<td>= 2 biscuits (e.g. milk coffee, shredded wheat, full-o-fruit)</td>
</tr>
<tr>
<td></td>
<td>= 1 cup milk</td>
</tr>
<tr>
<td></td>
<td>= 1 x 200g carton of yoghurt</td>
</tr>
<tr>
<td></td>
<td>= 1/2 cup cooked pasta (most people would have 1 -1½ cups pasta for a meal, which would be 2-3 serves)</td>
</tr>
<tr>
<td></td>
<td>= 1/3 cup cooked rice (most people would have 2/3 –1 cup of rice for a meal which would be 2-3 serves)</td>
</tr>
<tr>
<td></td>
<td>= 1 medium potato</td>
</tr>
<tr>
<td></td>
<td>= 1 small corn cob</td>
</tr>
</tbody>
</table>

- If you find it difficult to eat all of this extra food, have some extra fruit juice or biscuits instead of the bread, cereal etc.
- You may eat more carbohydrate than this.
- You should also eat the meat, fish, eggs, cheese, butter and margarine that you would usually have.

- **DO NOT EAT AFTER 10 PM ON THE EVENING BEFORE THE TEST.**
- **Do not smoke after 9pm.**
- **You may however have water up to the time that the test starts.**

For Translated versions visit [www.IWSML.com.au/antenatal](http://www.IWSML.com.au/antenatal) or contact IWSML ph 97990933
Glucose Tolerance Test (GTT) Instructions

**TIME**
Please arrive at the Pathology Collection Centre between 8.00 and 9.00am. GTTs must be done in the morning.

**DIET PREPARATION**
For the 3 days BEFORE the GTT follow the high carbohydrate diet
≥ 150g per day see diet information sheet
Low Carbohydrate intake may IMPAIR glucose tolerance

From 10 pm the night before the test until the test is completed:
NO food
NO drinks (except plain water)
NO smoking

**TEST PROCEDURE**
Usually 2-3* separate blood samples will be taken (one at each time point)

Or sometimes a small needle is inserted into a vein in the arm and left in place for the duration of the test; the vein is then flushed from time to time to try to stop any blockages developing in it.

A blood sample is collected as a baseline.
A drink containing 75g glucose is given to you; you need to drink it all within 5 minutes.
Further blood samples are collected – usually every 60 minutes.
During the test (usually 2 hours*) you need to remain seated.

At the end of the test you should have something to eat and drink (it is best to take it with you).

**RESULTS**
The results will be sent to your referring doctor or clinic.

**IMPORTANT NOTES**
If you are unwell in the week before the test, please ph. and re-book the test.
If you do not understand or speak English, please take someone who can interpret for you.

*Most GTTs are 2 hours, with BGLs measured hourly. Occasionally a GTT with more frequent blood samples, or lasting for up to 5 hours is done if your doctor requests it for a special reason

For Translated versions visit www.IWSML.com.au/antenatal or contact IWSML ph 97990933
Management of Obesity in Pregnancy

Obesity in pregnancy is now one of the most important challenges in obstetric care. Approximately 50 per cent of women who become pregnant are either overweight (BMI>25 – 30) or obese (BMI>30). In addition, some women gain more than the recommended healthy weight increase during pregnancy and do not lose the additional weight post pregnancy, which increases the risks in the current and future pregnancies.

The incidence of the following outcomes is increased for obese women during pregnancy:

Antenatal:
- Impaired fasting glucose and impaired glucose tolerance; gestational diabetes
- Miscarriage
- Stillbirth
- Pre-eclampsia
- Thromboembolism
- Obstructive Sleep apnoea
- Maternal death
- Abnormalities in fetal growth and development

Intrapartum:
- Induction of labour, prolonged labour and failure to progress
- Rate of instrumental delivery, caesarean section and postpartum haemorrhage
- Shoulder dystocia
- Difficulties with fetal heart rate monitoring
- Difficulties with labour analgesia
- Use of general anaesthesia

Anaesthetic risks:
- Difficulty with positioning
- Difficulty with siting epidural or spinal anaesthetic and increased risk of dislodgement
- Difficulty maintaining an adequate airway
- Increased risk of need for ICU care post operatively

Post-partum:
- Delayed wound healing
- Increased rates of wound infection
- Greater likelihood of needing support with breastfeeding establishment and continuation
- Postnatal depression
- Long term neonatal consequences: Neonatal body composition, Infant weight gain, Obesity

In view of the recognised risks, consideration needs to be made regarding plans for perinatal care and delivery, taking into account local jurisdictional guidelines.

Definitions
Obesity during pregnancy is defined as a Body Mass Index (BMI) of 30 kg/m$^2$ or more calculated using the height and weight measured at the first antenatal consultation. Ideally a pre-pregnancy BMI should be calculated using a pre-pregnancy weight, however this is often not available, in which case the weight at the first antenatal consultation should be used. BMI is calculated by dividing the woman’s weight in kilograms by the square of their height in metres (kg/m$^2$). The BMI is not a perfect measure given it does not take into account age or ethnicity; however, it is widely considered a good measure of obesity for the general population.
Maternal BMI is categorized by the WHO as follows:

- Underweight (BMI < 18.5 kg/m²)
- Normal (18.5 - <25 kg/m²)
- Overweight (25-<30 kg/m²)
- Obese class 1 (30-<35 kg/m²)
- Obese class 2 (35- 40 kg/m²)
- Obese class 3 (>40 kg/m²)

Gestational weight gain:

Health professionals should be aware of current World Health Organisation guidelines for weight gain during pregnancy and advise patients to the following expected weight gain for their BMI at their first antenatal appointment. Weight gain should be discussed and monitored.

<table>
<thead>
<tr>
<th>BMI</th>
<th>Classification</th>
<th>Singleton pregnancy</th>
<th>Twin pregnancy</th>
<th>Triplet pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>Underweight</td>
<td>13-18kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-24.9</td>
<td>Normal</td>
<td>11-16kg</td>
<td>16-20kg</td>
<td>20-23kg</td>
</tr>
<tr>
<td>25-29.9</td>
<td>Overweight</td>
<td>7-11kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-34.9</td>
<td>Obese class 1</td>
<td>4-11kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-39.9</td>
<td>Obese class 2</td>
<td>0-4kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;40</td>
<td>Obese class 3</td>
<td>0 weight gain or up to 4kg loss</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Maternal obesity is a major issue in obstetric practice. It is important that women with an elevated BMI are offered nutritional and exercise information pre-conception, during pregnancy and post pregnancy when they can be supported in safe weight loss, appropriate pregnancy weight gain and appropriate weight management after pregnancy pre-conception of the next child should this occur.

Ref: RANZCOG College Statement: Management of Obesity in pregnancy

Healthy Eating for Pregnant Women

Healthy eating is important for pregnant women and their unborn babies. There are many nutritional issues to consider ensuring good health of both the woman and baby, during and after pregnancy. A wide varied diet is vital in supporting the growth and development of the foetus and the maintenance of the woman’s own health.

Further information including suggested meal plans, nutrients and food safety

Patient Information Brochure:
NHMRC/Department of Health: Healthy Eating During Your Pregnancy
Nausea and vomiting

Introduction
Nausea and vomiting are common symptoms in early pregnancy. About a third of women have symptoms severe enough to alter their daily activities and one quarter lose time from work or household activities. In a small percentage the symptoms are severe, stopping most activities including eating and drinking, requiring medical help to bring the illness under control. When illness is this severe it is called Hyperemesis Gravidarum.

Sometimes nausea and vomiting cannot be stopped completely. Thankfully symptoms improve with time – and usually settle by 12 to 16 weeks of pregnancy. The aim of treatment is to reduce these symptoms enough to allow normal daily activities (especially intake of food and fluids), and to return a sense of control to the woman and her family.

General Advice
Every woman has a different pattern of nausea and vomiting in their pregnancy, so there is no “one size fits all” advice for modifying diet and lifestyle. Most advice concentrates on finding what makes nausea better or worse, and modifying timing and type of activity, food, fluid and medications to suit. The following is traditional lifestyle and dietary advice.

<table>
<thead>
<tr>
<th>Lifestyle Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Morning sickness” doesn’t always confine itself to the mornings. Try to find a pattern to the nausea and make the most of your best time of day – eat and drink when you feel best or whenever you feel hungry.</td>
</tr>
<tr>
<td>If a certain time of day is bad, take your anti-vomiting tablets half an hour before this. Many women find taking the first morning dose of anti-vomiting tablets half an hour before getting out of bed helps prevent the morning shower or post breakfast vomit.</td>
</tr>
<tr>
<td>Avoid the things that trigger nausea and vomiting. Common triggers include hot, fatty or spicy meals, strong smells, smoking (and smokers), large meals, iron supplements, car travel, having an empty stomach, and tiredness.</td>
</tr>
<tr>
<td>If the smell of hot food makes you feel ill – try having cold food instead. If possible avoid cooking and ask for help from friends and family.</td>
</tr>
<tr>
<td>If tiredness makes you feel sick, an extra rest at the end of the day may help.</td>
</tr>
<tr>
<td>Lie down when you feel nauseous.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dietary Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dehydration and an empty stomach both worsen symptoms. Try constantly sipping small volumes of fluid and eating small snacks throughout the day.</td>
</tr>
<tr>
<td>Have larger meals when nausea is less rather than at traditional meal times.</td>
</tr>
<tr>
<td>Most women find small snacks of bland or salty carbohydrate based foods easier to tolerate. Keep a pack of chips, cracker biscuits, barley sugars or tiny teddies in a pocket to graze from, and a pop top or sipper cup to drink from.</td>
</tr>
<tr>
<td>Some fluids are easier to drink than water – flat lemonade, sports drink, dilute fruit juice, cordial, weak tea, clear soup.</td>
</tr>
<tr>
<td>Early morning nausea may be helped by eating a dry biscuit before getting out of bed.</td>
</tr>
</tbody>
</table>

When to seek Medical Advice
Symptoms of nausea and vomiting form a vicious cycle. As a woman becomes more dehydrated, malnourished, and as the salts in her bloodstream become more abnormal from prolonged vomiting, her nausea and vomiting get worse, and her symptoms become harder to bring under control. Also the risks to her and her child become greater.

Royal Prince Alfred Hospital Emergency Department encourages you to present when you feel that:

- You are having difficulty maintaining your food or fluid intake due to nausea or vomiting.
- You are unable to cope with your symptoms at home.
- We have supplied Ondansetron, and your supply is due to run out this week (present on a weekday morning please).

You can often recognise early in the morning that the day is going to be bad, and you would benefit from a brief stay and a few litres of intravenous fluid. In such cases we are also happy to see you and help keep your illness under control.

In any woman with Hyperemesis we recommend and will help organise early and close review with her GP, Obstetrician or Antenatal Clinic. Most women with hyperemesis require an extra third trimester ultrasound to ensure that the fetus is growing well.

Re-presenting to the Emergency Department
As Hyperemesis is an ongoing illness, we expect (and even encourage – see above) re-presentations to the emergency department. Please bring your yellow card, any medications you are currently taking, and any letters written by doctors and ultrasounds done during this pregnancy with you.
Anti-nausea Medications

Many women are concerned about using any medications in pregnancy, and particularly whether it might harm their child. The medications listed below are frequently and safely used in pregnancy to treat nausea and vomiting.

To treat hyperemesis requires a stepwise approach tailored to a woman's needs and side-effects. The approach we recommend is:

- Ginger, Vitamin B6 tablets, and Doxylamine. (available as over the counter medications)
- If these aren't sufficient, add Metoclopramide.
- If still insufficient, try replacing Metoclopramide with Prochlorperazine, and if required add Prochlorperazine suppositories to regain control if vomiting prevents you taking tablets
- If still insufficient use ginger, B6, Doxylamine, the best of Metoclopramide or Prochlorperazine and add Ondansetron

Vitamin B6 (Pyridoxine) One 25mg tablet taken 3-4 times per day. Side effects are exceedingly rare.

Doxylamine (Restavit, Dozile) is available without prescription from your chemist, but you will need to ask for it specifically. It is marketed as a sleeping tablet rather than a morning sickness medication. It is occasionally used and is safety and over use may be needed. However, its use in pregnancy is not advised without prior discussion with the doctor.

Metoclopramide (Maxolon) One 10mg tablet may be taken up to 6 hourly. The main side-effects are sedation (common) or restlessness and twitchiness (rare). Very rarely it can cause unusual facial ticks — if this occurs, go to hospital to have it treated.

Prochlorperazine (Stemetil) One 5mg tablet may be taken up to 4 hourly. It works and has side-effects similar to metoclopramide, so we recommend using one or the other. Combining them increases the risk of side-effects. One advantage of Prochlorperazine is that it is available in suppository form. Though unappealing, one 5mg suppository can be taken (only once per day) to stop vomiting even if vomiting is preventing you from taking other medications. 

Ondansetron (Zofran) Half or one 4mg tablet or water up to twice daily. The most common side-effect is constipation (over and above usual pregnancy-related constipation). Because it is only licensed for use in vomiting due to chemotherapy it is very expensive. If your vomiting is severe enough to require it, the Emergency Department will try to arrange a supply for you through the hospital.

Other Medications in Pregnancy

Constipation

A wide variety of medications are available over the counter or by prescription for constipation. Two popular are Metamucil (available over the counter) and Normacol Plus (available over the counter but cheaper with a prescription)

Reflex

Reflux oesophagitis (heartburn) is common in pregnancy. It is due to the increased size of the stomach, and can lead to reflux symptoms. Most women with symptoms may get reflux relief if they take a 20mg tablet twice a day. It is also very expensive. If your reflux is severe, it is important to speak to your doctor.

Food additives such as coffee, tea, and chocolate are often found in foods and are important to avoid in pregnancy.

Pregnancy Vitamins and Supplements

Iron: Recommended but not often needed. Stopping may improve nausea.

Folate: 0.5mg daily decreases rates of spina bifida but other neural tube defects may also be beneficial. However, it is important to take the supplement with a meal. Folate is needed in areas of deficiency (which Australia actually is).

Thiamine (Vitamin B1): Important if you are malnourished due to vomiting.

Other alternatives include Folic acid and Zinc.
Hyperemesis Gravidarum

70% of pregnant women experience some nausea and vomiting
25% significant enough to alter activities of living / loss of work time
0.5 - 3% Hyperemesis Gravidarum (see definition below)

Hyperemesis Gravidarum is a severe debilitating illness requiring aggressive management, close follow-up and psychosocial support. If not properly managed, complications include Electrolyte abnormalities, Thyroid dysfunction, Mallory Weiss tears, Reflux oesophagitis, Wernicke’s Encephalopathy, Central pontine myelinolysis, Fetal growth restriction, as well as significant psychological morbidity. In the first world, there is no association with maternal or fetal death, but historically and in the third world both occur.

Definition of Hyperemesis Gravidarum
- Weight loss > 5%
- Ongoing requirements for IV fluids
- Hospital admissions
- No response to standard therapies
- No evidence of extra gestational disease
  - (Peptic ulcer, UTI, Hepatitis, Elevated CSF pressure, Addison’s disease, Gastroenteritis)

Due to patient self selection, most pregnant women presenting to the ED with persistent nausea and vomiting will have Hyperemesis Gravidarum and should never be dismissed as “morning sickness”

Assessment
Hx: Of Pregnancy
Pregnancy – LMP / Dates, assessment of pregnancy to date (U/S, obstetrician/antenatal clinic)
Meds and supplements – incl Folate, Iron, Iodine, Thiamine, any antiemetics trialed already
Social: Social and psychological impact of HG and of pregnancy, Supports, Smoking

Hx: Of Hyperemesis and complications
Pattern (Try to identify if timing of drugs or food could help with outpatient management)
Intake (food and fluid), weight gain (or loss)
Control (including antiemetics, therapeutics required in previous pregnancies)
Presence of any complications – ask specifically re reflux, UTI symptoms

O/E
Hydration /circulation (Tachycardia, postural hypotension, evidence of dehydration)
Weight

I&amp;D
UA with every micturition – Ketosis, Raised SG. If evidence of UTI – MC+S, treat with Cephalexin
FBC (raised HCT), EUC (Electrolyte abnormalities, Dehydration / renal dysfunction), BSL, LFT (raised transaminases common) will need to be monitored throughout in and outpatient treatment
BHCG if first trimester
TFT if not done in past month (biochemical thyroidosis in up to 2/3 of HG – outpatient referral)
U/S if one not already done (usually as outpatient) – Dating, multiple pregnancy, hydatidiform mole

Author: Kendall Bein  Approved: Tim Green
Date: October 2011  Review: October 2020

1 Charlotte Bronte died 31st of March 1855 due to Hyperemesis Gravidarum
Treatment

Acute control of Hyperemesis Gravidarum
- IV rehydration with Normal Saline + Potassium (avoid Dextrose and Hypertonic saline)
- Thiamine supplementation and electrolyte replacement if prolonged nutritional depletion

First line antiemetic: Anti dopaminergic
- Metoclopramide 10-20 mg IV (Category A) – First line or adjunct to other antiemetics, or
- Prochlorperazine 25 mg IV (Category C) if metoclopramide previously trialled and failed

Second line antiemetic (in addition to antidopaminergic): 5HT3 antagonist
- Ondansetron 2-8 mg SL / PO / IV (Category B1)

Seek and treat Reflux oesophagitis: PPI
- Pantoprazole 40 mg PO / IV BD (Category B3). Plan to reduce dose once symptoms settle

Seek and treat constipation
- Frangula, Sterculia (Normacol Plus) 1-2 teaspoons with fluids up to BD

Once nausea settles:
- Attempt Trial of Oral Fluid (small sips often)
- Add Vitamin B6 25 mg PO TDS and Thiamine 100 mg PO D
- Attempt small carbohydrate based snacks

Ongoing (outpatient) control of nausea and vomiting
- Outlined in patient handout sheet
- Be sure to emphasise: Early follow-up with GP / Obstetrician / Antenatal clinic
- Patient is encouraged to represent early to ED for brief EMU stay and IV fluid top-up before symptoms and dehydration become severe enough to need admission.
- Ensure Pt has scripts for medications. If needing ondansetron (difficult to gain control on first presentation or second presentation despite appropriate outpatient therapy), contact Drug Approval to arrange 1 month supply of ondansetron. Start at 2 mg BD, but tailor to patient requirements from 2 mg PRN up to 8 mg TDS regularly. (Make contact during waking hours. If at night, consider EMU and call in morning)

Disposition

Admission Criteria
- Unsuccessful Trial of Fluid, or unable to re-introduce small carbohydrate snacking
- Persisting Nausea and remains Ketotic on UA
- Significant Electrolyte or renal function abnormality

EMU Admission Criteria
- Most vomiting in pregnancy will be appropriate for RAFT assessment and early assessment by EDSS / ED Reg for EMU admission
- Representing Pts may be flagged to EDSS from triage
- EMU is appropriate for correction of hydration, ketosis and minor electrolyte abnormalities if there is expectation that nausea and vomiting will settle, and oral intake to recommence
- Pts presenting at night and requiring organisation of ondansetron before discharge.

Discharge Criteria
- Nausea and vomiting settled. Pt rehydrated to euvolemia. Tolerating food and fluid.
- Follow-up organised, letter, patient handout sheet, scripts and meds
- Electrolytes corrected. Non ketotic, or decreasing Ketonuria currently one plus or less on UA

Discharge planning
The aim of discharge is control of symptoms sufficient to allow adequate oral intake of food and fluid, with the expectation of improvement as pregnancy progresses. (Complete relief is sometimes impossible.) Patients and family will require adequate medical and psychosocial support

Medical Support: Encourage early representation to ED for brief EMU admission, IV fluids, and re-establishment of control of nausea and vomiting before dehydration, ketosis and electrolyte derangements make re-establishing control difficult. Arrange follow-up, letters, prescriptions, info sheets. If this is the second or later ED presentation, Antenatal clinic and dietician referral.

Psychosocial support will largely be provided by friends, family and primary care physician. In ED it can be best provided by recognising and validating their illness and provide information. Explain that hyperemesis is a real illness not just “morning sickness” and their presentation was appropriate. Involve EPAS CNC in hours. Occasionally psychiatry referral may be needed.
Thyroid Disease

1. Whom to screen pre- or in early pregnancy (TSH)

- History of thyroid dysfunction, postpartum thyroiditis and/or thyroid surgery
- Symptoms and clinical signs suggestive of thyroid dysfunction or goitre
- Family history of thyroid disorder
- Presence of thyroid or other autoantibodies
- Type 1 diabetes mellitus
- Prior irradiation of head or neck
- Infertility (as part of the systematic infertility work-up)
- History of recurrent miscarriage and/or preterm delivery
- Age ≥ 35

2. Thyroid function test reference ranges in pregnancy

Use **laboratory- and trimester- specific ranges**. If unavailable, **TSH** reference ranges are:

<table>
<thead>
<tr>
<th>Trimester</th>
<th>Reference Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>0.01 - 3.0 mIU/L</td>
</tr>
<tr>
<td>2nd</td>
<td>0.2 - 3.0 mIU/L</td>
</tr>
<tr>
<td>3rd</td>
<td>0.3 - 3.5 mIU/L</td>
</tr>
</tbody>
</table>

3. RPAH ANC Thyroid referral criteria

(a) TSH>3 (on early pregnancy screen)

*Please try to limit referrals to those patients you are uncomfortable in managing or if patient has overt hypothyroidism i.e. an elevated TSH with low fT4 or if TSH ≥10 mIU/L*  
(NB: only 1 Registrar clinic per week; max 8 pts)

- Always check **ATA**;
- Can discuss with Endocrinology registrar regarding Thyroxine dose if unsure;
- Monitor TSH every 4-6 weeks till 20 weeks with a final check at 28-32 weeks;
- If Thyroxine is commenced and **ATA –ve**, can stop Thyroxine at term. Check TFT two months’ postpartum;
- If Thyroxine is commenced and **ATA +ve**, halve Thyroxine dose at term and repeat TFT two months’ postpartum. Monitor for postpartum thyroiditis;
- Women on Thyroxine pre-pregnancy will generally require a 20-50% dose increase once pregnancy is confirmed. The dose of Thyroxine can be **reduced to the pre-pregnancy dose at term**.

Suggested *initial* Thyroxine dose for hypothyroidism diagnosed in pregnancy:

| TSH ULN-5 | 1-1.5mcg/kg/d (~50-75mcg/d) |
| TSH 5-10  | 1-1.7mcg/kg/d (~75-100mcg/d) |
| TSH >10   | 1.7-2.5mcg/kg/d (~100-200mcg/d) |

**ULN = upper limit of norm**
(b) Suppressed TSH (e.g. <0.01mIU/L)

**Check fT4, fT3 and TRAb**

- If fT4 and fT3 are normal with negative TRAb, repeat TFT in 4-6 weeks. May be due to transient gestational hyperthyroidism. Refer if TSH remains suppressed;
- Refer if elevated fT4 and/or fT3 and/or TRAb +ve.

(c) Past or current history of Graves' disease

**Check fT4, fT3 and TRAb**

- Refer to determine
  - risk of fetal hyperthyroidism
  - need for monitoring and/or treatment in pregnancy
  - risk of post partum flare

**NB risk of persistent TRAb post RAI and total thyroidectomy**

(d) Thyroid nodule

**Order TSH and ultrasound**

---

The NHMRC recommends that all women who are pregnant, breastfeeding or considering pregnancy take an iodine supplement containing 150 micrograms each day. Women with pre-existing thyroid conditions should seek advice from their medical practitioner before taking a supplement.

**Further information NHMRC**


**Patient Information Brochure**

Guide to Ante Natal Thyroid Referral to RPAH

- Patients who already take Thyroxine will usually need an increase in dose once pregnancy is confirmed
- This will usually be between a 20% - 50% increase in the dose
- They therefore should have initial and then 4-6 weekly bloods done with a target TSH of < 3.0 mU/L
- If the target TSH is maintained then the GP can continue to manage patient

**Hypothyroidism**
- TSH is lower than reference range but is still detectable
  - No need to refer
  - Repeat TSH in 3-4 weeks
  - Only refer if TSH becomes undetectable
- TSH is Undetectable
  - Check fT4, fT3
  - TSH rec Ab (TRAB)
  - Abnormal Refer
  - Normal Recheck in 4 weeks
  - No need to refer

**Hypothyroidism** with TSH > 3.0 mU/L
- Referral letter (page 126) to be faxed to Ante Natal Thyroid Clinic
  - FAX 9515 8728
  - You can use the Pro Forma referral
  - Thyroid Clinic will make contact with the patient and arrange appointment
  - A confirmation letter will be faxed back to the referee indicating appointment date and further instructions eg dosage increases or blood tests required etc

**Thyroid Nodule or h/o Thyroid Cancer**
- ANY patient with existing thyroid/endocrine disease who sees a private Endocrinologist

**Non RPAH Endocrinologist**
- Because of RPA clinical responsibility the patient MUST be reviewed at least once in Ante Natal Thyroid clinic
- Patient instructed to contact their Endocrinologist to arrange treatment & follow up

**RPAH Endocrinologist**
- Profs D Yue, S Twigg, I Caterson, K Steinbeck, J Wong
- Drs E Chua, G Ross, T Markovic, AM Kean, Jean Ho, T Wu, A Gargya, N Perera

Any urgent queries or clarifications phone 9515-7225 fax 9515 8728 office hours
Dr Ash Gargya Endocrinologist or Sr Julie Hetherington CNC Endocrinology
OUT OF HOURS ring RPAH on 9515 6111 and page the Endocrinology Registrar on Call

* Please refer to guidelines
Re: trimester TSH targets
Revised : August 2013
Ante Natal Thyroid Clinic Process

Client attends booked appointment in Ante Natal Thyroid Clinic on a Thursday morning on Level 6

Endocrinologist will decide **if, where & when** follow ups are needed and will book appointment as required. An initial letter will be sent to GP to indicate management plan. **All clinic visits are recorded in the electronic medical record**

Near end of pregnancy Endocrinologist will indicate **if, where & when** postnatal follow up is needed. A summary letter is written and is given to patient to give to GP.

Booking into regular Thyroid clinic will be booked by the Endocrinologist at an estimated visit date postnatally. This should be noted in post delivery discharge summary

All follow ups with GP should be at 6-8 weeks postnatally. This should be booked by patient who has summary letter of ANC Thyroid care.
Anaemia and Iron Deficiency

Iron

The iron demands of pregnancy and lactation are particularly pronounced due to the expanded red cell volume, blood loss around the time of delivery and the demands of the developing fetus and placenta. Iron supplementation will generally be recommended for women at particular risk of iron deficiency. This includes vegetarians and women with a multiple pregnancy. **All women should have their haemoglobin level checked at the first antenatal visit and again at approximately 28 weeks’ gestation** and any anaemia investigated and treated. Routine iron supplementation is not recommended in every pregnancy.

Ref: RANZCOG College Statement: Vitamin and mineral supplementation in pregnancy

Screening for Anaemia and Iron Deficiency  
(At risk of iron deficiency)

<table>
<thead>
<tr>
<th>Personal history-demographic</th>
<th>Medical history</th>
<th>Prior pregnancies</th>
<th>Current pregnancy</th>
<th>Family history</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent arrival from country with high incidence of anaemia (Africa/Asia/ Eastern Europe/ Central America/ Middle East/ Mediterranean)</td>
<td>Previous history of: - Vegan/vegetarian or poor diet - Iron deficiency/ anaemia - Menorrhagia - Chronic gastro-intestinal disease - Inherited blood disorder known - Heavy smoking - Chronic infections (e.g. malaria, worms) - Recurrent infection/poor healing - Recent blood donor</td>
<td>- High parity - Concurrent or extended breast feeding - Previous postpartum haemorrhage - Short pregnancy spacing</td>
<td>- Hyperemesis gravidarum - Poor appetite/vomiting - Teenage pregnancy - Signs or symptoms of anaemia</td>
<td>- Family history of anaemia, inherited blood disorders (thalassaemia, sickle cell disease) – if status unknown</td>
</tr>
<tr>
<td>Minimal schooling</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

**Investigations at booking**

- Full Blood Count
- Iron studies (suggested if meets above criteria)
- Thalassaemia screening (if status unknown)

**Investigations at 28wks**

- Full Blood Count
- Iron studies (if known low stores/low Hb/SandS anaemia)

**Investigations at 36wks**

- Full Blood Count if previous Hb<110 g/L
- Iron studies (if known low stores/low Hb/SandS anaemia)

**Suggest supplementation**

- If Hb < 105 g/L
- If Se Fe < 15 Ug/l
- If haemoglobinopathy detected
- partner check/ genetic counselling/ haematology consult

- If Hb < 100 g/L or
- If Se Fe < 15 Ug/l

- Hb < 105 g/L
- Se Fe < 15 Ug/l
Screening for Haemoglobinopathies in Pregnancy

Current SLHD antenatal care guidelines recommend that all pregnant women have haemoglobinopathy carrier testing, in the first trimester.

Screening involves a full blood count (FBC) and haemoglobin electrophoresis (HbEPG). Iron studies (which includes ferritin) are essential for the molecular genetics laboratory to interpret molecular testing results.

When this screening indicates that the woman is a carrier of a haemoglobinopathy, or screening is inconclusive, her partner should be screened to determine his haemoglobinopathy carrier status. If the woman’s partner is unavailable for testing she should be referred to Clinical Genetics for a consultation.

It is noted that raised HbF is common in pregnancy. If the HbF is less than 5% with normal MCV and MCH there is no need for the partner to have screening.

When both the woman and her partner are carriers of a haemoglobinopathy, or they both have inconclusive results they should be referred for genetic counselling so possible implications for the pregnancy and molecular testing can be discussed. As molecular testing for haemoglobinopathies is time consuming it is important that at-risk couples are identified as early in the pregnancy as possible.

If you are uncertain about any results you can contact Medical Genomics/Clinical Genetics ph.9515 5080, or fax 9515 5490 a copy of the results.
Thalassemia Screening

All women should be routinely screened for Thalassemia (as per ANSC protocol)

FBC/Haemoglobin EPG, and Iron Studies as per ANSC protocol

Normal MCV/MCH HbF < 5%
- Low risk of having a baby with a haemoglobinopathy

HbF ≥ 5%
- Test Partner – FBC, HbEPG, Iron studies
  - PARTNER Normal FBC Normal HbEPG
    - Low risk of having a baby with a haemoglobinopathy
  - PARTNER Abnormal FBC Abnormal HbEPG
    - REFER for GENETIC COUNSELLING
      RPAH/TCH 9515 5080

Low MCV/MCH Increased Hb A2 Consistent with Beta Thalassemia

Carrier of a haemoglobinopathy such as HbS, HbE, HbD

Low MCV/MCH Normal Hb EPG (Hb A2) “Carrier of Alpha thalassemia”

Low MCV/MCH Normal HbEPG (Hb A2) Alpha thalassemia not excluded

REFER for GENETIC COUNSELLING
RPAH/TCH 9515 5080

PARTNER Normal FBC Normal HbEPG
- Low risk of having a baby with a haemoglobinopathy

PARTNER Abnormal FBC Normal HbEPG
- REFER for GENETIC COUNSELLING
  RPAH/TCH 9515 5080

PARTNER Abnormal FBC Normal HbEPG
- Low risk of having a baby with a haemoglobinopathy

PARTNER Abnormal FBC Abnormal HbEPG
- REFER for GENETIC COUNSELLING
  RPAH/TCH 9515 5080
Group Streptococcus (GBS)

Group B streptococcus (GBS) emerged as the leading cause of early onset neonatal sepsis in the late 1970s. Approximately 15-25% of women will be asymptomatic carriers of Group B streptococcus of which, if left untreated, 1 in 200 will have neonates that will develop neonatal sepsis. The use of intrapartum prophylaxis with antibiotics (penicillin) given to women at risk of transmission of GBS to their newborns, prevents early onset sepsis and is cost effective.

GBS Clinical risk factors for infants developing early onset disease GBS infection are:

- Gestation ≤ 37 weeks duration.
- Rupture of membrane ≥ 18 hours.
- Maternal fever ≥38C.
- Previous GBS infected baby.
- GBS bacteruria (and of any count) during that pregnancy.
- Known carriage of Group B strep in current pregnancy.

For the screening approach, GBS carriage is best predicted by prenatal screening at **35-37 weeks gestation** (combined low vaginal and anorectal swab placed into a selective enrichment broth medium). Culture results are less predictive of status at term if performed at earlier gestations.

This swab can be clinician collected or patient self-collected.


Ref: RANZCOG College Statement Maternal group B Steptococcus in pregnancy - screening and management


Patient Information Brochure:

*Group B streptococcus in pregnancy* page 144
www.iwsml.com.au

Hepatitis

Antenatal and Perinatal Hepatitis C testing¹

_Epidemiology in the Antenatal Population and Mode of Transmission_

An estimated 211 000 people were living with chronic HCV in Australia at the end of 2009. The prevalence of HCV antibodies in the Australian antenatal population is estimated at 1.4% of pregnant women. Approximately 70% of people with HCV antibodies have ongoing viral infection as indicated by a detectable HCV RNA test.

_Risk factors for HCV infection_

- People who have ever injected drugs
- People who are, or have been, incarcerated
- Recipients of organs, tissues, blood or blood products before February 1990 in Australia or at any time overseas
- People with tattoos or skin piercings – indications to test will include poor infection control procedures, e.g. tattooing and skin piercings which were carried out in some overseas countries or in a custodial setting
■ People born in countries with high hep C prevalence (Asia, Africa, Middle East, Eastern/Southern Europe)
■ Sexual partners of people with hepatitis C

Effect of HCV on Pregnancy
Women with HCV are generally at no greater risk of obstetric or perinatal complications than HCV uninfected women. Advanced liver disease is uncommon in pregnancy, however if present, the issues arising from this, such as coagulation disturbances, may complicate the pregnancy and delivery.

Effect of Pregnancy on HCV
Prospective studies following women with HCV during pregnancy and in the postpartum period have reported a trend to normalisation of liver function tests with an increase in the HCV viral load during the third trimester of pregnancy. The viral load returns to pre-pregnancy levels in the postpartum period with the proportion of viremic women remaining unchanged. Women with HCV may be at risk of a hepatic flare in the months following delivery and should be monitored by an infectious diseases specialist or a hepatologist.

### Hepatitis C (HCV) Intervention Summary

<table>
<thead>
<tr>
<th>Recommendation for antenatal screening</th>
<th>Selective screening based on risk factors or maternal request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk of vertical transmission</td>
<td>5% if HCV RNA detected (if not also infected with HIV)</td>
</tr>
<tr>
<td>Recommended interventions (without strong evidence)</td>
<td>Avoidance of procedures that risk breaching baby's skin or mucous membranes</td>
</tr>
<tr>
<td></td>
<td>Expressing and discarding breast milk if nipples bleeding</td>
</tr>
</tbody>
</table>

Mother-to-Child Transmission (MTCT)
The estimated rate of MTCT of HCV in viremic women is approximately 5%, although this may be higher if the woman is also infected with HIV. The exact mechanism of HCV transmission to the newborn is unknown.

Antenatal HCV Screening
The National Hepatitis C Testing Policy 2007 recommends selective antenatal screening for HCV based on identified risk factors as listed above. Other reasons for testing include maternal request after discussing risk factors and/or signs of liver disease or extrahepatic manifestations of HCV. All testing must be confidential, voluntary, and with informed consent.

The rationale for selective screening includes the low prevalence of hepatitis C amongst pregnant women and the lack of evidence to suggest that universal screening would identify more cases than selective screening. Indeterminate and false positive results may be expected to occur in a low-prevalence population, causing unnecessary anxiety. Importantly, the risk of MTCT is low, and interventions to minimise the risk of transmission are very limited. Treatments for HCV are contraindicated in pregnant women. Although women diagnosed antenatally may be given health advice, it is unlikely that being diagnosed whilst pregnant will result in any positive health benefit for mother or baby during the pregnancy.

While RANZCOG, in its position statement on routine antenatal assessment, recommends screening of all pregnant women for HCV infection, it does acknowledge this as a contentious area of practice. The recommended screening test for HCV is an HCV antibody using an enzyme immunoassay (EIA). All women who test positive for the HCV antibody should have confirmation with a second independent assay before they are reported as positive. Women who are hepatitis C antibody positive require liver function tests and qualitative HCV RNA testing. Those who are HCV RNA negative are at extremely low risk of transmitting HCV to their newborn, however as HCV antibodies are not protective, they are at risk of re-infection if re-exposed. Quantification of HCV viral load is not recommended in the routine management of pregnancy, and is currently used to assess transmission risks in research settings only.

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Interventions During Pregnancy, Delivery and Postpartum

In contrast to HBV and HIV, there is little evidence that interventions during pregnancy or at the time of delivery reduce the risk of MTCT of HCV. For a woman with a diagnosis of HCV during pregnancy, referral to an infectious diseases specialist or Hepatologist (contact list attached), as well as to hepatitis support groups for information and advice, should be made during the pregnancy. This will facilitate provision of accurate information, counselling and linkages for follow up and treatment if desired postpartum.

The role of elective caesarean section in the management of women infected with HCV remains uncertain, and further research is required before a recommendation can be made on the mode of delivery used to prevent transmission. Standard precautions and delay of intramuscular injections until after the baby has been bathed to remove all maternal blood are advised. There is no evidence that breastfeeding is associated with an increased risk of HCV transmission to the newborn despite the detection of HCV RNA in breast milk. Consideration should be given to expressing and discarding milk if nipples are cracked and bleeding, until healed. The infant should have an HCV antibody test at 12-18 months of age. If HCV antibody positive, the infant requires qualitative HCV RNA testing to determine if he/she is still infectious, and referral to a paediatric hepatologist. Earlier detection with qualitative HCV RNA testing at 2-3 months is possible, however this is unlikely to alter the care of the newborn.


Antenatal and Perinatal Hepatitis B testing

Women contemplating pregnancy or seeking antenatal care should be made aware of the benefits of diagnosis of hepatitis B infection and management, and prevention strategies available to protect the infant from infection.

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) guidelines state that all pregnant women should be screened using the HBsAg test. If a woman is identified as HBsAg positive, further testing (HBeAg and HBV DNA) should be performed to determine the risk of transmission to the infant and the degree of infectivity in general, to inform clinical decision making.

The risk of perinatal HBV transmission is determined by maternal hepatitis B viral factors; highly replicative infection characterised by high HBV DNA viral load and HBeAg positivity is associated with a higher risk of transmission. Women with a high viral load should receive specialist advice including the role of antiviral treatment to reduce the risk of transmission. In Sydney LHD the recommendation is all HBsAg positive women should be referred to a specialist hepatitis service (see below for referral information) at around 20 weeks gestation.

Timely administration of hepatitis B vaccination and hepatitis B immunoglobulin (HBIG) to the infant within 12 hours of birth will reduce the risk of hepatitis B transmission by approximately 90%.

Testing of infants born to HBsAg positive mothers

Infants born to HBsAg positive mothers should be tested for HBsAg and anti-HBs, after the final dose of hepatitis B vaccine (most practically at 12 months of age). Testing for anti-HBc is not useful at this age, because maternal antibody is still detectable. A positive anti-HBs indicates a successful response to vaccination. A positive HBsAg test indicates infection and, in this case, the child should be referred to a paediatric gastroenterology or Infectious Diseases Unit for monitoring of liver function.


Further information:
Antenatal testing and Blood Borne Viruses
Sydney Local Health District Hepatitis/Liver Clinic Contact List

Named Referrals can be made to the following Clinics. Please avoid writing “Dear Liver Clinic”

<table>
<thead>
<tr>
<th>Royal Prince Alfred Hospital</th>
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<tbody>
<tr>
<td><strong>AW Morrow</strong></td>
<td><strong>Ph: 9515 7268   Fax: 9515 8242</strong></td>
</tr>
<tr>
<td>Gastroenterology</td>
<td><strong>E: <a href="mailto:GastroandLiver.RPA@sswahs.nsw.gov.au">GastroandLiver.RPA@sswahs.nsw.gov.au</a></strong></td>
</tr>
<tr>
<td>and Liver Centre</td>
<td><strong>W: awmorrowgel.org</strong></td>
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<thead>
<tr>
<th>RPA Hospital Staff</th>
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<tbody>
<tr>
<td>Specialist Liver Clinic</td>
<td><strong>Prof Geoffrey McCaughan</strong></td>
</tr>
<tr>
<td></td>
<td><strong>A/Prof David Koorey</strong></td>
</tr>
<tr>
<td></td>
<td><strong>A/Prof Simone Strasser</strong></td>
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<tr>
<td></td>
<td><strong>Dr Nicholas Shackel</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Dr David Bowen</strong></td>
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<tr>
<td></td>
<td><strong>Dr Emilia Prakoso</strong></td>
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<thead>
<tr>
<th>Liver/Gastro Clinic</th>
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<tr>
<td>Ph: 9515 7269</td>
<td><strong>Dr Bill Bye</strong></td>
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<tr>
<td>Fax: 02 9515 8242</td>
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<thead>
<tr>
<th>Nursing Staff</th>
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<tr>
<td><strong>RPAH Hepatitis B Nurse</strong></td>
<td><strong>Ms Margaret Fitzgerald</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Ph: 9515 6228</strong></td>
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<tr>
<td><strong>RPAH Hepatitis C</strong></td>
<td><strong>Clinical Nurse Consultants</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Ms Sue Mason</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Ph: 9515 7049</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Ms Sinead Sheils</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Ph: 9515 7661</strong></td>
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<thead>
<tr>
<th>Community Hepatitis B Nurse</th>
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<tbody>
<tr>
<td>led Clinic (Mondays 1-3pm)</td>
<td><strong>Marrickville Community Centre</strong></td>
</tr>
<tr>
<td></td>
<td><strong>157 Livingstone Road</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Marrickville NSW 2204</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Ph.: 9562 0500 Fax: 9562 0501</strong></td>
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<thead>
<tr>
<th>Clinic Nurse (Hepatitis B Clinical Nurse Consultant RPAH)</th>
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<tbody>
<tr>
<td><strong>Ms Catherine Stevens</strong></td>
<td><strong>Ph: 9515 3627</strong></td>
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<tr>
<th>Canterbury Hospital</th>
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<tbody>
<tr>
<td><strong>Canterbury Hospital Staff</strong></td>
<td><strong>Dr Venessa Pattullo</strong></td>
</tr>
<tr>
<td><strong>Specialist Liver Clinic</strong> (Thursday afternoons)</td>
<td><strong>Dr Lisa Shim</strong></td>
</tr>
<tr>
<td><strong>Ph: 9787 0164</strong></td>
<td><strong>Dr Elke Wiseman</strong></td>
</tr>
<tr>
<td><strong>Fax: 9787 0094</strong></td>
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<thead>
<tr>
<th>SHLD Hepatitis Coordinator</th>
<th><strong>Janice Pritchard-Jones</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph: 0434360357</td>
<td><strong>Email: <a href="mailto:Janice.pritchard-jones@sswahs.nsw.gov.au">Janice.pritchard-jones@sswahs.nsw.gov.au</a></strong></td>
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<tr>
<th>SLHD Hepatitis Dietitian</th>
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<tbody>
<tr>
<td><strong>Ms Kate Teevan</strong></td>
<td><strong>Ph.: 0466 580 478</strong></td>
</tr>
<tr>
<td><strong>Email: <a href="mailto:kate.teevan@sswahs.nsw.gov.au">kate.teevan@sswahs.nsw.gov.au</a></strong></td>
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Management of Varicella during pregnancy

If your non-immune patients come into contact with or develops chicken-pox immediately arrange treatment by contacting: RPAH Women and Babies (Midwifery Nursing Unit Manager ph: 9515 7935 or the Obstetric Registrar via switch: 9515 6111) ; Canterbury Hospital (Midwives Desk ph 9787 0183)

**Please do not send patient straight into the clinic because of the risk of exposure to other patients attending the ambulatory care department.**

**Contact in pregnancy**

Antibody level

- Negative (10%) – Zoster Immunoglobulin (ZIG) within 96 hours
- Positive (90%) – no ZIG

**Varicella in pregnancy**

- < 20 weeks: Risk of congenital syndrome small
  TOP not recommended unless ultrasound positive
- > 20 weeks: Possible herpes zoster in first 2 years
- Near term: Risk of neonatal infection 20%
- 5 days pre to 2 days post delivery: Risk of varicella 20% mortality
  ZIG to infant within 96 hours of delivery
- Severe varicella: Acyclovir

**Further information:**

**Australian immunisation Handbook : Varicella**


**Australasian Society of Infectious Diseases: Management of Perinatal Infections**


**MotherSafe. ph. 9382 6539 www.mothersafe.org.au**

Counselling service for women and healthcare providers concerned about exposures and medications during pregnancy and lactation.
Influenza Vaccination

Pregnant women are at an increased risk of influenza related complications for their unborn baby and themselves. Some pregnant women have died from influenza.

Influenza vaccination is recommended for all pregnant women regardless of gestation. Flu vaccination during pregnancy should be routine. Safety is well established and both maternal and infant benefit are now proven.

Further information:

RANZCOG statement: Influenza vaccination for pregnant women

Mothersafe : Fact Sheets
www.mothersafe.org.au/

Patient Information Brochure:
Influenza Vaccination in Pregnancy page 142
Or
(Also available in other languages)

Rh (D) Immunogloblin

If a woman is Rh D negative and has no preformed Anti-D antibodies, the GP should inform her about the need to prevent RH D sensitization.

All Rh (D) negative women (who have not actively formed their own Anti-D) should be offered Anti-D:

a) First trimester indications - CSL 250 IU (50mcg)
   i) Chorionic Villus Sampling;
   ii) Miscarriage;
   iii) Termination of pregnancy; and
   iv) Ectopic pregnancy.

There is insufficient evidence to suggest that a threatened miscarriage before 12 weeks gestation necessitates Anti-D.

b) Second and third trimester indications - CSL 625 IU (125mcg)
   i) Obstetric haemorrhage;
   ii) Amniocentesis, cordocentesis;
   iii) External cephalic version of a breech presentation, whether successful or not; and
   iv) Abdominal trauma, or any other suspected intra-uterine bleeding or sensitising event.

c) All Rh (D) negative women (who have not actively formed their own Anti-D) at approximately 28 weeks gestation and again at approximately 34 weeks gestation - CSL 625 IU (125mcg).

d) Post-natally, within 72 hours. All women who deliver an Rh (D) positive baby should have quantification of feto-maternal haemorrhage to guide the appropriate dose of anti-D prophylaxis.

Rh antibody testing and assessing magnitude of feto-maternal haemorrhage
Blood should be taken for Rh antibody titre prior to administration of Anti-D, in order to detect those who have already become immunised. However, at 34 weeks gestation, the test may be omitted if prophylactic Anti-D was given at 28 weeks gestation.

Rh (D) immunoglobulin should not be given to women with preformed Anti-D antibodies except where the preformed Anti-D is due to the antenatal administration of Rh (D) immunoglobulin. If it is unsure whether the Anti-D detected in the mother’s blood is passive or preformed, the treating clinician should be consulted. If there is continuing doubt, Rh (D) immunoglobulin should be administered.

All women as defined in paragraphs (b) and (d) should have the magnitude of potential feto-maternal haemorrhage assessed and if necessary further Anti-D administered as appropriate.

Ref: RANZCOG College Statement : C-Obs 6  Guidelines for the use of Rh (D) Immunoglobulin (Anti-D) in obstetrics in Australia

Further information:
www.nba.gov.au

**Patient Information Brochures :**
*Important Information for Rh(D) negative women*

*Prevention of haemolytic disease of the newborn – Rh(D) negative women who have experienced pregnancy loss*
Parent Education Classes

RPA Women and Babies

The Parent Education Centre offers a range of programs designed to help women, their partners and support people prepare for childbirth and parenting. Ideally your course is booked when you are between 14 and 22 weeks pregnant, but please enquire at any stage.

Classes include:

1. **Childbirth and Parenting Sessions** – Including hospital tour, baby care. **Two hrs/ week for 7 weeks**, day or evening. Daytime classes are free of charge, evening **$235.00**. (Start around 27 – 29 weeks)

   **OR**

2. **Childbirth and Parenting Weekend Workshops** – two consecutive Saturdays or Sundays. **$220.00**. (Commence between 27 and 30 weeks). **Time**: 9:30am – 3:30pm.

3. **Changing Shape** - back and pelvic floor care sessions, 1x2 hours antenatally. Included with Childbirth and Parenting Classes, or **$50.00** when booked as an individual session.

4. **Breastfeeding session** – 2hrs antenatally at around 36 weeks. **$40.00**.

5. **Natural Birth 4 weeks program. $245.00;** 2 hrs /week for 4 wks -Birth Centre & Delivery Ward clients

6. **Grandparents Information Session**: **$60.00 : 3 hours**

7. **Mandarin** – evening sessions ( to be confirmed )

The following individual sessions are also offered:

- **Newborn Care** – 1x2 hrs antenatally; **$45.00**. Focus on very early weeks after birth.
- **Labour Intensive** – a 3 or 4-hour . 3 hours = **$110.00**; 4 hours = **$120.00**.
- **Hypnobirthing** – Birth Centre clients only. POA
- **Natural Birth Intensive** - **$120.00**; 3 hours. Focusing on achieving natural, active birth.
  
  **Venue**: BIRTH CENTRE / PARENT EDUCATION

- **Postnatal Intensive** - **$80.00**; 3 hours
- **Caesarean section information session**: conducted for women having an elective caesarean.-
  
  **$100.00**; 3 hours

- **Antenatal Belly Dancing**- Thursday 4 weeks sessions: **$60.00**

*Other courses:* (**Free for RPAH clients. Fee for non –RPAH clients**)

- **Hospital Tours** – Approximately an hour on selected weekday mornings or afternoons. **Children are not permitted on tours so please make arrangements for childminding.** Book no later than 37 weeks. Tours are free of charge.

- **Refresher sessions**: for those who have given birth before.

- **Mandarin** childbirth and parenting sessions, held on weekdays only.

- **Yoga classes**

**To book:** ph. 9515 5284 or **Email**: parent.education@email.cs.nsw.gov.au

**Venue:** RPA Parent Education Centre unless informed otherwise.
Canterbury Hospital

Birth and Parenting Class Groups:
There are a range of programs designed to help women, their partners and support people prepare for childbirth and parenting.

**Group Options:** 2 Consecutive Saturdays 9.30am-2.30pm : $160

OR

1 Day Intensive Saturday 9.30-4.30pm : $120 for the day, includes partner.

Topics Covered:

<table>
<thead>
<tr>
<th>Labour</th>
<th>Birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Relief</td>
<td>Role of the Support Person</td>
</tr>
<tr>
<td>When things don’t go to plan</td>
<td>Recovery After Birth</td>
</tr>
<tr>
<td>The Normal Newborn</td>
<td>Baby-Care</td>
</tr>
<tr>
<td>Breastfeeding</td>
<td>Community Support</td>
</tr>
</tbody>
</table>

_**How to Book:**_ To avoid disappointment the class should be booked and paid for as early as possible. This will confirm place in group. The class should start around 26-30 weeks of pregnancy.

The woman may visit in person or ph. the Canterbury Hospital Antenatal Clinic on 9787 0250 or 9878 0560 between 9am-3pm Monday to Friday.

_**Venue:**_ Antenatal Clinic, Level 2, Canterbury Hospital Entry via Tudor Street.

_Parking:_ A hospital car-park is available at a cost, enter via Thorncraft Pde, there is also limited on street parking.

**Antenatal Breastfeeding Classes:** _Free_

This one hour informal class covering:

- Benefits to you and your baby
- Normal baby behaviour
- Avoiding problems e.g. sore nipples, worry about your baby getting enough milk

_**When:**_ 4<sup>th</sup> Thursday each month

_**Where:**_ Group Room, Antenatal Clinic Canterbury Hospital

_**How to book:**_ The woman may visit in person or ph. the Canterbury Hospital Antenatal Clinic on ph.9787 0250 between 9am-3pm Monday to Friday.
### Women requiring additional supports

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</table>
Women requiring additional supports

All women are assessed for psychosocial risk factors at their ‘booking in’ visit at the antenatal clinic. Specific questions are asked around issues such as domestic violence, family supports, psychological history including anxiety and depression, drug and alcohol use, and general coping mechanisms.

Where issues are identified, women are referred, via a weekly intake meeting, to appropriate services such as social work, D&A, Young Parents, family support or Perinatal Mental Health services.

According to referral needs, women will be placed in one of three categories. These categories reflect the degree of risk they may have both antenatally and postnatally.

**HIGH RISK** : Women and families who have complex social histories and require additional care. i.e. drug and alcohol issues, history of or current domestic violence, psychiatric illness

**MODERATE RISK**: Women and families who require additional support. i.e. history of depression, PND, physical disabilities, history of neonatal death, multiple birth, young parents, cultural risks, CALD.

**LOW RISK**: Women in need of community supports. i.e. all clients

Perinatal and Family Drug Health Service (PAFDHS)

This service is available to all women with a substance use concern from preconception, during pregnancy to the postnatal period. It aims to provide support, education and information to women and their families so they can make informed choices about the pregnancy.

Woman can access the service directly without referral or may be referred by their GP, their drug health service, antenatal clinic, pharmacy or early childhood health centre.

**Referrals can be made in the following ways:**

- Written referral form (SLHD Mental Health Psychological Assessment Form page 125 to the antenatal clinic. Please mark “Attention: GP Liaison Midwife CNC”. Please ensure contact phone number for the client is documented and indicate if there are any problems with contacting this client. Fax number: 9515 7452
- Phone PAFDHS direct on 9515 7611 or 9515 8298 and leave a message if necessary.
- Urgent consultations/queries please page via RPAH switch ph. 9515 6111

**Who to refer:**

- Pregnant women with ongoing heroin use should be considered an urgent referral.
- Women who have ongoing use of other substances.
- Pregnant women on pharmacotherapy (Methadone or Buprenorphine).
- Women requiring assistance with smoking cessation should be referred to the Quit helpline ph. 13 78481 ( 13 QUIT) or Smoking Cessation Clinics ( see below)
- Women with exposure to drugs during early pregnancy may wish to access the service to discuss effects on fetal development even if drug use is not continuing. They can be referred to the clinic or to the Mothersafe information service ph. 9382 6539

Smoking Cessation Clinics

Drug Health Services offer one-to-one counselling support at RPAH (ph: 9515 7611, KGV building) and Croydon Community Health Centre (ph: 9378 1306). RPAH clinics are held on Wednesday afternoon (1-4pm) and Thursday afternoon (1-4pm). The Croydon clinic is open on a Monday from (9am-2.30pm)
Aboriginal Health

It has been widely documented and recognised that Aboriginal and Torres Strait Islander women have poorer perinatal outcomes compared to non-indigenous women. As birth outcomes influence the babies developmental outcomes, indigenous babies are suffering both long and short term. Currently Aboriginal women book into hospital much later in pregnancy, with one third of bookings occurring after 28 weeks.

A number of reports indicate that with the implementation of antenatal care specific to indigenous women it improves antenatal outcomes, attendance, screening and treatment. Evidence also suggests that Aboriginal women are more likely to attend a antenatal service when it has been specifically tailored to their needs and is culturally sensitive and culturally secure.

RPA Women and Babies : Aboriginal Liaison Midwife (ALM)

The role of the Aboriginal Liaison Midwife was introduced to look after the growing number of Indigenous women that reside within the local area. It aims to:

- facilitates a bridge between Aboriginal women, their families and health care professionals at RPA.
- works in partnership with Indigenous families to promote maternal and infant physical, emotional and social wellbeing throughout the pregnancy
- provides a link to postnatal services in the catchment area.

The ALM will care for any Aboriginal or Torres Strait Islander woman OR any woman who is currently pregnant with an Aboriginal or Torres Strait Islander baby. If the pregnancy is high risk, the ALM will still remain involved and continue with midwifery input along with the obstetric team.

The main roles and responsibilities of the Aboriginal Liaison Midwife are:

- ensure accessible antenatal, intrapartum and postnatal services are provided within a supported environment based on need of each individual indigenous family.
- support for women and their families throughout the pregnancy
- liaise with other team professionals as required
- advocate for the indigenous woman and family
- provide appropriate antenatal care tailored to the needs of the pregnancy
- education surrounding pregnancy, birth and the postnatal period
- promotion of breastfeeding and offer support and advice
- encourage regular antenatal attendance
- support staff to be culturally sensitive and culturally aware when dealing with Indigenous women

Referral options:

1. Contact the ALM directly to make appointments for 1st visit and further follow-up. Leave a message with patient details and contact will be made directly with the woman to arrange booking into the hospital (ph. 9515 6586) or via switch page #87292

2. Fax referral to ANC clinic : Attention ALM and contact with the woman will be made according to gestation.

3. Alternatively, send an email (Skye.parsons@sswhs.nsw.gov.au) with patient name, phone number and estimated due date and contact with the woman will be made to arrange a suitable time for her first visit.

Once a referral has been made, the ALM will make the 1st ANC visit, arrange any further diagnostic tests if required and continue to see the women throughout their pregnancy. All services and supports eg social work, drug health, psychiatry and postnatal services will be accessed for the women according to need.

Patient Information :

Growing Up Guring
Resource booklet for Aboriginal parents, families and community workers in the Inner West Sydney
**Postnatal:** link back to GP 2 and 6 weeks follow-up

**Weekly visits until 40 weeks**

1. **37 week visit and results**
   - Labour ward tour
   - Blood tests: rpt STI screen, FBC, ferritin, Antibody screen if Rh negative
   - GBS (low vaginal swab)
   - Ensure contraception discussed

2. **36 week visit**
3. **30 week visit and review tests results**
   - 1:1 Patient education session
4. **28 week visit and tests**
   - 1:1 Patient education session
5. **2nd visit: * VMO**
   - Booking Visit: Midwife with results
   - Monthly visits
   - Further links into community services as required

6. **Referrals if indicated to:**
   - Mental Health
   - D&A issues to PAFDHS Clinic

1. **Review all tests**
2. **Allied Professionals:**
   - Social Worker
   - Dietitian
3. **Referrals as indicated:**
   - AMS
   - Mental Health (if not already done)
4. **Parent Education**
5. **Suitability for ANSC**

**Tests:**
- Urine PCR, Chlamydia, Gonorrhoea, B12, Vit D, Ferritin, FBC, Blood Grp, Antibody screen, HbEPG (if not attended)

**Post dates induction booked (if required)**

**Postnatal**

**Booking Visit:**

**GP Contact**

Antenatal record card, investigations

**If GP ANSC:**

GP visits as per ANSC protocol

**YOUNG PARENTS CLINIC**

(Women < 21 years and/or vulnerable)
Domestic Violence

Antenatal care provides an opportunity to ask women about exposure to violence especially at home or in their family. Asking questions may assist women to disclose their experiences of violence to health professionals and enable access to additional support and care, including community, legal and police support service.

Explain to all women that asking about domestic violence is a routine part of antenatal care and enquire about each woman’s exposure to domestic violence.

Key considerations in discussing and responding to domestic violence

- Use direct or indirect questions or an assessment tool, depending on clinical experience and the perceived level of trust in the relationship
- Explain that the woman’s responses will be kept confidential
- Actively listen to what the woman tells you
- Do not blame or judge the woman or her partner
- Inform the woman that she is not alone, there are other women experiencing domestic violence
- Affirm that the woman has made an important step by discussing her experiences
- Reinforce that domestic violence is against the law and that the woman has a choice not to live with the violence
- Reinforce that the woman should not self-blame
- Affirm to the woman that the decision to discuss domestic violence is a major step to enhance her safety
- Assist the woman to assess her safety and that of children in her care
- Discuss options for safe temporary accommodation if needed and available (eg women’s refuge, safe house, family or friends, hospital)
- Encourage the woman to access specialist support services (eg woman’s health centre, social worker, counsellor, mental health service)
- Inform the woman of her legal right to protection and provide information on legal support services
- Inform the woman that disclosure of domestic violence may require further discussion and possible reporting in relation to child protection issues
- Be aware of available security supports that can be used to protect the woman and yourself if needed
- Report any incidents of violence according to organisational policy and jurisdictional legislation


Health professionals should be aware of resources for domestic violence services in their community that can be called for urgent assistance.

Further Information:

NSW
Domestic Violence Hotline : ph. 1800 656 463
Child Protection ph. 132 111  Mandatory reporting ph. 133 627

National Hotline
ph.1800 RESPECT 1800 7377328

White Ribbon : Stop violence against women
www.whiteribbon.org.au
Mental Health

Asking women about psychosocial factors

The aim is to identify psychosocial factors without detracting from the normal experiences of pregnancy and motherhood or highlighting the potential for depression and related disorders to occur in the perinatal period.

Before asking women about psychosocial factors, health professionals need to identify local options for referral if required. Women should be given an explanation of the purpose of the questions (eg identifying any need for psychosocial support) and asked for their permission.

Women need to feel safe during the assessment, so consideration should be given to the other people who may be present. While the presence of a woman’s partner or other family members may be appropriate, sensitivity is required about whether it is appropriate to continue with psychosocial assessment while they are in the room (eg if domestic violence is suspected).

Psychosocial Factors

Example questions to identify psychosocial factors

<table>
<thead>
<tr>
<th>Past or current mental health problems</th>
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</thead>
<tbody>
<tr>
<td>• Have you ever had a period of 2 weeks or more when you felt particularly low or down?</td>
</tr>
<tr>
<td>• Do you sometimes worry so much that it affects your day-to-day life?</td>
</tr>
<tr>
<td>• Have you ever needed treatment for a mental health disorder such as depression, anxiety disorder, bipolar disorder or psychosis?</td>
</tr>
<tr>
<td>• Has anyone in your immediate family (eg grandparents, parents, siblings) experienced severe mental health problems?</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Previous or current abuse</th>
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<tbody>
<tr>
<td>• When you were growing up, did you always feel cared for and protected?</td>
</tr>
<tr>
<td>• If you currently have a partner, do you feel safe in this relationship?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drugs and alcohol</th>
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</thead>
<tbody>
<tr>
<td>• Do you or others think that you (or your partner) may have a problem with drugs or alcohol?</td>
</tr>
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<tr>
<th>Recent life stressors</th>
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<tbody>
<tr>
<td>• Have you had any major stressors, changes or losses in the last 12 months (eg moving house, financial worries, relationship problems, loss of someone close to you, illness, pregnancy loss, problems conceiving)?</td>
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<tr>
<th>Practical and emotional support</th>
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<tbody>
<tr>
<td>• When you were growing up, was your mother emotionally supportive of you?</td>
</tr>
<tr>
<td>• If you found yourself struggling, what practical support would you have available? Who could help provide that?</td>
</tr>
<tr>
<td>• If you found yourself struggling, what emotional support would you have available? Who could help provide that?</td>
</tr>
</tbody>
</table>

Women should be asked about psychosocial factors again 6–12 weeks after the birth

Depression and anxiety

Detecting symptoms of depression and anxiety during pregnancy relies on clinical judgement and experience. Use of the Edinburgh Postnatal Depression Scale (EPDS) complements this process. The aim is not to form a diagnosis, but to identify women who may benefit from further follow-up.

The 10-question Edinburgh Postnatal Depression Scale (EPDS) is a valuable effective screening tool and efficient way of identifying patients at risk for perinatal depression. It has been validated for use both in pregnancy and in the postnatal period to assess for possible depression and anxiety.

**Edinburgh Postnatal Depression Scale** \(^1\) (EPDS)

Mothers who score above 13 are likely to be suffering from a depressive illness of varying severity. The EPDS score should not override clinical judgment. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother has felt *during the previous week*. In doubtful cases it may be useful to repeat the tool after 2 weeks. The scale will not detect mothers with anxiety neuroses, phobias or personality disorders.

**SCORING ON EPDS**

**QUESTIONS 1, 2, and 4 (without an *)**  
Are scored 0, 1, 2 or 3 with top box scored as 0 and the bottom box scored as 3.

**QUESTIONS 3, 5 and 10 (marked with an *)**  
Are reverse scored, with the top box scored as a 3 and the bottom box scored as 0.

- Maximum score: 30  
- Possible Depression: 10 or greater  
- Always look at item 10 (suicidal thoughts)

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**Instructions for using the Edinburgh Postnatal Depression Scale:**

1. The mother is asked to check the response that comes closest to how she has been feeling in the previous 7 days.

2. All the items must be completed.

3. Care should be taken to avoid the possibility of the mother discussing her answers with others. (Answers come from the mother or pregnant woman.)

4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.

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Psychosocial assessment: Edinburgh Postnatal Depression Scale\textsuperscript{1} (EPDS)

Name: ____________________________  Your D.O.B. ____________________________

Baby’s D.O.B. ____________________________

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today.

Here is an example, already completed:

I have felt happy:

- Yes, all the time
- Yes, most of the time
- No, not very often
- No, not at all

This would mean: “I have felt happy most of the time during the past week. Please complete the other questions in the same way.

In the past 7 days:

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

2. I have looked forward with enjoyment to things
   - As much as I ever did
   - Rather less than I used to
   - Definitely less than I used to
   - Hardly at all

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

4. I have been anxious or worried for no good reason
   - No, not at all
   - Hardly ever
   - Yes, sometimes
   - Yes, very often

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

6. Things have been getting on top of me
   - Yes, most of the time I haven't been able to cope at all
   - Yes, sometimes I haven't been able to cope as well as usual
   - No, most of the time I have coped quite well
   - No, I have been coping as well as ever

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

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

9. I have been so unhappy that I have been crying
   - Yes, most of the time
   - Yes, quite often
   - Not very often
   - No, never

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

Administered/Reviewed by ____________________________ Date ______________________________


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Perinatal Mental Health Referral Options

ATAPS : Access to Allied Psychological Services - Perinatal Depression Stream

What is ATAPS?
The ATAPS Project is a component of the Better Outcomes in Mental Health Care Initiative (BOiMH) funded by the Australian Government Department of Health (DoHA) and managed locally by Inner West Sydney Medicare Local (IWSML).

ATAPS aims to improve prevention and early detection of antenatal and postnatal depression, and to provide better care, support and treatment for expectant and new mothers experiencing depression. Funding is being provided for ATAPS under the National Perinatal Depression Initiative (NPDI)

- GP undertakes ATAPS induction session with IWSML ATAPS Project Officer.
- GP develops a client GP Mental Health Treatment Plan.
- GP referral for client to attend six (6) counselling sessions, with the option for a further six (after GP review) with allied mental health providers who have experience in treating Perinatal Depression. Patients should be known to them (existing or ongoing relationship for at least the last six months)
- Free to clients who may be socioeconomically disadvantaged and would benefit from focussed psychological strategies, with access to these services.

