F

FACTOR ASSAYS

Specimen Required: **2 x Sodium citrate tubes. Bunbury to collect 3 x Na Citrate**
Department: Referred test
Reference range: As stated on report.

FACTOR V LEIDEN

Specimen Required: **1 x Sodium citrate tube**
1 x EDTA
Department: Referred test
Note: Patient must have written history of DVT or pulmonary embolism for the gene mutation analysis to be done under Medicare.
See also: Thrombophilia Screening

FAD (VITAMIN B2)

Specimen required: **1 x Lithium Heparin (NO GEL)**
Department: Referred test

FAECAL ELASTASE

Specimen required: **Faeces,** specimen should be sent in a brown screw topped faeces container.
Department: Referred test. Freeze and send on dry ice

FAECAL FATS

TEST NO LONGER PERFORMED: SUPERCEDED BY FAECAL ELASTASE

FAECES

Department: Microbiology

(A) FOR CULTURE

Specimen required: The specimen should be taken if possible from a portion of the stool showing blood or mucus, if present. The quantity of specimen should be about the size of a walnut and should be sent in a brown screw topped faeces container. The specimen should be as fresh as possible.

Comment: The Medicare Benefits Schedule allows for the culture of **only one faeces specimen in a seven-day period**. (See also section B below).

Routine culture of faeces includes investigation for *Salmonella*, *Shigella* and *Campylobacter.* If other pathogens are suspected from the history or clinical setting (e.g. *Clostridium difficile yersinia, vibrio.*), this needs to be requested specifically and clinical details provided, eg. Antibiotic therapy, overseas travel etc.

(B) FOR PARASITES AND HELMINTHS

Specimen required: As for culture.

Comment: The Medicare Benefits Schedule allows for concentration of faeces for ova, cyst and parasite microscopy on **only two specimens in a seven-day period.** One of these specimens may also be tested by special techniques for *Giardia* and *Cryptosporidium*. One of these specimens may also be cultured, as described in section A above.

Note: If pinworm is suspected, the cellotape method should be used for collecting the specimen. A short length of clear cellotape is pressed several times onto the perianal skin and then stuck down onto a glass slide. A specimen collected first thing in the morning is best.

If Dientamoeba fragilis is suspected, use special containers with a fixative available from the Microbiology Department.

(C) VIRAL STUDIES

Specimen required: As for culture.

Rotovirus and adenovirus 40/41 tested in the Microbiology Department, