Pregnancy Timeline of Laboratory Tests

WEEK 4 - 12	**HCG**	HCG usually positive by 10 - 14 days post conception, or 4 weeks after last menstrual period. If negative repeat in 2 - 3 days.
	FBE	Baseline Haematology and screening haemoglobinopathy. If results suggestive of alpha thalassaemia contact laboratory Haematologist to discuss further testing on baby's father.
	Hb Electrophoresis	Recommended unless previously performed. If any abnormality contact laboratory Haematologist to discuss further testing on baby's father.
	Iron Studies	
	Blood Group & Antibody Screen	If patient is Rh negative see over "Complications in Pregnancy".
	HepBsAg, Treponemal and Rubella Serology	
	+/- Hep C	If clinically indicated.
	+/- MSU	If clinically indicated.
	TSH	For women with personal or family history of thyroid disease.
	HIV	Consent mandatory.
	Chlamydia & Gonorrhoeae Screen(PCR)	For teenage pregnancies or multiple partners (first pass urine PCR).
	Vitamin D	Suggested for dark skinned individuals, or those wearing covering clothing.
WEEK 9 - 13	**First Trimester Screen (Free beta hCG, PAPP-A)**	
	Blood test at 10 weeks gestation **Ultrasound at 12 weeks gestation**	Results combined with foetal ultrasound to provide assessment of Down Syndrome risk.
	Chorionic Villus Sampling (CVS)	Foetal Karyotyping may be offered for follow up of high risk results or for other clinical indications. Allow 2 - 3 weeks for foetal karyotype result. Discuss with O & G specialist.
	Generation NIPT (Non Invasive Prenatal Testing)	Foetal genetic testing using maternal serum for trisomies 21, 18 and 13 and a micro deletion panel is available at an additional cost.
WEEK 14 - 20	**Second Trimester test (AFP, Estriol, Total HCG)**	For Down Syndrome, Trisomy 18 and Neural Tube Defect (NTD) risk.
	Amniocentesis	Offer for follow up of high risk first or second trimester screen results for other clinical indications. Allow 2 - 3 weeks for foetal karyotype result.
	Amniocentesis with FISH (Fluorescence in Situ Hybridisation)	Offer for very high risk/anxious patient for fast screen of common chromosome abnormalities. Allow 2 working days. Note: No Medicare rebate. Foeral Karyotype is also complicated. Discuss these with O & G specialist.

WEEK 18 - 19	**Anatomy Scan**	Important for follow up of high risk Neural Tube Defect (NTD) results.
WEEK 24 - 28	**Glucose Tolerance Test (GTT)**	Gestational Diabetes is diagnosed on the basis of fasting glucose >5.0; 1 hour >9.9 and 2 hour > 8.4 mmol/L. If diagnosed with Gestational Diabetes suggest repeat at 6 - 12 weeks post partum.
	Blood group & Antibody Screen	See "Complications in Pregnancy" for RhD –ve women.
	Iron Studies	If clinically indicated.
WEEK 28	**Rh D –ve Anti D prophylaxis if antibody negative. (See below)**	
WEEK 34	**Blood Group & Antibody Screen**	See "Complications in Pregnancy" for RhD –ve women.
	Rh D –ve Anti D prophylaxis if antibody negative. (See below)	
WEEK 35 - 37	**High Vaginal Swab**	For Group B Strep +/ - Rectal Swab.
	Chlamydia & Gonorrhoeae Screen	Consider (FPU for PCR).
	Herpes Simplex Virus	Consider PCR if lesion present.
WEEK 38	**FBE**	
	Blood Group & Antibody Screen	
Post Partum	**Rh Negative**	Fetomaternal haemorrhage test and Anti D.
	TSH, Iron Studies, FBE	Consider these if there is a history of excessive fatigue.
	GTT	Repeat at 6 - 12 weeks if patient tested positive to Gestational Diabetes.

Complications in pregnancy

Threatened Miscarriage:

- Perform serial HCGs at 2-3 day intervals. Levels normally double each 2-3 days with a peak at approximately 8 weeks after the last menstrual period. Discuss with Chemical Pathologist if required.

Query ectopic pregnancy

- HCG insufficient rise or fall in HCG
- Progesterone
- Ultrasound

Recurrent pregnancy loss:

- Products of conception for foetal karyotype
- Parental chromosomes
- Haematological/Immunological Tests: Thrombophilia Screen (ATIII, Protein C and S, aPCR, ANA, Lupus Anticoagulant, Anti Cardiolipin antibodies, Homocysteine, Factor V Leiden gene, Prothrombin Gene. Discuss results with Obstetrician or Clinical Haematologist.

Rhesus D negative Women:

- All patients undergo Blood group & Rh type, together with antibody screen at initial pregnancy testing
- If previous pregnancy affected by Rhesus disease/ haemolytic disease of the newborn, or presence of anti-D antibodies, consult with a specialist obstetrician.
- Check antibody screen at 28 & 34 weeks.
- If antibody screen is negative give 625 IU (125ug) of RhD Immunoglobulin at 28 & 34 weeks intramuscular in all pregnancies.
- Post partum: 625 IU (125ug) minimum of anti-D intramuscular RhD Immunoglobulin post partum within 72 hours, together with testing for fetomaternal haemorrhage (Kleihauer test) if cord blood is Rh positive.
- For possible fetomaternal haemorrhage – RhD Immunoglobulin within 72 hours intravenous, together with testing for fetomaternal haemorrhage (Kleihauer test). 1st trimester 250 IU (50ug); beyond 1st trimester 625 IU (125ug).

Further advice regarding investigations and management should be sought from a:

Haematologist 9244 0384
Chemical Pathologist 9244 0484
Microbiologist 9244 0298

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