For further information contact IWSML ATAPS Project Officer on ph. 9799 0933  www.iwsml.org.au

| Sydney Local Health District | RPAH Clinical Nurse Consultant Perinatal Mental Health Team  
|----------------------------|------------------------------------------------------------------|
| Perinatal Mental Health Team | ph.9515 5873  
| Consultation  
| Assessment of antenatal and postnatal mood disturbance  
| Referral and liaison  
| Canterbury Hospital Perinatal Mental Health CNC  
| ph. 9787 0000 and page # 82062  
| Social Work Department | RPA Women and Babies Ambulatory Care Social Worker  
| Antenatal service  
| Counselling support and support groups  
| Referrals  
| Advocacy  
| Practical assistance and education  
| Canterbury Hospital Social work  
| ph.9787 0121  
| External Service Providers |  
| Tresillian | Head Office  
| Assessment  
| Day stay  
| Outreach services  
| Residential  
| Mental health nurses and psychiatrist  
| McKenzie Street  
| BELMORE NSW 2192  
| ph.9787 0800  
| If FACS are involved and Case Manager appointed, please contact Centralised Intake staff on 02 4734 4400 prior to completing referral form.  
| Referral Form : www.tresillian.net  
| 24 Hour Parent Helpline:  
| ph. 9787 0855 or ph. 1800 637 357  

IWSML ANSC GP Resource Manual v 7  
Once printed, this document is no longer controlled  
February 2014
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<tr>
<th><strong>Parent-Infant Unit, St Benedict</strong></th>
<th><strong>St John of God Private Hospital</strong></th>
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</thead>
<tbody>
<tr>
<td>Private psychiatric hospital</td>
<td>13 Grantham Street</td>
</tr>
<tr>
<td>Services include:</td>
<td>BURWOOD NSW 2134</td>
</tr>
<tr>
<td>• Inpatient mother and baby unit</td>
<td>For inpatient care ph. 9715 9200</td>
</tr>
<tr>
<td>• Individual and group therapy</td>
<td>For outpatient care ph. 9715 9215.</td>
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<tr>
<td>• Support groups</td>
<td></td>
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<tr>
<td>• After care program</td>
<td></td>
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<tr>
<td>Referral is required to a St John of God accredited psychiatrist for both inpatient and outpatient treatment.</td>
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<tr>
<td><strong>Private health insurance necessary</strong></td>
<td>Inpatient and outpatient treatment depending on the level of individual cover.</td>
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<tr>
<th><strong>Jade House</strong></th>
<th><strong>Karitane</strong></th>
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<tr>
<td>Parent Baby Day Unit</td>
<td>Cnr The Horsley Drive and Mitchell Street</td>
</tr>
<tr>
<td><strong>Monday - Friday 8.30am - 5pm</strong></td>
<td>CARRAMAR 2163</td>
</tr>
<tr>
<td>Specialised day unit for women who have a diagnosis of or are at risk of developing a perinatal mood or anxiety disorder and are pregnant or have a baby up to 12 months.</td>
<td>ph. 9794 2324</td>
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<tr>
<td>Services include:</td>
<td><strong>No crisis referrals accepted</strong></td>
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<tr>
<td>• Individual and couple supportive therapy</td>
<td>Parent helpline (7 days)</td>
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<td>• Sessional psychiatric services</td>
<td>1300 CARING - 1300 227 464</td>
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<tr>
<td>• Parentcraft and child development</td>
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<tr>
<td>• Mother, Infant Therapy Groups</td>
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<td>• Postnatal Issues Group</td>
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<th><strong>Mental Health Access Line</strong></th>
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<td>Referral to mental health agencies, including local community mental health centres. 24 hours.</td>
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<td><strong>Beyond blue</strong></td>
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<tr>
<td></td>
<td>Information and resources on perinatal depression including guides for women of ATSI and CALD backgrounds</td>
</tr>
<tr>
<td></td>
<td><strong>Panda Foundation</strong></td>
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<tr>
<td></td>
<td><a href="http://www.panda.org.au">www.panda.org.au</a></td>
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<tr>
<td></td>
<td>Post and antenatal Depression Association</td>
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<tr>
<td></td>
<td>Raising awareness of perinatal anxiety and depression</td>
</tr>
<tr>
<td></td>
<td>Information Helpline: 1300 726306 Mon- Fri 9-7pm</td>
</tr>
<tr>
<td></td>
<td><strong>Gidget Foundation</strong></td>
</tr>
<tr>
<td></td>
<td>Raising awareness of perinatal anxiety and depression</td>
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<td></td>
<td>Information Helpline: 1300 726306 Mon- Fri 9-7pm</td>
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<tr>
<td></td>
<td><strong>Pregnancy birth and baby Helpline</strong></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.pregnancybirthbaby.org.au">www.pregnancybirthbaby.org.au</a></td>
</tr>
<tr>
<td></td>
<td>Support for women, partners and families</td>
</tr>
<tr>
<td></td>
<td>Information helpline: ph. 1800 882 436</td>
</tr>
</tbody>
</table>
RPA Women and Babies Perinatal Mental Health Referral Flowchart

From Antenatal Clinic and Birth Centre:
- Women who have a history of psychosis
- Women who have ceased psychotropic medication due to pregnancy or lactation
- Women who are depressed, anxious or have any other mental illness/issue

Refer via perinatal intake form and meeting

From GP’s:
- Women who the GP would like to discuss with the team re management or request for consults

Referral form page 125. Fax referral 9515 7452: Attention Perinatal Mental Health team.

To ensure that referral is received, please phone either Perinatal Mental Health on ph. 9515 5873 or GP Liaison Midwife on ph. 0425 230 662 to inform that referral has been faxed.

PERINATAL MENTAL HEALTH TEAM:
- Perinatal Psychiatrist
- Clinical Nurse Consultant – Perinatal Mental Health
- Consultation Liaison Psychiatry Registrar

Referrals taken from antenatal booking visit → to early postnatal period

Outpatient medical referrals:
- Women who the consultant would like to discuss with the consultant psychiatrist

Refer direct to perinatal psychiatrist by using consult form (send to Department of Psychiatry via internal mail) or page via RPA switch – ph. 9515 6111

From wards – antenatal, postnatal, DW:
- Women who are depressed, anxious, psychotic, at risk of PND, not coping
- Midwifery referrals direct to CNC – pg # 85645 or # 55873
- Medical referrals – via O&G team – consult to psychiatry. Page on call Consultation Liaison Psychiatry Registrar via RPA switch. – ph. 9515 6111

ECHC, MDSP, NICU, Paediatric ward:
- Women known to team – please discuss directly with clinician
- Women unknown to team, consider:
  - GP
  - Local Mental health team – 1800 636825
  - Perinatal Mental Health team

Canterbury Hospital

From GP’s:
- For women whom a GP would like to discuss with the team regarding management or request for consult

Write a ‘referral’ letter Attention: Perinatal Mental Health Team
Contact ANC ph. 9787 0250 or ph. 9787 0560 for appointment with Mental Health Team.
If women already “booked in” – page Hospital Perinatal Mental Health via switch ph. 9787 0000 to discuss
If crisis – ring Hospital and asking to be put through to the hospital crisis team.
Labour and Birth

The care of the woman during labour and birth is the responsibility of the maternity team at either RPA Women and Babies or Canterbury Hospital.

Overdue Pregnancies

Following the 40 week GP visit advise patients to contact the clinic for their post dates appointment.

Women need to be seen at **41 weeks +1 day** in the Registrars “Post Dates” clinic. Should this date fall on a weekend the women must be seen in the previous Thursday afternoon clinic.

Should they go into labour there is no need to call and cancel the clinic appointment.

Along with routine assessment an internal (P.V.) examination will be attended.

A management plan for induction of labour will be determined based on the findings. These will be fully discussed with the woman. Instructions, information and a planned date for their hospital admission will be given.

External Cephalic Version ( ECV)

Breech presentation is common in premature pregnancies. The table below outlines the incidence of breech presentations and gestational age

<table>
<thead>
<tr>
<th>Gestation (weeks)</th>
<th>% Breech</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-24</td>
<td>33%</td>
</tr>
<tr>
<td>25-28</td>
<td>28%</td>
</tr>
<tr>
<td>29-32</td>
<td>14%</td>
</tr>
<tr>
<td>33-36</td>
<td>9%</td>
</tr>
<tr>
<td>37-40</td>
<td>3%</td>
</tr>
</tbody>
</table>

Therefore the vast majority will turn spontaneously and require no intervention. Women should be reassured that a breech presentation during the early phases of pregnancy can be a normal finding and that no action need to be taken until at least 36-37 weeks. Breech presentation presents a problem when labour is pre-term, or when premature rupture of membranes occurs.

Consider referring all women >37 weeks with breech presentation where there is no other indication for caesarean section. Undertaken after 37 weeks, there is a reduced likelihood that the baby will revert spontaneously back to breech.

**Patient Information Brochure :**

*Information sheet for women having an External Cephalic Version*


*Your Breech Baby : Information for parents*

Towards Normal Birth

In response to concerns about the increasing caesarean operation rate and wider concerns about increasing interventions in birth and the associated cumulative maternal morbidities. NSW Health developed a future policy direction for childbirth in NSW “Towards Normal Birth in NSW” (2010). This policy provides direction to NSW maternity services regarding actions to:

- Increase the vaginal birth rate in NSW
- Decrease the caesarean section operation rate
- To develop, implement and evaluate strategies to support women
- To ensure that midwives and doctors have the knowledge and skills necessary to implement this policy

Primarily the directive aims to:
1. Promote birth as a natural event
2. Minimize fear and provide support
3. Provide consistent and balanced information from all caregivers to women
4. Develop and provide continuity of care for woman.


Birth After Caesarean (BAC) Clinic

One of the 10 steps to providing woman centred labour and birth care:
“Provide or facilitate access to vaginal birth after caesarean section operation (VBAC) that is supported by a written vaginal birth after caesarean section operation policy/guideline and health care staff with the skills necessary to implement this policy/guideline”

To facilitate access to Vaginal Birth After Caesarean

The 4 key measures:
- To increase the percentage of woman receiving VBAC advice before the 16th week of pregnancy to 75% by 2015.
- To increase the percentage of woman who have VBAC to 60% by 2015.
- Maternity services undertake an annual audit re VBAC.
- All maternity clinicians are informed of statistics re VBAC.


Women who have had a caesarean section (CS) at RPA Women and Babies or Canterbury Hospital will receive a discharge letter outlining information about their recent caesarean section. A copy of the letter is sent to the GP and also kept in the woman’s medical record.

The letter provides a statement about the implications of the caesarean section specifically for this woman’s next pregnancy. The contents of this letter are discussed with the woman prior to her discharge.


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Birth After Caesarean (BAC) Clinics

RPA Women and Babies:
When: Thursday pm
Appointment: ph. 95157101

Women are encouraged to be referred to the hospital before 12 weeks in a subsequent pregnancy to discuss birth options. Consultations can be arranged prior to hospital booking visit to discuss the woman’s pregnancy plan.

Canterbury Hospital:
When: Thursdays (8.00-4.00pm) and Friday mornings (8.00-12.00pm)
Appointments: ph: 9787 0250 or 9787 0560  BAC Midwife: ph: 9787 0183

Women are encouraged to be referred to the hospital before 16 weeks in a subsequent pregnancy to discuss birth options.

Education classes for women who have had one previous caesarean.
When: These classes are held fortnightly on Monday afternoon 12.30 - 2.30pm.

There are two sessions proposed:
- Early pregnancy information classes ideally for attendance prior to 16 weeks of pregnancy and regardless of the woman’s thoughts about their next birth.
- Preparation for labour classes for attendance around 36 weeks of pregnancy.

Patient Information Brochures:
- Have you had a Caesarean before? Birth After Caesarean Clinic: Canterbury Hospital
- Information sheet for women who have had a previous caesarean section: RPA

Discharge - RPA Women and Babies

RPA Women and Babies have introduced formalised times of discharge related to the age of the newborn and depending on the well-being and health of the mother and baby.

- First time mothers who have given birth vaginally will be discharged at 72 hours of age of newborn.
- Multiparous women who have given birth vaginally will be discharged at 48 hours of age of baby.
- Women who have had a caesarean section will be discharged at 96 hours of age of newborn.

Women can still opt for the use of the Midwifery Discharge Support Program (MDSP) but need to make the decision early.

On discharge, a woman will receive a copy of her discharge summary and her baby's blue book completed as required. No discharge summary will be generated for normal newborns but relevant discharge information will be written in the baby's blue book.

For the following newborns, the postnatal ward resident or NNP will generate and print the discharge summary on the postnatal ward for:
- All babies who had a confirmed significant abnormality that needed review by the neonatal consultant.
- All babies who required referral to another service
- Other babies as determined by the neonatologist covering the postnatal wards.
All babies who have been admitted to the nursery, and are discharged back to the postnatal ward, will have a summary generated and printed in the nursery prior to their return to the postnatal ward for inclusion with the final discharge paperwork

**Patient Information Brochure :**
*When do I go home after baby is born*  
“Patient Information” tab

**Discharge – Canterbury Hospital**

Canterbury Hospital times of discharge are related to days post delivery and depending on the well-being and health of the mother and baby. Discharge time is 10.00am.

- First time mothers who have given birth vaginally - 3 days
- Multiparous women who have given birth vaginally - 2 days.
- Women who have had a caesarean section - 4 days
## Postnatal Information

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<th>Page</th>
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<td>Child and Family Health</td>
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<td>Other services</td>
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</tbody>
</table>
Postnatal Information

Immediate postpartum care occurs within the hospital setting or with the support of midwives over the following week. With increasing reductions in the length of stay, some GPs can be presented with early postpartum care issues. These may occur in the first postpartum week or later. Urgent hospital referrals include postpartum haemorrhage, genital tract sepsis, eclampsia, and thromboembolism.

Studies have shown that readmission rates following birth are around 4% but this will depend on the nature of the birth with rates being higher for caesarean section. The main problems are vaginal bleeding, perineal wound breakdown and caesarean section wound breakdown.

Maternal : Six week post partum checklist

Physical:
- Check blood pressure
- Assess involution of uterus by palpation
- Check any suturing or LSCS wound (if necessary) adherence, discharge or signs of infection
- Perineum examination and care- healing process; exclude infection, hygiene, ice pack, pain relief
- Vaginal digital assessment of pelvic floor muscles. Encourage pelvic floor exercises. If symptoms do not resolve, refer to Pelvic Floor Clinic: Appointments ph 9515 7101
- Check bladder and bowel function: urinary or faecal assess severity, duration and frequency of symptoms.
- Breasts – lumps, engorgement, mastitis
- Nipples – cracks, grazes
- Pap Smear if due
- Note LMP
- Check immunisation status
- Follow-up pregnancy complications ie
  - Gestational Diabetes – refer for postnatal 75gm GTT at 2-3 months postpartum
  - hypertension

Discuss:
- Enquire about general health
- Birth and any complications
- Family relationship and parenting issues
- Maternal sleeping / diet / exhaustion
- Assess maternal psychological wellbeing and coping with life changes (EPDS) -check support networks
- Contraception
- Intercourse - Resumed, Dyspareunia – discuss feelings, concerns
- Infant feeding- Breast, Formula, Mixed
- Returning to work arrangements
- ECH Community services

Referrals to other services
- Lactation Consultants page 103
- Early Childhood Health Services
- Tresillian / Karitane Mothercraft Centres
- Social Work - Early Childhood Centres
- Perinatal Mental Health Team
- Nursing Mothers Association
- Community Support Services
- Physiotherapy

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Infant Feeding Guidelines

The National Health Medical Research Centre Infant Feeding Guidelines are aimed at health workers to assist in providing consistent advice to the general public about breastfeeding and infant feeding.

The guidelines were prepared by experts in paediatric nutrition, nutrition research, nutrition communication, public health and primary health. They provide advice and recommendations on breastfeeding, supporting mothers and parents, the introduction of solids, preparing infant formula and other common health related concerns.

The Infant Feeding Guidelines are relevant to healthy, term infants of normal birth weight (>2500g). Although many of the principles of infant feeding described here can be applied to low birth weight infants, specific medical advice is recommended for pre-term and underweight infants.

Further Information:

NHMRC 2013 Infant Feeding Guidelines : Summary ( PDF 1MB)

2013 Infant Feeding Guidelines: Information for Health Professionals (PDF 1.4MB)

Breastfeeding Support Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Lactation Consultants</td>
<td>International Certified Lactation Consultants Association of Australia and New Zealand (LCANZ) <a href="http://www.lcanz.org">www.lcanz.org</a> Click find a Lactation Consultant</td>
</tr>
<tr>
<td>Lactation Consultant – for women that delivered at RPAH Women and Babies</td>
<td>ph. 9515 8422 or page through Switch ph. 95156111</td>
</tr>
<tr>
<td>Lactation Consultant – for women that delivered at Canterbury Hospital</td>
<td>ph. 9787 0000 and page through Switch ph. 9787 0000</td>
</tr>
<tr>
<td>Australian Breastfeeding Association (ABA)</td>
<td>Helpline: 1800 mum 2 mum – ph. 1800 686 268 <a href="http://www.breastfeeding.asn.au">www.breastfeeding.asn.au</a></td>
</tr>
<tr>
<td>Voluntary breastfeeding counsellors who have completed an intensive training program. If the situation requires medical support the women will be directed to a health professional.</td>
<td>Email counselling: <a href="http://www.breastfeeding.asn.au/services/counselling">www.breastfeeding.asn.au/services/counselling</a> Facebook: facebook.com/ozbreastfeeding</td>
</tr>
<tr>
<td>Sydney Inner Metropolitan ABA</td>
<td><a href="http://www.innermetroaba.com.au">www.innermetroaba.com.au</a></td>
</tr>
<tr>
<td>Tresillian : 24 hour Parents help line</td>
<td>ph. 9787 0855</td>
</tr>
<tr>
<td>Karitane : 7day Careline</td>
<td>1300 CARING – ph. 1300 227 464</td>
</tr>
<tr>
<td>Pregnancy Birth &amp; Baby Helpline : Questions about getting pregnant, being pregnant or the first 12 months of parenting</td>
<td>ph. 1800 882 436 <a href="http://www.healthdirect.org.au/pbb">www.healthdirect.org.au/pbb</a></td>
</tr>
<tr>
<td>Mothersafe : Counselling service for women and healthcare providers concerned about exposures and medications during pregnancy and lactation</td>
<td>ph. 9382 6539 <a href="http://www.mothersafe.org.au">www.mothersafe.org.au</a></td>
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</tbody>
</table>
### Breast feeding


## Painful Nipples

<table>
<thead>
<tr>
<th>Needs and/or Problems</th>
<th>Action</th>
<th>Rationale</th>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Painful nipples</strong></td>
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</tbody>
</table>
| No obvious damage     | • Ensure correct positioning and attachment  
                         • Reassure mother that her nipples will not be damaged if her baby attaches well. Some nipple tenderness may be experienced in first days post partum.  
                         • Encourage to detach or reattach if pain persists into feed  
                         • Encourage to seek further assistance if pain increases | • A well attached baby is unlikely to cause nipple damage  
                         • Hormonal changes may cause tenderness  
                         • If pain persists nipple damage will increase | Easy attachment and pain free breastfeeding. Healthy nipples and mother proficient at attaching baby herself |
| **Damaged nipples**   |        |           |                 |
| Grazes, fissures or bleeding | • Attain history and examine nipples  
                         • Observe breastfeed and ensure optimal attachment  
                         • If breasts are full, may need to hand express to soften the areola prior to latching | • Enables easier attachment | Mother is able to latch and feed the baby comfortably |
| **Pain persists**      | If pain persists discuss the following options:  
                         • Continuing to feed  
                         • Resting and expressing for up to 48 hours (1 or 2 feeds may be all that is necessary) then assist with feed. Alleviate the underlying cause of nipple damage by improved latching technique  
                         • Offer symptomatic relief if required e.g. paracetamol and apply breastmilk post feed  
                         • If pain experienced detach and reattach  
                         • If using breast pads, change regularly (may need to express prior to removal to avoid sticking and further damage)  
                         • Ointment and creams should not be applied  
                         • Avoid soap on nipples  
                         • Alternate position depending on area of damage e.g. Madonna, twin fashion | Mother is able to make an informed choice  
                         • To prevent further trauma which may lead to early weaning  
                         • To relieve the pain so that mother can tolerate attempting to attach baby correctly  
                         • To assist restoration of skin integrity and protect against infection  
                         • There is no evidence to support the use of ointments, sprays or creams to prevent or treat nipple soreness  
                         • Washes away normal secretions and may have a drying effect  
                         • To prevent further damage and make attachment more comfortable | A healed graze  
                         No further trauma  
                         A positive breastfeeding relationship |
**Mastitis**

<table>
<thead>
<tr>
<th>Needs and/or Problems</th>
<th>Action</th>
<th>Rationale</th>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Symptoms</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>• Fever &gt;38°C</td>
<td>If there is no nipple damage, encourage continued breastfeeding with good positioning and attachment – refer mother for further input with this if necessary. (It is important that the whole feed is observed). Antibiotics may be required depending on severity of symptoms.</td>
<td>If the milk is not removed at the rate it is being produced, there is a rise in pressure in the alveoli and this forces milk into the surrounding tissue.</td>
<td>Symptoms resolve without further treatment</td>
</tr>
<tr>
<td>• Flu-like joint aches and pains</td>
<td>If nipples are cracked antibiotics should be commenced and breastfeeding or regular expressing continued.</td>
<td>When the nipple is cracked, organisms pass through the protective barrier of the skin and infective mastitis is more likely.</td>
<td>Noticeable improvement within 48 hours. Redness subsided, breast soft and comfortable post feed or if expressing. No extension of nipple damage.</td>
</tr>
<tr>
<td>• Chills or rigors</td>
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</tr>
<tr>
<td>• Red, tender hot area on breast</td>
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<tr>
<td><strong>Baby/pump not draining breast adequately</strong></td>
<td>Moist heat prior to feed (if baby &gt;10 days). • Rotate breasts normally, but ensure that the affected side is well drained. If baby does not go the 2nd breast, mother may need to express for comfort only. • Aim chin towards area of blockage very gentle massage over affected area during the feed. • Paracetamol as required and cold packs. • Discuss nutritious diet, extra fluids and bed rest. • Avoid restrictive clothing.</td>
<td>Should promote letdown and aid milk flow. The area of the breast adjacent to the baby’s jaw will always be the best drained area. Mother may experience pain.</td>
<td>Baby is able to latch and suck well. A noticeable improvement after several feeds.</td>
</tr>
<tr>
<td><strong>Requiring Antibiotics</strong></td>
<td><strong>Flucloxacillin, Cephalexin or Erythromycin</strong> 500mg four times a day for 10-14 days is the current recommendation. Discuss potential side effects. Provide patient with Authority script.</td>
<td>A broad spectrum antibiotic is needed to work on gram positive organisms.</td>
<td>Noticeable improvement within 48 hours. Redness subsided, breast soft and comfortable post feed or if expressing.</td>
</tr>
</tbody>
</table>

