Welcome to first trimester screening

Following lengthy evaluation of serum biochemistry and nuchal translucency data collected on South Australian and Tasmanian pregnancies between 10 and 14 weeks gestation, SAMSAS is now pleased to be able to deliver assessment of risk of fetal Down syndrome in first trimester based on local Australian data linked to ASUM standards.

Screening for fetal chromosomal disorders in first trimester is best performed by combining serum biochemistry and ultrasound results. Together these measurements produce a significant increase in detection of affected pregnancies at low false positive rates. Ultrasound practices across South Australia are working with SAMSAS to provide this combined first trimester screening service. Their locations appear at the end of this newsletter.

Second trimester screening of pregnancies for fetal Down syndrome and neural tube defects remains in place and can still be requested as before. We recommend, however, that if a pregnancy is screened in first trimester then any request for second trimester maternal serum screening be confined to NTD screening only. First trimester screening does not include detection of fetal NTDs.

Requesting first trimester screening

As soon as a patient decides she wants the screening test, arrange for the ultrasound and blood measurements. Two request forms are required, one for the blood analysis and one for the ultrasound scan;

**BLOOD ANALYSIS**

1. A 5-10 mL clotted blood specimen is required. This can be taken at the same time as the routine antenatal serology specimen, between 10 and 13 weeks gestation, at any one of a number of collection centres (see reverse of SAMSAS request form for details);
2. Use a SAMSAS request form (telephone (08) 8161 7285 if you require some of these, or download one from the website [www.chempathadelaide.com/samsas](http://www.chempathadelaide.com/samsas)). If you use your regular pathology request form specify “send to WCH”.
   (a) the test request is “first trimester screen”;
   (b) complete the gestational age information (weeks+days and date estimated) or EDD;
   (c) specify the ultrasound practice performing the nuchal translucency scan;
   (d) send the blood specimen to Women’s and Children’s Hospital. Your usual pathology specimen arrangements can be used;
   (e) give the patient the SAMSAS pre-test information booklet.
ULTRASOUND

3. Book a nuchal translucency scan (see attached list of addresses where this can be done). The fetus must be between 11+ and 13+ weeks gestation at the time of the scan;

4. Complete an ultrasound request form, specifying “risk of fetal abnormality”;

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

Availability of first trimester screening

Combined ultrasound+biochemistry screening is not at present offered through all hospitals/clinics. Check with the hospital/clinic concerned. The ultrasound practices currently coordinated with the SAMSAS Programme are listed on the attached sheet. Those locations marked * are staffed by a sonographer accredited by the Fetal Medicine Foundation (FMF) UK for the performance of first trimester nuchal translucency scans.

Costs

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

Change of telephone number

Reallocation of telephone codes for the Women’s and Children’s Hospital has resulted in the first four digits of the SAMSAS number to be changed to 8161-.

Our new numbers are: telephone: (08) 8161 7285         fax: (08) 8161 8085

Our e-mail samsas@wch.sa.gov.au and website www.chempathadelaide.com/samsas remain the same.

Richard G. Ryall, PhD MAACB
on behalf of the South Australian Maternal Serum Antenatal Screening Programme

Gestational Age Windows for Antenatal Screening for Birth Defects

<table>
<thead>
<tr>
<th>First Trimester</th>
<th>Blood sample 10w0d – 13w6d</th>
<th>Ultrasound 11w0d – 13w6d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Trimester</td>
<td>Blood sample 14w0d – 20w6d</td>
<td>(optimal time 16w0d – 18w6d)</td>
</tr>
</tbody>
</table>
Locations for the provision of First Trimester Nuchal Translucency scans in association with SAMSAS

The ultrasound practices currently coordinated with the SAMSAS Programme (those locations marked * are staffed by a sonographer accredited by the Fetal Medicine Foundation (FMF) UK for the performance of first trimester nuchal translucency scans) are:

ASHFORD  
Dr Karen Shand*, Ashford Specialist Centre, tel: 8293 8880  
Benson Radiology*, Ashford Specialist Centre, tel: 8297 0588

CAMPBELLTOWN  
Perrett Medical Imaging, North Eastern Hospital, tel: 8402 0000

ELIZABETH VALE  
Benson Radiology*, Central Districts Private Hospital, tel: 8250 4622  
Lyell McEwin Medical Imaging*, Lyell McEwin Health Service, tel: 8182 9900  
Lyell McEwin Hospital*, (Obstetrics referral),  
Obstetrics Department, tel: 8182 9255

GAWLER  
Benson Radiology*, 46 Adelaide Road, tel: 08 8522 5111

HENLEY BEACH  
Benson Radiology*, Western Hospital, tel: 8353 1755

MODBURY  
Benson Radiology*, Modbury Hospital, tel: 8265 5100  
Dr Jones & Partners, Modbury Medical Centre, tel: 8402 3150

MORPHETT VALE  
Dr Jones & Partners, Southern Specialist Centre, tel: 8307 3450

MURRAY BRIDGE  
Soldiers Memorial Hospital, Swanport Road, tel 8535 6740

MT BARKER  
Dr Jones & Partners, Mt Barker District Hospital, tel: 8393 7400

NORTH ADELAIDE  
Benson Radiology*, Melbourne Street, tel: 8239 0944  
Perrett Medical Imaging, Calvary Hospital, tel: 8402 0000

PORT ADELAIDE  
Perrett Medical Imaging, Port Adelaide Medical Centre, tel: 8402 0000

PORT AUGUSTA  
Perrett Medical Imaging, Port Augusta X-Ray, tel: 8402 0000

PORT LINCOLN  
Perrett Medical Imaging, Port Lincoln Hospital, tel: 8402 0000

PORT PIRIE  
Perrett Medical Imaging, Port Pirie Hospital, tel: 8402 0000

SALISBURY  
Benson Radiology*, 33 Park Terrace, tel: 8281 2066

TOORAK GARDENS  
Dr Jones & Partners Attunga Medical Centre, tel: 8403 3100

WHYALLA  
Perrett Medical Imaging, Whyalla Hospital, tel: 8402 0000

WOODVILLE  
The Queen Elizabeth Hospital*, Department of Radiology, tel: 8222 6894  
The Queen Elizabeth Hospital*, (Obstetrics referral),  
Antenatal Clinic, tel: 8222 7050

Gestational Age Windows for Antenatal Screening for Birth Defects

First Trimester Blood sample 10w0d – 13w6d Ultrasound 11w0d – 13w6d