*NB Heat is not recommended in the first 10 days as it tends to increase venous engorgement. The effectiveness of therapeutic U/S in the treatment of mastitis is not recommended.*
## Breast Abscess

<table>
<thead>
<tr>
<th>Needs and/or Problems</th>
<th>Action</th>
<th>Rationale</th>
<th>Desired Outcome</th>
</tr>
</thead>
</table>
| **Suspected Breast Abscess** ie. a localised collection of pus encapsulated in the breast tissue. Usually associated with a recent episode of mastitis. | • Commence or recommence appropriate antibiotics  
• Diagnostic ultrasound  
• Refer mother to breast surgeon | • Arrests the progress of the abscess  
• To confirm presence of abscess (Differential diagnosis may be a galactocele) | Correct diagnosis is made |
| **Confirmed Abscess** | • Needle aspiration under ultrasound guidance (usually requires multiple repeats)  
• Mother should remain on an appropriate antibiotic cover | • Good option if abscess is small  
• Can be done on an outpatient basis and does not require a general anaesthetic  
• There is an ongoing risk of infection during aspiration procedure | Mother is able to make an informed choice about method of management |
| | • Surgical incision and drainage requires hospitalisation x 1 day and a general anaesthetic  
• Antibiotics cease once drained then a daily saline wick dressing to allow granulated healing  
• Allow milk to leak from wound during feed. Admission with baby | • May be dependent on size of abscess, availability of options at time of presentation and mother’s choice  
• Risk of infection lessens once abscess is drained and slow wound healing avoids formation of milk fistula  
• Wound remains sterile  
• Continued breastfeeding is supported | Abscess is drained adequately, infection is prevented and breastfeeding continues  
Mother and baby are not separated |
<p>| Mother requires lactation support | • Appropriate referral and assessment of any feeding | • Mother will have improved outcome if breastfeeding continues | Wound heals well with no interruption to breastfeeding |
| Mother thinking of weaning | • Discuss option of weaning from effected breast only ie winding down expressing | • Mother is able to feed from unaffected breast | Wound heals well, breastfeeding continues on one breast |
| Mother elects to fully wean before or during treatment | • Should be prescribed medication for suppression of lactation e.g. Cabergoline (Dostinex®) and no expressing | • Continued milk secretion without milk removal or medication will increase risk of complications | Wound heals well. Mother weans without complication |</p>
<table>
<thead>
<tr>
<th>Needs and/or Problems</th>
<th>Action</th>
<th>Rationale</th>
<th>Desired Outcome</th>
</tr>
</thead>
</table>
| **Low supply suspected** due to any combination of the following:  
- Limited nutritive sucking when breastfeeding observed  
- Unsatisfied baby post feed  
- Minimal wet nappies  
Poor weight gain. See on-going monitoring of progress | **Maternal Considerations**  
- Mother on medication  
- Mother feeding to schedule (rather than need)  
- Limiting time at the breast  
- Unrelieved engorgement  
- Only offering one breast per feed  
- Inappropriate formula supplementation  
- Early introduction of solids  
- Inadequate diet/fluids  
- Inadequate rest  
- Over exercise  
- Overuse of alcohol  
- Overuse of caffeine or nicotine | May all impede on mothers ability to produce sufficient milk |  |
| **Baby Considerations**  
- Poor latch  
- Overuse of dummy  
- Baby extending periods of sleep overnight  
- Oromotor dysfunction | | | |
| **Other contributing factors:**  
- Breast Hypoplasia  
- Breast surgery  
- Retained products  
- Post partum haemorrhage  
- Anaemia  
- Endocrine problems e.g. diabetes  
- Mother/baby separation | | | |

Decrease in stimulation to the breast and inadequate removal of milk will decrease supply

Prevents Prolactin levels from rising
May cause a 15-20 hour delay in Lactogenesis II
Expressing is not as stimulating as the baby feeding
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Actions</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low supply suspected cont...</td>
<td>Observation (or refer for) of a breastfeeding event: Feed more frequently and encourage finishing the first breast and always offering the second breast. Encourage mother to express both breasts for 5-10 minutes after each feed either by hand, manual pump or electric pump. Double pumping could be encouraged. Encourage skin-to-skin contact.</td>
<td>Limited nutritive sucking when baby is latched well is a reliable indicator for low supply. More frequent and proper feeds will increase stimulation of the breast. Will increase stimulation of the breast and any extra EBM may be offered to baby. Increases baby's natural instinct to breastfeed.</td>
</tr>
<tr>
<td>Low supply identified</td>
<td>- Resume overnight feeding</td>
<td>Underlying problem is identified</td>
</tr>
<tr>
<td></td>
<td>- Cease unnecessary solids/formula</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ensure mother has a good diet</td>
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<td>- Discuss with mother her ability to get adequate rest</td>
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<td></td>
<td>- Check that mother has a good support network</td>
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<td></td>
<td>- Lower caffeine/alcohol/nicotine intake</td>
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<td></td>
<td>- Consider option of supply line use</td>
<td></td>
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<td></td>
<td>- More stimulation to breast</td>
<td></td>
</tr>
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<td></td>
<td>- Exclusive breastfeeding may increase supply</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- A good basic diet is essential</td>
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</tr>
<tr>
<td></td>
<td>- Fatigue contributes to inadequate milk supply.</td>
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</tr>
<tr>
<td></td>
<td>- A nursing mother needs support and someone to care for her</td>
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</tr>
<tr>
<td></td>
<td>- Let-down response enhanced</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Baby will provide better stimulation</td>
<td></td>
</tr>
<tr>
<td>No improvement in supply with above management</td>
<td>Discuss use of galactagogues with mother. Prescription drugs</td>
<td>A more settled baby who is gaining weight and has an adequate urinary output. More relaxed mother with a better milk supply.</td>
</tr>
<tr>
<td></td>
<td>- Domperidone (Motilium®) These drugs have not been approved by the manufacturer's for this use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Herbal (mother’s choice)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Acupuncture (mother’s choice)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Investigate for Sheehan’s syndrome (rare)</td>
<td>Should be a noticeable difference 3-5 days into the course</td>
</tr>
<tr>
<td></td>
<td>Severe PPH may cause infarction of the pituitary gland</td>
<td></td>
</tr>
<tr>
<td>Baby requires complementary feeds</td>
<td>If complementary feeds are temporarily necessary.</td>
<td>Supply increases and complementary feed is kept to a minimum</td>
</tr>
<tr>
<td></td>
<td>Extra stimulation to the breast will help increase supply and keep baby near breast</td>
<td></td>
</tr>
</tbody>
</table>
### Oversupply of Breastmilk

<table>
<thead>
<tr>
<th>Needs and/or Problems</th>
<th>Action</th>
<th>Rationale</th>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maternal symptoms:</strong> • Breast not draining adequately • Breast remaining hard/lumpy post feed • Mastitis</td>
<td><strong>If baby under 4 weeks</strong> • May need to express some milk prior to latching baby if breast very full • Optimise positioning and attachment • Encourage baby to finish the first breast prior to being offered the second breast • Aim for minimum three hours from commencement of one feed to the next • Gentle handling post feed • Discuss settling techniques with parents and reassure them that supply should settle over a few weeks</td>
<td>• Initiation of breastfeeding reliant on endocrine factors as well as milk removal • Should ensure good breast drainage • This management strategy resulted in partial or complete resolution of problems in 79% of babies • Should help to reduce supply and encourage a longer feed • Minimise possetting • Parents are more aware of how to pacify baby</td>
<td>• Breasts drain well and are lump free post feed • Settles spontaneously • Supply settles</td>
</tr>
<tr>
<td><strong>Baby symptoms</strong> • Gulping or having difficulty coping with milk flow • Short, frequent feeds • Frequent loose stools • Possetting/vomiting after feeds • Extremely unsettled</td>
<td><strong>If baby over 4 weeks</strong> Avoid extra expressing As above plus: • Feed baby in an upright or straddle position • Do not force feed • If baby detaches when letdown occurs allow milk flow to settle before re-offering</td>
<td>• Breasts more reliant on removal of milk (autocrine control). Extra expressing more likely to increase supply • Baby should manage fast flow a little better</td>
<td>• Symptoms resolving • Parents are able to effectively manage situation • Baby’s symptoms resolve and milk supply settles</td>
</tr>
</tbody>
</table>
Increasing your breastmilk supply

Production of breastmilk relies on the regular and effective removal of milk from your breasts.

This is best achieved by feeding your baby to his or her need. It is also important for your baby to be well positioned at your breast and attached correctly so you are comfortable when your baby sucks. Your baby’s suck should be slow and rhythmical with deep jaw movements and you may see swallowing. They have at least 6 – 10 breastfeeds in a 24 hour period.

If concerned about your supply, talk to a health professional such as your Early Child Health Nurse, Lactation Consultant or Australian Breastfeeding Association counsellor.

What you can do to increase your breastmilk supply

- Increase how often you feed your baby or express your breasts including during the night.
- Ensure you finish one side first (it should feel soft all over) then always offer the second.
- Do not use a dummy - use the breast to comfort your baby. Express your breasts for 5 – 10 mins each side after breastfeeding your baby. You can do this by hand or use a manual or electric pump. Consider double pumping for 10 – 15 mins. This increases stimulation to your breast and should produce more milk.
- The expressed breast milk (if any) can be offered to your baby.
- Increase skin to skin contact time with your baby.
- Avoid giving your baby any fluids or foods other than breastmilk unless it is necessary for their health

Remember the breastmilk flows best when you are relaxed and calm. Accept any practical help at home as you try to rest, drink adequate fluids and have a well-balanced diet. Limit caffeine, including tea, coffee, cola and chocolate as these can decrease your breastmilk supply.

Use of medication to increase your supply would only be suggested if other methods have been unsuccessful after the first week. You must continue with increased stimulation and removal of milk while taking the medication for it to work effectively.

Support Contacts

- Early Childhood Centres – Central Intake (ph. 9562 5400) for clinic venues
- Australian Breastfeeding Association Helpline ph. 1800 686 268 ( 1800 mum 2 mum)
- Mothersafe (Medications in Pregnancy and Lactation Service) ph 1800 647 848
Guidelines for use of Domperidone (motilium®) tablets

While taking this medication ensure that your baby is fed whenever he/she is hungry - at least 3 hours during the day and 4 hourly at night (or 8 feeds in 24 hours) and you are expressing after feeds.

Presentation and storage: Domperidone is only available in oral medication in Australia and comes in a 10mg tablet. It is usually taken for about 28 days. If your supply does not increase or is not maintained after this then consult with the health professional who is supporting your breastfeeding.

The regime is as follows:

Dose

Day 1-7: 10 mgs (1 tablet) every 8 hours

After 1-2 weeks: decrease to 10 mgs every 12 hours for 7 days

Day 21-28: 10 mgs every morning for 7 days

How does Domperidone work

Domperidone increases the production of the milk making hormone prolactin and will only be effective along with good breastfeeding and/or expressing. It usually takes 3 – 5 days to show an increase in supply.

Side effects

If side effects such as dry mouth and thirst, skin rashes, headaches, depressed mood, abdominal cramping, constipation or diarrhoea occur then cease the medication and consult your GP.

Contraindications

While on domperidone the use of travel sickness or anti nausea medication should be discussed with a pharmacist or GP.

All women must be reviewed medically prior to being prescribed domperidone.

Oral domperidone prolongs the QTc interval so may exacerbate the action of other medications such as methadone. It can also induce arrhythmias in hypokalaemic mothers, or women with a history of arrhythmias. (Hale 2010; MIMS 2010).

For further advice contact Mothersafe: 9382 6539 OR 1800 647 848

References

The Royal Women’s Hospital Victoria Australia Factsheet: Medications and Herbal Preparations to increase breastmilk production (galactogogues)
Suppression of Lactation : Immediately after delivery

It is normal for your breasts to start to fill with milk by about the fourth day following your delivery. In order to minimise the discomfort, it is advisable to take measures to suppress lactation as soon as possible after delivery.

- Firm breast support – wear a well fitting supportive bra even when resting
- Avoid heat on the breasts – try not to have long hot showers
- Avoid breast stimulation – try not to handle your breasts unnecessarily

On about day three or four following the birth, your breasts will become uncomfortable. Cold packs applied to the breasts bring relief. For example, cold cabbage leaves or a pack of frozen peas (wrapped in a light cloth) are effective as they can be moulded around the breast.

During this period of discomfort pain relief may be needed. An analgesic such as paracetamol e.g. Panadol, may be taken, in accordance with the manufacturer’s directions.

Suppression of Lactation : Gradual
If you have been breastfeeding and decide to wean, for whatever reason, it is better to do it slowly. Gradual weaning allows fat tissue in your breast to replace milk producing tissue over a longer period of time.

You can do this by:

**Winding down the number of breastfeeds given to baby each day**  
**Or**  
**Winding down the number of time you express your milk each day**

As all mothers are different, it is best to seek the guidance of a health professional for your particular situation.

Important Information about the Role of Medication
Giving you a tablet to “dry up” your milk is no longer seen as the first option for treatment. Several years ago Bromocriptine (Parlodel®) tablets were used routinely to help dry up breastmilk. Dangerous side effects were identified and these tablets are no longer recommended.

More recently, another prescription medication Cabergoline (Dostinex®), has become available, but there is limited information about its side effects, so it is not used routinely. When used, it appears to be most effective if given as a single dose, within 24 hours of delivery. Known side effects of this medication include: dizziness, headache, nausea and lowering of blood pressure.

If Cabergoline (Dostinex®) is deemed to be the only option in a specific circumstance the dosage is:

1mg as single dose on the first day post-partum  
Or  
0.25mg every 12 hours for two days (total of 1mg) if given once the milk is “in”
RPAH Urogynaecology Referrals

Urgent
- RPAH Emergency Department
- RPAH Urogynaecology fellow ph. 9515 6111 pager # 80604

Non-urgent
- **Urogynaecologist** - Incontinence/Prolapse/Peripartum issues
  - RPAH Pelvic floor clinic
  - Private Urogynaecologist - www.ranzcog.edu.au
- **Allied Health**
  - Community Nurse Continence Advisor
  - Sydney South West - 1800 556 533
  - Physiotherapy www.physiotherapy.asn.au

Referrals to RPAH
- General Gynaecology clinic OR Pelvic Floor Clinic Referral form required to be completed [page 124]
- Primary and secondary reasons for referral
  - Past Hx: Medical conditions (e.g. Glaucoma)/Previous abdomino-pelvic surgery/medications lists
- Note whether interpreter needed
- Useful pre-clinic investigations:
  - Bladder diary (www.urodynamic.com.au)
  - MSU result
  - Urodynamics results
  - Renal tract USS (if recurrent UTIs, haematuria)

Pelvic Floor Clinic
This is a tertiary referral service for women with incontinence, prolapse, follow-up of obstetric anal sphincter injury, perineal pain

Venue: Womens and Babies Ambulatory Care, Level 5  
Clinic Times: 9.00 am, Friday (twice per month)  
Staff: VMO, Gynaecology Registrar, Physiotherapist  
Appointments: ph: 9515 7101

Referral form is required to be completed. Fax ONLY 9515 3454

RPAH Physiotherapy Referral

Other Musculoskeletal referrals / Incontinence
Referrals can be made to the RPAH Physiotherapy Department for.

- Anterior pelvic pain: ie: Pubic Symphysys Dysfunction
- Low back Pain / Posterior pelvic pain
- Large abdominal separations( ie>4cm) after 6/52 PN especially if associated with back pain
- Stress/ urge/ faecal incontinence > 6/52 postnatally
- Mastectomy with reduced shoulder ROM
- Other gynaecological / weak pelvic floor referrals

For any of the above conditions – Fax Referral Form [page 128] to RPAH Physiotherapy Department on (02) 95159751 or call the Physiotherapy Department on ph. 95159853 for an appointment with the Women’s Health Team.
Gestational Diabetes (GDM) – Post Delivery

During the postpartum period in hospital, there will be closer monitoring of women who are more likely to have ongoing glucose intolerance in the early postpartum period:
- Women requiring over 150 units insulin per day during pregnancy
- Women thought to be more likely to have evolving type 1 diabetes
- Women thought to have previously undiagnosed type 2 diabetes

These women will be assessed and advised regarding the following:
- Whether to continue home blood glucose monitoring post-discharge- and if so the appropriate frequency
- Whether ongoing glucose lowering medications may be required (insulin if breastfeeding, insulin or oral agents as appropriate if not breastfeeding) if ongoing diabetes
- Early review, within 4 weeks, at the postnatal diabetes clinic or with endocrinologist if private patient.

Follow up of private patients should be made according to their own endocrinologists' requests.

Information for GPs

Long term studies have shown that approximately 50% of women who have had Gestational Diabetes Mellitus (GDM) will develop diabetes or Impaired Glucose Tolerance (IGT) within 10-15 years. Therefore post-natal follow up is recommended for all women who have had GDM.

Prior to discharge all women who have had GDM will be:
- given a postnatal information sheet, GTT diet preparation sheet, and an appointment for review in ~ 3 months at either:
  - RPAH postnatal diabetes clinic This is held at the RPAH Diabetes Centre. ph. 9515 5888
  - Canterbury Hospital Diabetes Clinic ph.9787 0250
- advised to continue on a ‘healthy lifestyle diet’

Please organize the following tests for your patient 1-2 weeks before the postnatal appointment:

2 hour 75g GTT (BGLs at 0 hr, 1hr, 2hrs), lipids, TFT, FBC, iron studies

Please give the patient a copy of the results to bring to the appointment, or request a copy to be sent to Dr Glynis Ross - RPAH Diabetes Centre or Dr Shailja Tewari - Canterbury Hospital Diabetes Clinic

Please remember the women should follow the diet recommendations for the 3 days before the GTT. During the test they should remain seated, and not breastfeed in the 2 hour test period. It is best if they can arrange to have assistance with the baby. Refer to the GTT Information section.

At the postnatal clinic visit the following issues will be discussed, usually in a small group setting:
- results of the GTT
- general background information about diabetes – current prevalence, reasons and methods for trying to diagnose diabetes early, need for good longterm diabetes control to minimize complication risk, hyperglycaemic symptoms
- advice regarding their increased risk of developing diabetes in the future
- advice regarding current diet and exercise recommendations to delay / avoid development of future diabetes
- recommendations regarding method and frequency of future testing for diabetes
- advice regarding future pregnancies in view of high likelihood of recurrence of gestational diabetes, and importance of pre-pregnancy planning if already impaired glucose tolerance or diabetes prior to pregnancy
- importance of healthy lifestyle (diet, exercise, weight control) for woman and whole family.
- need for ongoing periodic review with their general practitioner

They will also be given an information brochure covering these issues to take home.
Guidelines for GPs on Post-Natal Follow Up

GPs play a pivotal role in follow-up of women who have had gestational diabetes. Reminders regarding follow up will be sent by the NDSS to women who had GDM and their GPs if the women have agreed to be on the National Gestational Diabetes Register (established by the NDSS and the ADS).

**Our recommendations for following up all women who have had GDM are:**

1. **Lifestyle:**
   - Revise ‘healthy lifestyle’ diabetic diet recommendations – low saturated fat, more lower GI (glycaemic index) carbohydrate choices, eat regularly, care with meal sizes
   - Encourage regular exercise (eg 3-4 hours’ brisk walking per week – longterm!) – to reduce overall risk of type 2 diabetes by 1/3 and slow progression of IGT to diabetes
   - Aim for ‘healthy weight’ range; obesity and weight gain following a GDM pregnancy are associated with 2 x increased risk of developing abnormal glucose tolerance; weight loss approximately halves this risk
   - Assess other vascular risk factors (smoking, hypertension, dyslipidaemia)

2. **2-hour 75g OGTT at 2-3 months postpartum to assess current glucose tolerance status:**
   
   (i) **Persisting diabetes**
   - Gradually educate about ‘permanent’ diabetes
   - Recommence home blood glucose monitoring with a meter (frequency depends on degree of control, usually 2x per week to 2x per day)
   - Assess need for glucose lowering medications
   - Baseline complications assessment within 12 months
   - Plan regular review

   (ii) **Impaired glucose tolerance** (IGT)
   Repeat 75g OGTT on annual basis (unless diabetes develops)

   (iii) **Normal glucose tolerance**
   Repeat 75g OGTT every 2-3 years (only way to detect IGT; detects diabetes earlier than random BGL or fasting BGL), A1c is not sensitive enough to be used in this setting (and also does NOT get a Medicare rebate if requested to diagnose diabetes).

3. **Discuss possible symptoms of hyperglycaemia**
   Polyuria, thirst, tiredness, thrush, UTIs, skin infections, blurred vision – advise to seek medical attention promptly if develop some of these symptoms

4. **Suggest immediate family members be screened for diabetes (parents, siblings)**

5. **Future pregnancies**
   - Preferably plan (discuss contraception)
     - If already **diabetes** - enables pre-pregnancy assessment (diabetic control, complications screen, commence folic acid 5mg daily, review hypoglycaemia and sick day management) - refer for specialist care
     - If **IGT** – repeat OGTT pre-pregnancy (unless latest one done in preceding 9-12 months) to check it has not progressed to diabetes; revise diet recommendations. Once pregnant manage as GDM (further GTT in pregnancy not necessary)
     - If **normal glucose tolerance** - repeat GTT pre-pregnancy unless latest one done in preceding 6-9 months to check it has not changed; advise ‘diabetic’ diet – may delay/prevent GDM recurrence
   - GDM recurs in at least 70% subsequent pregnancies. Women who have previously had gestational diabetes need to have a GTT at the following times in the next pregnancy:
     - 75g OGTT at 16-20 weeks gestation
     - If early OGTT is negative, repeat 75g OGTT at 26-28 weeks, or earlier if any clinical indicators suggest possible diabetes (refer to the antenatal screening protocol)

Please note: **75g OGTT** must be done in a standardised way:
   - Ensure adequate carbohydrate in the 3 days preceding the test; do OGTT in the morning following an overnight fast of 10-16 hours; Patient should remain at rest throughout the test
   - **Venous** blood (not meter readings) should be taken at baseline, 1 hr and 2 hrs after glucose load
Child and Family Health

All referrals to Early Childhood Health Centres (ECHC) are via the Central Intake Line, no calls are directed straight to the clinic.

Central Intake Line - Appointment and Information Line
Ph: 9562 5400   F: 9787 0534
Hours: MONDAY – FRIDAY 8.30am-4.00pm   Email: cicfhn@sswahs.gov.au

The Appointment and Information Line is for residents of Sydney Local Health District who may have delivered in a private or public hospital within the Sydney metropolitan area and / or have a child aged 0-5 years.

In some instances, you may wish to contact Community Health staff to arrange priority follow-up for specific clients and / or to discuss ongoing continuity of care issues.

The Child and Family Nursing (CFHN) team offer a home visit to all women within 2 weeks following the birth of their baby to discuss feeding, settling and general parentcraft issues and to weigh and check the infant. Following this home visit women are given information about local child and family nursing clinics which they can access for regular checkups.

Session Times : Appointments by arrangement

Recommended health screenings:

- 1 – 4 weeks
- 6 – 8 weeks
- 6 – 8 months
- 12 months
- 18 months
- 2 years
- 3 years
- 4 years

Groups: Offer New Parents Groups and Solids Groups

Breastfeeding support sessions: Contact Central Intake ph 9562 5400 for venues and times
- If you need an interpreter call ph.131 450
- Clinics are open 9-11am, please arrive as early as possible
- Central Intake can offer breastfeeding advice over the phone and book a home visit if needed.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Marrickville Health Centre</th>
<th>155-157 Livingstone Rd Marrickville</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday</td>
<td>Glebe Early Childhood Clinic</td>
<td>Glebe Town Hall 160 St John's Rd Glebe. 2037</td>
</tr>
<tr>
<td>Thursday</td>
<td>Belmore Early Childhood Health Centre</td>
<td>38 Redman Pde Belmore</td>
</tr>
<tr>
<td>Friday</td>
<td>Leichhardt Early Childhood Clinic, Croydon Early Childhood Clinic</td>
<td>Piazza Level Italian Forum Norton Street Leichhardt (next to library) 24 Liverpool Rd, Croydon</td>
</tr>
</tbody>
</table>

Referrals are available as required to any of the following allied health specialists:-

- Early Childhood Social Worker
- Hearing Specialist
- Nutritionist
- Dental ph. 9293 3333
- Speech Therapist
- Physiotherapist
- Orthoptist intake ph. 9378 1164

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<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camperdown Child, Adolescent and Family Health</td>
<td>142 Carillion Ave, CAMPERDOWN NSW 2042</td>
<td>Ph: 9516 3232</td>
<td>Fax: 9519 8607</td>
</tr>
<tr>
<td>Canterbury Health Centre</td>
<td>Canterbury Hospital Thorncraft Parade CAMPSPIE NSW 2194</td>
<td>Ph: 9787 0600 Fax 9787 0700 (Intake 9am - 4.30pm Mon-Fri)</td>
<td></td>
</tr>
<tr>
<td>Marrickville Health Centre</td>
<td>155-157 Livingstone Rd, MARRICKVILLE NSW 2204</td>
<td>Ph: 9562 0500 Fax 9562 0501</td>
<td></td>
</tr>
<tr>
<td>Croydon Health Centre</td>
<td>24 Liverpool Rd, CROYDON NSW 2132</td>
<td>Ph: 9378 1100 Fax 9378 1111</td>
<td></td>
</tr>
<tr>
<td>Redfern Community Health Centre</td>
<td>103 Redfern St, REDFERN NSW 2016</td>
<td>Ph: 9395 0444 Fax : 9690 1978</td>
<td></td>
</tr>
<tr>
<td>RPA Sexual Health Centre</td>
<td>16 Marsden St CAMPERDOWN NSW 2042</td>
<td>Ph. 9515 1200 Fax. 9515 1220</td>
<td></td>
</tr>
</tbody>
</table>

## Other Referral Contacts

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tresillian Family Care Centres</td>
<td>Tresillian Family Care Centre at Canterbury is a second tier service that offers both residential and day stay programs for women finding it difficult to cope with being a parent</td>
<td>Central Intake: 02 4734400 Canterbury Centre: Mc Kenzie Street Belmore 2192 Ph. 9787 0827</td>
</tr>
<tr>
<td>Sydney Hope Cottage</td>
<td>● Develop parenting skills ● Enhance parent / child skills ● Reduce feelings of isolation/anxiety ● Identify postnatal depression ● Learn ways of setting boundaries ● Day stay or home visiting</td>
<td>The Infants Home 17 Henry Street ASHFIELD NSW 2131 Ph. 9799 4844 (Mon-Fri 9am-4pm) Fax: 9799 4122 <a href="mailto:mail@theinfantshome.org.au">mail@theinfantshome.org.au</a></td>
</tr>
<tr>
<td>Department of Community Services (DoCS)</td>
<td>● Child Protection ● Advice and support for families experiencing domestic violence ● Advice and support for families with difficulties</td>
<td>Helpline for Professionals Ph. 13DOCS or Ph. 13 36 27 Helpline for Public Ph. 13 21 11</td>
</tr>
<tr>
<td>Sexual Assault Service (Eastern and Central Sydney) : KGV Hospital</td>
<td></td>
<td>Mon-Fri – ph. 9515 9040 After hours – ph. 9515 6111</td>
</tr>
<tr>
<td>Service</td>
<td>Contact Information</td>
<td></td>
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<td></td>
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<tr>
<td>Aboriginal Health Education Officer:</td>
<td>Ph. 9515 9762 or 9515 6111 page # 88519</td>
<td></td>
</tr>
<tr>
<td>Australian Breastfeeding Association</td>
<td>Ph. 1800 mum 2 mum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1800 686 2 686</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.breastfeeding.asn.au/bfinfo">www.breastfeeding.asn.au/bfinfo</a></td>
<td></td>
</tr>
<tr>
<td>Bereavement Care Centre</td>
<td>Ph. 1300 654 556</td>
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<tr>
<td>Sids and Kids Bereavement Support</td>
<td>Ph. 1800 651 186 or 1300 308 307</td>
<td></td>
</tr>
<tr>
<td>Domestic Violence Line (24 hours)</td>
<td>Ph. 1800 65 64 63</td>
<td></td>
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<tr>
<td>Pregnancy ,Birth and Baby Helpline (24hrs)</td>
<td>Ph. 1800 882 436</td>
<td></td>
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<tr>
<td>Parent line (Catholic Care)</td>
<td>Ph. 13 20 55</td>
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<tr>
<td>Pregnancy Termination Services</td>
<td>Preterm Foundation:</td>
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<td>Terminations up to 15 weeks gestation.</td>
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<tr>
<td></td>
<td>Ph. 9217 8700</td>
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<tr>
<td></td>
<td>Marie Stopes 1800 003 707</td>
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Note: Some Referral Forms are available as MD and BP templates.
Visit www.iwsml.org.au Click on Downloads – Software Templates.

Prior to downloading, please view information on how to correctly import templates into software.
RPA First Appointment Visit

First Antenatal Visit Appointment Form

(Facsimile - 951 53454)

Name: ____________________________________________

Address: ____________________________________________

Ph: ____________________________________________ Mob: ____________________________________________

Date of Birth: _______ Age: _______

Are you covered by Medicare? ☐ Yes ☐ No

Who is your private Health Insurer? ____________________________________________

Do you require an Interpreter? ☐ Yes ☐ No

If yes please specify: ____________________________________________

Do you have a Share Care GP? ☐ Yes ☐ No

GP Details: ____________________________________________

How many weeks pregnant? _______

Are you planning to have your baby at RPA Women’s and Babies? ☐ Yes ☐ No

1st visit appointment: ____________________________________________

Has your GP discussed and organised the following with you?

Pregnancy screening required:

Low Risk: ☐ Yes ☐ No

Nuchal Translucency: ☐ Yes ☐ No

Age>35 ☐ Yes ☐ No Genetics Risks ☐ Yes ☐ No

Previous fetal problems ☐ Yes ☐ No Other ☐ Yes ☐ No

OFFICE USE ONLY

Letter to Client with appointment dates ☐ Yes ☐ No

Letter for GP ☐ Yes ☐ No

GP Share Care addresses ☐ Yes ☐ No

Language Booked: ☐ Yes ☐ No

Signature and date posted: ____________________________________________
**ROYAL PRINCE ALFRED HOSPITAL MEDICAL GENOMICS REFERRAL FORM**

**Clinical Geneticists**
Dr Jason Pinner

---

**Date:**

**To:**
Dr Jason Pinner  
Dept of Clinical Genetics  
Royal Prince Alfred Hospital

**Ph.:**
9515 5080

**Fax:**
9515 5490

---

**Referring Doctor:**

<table>
<thead>
<tr>
<th><strong>Provider No:</strong></th>
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<tr>
<td><strong>Ph.:</strong></td>
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<tr>
<td><strong>Signature:</strong></td>
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</tr>
</tbody>
</table>

**Completed by:**

---

**Patient Name:**

**DOB:**

**Tel (Daytime):**

**Mob:**

**Address:**

**LMP/EDD:**

**Interpreter required:** □ Yes

---

**Prenatal counselling**

- □ Increased risk screening result.  
  Please include copies of all results
- □ Teratogen/medication exposure.  
  (Alternatively call Mothersafe – 9382 6539)
- □ Consanguinity.
- □ Family history of intellectual disability and/or congenital abnormality.
- □ Family history of stillbirth or recurrent miscarriage
- □ Hereditary condition in the family (please specify)
- □ Thalassaemia
  All thalassaemia referrals must be accompanied by FBC, Haemoglobin EPG and Iron Studies results for both the patient and their partner
- □ Other (Please specify):

---

**Clinical Details:**

For urgent referrals please contact the Clinical Geneticist on call via the RPAH switchboard 9515 6111

---

Please FAX this form and additional information to RPAH Clinical Genetics on 9515 5490
Canterbury Maternity Health & Pregnancy History Form

**CANTERBURY HOSPITAL MATERNITY SERVICES**

- This document has TWO sides.
- It would be appreciated if you could complete both sides of the form.
- Please give completed form, referral letter and copies of any results to the woman to bring to her appointment with the antenatal clinic.

**Options of Referral**
- [ ] Antenatal Clinic
- [ ] Midwifery Group Practice
- [ ] Midwives Clinic
- [ ] GP Shared Care

**Woman to complete this section**

<table>
<thead>
<tr>
<th>Surname:</th>
<th>Given Names:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous/ Maiden Name:</td>
<td>Occupation:</td>
</tr>
<tr>
<td>Date of Birth:</td>
<td>Medicare No:</td>
</tr>
<tr>
<td></td>
<td>Exp Date:</td>
</tr>
<tr>
<td>Marital Status:</td>
<td>Country of Birth:</td>
</tr>
<tr>
<td>Language used at home:</td>
<td>Interpreter needed: [ ] Yes [ ] No</td>
</tr>
</tbody>
</table>

**Home Address**

<table>
<thead>
<tr>
<th>Street:</th>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship:</td>
<td></td>
</tr>
<tr>
<td>Suburb:</td>
<td>Street:</td>
</tr>
<tr>
<td>State:</td>
<td>P/Code:</td>
</tr>
<tr>
<td>Ph. no: (h)</td>
<td>Ph. No:</td>
</tr>
<tr>
<td>(mob)</td>
<td>(wk)</td>
</tr>
<tr>
<td>State:</td>
<td>P/Code:</td>
</tr>
</tbody>
</table>

**USEFUL PHONE NUMBERS**

<table>
<thead>
<tr>
<th>Canterbury Hospital</th>
<th>9787 0000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal Clinic</td>
<td>9787 0560</td>
</tr>
<tr>
<td>Birthing Unit</td>
<td>9787 0555</td>
</tr>
<tr>
<td>Royal Prince Alfred Hospital</td>
<td>95156111</td>
</tr>
</tbody>
</table>

**Canterbury Hospital**

Clinic operating hours - 08:30am to 4:00pm
Monday to Friday excluding Public Holidays
Tel: (02) 9787 0250 or (02) 9787 0560
Fax: (02) 9787 0431.

**THIS DOUBLE SIDED FORM**

PLEASE COMPLETE THE MEDICAL EXAMINATION AND INVESTIGATION ON REVERSE OF THIS PAGE.

If you consider this referral to be Urgent please call the Antenatal Clinic
(PH: 9787 0250 or 9787 02560 and ask for the Clinic Midwife)
Canterbury Maternity Health & Pregnancy History Form

ANTENATAL EXAMINATION & INVESTIGATIONS

<table>
<thead>
<tr>
<th>Investigations (tick if attended)</th>
<th>Attended</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Blood Group &amp; Antibody screen</td>
<td></td>
</tr>
<tr>
<td>2 Haemoglobin</td>
<td></td>
</tr>
<tr>
<td>3 VDRL</td>
<td></td>
</tr>
<tr>
<td>4 Rubella IgG</td>
<td></td>
</tr>
<tr>
<td>5 Hep B surface antigen</td>
<td></td>
</tr>
<tr>
<td>6 Hep C (anti HCV), after discussion</td>
<td></td>
</tr>
<tr>
<td>7 HIV after discussion</td>
<td></td>
</tr>
<tr>
<td>8 Thalassaemia (HbEPG)</td>
<td></td>
</tr>
<tr>
<td>9 Varicella IgG</td>
<td></td>
</tr>
<tr>
<td>10 Glucose Challenge Test</td>
<td></td>
</tr>
<tr>
<td>11 Glucose Tolerance Test</td>
<td></td>
</tr>
<tr>
<td>12 MSU</td>
<td></td>
</tr>
<tr>
<td>13 Ultrasound 18-20 wks FAS</td>
<td></td>
</tr>
<tr>
<td>14 PAP smear</td>
<td></td>
</tr>
<tr>
<td>15 Low Vaginal swab (as required)</td>
<td></td>
</tr>
<tr>
<td>16 Other</td>
<td></td>
</tr>
</tbody>
</table>

Cardiovascular system
BP ___/___ at ____ weeks gestation

Respiratory system

Abdominal examination

Thyroid

Breast Examination

Pre/early pregnancy weight

Problems in current pregnancy

Other Findings

GP stamp / details: ________________________
_______________________________________
________________________________________
_____________________________________
Phone No: _______________________________
Fax No: _________________________________
Provider No: _____________________________
GP Signature___________________Date_______

Genetic Counselling

<table>
<thead>
<tr>
<th>Genetic Counselling provided</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined First Trimester Screening</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amniocentesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screening not indicated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Declined- reason</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Women identified with:
- Personal or family history of genetic conditions (e.g. mental retardation, consanguinity, cystic fibrosis)
- Chromosomal disorders (e.g. trisomy, translocations)
- Congenital abnormalities or physical malformations
- Personal or family history of genetic haematology conditions (e.g. thalassaemia, sickle cell disease, haemophilia)

Referred for Genetic Counselling (Enquiries ph 9515 5080)
Referral Form completed ❑ ❑
Note: contact details, gestation, language, reason for referral.
Declined ❑ ❑
Reason ____________________________

Allergies ___________________________
Current Medications __________________

Medical History

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>Cardiac</td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td></td>
</tr>
<tr>
<td>Endocrine</td>
<td></td>
</tr>
<tr>
<td>Mental Illness</td>
<td></td>
</tr>
<tr>
<td>Renal</td>
<td></td>
</tr>
<tr>
<td>Epilepsy</td>
<td></td>
</tr>
<tr>
<td>GIT</td>
<td></td>
</tr>
<tr>
<td>Smoker</td>
<td></td>
</tr>
<tr>
<td>STIs</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
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</tbody>
</table>

Family History

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td></td>
</tr>
<tr>
<td>Congenital Abnormalities</td>
<td></td>
</tr>
<tr>
<td>Twins</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Please note: It may require more than one visit to the GP’s surgery to complete this form.

Please return this form to the woman
## Gynaecology Referral Form

(by facsimile **ONLY** – 951 53454)

### Patient

<table>
<thead>
<tr>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
</tr>
<tr>
<td>Ph:</td>
</tr>
<tr>
<td>Date of Birth:</td>
</tr>
<tr>
<td>Is an Interpreter required?</td>
</tr>
<tr>
<td>If yes please specify:</td>
</tr>
</tbody>
</table>

### GP Details

<table>
<thead>
<tr>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
</tr>
<tr>
<td>Ph:</td>
</tr>
</tbody>
</table>

### Required clinic / speciality

- [ ] General gynaecology
- [ ] Fertility
- [ ] Specialist Contraception Clinic
- [ ] Uro - gynaecology
- [ ] Stitch Removal
- [ ] Endometriosis Clinic

**Please indicate the degree of urgency**

- [ ] Urgent
- [ ] within one month

**Please either fax relevant results to fax number given below or ask the patient to bring the results to the clinic appointment**

Fax completed form to: RPA Women and Babies Ambulatory Care  
Fax number: 951 53454

### Office Use Only

| Date received fax: | RPA Women and Babies Ambulatory Care  
|--------------------| Booking form November 2010

<table>
<thead>
<tr>
<th>Date and time of appointment:</th>
<th>Letter to Client with appointment dates</th>
<th>Letter for GP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature and date posted:</th>
</tr>
</thead>
</table>
Psychosocial Referral Form

RPA WOMEN AND BABIES
PSYCHOSOCIAL REFERRAL FORM

Estimated Due Date:

GP details: Name ___________________________ Address ___________________________

Phone ___________________________

Referral discussed with client? YES □ NO □
Verbal consent for referral given by client? YES □ NO □ (if declined, why?)
Verbal consent to discuss with GP? YES □ NO □

Reason for Referral: (tick one or more)

<table>
<thead>
<tr>
<th>Poor support network</th>
<th>Depression</th>
<th>Young parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial issues</td>
<td>Anxious Mood</td>
<td>Drug health issues</td>
</tr>
<tr>
<td>Housing issues</td>
<td>Postnatal Depression</td>
<td>DOCS involvement</td>
</tr>
<tr>
<td>Relationship Difficulties</td>
<td>Mental health issues (other)</td>
<td>Breastfeeding issues</td>
</tr>
<tr>
<td>Domestic Violence</td>
<td>Childhood Abuse/Neglect</td>
<td>Sexual health issues</td>
</tr>
</tbody>
</table>

Brief explanation for the referral and any other relevant information _

EDS score: ___________________________

Referred to: Social Worker □ Perinatal Mental Health/mental health liaison □ Early childhood health service □

Date Referred to: Antenatal Support Midwife □ Perinatal and family drug health □ Lactation □

Signature ___________________________ Date ___________________________

Fax referral to 02 9515 7452
To ensure the referral has been received, phone Perinatal Mental Health on 02 9515 5873 or GP Liaison Midwife on 0425 230 662.
To:
Dr Ash Gargya
Ante Natal Thyroid Clinic
Royal Prince Alfred Hospital
Phone 9515 7225

Dear Dr Gargya,

Re: __________________ DOB ___________ RPA MRN (if known)__________

Address ____________________________

_________________________ Phone ____________ Mob_____________

This lady is currently __________ weeks pregnant EDC______________

She presents with

□ Hypothyroidism  □ Hyperthyroidism  □ Graves’ Disease  □ Thyroid Nodule

This is a  □ new  □ existing diagnosis

Her blood results from (date) _______________ were :

TSH _____ fT4 _____ fT3_____ TPO Ab _______ Tg Ab _____

TSH receptor Ab __________ 25-OH-D3 __________

Previous thyroid surgery  □ Yes  □ No  describe ________________

Previous Radioactive Iodine  □ Yes  □ No  (date)______________

She is currently taking  □ Thyroxine _____ug/ day  Commenced on: _______

□ Propylthiouracil __________

□ Neomercazole __________

She is currently under a specialist Endocrinologist  □ Yes  □ No

Dr ___________________

Can you please assess need for ongoing care in pregnancy and advise.

Yours sincerely,

Dr ___________________ ph _______________

( please print)

Date ________________

Fax form ONLY : 9515 8728
NB: The Thyroid Clinic will contact the woman to arrange an appointment
A/Prof Simone Strasser  
Staff Specialist  
AW Morrow Gastro and Liver Centre  
Level 9  
Royal Prince Alfred Hospital  

Cc: Margaret Fitzgerald - HBV Nurse  
(For further information, please phone: 9515 6228)  

Please fax referral to: 9515 5182

Date:  

Dear Dr. Strasser,  

Re:  

DOB:  

Telephone:  

RPA medical record no. if known:  

Thank you for seeing this lady who is currently ______ weeks pregnant  

She has tested positive for Hepatitis B. (HBsAg positive)  

(If the patient is 15 weeks pregnant or more, it would be of benefit to have HBeAg, HBeAb, HBV DNA level, LFT and INR attended and results sent to AW Morrow Gastro and Liver clinic with the referral. Thank you.)  

Yours sincerely,  

Signature  

Provider number:
THE AW MORROW GASTROENTEROLOGY & LIVER CENTRE  
ROYAL PRINCE ALFRED HOSPITAL  
ANTENATAL HCV REFERRAL FORM

PLEASE FAX OR DELIVER  
COMPLETED REFERRAL TO  
HEPATITIS C CNC or Named Specialist

FAX: 9515 5182  
TEL: 9515 7049

<table>
<thead>
<tr>
<th>Referring Medical Officer:</th>
<th>Contact:</th>
</tr>
</thead>
<tbody>
<tr>
<td>_________________________</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of Referral:</th>
<th>Patient Contact Details:</th>
</tr>
</thead>
<tbody>
<tr>
<td>_________________</td>
<td>Home: __________________</td>
</tr>
<tr>
<td></td>
<td>Mobile: ________________</td>
</tr>
<tr>
<td></td>
<td>Work: _________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gestational Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________________</td>
</tr>
</tbody>
</table>

**Blood Results**

- [ ] HCV Antibody: ________ Date of Test: ______
- [ ] HCV PCR: ____________ Date of Test: ______

*Please ensure both tests have been attended prior to referral*

<table>
<thead>
<tr>
<th>Person Completing Form</th>
<th>GP Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: __________________</td>
<td>Name: ________</td>
</tr>
<tr>
<td>Signed: ________________</td>
<td>Address: __________</td>
</tr>
<tr>
<td></td>
<td>Contact: ______________</td>
</tr>
</tbody>
</table>

**Patient Consent**

I understand this information will be faxed to the liver clinic nurses for review and that they will make contact with me to discuss the results.

<table>
<thead>
<tr>
<th>Patient Signed:</th>
<th>Date: ________</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________________</td>
<td></td>
</tr>
</tbody>
</table>
Physio Referral Form

RPAH Physiotherapy Department
Obstetric and Gynaecological Physiotherapy Referral

Patient Label ☑
Name __________________________________________
Address _________________________________________
Phone: _________________________________________
MRN: ___________________________________________

Interpreter Required ______ Language: _______________

PATIENT TYPE:
☐ Antenatal / 40 ☐ Postnatal ☐ Gynaecological

REASON FOR REFERRAL:
☐ Low back/Post Pelvic pain ☐ Anterior Pelvic pain ☐ Pelvic floor weakness ☐
☐ Upper Back pain ☐ Incontinence
☐ Abdo muscle separation

DURATION OF SYMPTOMS:
☐ Acute i.e. <6/52 ☐ Chronic i.e. > 6/52

Relevant history / details
________________________________________________________________________
________________________________________________________________________

FILING CODE:

Sent form to RPAH Physiotherapy department, or fax (02) 95159751. ** Please inform the patient that she will be placed on our waiting list, and will be called by the physiotherapist when an appointment is available. Please advise patient of availability of private physiotherapy services. * For hand referrals see overleaf for guidelines.

RPAH Women and Babies Physiotherapy

Reviewed 8/2008
Advice letter from RPAH Women and Babies Antenatal Clinic back to GP

Dear Dr ______________________,

Thank you for referring / seeing Ms ______________________________________ for consideration of shared antenatal care. I have assessed her in the clinic today and the history, examination and preliminary investigations would suggest:

- Shared care would be appropriate with review at:
  - RPAH Women and Babies Antenatal Registrar Clinic
  - Birth Centre
  - RPAH Women and Babies High Risk Clinic

- Elected hospital based midwife care is appropriate

- Transfer from low risk to high risk at ______________ weeks

- Shared care is not appropriate for the following reasons:

_____________________________________________________________________

_____________________________________________________________________

We would appreciate any future copies of test results being sent to the Antenatal Clinic, WandB RPAH
Fax: 9515 7452

Yours sincerely,

EDC: ____________________
FAS date:_________________

Obstetrician
RPAH Women and Babies
Ambulatory Care
# Obstetric Visiting Medical Officers

**RPA Women and Babies Visiting Medical Officers (OBSTETRICS)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Contact Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Anthony Frumar</td>
<td>Suite 403 RPA Medical Centre</td>
<td>Ph. 9516 4308</td>
</tr>
<tr>
<td></td>
<td>100 Carillion Ave</td>
<td>Fax. 9550 3927</td>
</tr>
<tr>
<td></td>
<td>NEWTOWN NSW 2042</td>
<td></td>
</tr>
<tr>
<td>Dr Ian Hill</td>
<td>Suite 320, RPA Medical Centre</td>
<td>Ph: 9519 8929</td>
</tr>
<tr>
<td></td>
<td>1100 Carillion Ave</td>
<td>Fax: 9557 8094</td>
</tr>
<tr>
<td></td>
<td>NEWTOWN NSW 2042</td>
<td></td>
</tr>
<tr>
<td>Dr Po-Yu Huang</td>
<td>Suite 319 RPA Medical Centre</td>
<td>Ph. 9519 2704</td>
</tr>
<tr>
<td></td>
<td>100 Carillion Ave</td>
<td>Fax. 9519 8605</td>
</tr>
<tr>
<td></td>
<td>NEWTOWN NSW 2042</td>
<td></td>
</tr>
<tr>
<td>Dr Louis Izzo</td>
<td>53 Renwick Street</td>
<td>Ph: 9569 3454</td>
</tr>
<tr>
<td></td>
<td>LEICHHARDT NSW 2040</td>
<td>Fax: 9569 6553</td>
</tr>
<tr>
<td>Dr Sue Jacobs</td>
<td>Suite 409, RPA Medical Centre</td>
<td>Ph. 9516 1616</td>
</tr>
<tr>
<td></td>
<td>Suite 100 Carillion Ave</td>
<td>Fax. 9519 8662</td>
</tr>
<tr>
<td></td>
<td>NEWTOWN NSW 2042</td>
<td></td>
</tr>
<tr>
<td>Dr David Kowalski</td>
<td>Level 7</td>
<td>Ph: 9221 7390</td>
</tr>
<tr>
<td></td>
<td>187 Macquarie Street</td>
<td>Fax: 9232 8270</td>
</tr>
<tr>
<td></td>
<td>SYDNEY NSW 2000</td>
<td></td>
</tr>
<tr>
<td>Dr Surya Krishnan</td>
<td>Suite 312A, RPA Medical Centre</td>
<td>Ph. 1300 738 680</td>
</tr>
<tr>
<td></td>
<td>100 Carillion Ave</td>
<td>Fax: 9519 0332</td>
</tr>
<tr>
<td></td>
<td>NEWTOWN NSW 2042</td>
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</tr>
<tr>
<td>Dr Anthony Marren</td>
<td>Level 3</td>
<td>Ph: 9232 5113</td>
</tr>
<tr>
<td></td>
<td>321 Kent Street</td>
<td>Fax: 9232 5090</td>
</tr>
<tr>
<td></td>
<td>Sydney NSW 2000</td>
<td></td>
</tr>
<tr>
<td>Dr Stephen Morris</td>
<td>Suite 902, 135 Macquarie St</td>
<td>Ph. 9251 8550</td>
</tr>
<tr>
<td></td>
<td>SYDNEY NSW 2000</td>
<td>Fax: 9251 8525</td>
</tr>
<tr>
<td>Dr Karuna Raja</td>
<td>Suite 421, RPA Medical Centre</td>
<td>Ph. 9550 5766</td>
</tr>
<tr>
<td></td>
<td>100 Carillion Ave</td>
<td>Fax: 9557 2593</td>
</tr>
<tr>
<td></td>
<td>NEWTOWN NSW 2042</td>
<td></td>
</tr>
<tr>
<td>Dr Sofia Smirnova</td>
<td>Suite 404, RPA Medical Centre</td>
<td>Ph.9557 2450</td>
</tr>
<tr>
<td></td>
<td>100 Carillion Ave</td>
<td>Fax. 9550 6257</td>
</tr>
<tr>
<td></td>
<td>NEWTOWN NSW 2042</td>
<td></td>
</tr>
<tr>
<td>Dr Jason Ting</td>
<td>BMA House, Suite 203</td>
<td>Ph: 8065 3630</td>
</tr>
<tr>
<td></td>
<td>135 Macquarie Street</td>
<td>Fax: 8065 3687</td>
</tr>
<tr>
<td></td>
<td>SYDNEY NSW 2000</td>
<td></td>
</tr>
</tbody>
</table>
### Canterbury Hospital Visiting Medical Officers (OBSTETRICS)

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Viola Gabriel</td>
<td>5/12 Railway Pde, BURWOOD NSW 2134</td>
<td>Ph. 9744 7240</td>
<td>Fax: 9744 7260</td>
</tr>
<tr>
<td>Dr Louis Izzo</td>
<td>53 Renwick Street, LEICHHARDT NSW 2040</td>
<td>Ph: 9569 3454</td>
<td>Fax: 9569 6553</td>
</tr>
<tr>
<td>Dr David Kowalski</td>
<td>Level 7, 187 Macquarie Street, SYDNEY NSW 2000</td>
<td>Ph: 9221 7390</td>
<td>Fax: 9221 8270</td>
</tr>
<tr>
<td>Dr Wagdy Nada</td>
<td>207/308 Beamish St, CAMPSIE NSW 2194</td>
<td>Ph. 9789 5038</td>
<td>Fax: 9718 5326</td>
</tr>
<tr>
<td>Dr Farhad Rahimpanah</td>
<td>Suite 103, Level 1, 161 Bigge Street, Liverpool NSW 2170</td>
<td>Ph: 9602 4748</td>
<td>Fax: 8834 0787</td>
</tr>
<tr>
<td>Dr Lourdes St George</td>
<td>36 Belmore Rd, BURWOOD NSW 2134</td>
<td>Ph. 9744 5597</td>
<td>Fax: 97475882</td>
</tr>
</tbody>
</table>

### Gynaecology Visiting Medical Officers

#### RPA Women and Babies Visiting Medical Officers (GYNAECOLOGY)

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Christopher Benness</td>
<td>Suite 403, RPAH Medical Centre, 100 Carillion Ave, NEWTOWN NSW 2042</td>
<td>Ph: 9519 2132</td>
<td>Fax: 9550 3927</td>
</tr>
<tr>
<td>Dr Warren Chan</td>
<td>Suite 101, 10 Norbrik Drive, BELLA VISTA NSW 2153</td>
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CAMPSIE NSW 2194
Ph: 9789 5038
Fax: 9718 5326

Dr Farhad Rahimpanah
Suite 103, Level 1,
161 Bigge Street,
Liverpool NSW 2170
Ph: 9602 4748
Fax: 8834 0787

Dr Lourdes St George
36 Belmore Rd,
BURWOOD NSW 2134
Ph. 9744 5597
Fax: 97475882
External Certified Operators-performing Nuchal Translucency Ultrasounds

The sites listed below have certified sonographers and medical practitioners performing Nuchal Translucency ultrasound scans within the IWSML boundaries.

Certified sonographers and medical practitioners participate in an audit of their practice and can be individually searched on the RANZCOG program website at www.nuchaltrans.edu.au/searchcertifiedpractitioners.html

Sites 1 & 2 are private obstetric run practices in which sonographers may perform the initial scans.

Sites 3, 4 & 5 are radiology run practices with sonographers performing initial scans and radiologists reporting on the scans.

<table>
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<th>No.</th>
<th>Name</th>
<th>Address</th>
<th>Contact Information</th>
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<tbody>
<tr>
<td>1.</td>
<td>Sydney Ultrasound for Women (SUFW)</td>
<td>Suite 3, 29 Belmore St Burwood NSW 2134</td>
<td>(02) 9745 4054</td>
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<td>2.</td>
<td>Ultrasound Care</td>
<td>RPA Medical Centre</td>
<td>(02) 9519 0999</td>
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<td></td>
<td></td>
<td>Suite 412 100 Carillon Ave Newtown NSW 2042</td>
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<td>3.</td>
<td>Strathfield Medical Imaging</td>
<td>Suite 207, Level 2/11 The Boulevarde,</td>
<td>(02) 8622 0000</td>
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<td></td>
<td>Strathfield NSW 2135</td>
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<td>4.</td>
<td>Campsie Medical Imaging</td>
<td>17-21 Campsie St, Campsie NSW 2194</td>
<td>(02) 9789 3033</td>
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<td>5.</td>
<td>Campsie Healthcare Imaging</td>
<td>308 - 312 Beamish St Campsie NSW 2194</td>
<td>(02) 9787 1011</td>
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Combined First Trimester Screening

The 12 Week Scan
All pregnant women are routinely offered ultrasound scans at 11-13+6 weeks and 18-20 weeks to check the development of the pregnancy.

The 11-13+6 week scan can:
- Confirm your baby's heart is beating.
- Check when your baby is due.
- Find out whether you are having twins.

It is also used to:
- Screen for Down syndrome and other chromosomal abnormalities.
- Detect some major structural problems.
- Screen for pre-eclampsia (high blood pressure that typically develops later in the pregnancy).

What is Down Syndrome?
Down syndrome is a genetic condition associated with moderate intellectual delay. Children with Down syndrome have characteristic facial features and some have problems with the heart or the digestive tract.

Down syndrome is caused by the presence of an extra chromosome (number 21) in all the body’s cells. This means there are extra genes and this affects development. There is no cure for Down syndrome, but many symptoms can be treated and with early intervention children with Down syndrome can be helped to reach their potential.

Down syndrome is the commonest form of intellectual delay seen in children. It occurs in all races and cultures at around the same rate. Approximately 1 in 1000 infants born in New South Wales have Down syndrome.

What is my risk of having a baby with Down’s?
As women get older the chance of having a baby with Down syndrome increases (see chart).

Screening tests for Down syndrome
Screening tests aim to identify a small group of pregnancies at higher risk of having Down syndrome or other chromosomal abnormalities. These women can then be offered a diagnostic test (CVS or amniocentesis – refer to the separate pamphlet for information). At RPA, we normally use the combined first trimester screening test – which uses a number of factors (maternal age, ultrasound factors and biochemical factors) to calculate the risk of a pregnancy being affected.

Do I want a screening test for Down Syndrome?
Not all women want to have a screening test for Down syndrome – as the information would not affect decisions they would make about their pregnancy. This is a very personal decision and we respect the fact that not all couples would want to have this test.

If you want to discuss your options in more detail you could approach your GP or we can arrange for you to see a genetics counsellor.

Combined First Trimester Screening
Combined first trimester screening test involves an ultrasound scan and a blood test at 11-13+6 weeks pregnancy. The ultrasound examines the fluid-filled space at the back of a baby's neck, called nuchal translucency (NT), and the development of the baby's nasal bone (NB). The chance of Down syndrome is higher if the NT measurement is larger and/or if the nasal bone is not readily visible.

The blood test measures the levels of two proteins in the mother’s blood: PaPP-A (pregnancy associated plasma protein A) and Free-βhCG (free-beta human chorionic gonadotropin.)
Your age, the NT and NB measurements and the blood test results are combined to develop a risk that describes how likely it is that the baby is chromosomally normal or has Down syndrome. This can be presented as a fraction (1 in 500, 1/500), a percentage (0.2%) or a description (low risk or increased risk).

If the adjusted risk is less than 1 in 1000 (0.1%) it is considered very low risk. Most women have a very low risk result. If the risk is between 1 in 1000 and 1 in 300, this is considered low risk. There is no need to do anything but some women may choose to go on to a new blood test, called NIPT, that is very accurate (>98%) for Down syndrome, for further reassurance. This is only available through laboratories in the United States at a cost of approx $500. All low risk screening results will be communicated to your GP – who should have a result within seven days of the test being completed. If you want the NIPT test we can arrange this for you. There is a separate information sheet describing this test.

An adjusted risk >1 in 300 (0.3%) is considered an increased risk. 5% of women (1 out of 20) get an increased risk result and may choose to have further testing (CVS, amniocentesis or NIPT). Most babies at increased risk of Down syndrome are completely normal. If the risk result is increased, we will ring you directly to inform you and discuss your options.

**Second Trimester Screening – Triple Test**
If you miss combined first trimester screening (done between 11 and 13+6 weeks) you can have a triple (blood) test at 15-18 weeks. This test uses biochemical markers alone, but is still quite robust, and will identify 70% of affected pregnancies.

Alternatively, you can opt to have the NIPT test, which will identify >98% of babies affected by Down syndrome, but this test is currently only offered through laboratories in the United States and there is a $500 out of pocket expense.

**Increased nuchal translucency /Screening for cardiac defects**
One of the sonographic features examined for Down syndrome screening is also known to be abnormal in fetuses that have other structural problems, such as cardiac defects. If the NT is increased (broadly speaking above 2.5mm) then we will arrange for you to have an extra scan at 14-15 weeks to check the babies heart development more carefully.

**Screening for early onset pre-eclampsia**
A minority of women develop high blood pressure that leads to them being delivered very early (<34 weeks) in pregnancy. This condition is described as pre-eclampsia.

During combined first trimester screening, in addition to measuring the PaPP-A protein produced by the placenta we can assess blood flow to the uterus and your blood pressure and can use these to define the risk of early onset pre-eclampsia.

Women with an increased risk (>1%) will be advised to take 100mg Aspirin daily to reduce the risk of early onset pre-eclampsia. Where necessary, we will also arrange closer follow-up at the hospital antenatal care that specialises in this condition.

**Departments of Obstetric and Gynaecological Ultrasound and Fetal Medicine**
Level 5, Women and Children’s Health
RPA Women and Babies
Missenden Road
Camperdown NSW 2050
Phone (02) 9515 6042

*Source : RPA Women and Babies - Combine First Trimester Screening Patient Brochure*

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Non-Invasive Prenatal Testing (NIPT)

Chromosomal Abnormalities
Our genetic information is stored inside the cells of our body in a very orderly manner. The genes that tell our cells how to function are made up of DNA and this information is organized into chromosomes. Most individuals have 23 pairs of chromosomes - one of each pair is inherited from each parent. The pairs are numbered 1-22 (from biggest to smallest) then the final pair determine gender - women have two X chromosomes, men one X and one Y.

About 1 in 200 babies have a chromosomal abnormality. The most common chromosome abnormality is Down syndrome, which is caused by an extra chromosome 21 (Trisomy 21). Other common trisomies are caused by an extra chromosome 18 (Trisomy 18) or an extra chromosome 13 (Trisomy 13). Both these conditions are more severe than Down syndrome. Other types of chromosomal abnormality also occur but are less common, in some cases these affect the ‘sex’ chromosomes (X and Y).

Prenatal Testing
Women have the option of testing to see whether or not their baby is affected with Down syndrome or another chromosome abnormality. This commonly involves combined first trimester screening – where the risk of a chromosomal abnormality is based on maternal age, ultrasound assessment of fetal nuchal translucency (NT) and measurement of two proteins produced by the placenta; PaPP-A and free-βhCG. This test is very effective – producing a high risk group that includes only 5% of all women but 90% of the fetuses affected by Down syndrome.

A diagnostic test – CVS or amniocentesis – is then available for women with an increased risk result on screening to definitively inform them whether or not their baby has Down syndrome. This diagnostic test carries a 1% risk of causing miscarriage.

Non-Invasive Prenatal Testing
Non-invasive prenatal testing (NIPT) is a new test that can tell women whether their baby has Down syndrome, Trisomy 18 or Trisomy 13. It has a high degree of accuracy and avoids the risk of miscarriage. NIPT works by counting pieces of DNA found in the mothers’ blood. During pregnancy some of this DNA comes from the fetus. By making millions of counts, the test is able to see small changes in the relative amounts of DNA that occur if there is a chromosomal abnormality.

The test detects 99% of babies that have Down syndrome, and less than 1% of women with a normal pregnancy will be identified in this high risk group (a false positive result). In other words, for detection of pregnancies affected by Down syndrome, NIPT is almost as effective as amniocentesis but does not carry the risk of this procedure.

Who should have NIPT?
We are recommending that women still have combined first trimester screening (11-13 weeks) and then consider NIPT on the basis of their result. NIPT is not a replacement for combined first trimester screening – because there are several aspects of the scan that will not be covered by this blood test. Similarly, measurements of the biochemical markers (PaPP-A and free-βhCG) have some value in screening for other pregnancy abnormalities apart from chromosomal problems.

NIPT is best suited to women whose combined first trimester screen risk is between 1 in 50 and 1 in 1000. Some women who have a risk in this range may want to proceed with CVS or amniocentesis. Others may want to get further information from NIPT. A third group may be happy to continue the pregnancy with no further testing.

We advise all women who have a very high risk (>1 in 50) from combined first trimester screening to consider CVS or amniocentesis. This is because the chance of finding chromosomal abnormalities other than trisomy 21, 18 or 13 are higher in this group of women.

Women who have a very low risk (<1 in 1000) from combined first trimester screening are usually reassured by this and do not want to proceed with NIPT.

Accuracy and limitations
NIPT is designed to detect Down syndrome, Trisomy 18 and Trisomy 13. The test is very effective in identifying Trisomy 21 and Trisomy 18 (99% detection), but less effective at detecting Trisomy 13 (90% detection).

NIPT is also able to determine the baby’s gender and detect variation in the sex chromosomes. In most circumstances NIPT will recognise if one of the sex chromosomes is missing or extra. The most common sex chromosome condition is called Turner syndrome (45X) and affects 1 in 2500 female births.
NIPT is *not* the same as a CVS or amniocentesis, which looks at all 46 chromosomes in detail. However chromosome abnormalities other than Trisomy 21, Trisomy 18, and Trisomy 13 are uncommon, affecting less than 1 in 2000 pregnancies.

**How do I have the test?**
There is no laboratory currently providing this test in Australia. A blood sample is taken into a specially designed tube which allows transportation of the sample to the United States for analysis.

Women need to be seen in our Fetal Medicine clinic to discuss the test in more detail and to perform an ultrasound scan before taking the blood sample to send to the United States.

It takes approximately two weeks to get the test result. A ‘negative’ result is very reassuring. If the result is ‘positive’ we recommend amniocentesis to confirm the findings.

**What is the cost of this test?**
As this test is not available in a laboratory in Australia the cost is not covered by the public health system. The cost is approximately US$500 (depending on clinical circumstances) and this is payable to the lab directly.

**Important things to remember**

NIPT is not the same as amniocentesis. The test does not have the risk of miscarriage. Some chromosomal abnormalities that would be detected by amniocentesis are not detected by NIPT.

1-2% of samples sent for NIPT cannot be analysed. This is because the level of fetal DNA in maternal blood is too low to allow accurate counting. Women in this group will not get a result from the test.

NIPT compares fetal and maternal DNA levels. In rare circumstances, previously unrecognised maternal chromosomal re-arrangements have been found during testing.

More information regarding prenatal screening and diagnosis is available at:

Early Pregnancy Services

RPA Emergency Department and RPA Women and Babies

The Early Pregnancy Unit (EPU) is located in the Emergency Department of RPA Hospital and is for women less than 20 weeks pregnant. The Emergency Department is available 24 hours a day and they will refer women to specialist Obstetric and Gynaecology staff in the Early Pregnancy Assessment Service (EPAS) as appropriate.

The Early Pregnancy Assessment Service (EPAS) at RPA Women and Babies is a special outpatient clinic designed to look after women with vaginal bleeding and/or abdominal pain in early pregnancy. It is only for women who are well enough to be looked after as outpatients.

Please go immediately to the RPAH Emergency Department if you have any of the following symptoms:

- Heavy vaginal bleeding, gushes of blood or clots of blood
- Dizziness, fainting or collapse
- Severe abdominal pain

Where is EPAS?
Womens and Babies Ambulatory Care Outpatients Clinic
Level 5, RPA Women and Babies
Royal Prince Alfred Hospital
Missenden Rd, Camperdown NSW 2050
Ph: 9515 7101

EPAS Clinic
A doctor or midwife consultant will see you and assess if you require further investigations such as blood tests and ultrasounds. It may take several hours for all results to be available.

Arrive at 7.30 am
Monday – Friday (excluding Public Holidays)

You should arrive at the clinic at 7.30 am.
As there are no appointments, you are seen in order of arrival and waiting times will vary.

If you need to be seen on a weekend or after clinic hours you must go to the Emergency Department.

What should you bring with you?

- Blood test results performed during the pregnancy (in particular your blood group)
- Previous Ultrasound Report
- Ultrasound is available for EPAS patients in the Fetal Medicine Ultrasound Department between 8.00 am – 10.30 am. Ultrasound scanning works better with an empty bladder.

A “transvaginal” ultrasound may be performed which involves placing an ultrasound probe into the vagina. This is to allow good views of the ovaries and the uterus. This type of ultrasound is not normally painful and does not harm the baby.

Blood Tests
The blood tests performed may include measurements of pregnancy hormones, a full blood count and your blood group. These tests help to establish whether the pregnancy is proceeding normally or if you need special treatment due to your blood group.

It is important to know your blood group during pregnancy. If you are a “negative” blood group i.e. Rhesus negative, you may need an injection of Anti D Immunoglobulin to prevent complications that can arise after bleeding in pregnancy. If you are found to be Rhesus negative the staff will discuss this with you further.

What happens after the tests?
The doctor or midwife will see you again and explain the results. The results and a letter will be faxed to your GP. Any follow up required will be explained to you before you leave the clinic.

The emotional impact
It is natural to experience some anxiety when you have bleeding or pain in your pregnancy. You may wonder about the health of your baby or losing your pregnancy. In the tragic event of a miscarriage there is counselling and support available in the hospital as well as through various support organizations.
Support and Information:

RPA Social Work Department - 9515 6111: ask to page Women and Babies Social Worker

‘Healthdirect’ Australia- 1800 022 222: 24 hour government health information and advice line.

Pregnancy, birth & baby helpline- 1800 882 436: Confidential information, support and counselling hours

SIDS and Kids NSW- 1800 651 186: Bereavement support around miscarriage

- www.miscarriageassociation.org.uk
- www.earlypregnancy.org.uk
- www.ectopic.org.uk

Public Transport and Parking

Bus 412 stops on Missenden Rd outside the hospital.

Parking is very difficult; there is limited meter parking on the street. Private car parks charge a fee. Exact coins are required as no change is given. Parking is available for disabled drivers by contacting the main security gate nearest to the Emergency Department.

Source: EPAS Service Brochure RPA Women and Babies 2012
Influenza Vaccination in pregnancy

Protect you and your baby from influenza (flu)

What is influenza?

Influenza, or flu, is an infectious disease caused by a virus. The influenza virus is mainly spread from person to person through droplets when an infected person coughs or sneezes, or through touching.

How do I avoid the flu?

There are some simple things that everyone can do to prevent getting flu or passing it on to others.

- Cover your mouth when coughing or sneezing, use disposable tissues, and dispose of tissue immediately
- Wash your hands regularly, especially after coughing and sneezing or blowing your nose
- Keep away from people you know are sick with flu
- Avoid crowded places where there may be other people sick with flu
- Consider flu vaccination

Severe influenza in pregnancy

Pregnant women in their second and third trimester are at greater risk of very severe illness from flu

Severe illness from influenza is probably more common in women who have another condition such as diabetes, obesity or asthma. However, some healthy women with an uncomplicated pregnancy have developed life-threatening influenza.

The risk of premature labour and delivery is also increased in pregnant women with influenza. If you are pregnant and develop symptoms of influenza you should contact your doctor as soon as possible, as treatment with antiviral medication may be advised.

Keep baby safe

Babies are at higher risk of more severe influenza

Vaccination during pregnancy has shown to benefit both mother and baby; protective antibodies are transferred across the placenta protecting the baby for up to six months.

Infants less than six months of age are up to ten times more likely to go to hospital with influenza than older children. Influenza vaccines are not licensed for children less than six months of age so protection can only be achieved by vaccinating a mother during pregnancy.

Babies are at risk of severe complications following influenza especially:

- Lower respiratory tract infections e.g. pneumonia
- Acute otitis media

Seasonal influenza vaccine is available Free from your general practitioner

Flu vaccination

There is a vaccine prepared before every winter against influenza (seasonal influenza vaccine). In young health adults influenza vaccine is around 80% effective in preventing influenza infection. Up to one in ten of all adults who receive influenza vaccine experience side effects such as low grade fever, tiredness and muscle aches. Local redness and swelling at the injection site is also common.

There is extensive experience of safe use of influenza vaccine in pregnant women.

There is no evidence of harmful effects on the developing baby.

When should I have influenza vaccine?

Influenza vaccine can be safely given to women planning to have a baby or at any stage during pregnancy irrespective of their delivery date.

Managing influenza (flu) with a baby at home

Symptoms of influenza

Influenza is an illness that last for 5-7 days

- Fever of feeling feverish/chills
- Cough
- Sore throat
- Runny or stuffy nose
- Muscle or baby aches
- Headaches
- Fatigue (tiredness)

**What if I get the flu?**
- Keep breast feeding
- Control your temperature with paracetamol
- See you GP early if symptoms develop your doctor will advise you on treatment options, including antiviral medications

**What if someone else in the family gets flu?**
- Keep them away from the baby if possible
- Wash your hands thoroughly before touching baby

**What if my baby does get the flu?**
- Keep breast feeding
- Your baby needs to be urgently assessed by a doctor
- Keep baby away from other people, especially other babies, children and pregnant women

**Emergency Contact numbers**
- 24 hour Health advice line 1800 022 222
- Karitane 1300 227 464
- Tresillian 1800 637 357
- Parent Health line 24 hour service 1300 130 052

**Further information**

**NSW Ministry of Health**

**Immunise Australian Program**
www.immunise.health.gov.au- click on Disease and Programs A-Z then “influenza”

**National Centre for Immunisation Research and Surveillance**

*Source: South Western and Sydney Local Health Districts Public Health Unit*
Group B Streptococcus and Pregnancy

What is group B streptococcus?
Group B streptococcus is a common bacterium that is found in the body. It is usually harmless in adults. Ten percent to 30% of pregnant women carry the bacterium in their vagina. Babies of women who have group B strep can become infected during delivery. This can occasionally cause serious illness in the newborn.

Facts about group B streptococcus
Even if you have group B strep (or GBS), your baby will not necessarily be infected or develop serious illness. Other facts about group B strep are:

- Group B strep is not a sexually transmitted infection (STI)
- Group B strep is not the same as other types of streptococci bacteria, such as those that cause strep throat.
- Often, group B strep causes no symptoms or problems in adults.
- A baby of a woman who has group B strep can become infected during labour or delivery.
- Group B strep may become a problem if you also have other risk factors during pregnancy.
- When a mother with risk factors (such as those below) is treated for group B strep during delivery, the risk of her baby being infected or becoming seriously ill is much reduced.

What can increase the risk?
Certain risk factors during pregnancy can increase the chances of your baby becoming infected with group B strep:

- Having a urinary tract infection with group B strep
- Breaking or leaking of the amniotic sac (the bag of fluid that holds the baby) earlier than 37 weeks
- Labour earlier than 37 weeks
- Fever during labour

Group B strep testing
Two tests are done routinely to test for Group B strep; one is a urine test earlier in pregnancy and the second is a vaginal swab which is usually done in the second part of pregnancy. You may collect a swab from your vaginal area which is sent to a laboratory for testing. The bacteria take a few days to grow and you will be informed of the result at your next antenatal visit. These test results cannot say whether or not your baby will become infected with group B strep. They can, however help hospital staff decide whether antibiotic treatment to prevent infection is needed.

Treatment for group B streptococcus
If your baby is at risk of group B strep infection, we will suggest that you be given an antibiotic to help stop transmission of the infection. The antibiotic is given through an intravenous line during labour and birth. If group B strep is found in your urine during the pregnancy you will be offered oral antibiotics straight away to cleanse the bacteria from your system. We will still suggest that you have antibiotics when you are in labour in this case. After the birth, your baby will be observed for 24 hours for signs of any infection.

Your pregnancy
Since the bacteria can come and go in your body, you need to be tested for group B strep in every pregnancy. If you test positive for group B strep there is a risk of your baby becoming infected during the birth, especially if other risk factors occur. The result of your swab and urine test will be noted on your medical record and yellow card. You should notify the hospital once your waters break, even if labour does not start, so you can be treated.

Please speak to your midwife or doctor to discuss any concerns this information raises.
Pregnancy - Your Baby’s Movements And What They Mean

Australian and New Zealand stillbirth alliance

Pregnancy- your baby’s movements and what they mean

This brochure will give you information about what your baby’s movements mean. It also provides some tips on how you can keep a check on your baby’s health by being aware of their movements.

What is your baby doing in there?

As a mother, it is very exciting to feel your baby move. Your baby will be active during your entire pregnancy. You will first start to feel your baby move when you are between 16-22 weeks pregnant. In the beginning you won’t feel your baby’s movements very often. As your baby grows, the movements will become obvious and you will gradually start to feel the movements more regularly. You won’t feel small movements such as thumb sucking or stretching of fingers and toes. You will feel kicking and rolling movements and perhaps hiccups (small rhythmic twitches) during the last trimester of your pregnancy. All these movements are obvious in the last months of pregnancy and should be felt up to the time you go into labour.

What do movements say about your baby’s health?

Usually an active baby is a healthy baby. Some women may not feel their baby move as much as others, even though their baby is doing well. Women who are of larger body size or whose placenta is located at the front of the uterus may not feel their baby’s movements as strongly.

How much should your baby move: should you count kicks?

Being aware of your baby’s movements each day is a very good habit to have during pregnancy. There is no need to keep a written record of your baby’s movements, although some women may want to.

We suggest that from 28 weeks (third trimester), you spend some time each day focussing on your baby’s movements. Most babies move around more in the morning and in the evening.

When your baby is awake you can practise feeling for movements. You will feel movements best when you relax while lying down or sitting down. You will feel your baby’s movement least while standing, walking or if you are busy with other things.

Is it true that babies move less before labour?

There is no reason to believe that babies move less in the last few weeks before birth. It is important to remember that your baby should remain active during your entire pregnancy.

Do healthy babies move all the time?

Babies do not move all the time, even when they are perfectly healthy. All healthy babies will be quiet or asleep for short periods of time. Before birth, babies have similar sleep and wake cycles to those of newborn baby.

To better understand your baby’s wake and sleep cycles, imagine a healthy toddler running around and then having a regular daytime nap. This is normal behaviour for a toddler. But if that toddler was to lie on the cough for a long time when they did not usually sleep, you would wonder if your toddler was sick. Similarly, if your baby is quiet at a time when they are normally active, then there may be cause for concern.

What do you do if you are concerned about your baby’s movements?

Always remember that normal movements are a sign of a healthy baby - when a healthy baby is awake they will usually move at these 10 times in two hours. If you feel a decrease in the normal daily activity of your baby this may be a cause for concern.

If you have any concerns during your pregnancy about your baby’s movements, you should first sit in a quiet place and focus on feeling your baby’s movements.

If you are still concerned, contact your midwife or doctor immediately. Never wait until the next day.

It is best not to delay contacting your care provider. Most of the time, your doctor or midwife will check your baby’s heartbeat, and tell you that your baby’s tests are normal. However, a small number of cases not feeling a baby moving is the only sign that is noticed before a baby is stillborn.
You should contact the maternity ward, your doctor or midwife directly:

- If your baby does not move at all one day. If this happens contact your care provider that very day or night. Do not wait until the next day.

- If your baby kicks less in the course of one day and you feel that there is too little activity from your baby.

We hope that this information has helped you get to know and understand what your baby’s movements mean.

For further information visit: www.stillbirthalliance.org.au/guideline4.htm or ask your obstetrician or midwife for more information about your baby’s movements.

Acknowledgements
This information brochure was compiled in 2010 and last updated in 2012, by health researchers from the Australian and New Zealand Stillbirth Alliance (ANZSA) in consultation with ANZSA member organisations and Queensland Centre for Mothers and Babies.

ANZSA would like to thank Mater Medical Research Institute for accommodating the ANZSA Coordinating Centre and the Mater Foundation for supporting the activities of ANZSA.

Australian and New Zealand Stillbirth Alliance
Email: info @ stillbirthalliance.org.au
Web: www.stillbirthalliance.org.au

ANZSA is a regional office of the International Stillbirth Alliance (www.stillbirthalliance.org)

ANZSA Coordinating Centre, Mater Medical Research Institute, Brisbane QLD Australian (research.mater.org.au)

research.mater.org.au

RPA Women and Babies
Missenden Rd
Camperdown
Delivery Ward ph.: 9515 8420
Birth Centre ph. 9515 6405

Canterbury Hospital
Canterbury Rd
Campsie
Birthing Unit ph. 9787 0555 or ph 9787 0554
Thinking Pregnancy, Think Immunisation

Give your baby a healthy start

Immunisation is a simple and effective way you can protect yourself, your unborn baby or your newborn against certain infectious diseases.

Some of these diseases can have serious outcomes for you and your baby. Immunisation uses the body's natural defence mechanism - the immune response - to build resistance against specific infections.

It is important you discuss immunisation with your General Practitioner (GP).

Before pregnancy...
If you are planning a pregnancy, ideally you should check whether your immunisations are up-to-date before becoming pregnant.

Pre-pregnancy Immunisation Checklist
Infectious diseases during pregnancy may increase the risk of miscarriage or lead to serious abnormalities in the unborn baby.

Below are the recommended vaccinations prior to pregnancy.

- **MMR** (measles, mumps, rubella - German measles)
- **dTpa** (diptheria, tetanus, pertussis - whooping cough)
- **Flu** (influenza)
- **Varicella** (chicken pox)
- **Hepatitis B**

Additional vaccines may be recommended if there are increased risk factors or health concerns. Talk to your GP.

When you are pregnant...

**Influenza**
During pregnancy, influenza can cause serious health problems for you and your baby.

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) actively encourage influenza vaccination during pregnancy and regards it as a safe vaccine to be given before, during and after pregnancy.

**Travelling**
Talk to your GP about vaccinations that protect you from diseases that are still common in other parts of the world.

After the baby is born...

It is safe for a woman to receive vaccinations after giving birth and while breastfeeding.

Pertussis (whooping cough) and influenza vaccinations are strongly recommended for anyone living in the same household or caring for your baby. This helps reduce possible risk of transmission to mother and baby.

It is recommended that all babies be immunised according to the National Immunisation Program which commences at birth.

Precautions...

Women should not receive the MMR (measles, mumps and rubella) or Varicella (chicken pox) vaccine if they are already pregnant.

It is recommended that you wait for a period of four (4) weeks after receiving these vaccinations before trying to fall pregnant.

Partners and carers...

Consider other people in your household. Fathers, partners and carers should ensure that their immunisation status is up-to-date. It is safe for them to receive these vaccinations whilst you are pregnant. Additional vaccines may also be recommended by their GP.

**NB** There is a delay period from receiving the vaccination to being immunised against that infection.

Did you know ?
The protection you receive from some vaccinations are passed onto your baby during pregnancy.
This will help protect your newborn baby.
Other important information you should discuss with your GP if thinking about pregnancy

- **Physical Assessment**—blood pressure, weight, breast examination, pap smear
- **Medical History**—pre-existing medical conditions
- **Genetic/Family History**—history of hereditary condition, previous baby with genetic, chromosomal or congenital abnormality
- **Past obstetric history**—outcomes of any previous pregnancies
- **Folic acid and iodine supplements**—timing and recommended dosage
- **Medication Use**—review current medications
- **Lifestyle**—healthy eating and dietary advice, weight, exercise, smoking cessation, alcohol use

Whether your immunisations are up-to-date

For further information:

**Immunise Australia**
T: 1800 671 811
W: www.immunise.health.gov.au

**National Centre For Immunisation Research and Surveillance (NCIRS)**
T: 9845 1433
W: www.ncirs.edu.au

**NSW Ministry of Health**
T: 9391 9000

**MotherSafe**
( exposures during pregnancy and breastfeeding)
T: 9382 6539
W: www.mothersafe.org.au

Source: IWSML Thinking Pregnancy, Think Immunisation
Antenatal GP Shared Care

Sharing your pregnancy care between your General Practitioner and the hospital

RPA Women and Babies
Canterbury Hospital

What is Antenatal Shared Care (ANSC) ?
Antenatal Shared Care is a program which enables you to be cared for by your General Practitioner (GP) while you are pregnant. Your GP will have gained recognition to provide shared care with RPA Women and Babies and Canterbury Hospital.

The program has been designed to provide you with regular and professional care throughout your pregnancy, up until the time of your baby’s birth and on-going after you leave hospital.

Who is it for?
The program is for women who are likely to have an uncomplicated pregnancy. Most visits during your pregnancy will be to your GP with occasional visits at the hospital antenatal clinics.

If problems do arise during the pregnancy, your care may be transferred to the hospital-only antenatal clinic.Antenatal Shared Care is offered to women wishing to birth at RPA Women and Babies or Canterbury Hospital. It is available between your GP and the antenatal clinic(s) or the Birth Centre at RPA.

What are the advantages of having GP Shared Care during my pregnancy?
As most visits during your pregnancy will be with your GP, you will have the flexibility of appointment times and lessen the inconvenience of travelling to the hospital.

It allows you to continue receiving care from your GP before, during and after the pregnancy.

When do I discuss Antenatal Shared Care with my GP?
Ask your GP for details of the program if you are planning a pregnancy or as soon as you know you are pregnant.

If you do not have a GP, or your regular doctor is not recognised on the Shared Care program, the staff at the hospital can help you select a Shared Care GP in your area.

At present there are more than 400 GPs recognised with the program, all of whom have experience and particular interest in providing antenatal care.

Are there any costs involved ?
The GP consultation is charged as per their usual rate. Hospital visits are covered by Medicare. It is important to visit your GP early to discuss key information regarding your pregnancy.

The importance of visiting your GP early during your pregnancy
It is important to visit your GP early to discuss key information regarding your pregnancy.

This may include discussing screening tests for possible abnormalities in the baby, age–related issues, family history, vaccination status including rubella, folic acid intake and nutrition.

Some tests can only be undertaken early in pregnancy so it is important that you talk with a GP as soon as possible.

What do I need to bring to my first hospital appointment ?

* Yellow antenatal record card provided by your Antenatal Shared Care GP provider. This card should be brought to every visit with your GP and the hospital so that it can be updated with your latest information.

* All blood/pathology results and ultrasound reports.

* Medicare Card.

* Documentation confirming your home address. Only women residing within postcodes covered by RPA and Canterbury Antenatal Clinics can deliver at the respective hospitals

* Photo ID (Passport or Driver’s licence).
Antenatal Clinic Schedule:
RPA Women and Babies / Canterbury Hospital

<table>
<thead>
<tr>
<th>Stage of Pregnancy</th>
<th>Antenatal Encounter</th>
<th>Who to visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-10 weeks #</td>
<td>Confirm your pregnancy History and examination Discuss prenatal screening/testing options</td>
<td>GP</td>
</tr>
<tr>
<td>12-18 weeks</td>
<td>First visit at hospital. Bring blood results</td>
<td>Hospital Clinic</td>
</tr>
<tr>
<td>20-22 weeks</td>
<td>Clinic Visit. Confirm suitability for GP Shared Care</td>
<td>Hospital Clinic</td>
</tr>
<tr>
<td>14-28 weeks</td>
<td>Visit every 4 – 6 weeks</td>
<td>GP</td>
</tr>
<tr>
<td>18-20 weeks</td>
<td>Ultrasound scan</td>
<td>Hospital or private clinic</td>
</tr>
<tr>
<td>30 weeks</td>
<td>Clinic review. Bring blood results for review</td>
<td>Hospital clinic</td>
</tr>
<tr>
<td>32-36 weeks</td>
<td>Visit every 2 weeks</td>
<td>GP</td>
</tr>
<tr>
<td>37 weeks</td>
<td>Clinic review</td>
<td>Hospital Clinic</td>
</tr>
<tr>
<td>38-40 weeks</td>
<td>Visit weekly</td>
<td>GP</td>
</tr>
<tr>
<td>41 weeks +</td>
<td>Post date review</td>
<td>Hospital Clinic</td>
</tr>
</tbody>
</table>

Birth Centre Schedule:
RPA Women and Babies

<table>
<thead>
<tr>
<th>Stage of Pregnancy</th>
<th>Antenatal Encounter</th>
<th>Who to visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASAP</td>
<td>First information session</td>
<td>Birth Centre</td>
</tr>
<tr>
<td>14-20 weeks</td>
<td>Birth Centre booking visit and order tests</td>
<td>Birth Centre</td>
</tr>
<tr>
<td>18-20 weeks</td>
<td>Ultrasound scan</td>
<td>RPA Hospital</td>
</tr>
<tr>
<td>22 weeks</td>
<td>Obstetrician review as appropriate</td>
<td>Birth Centre</td>
</tr>
<tr>
<td>24 – 26 weeks</td>
<td>Antenatal visits</td>
<td>GP</td>
</tr>
<tr>
<td>28,32,36 weeks</td>
<td>Antenatal visits</td>
<td>GP</td>
</tr>
<tr>
<td>30 and 34 weeks</td>
<td>Antenatal visits</td>
<td>Birth Centre</td>
</tr>
<tr>
<td>36 weeks</td>
<td>Second information session</td>
<td>Birth Centre</td>
</tr>
<tr>
<td>37 weeks +</td>
<td>Regular visits arranged with Birth Centre</td>
<td>Birth Centre</td>
</tr>
</tbody>
</table>

# Book your first Antenatal Visit with the hospital clinic or Birth Centre

Contacts:
GP Shared Care Liaison Midwife  9515 7416

RPA Women and Babies
www.rpawomenandbabies.com.au

Antenatal Clinic
Appointments  9515 7101
Midwife  9515 8090

RPA Birth Centre
Booking In/Appointments  9515 6405

Canterbury Hospital
Antenatal Clinic
Appointments  9787 0250
Midwife  9787 0183

If you require EMERGENCY medical help during your pregnancy

If you are greater than 20 weeks pregnant
Contact RPA Delivery Ward ph 9515 8420 or Canterbury Hospital ph 9787 0000 and ask for Birthing Unit

If you are less than 20 weeks pregnant:
For non-urgent problems: Contact your GP for follow-up
For urgent problems: Attend RPA Emergency Dept Missenden Rd, Camperdown ph 9515 6111 or Canterbury Hospital Emergency Dept
<table>
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<th>Author</th>
<th>Resource</th>
<th>Version</th>
<th>Reviewed by</th>
<th>Date</th>
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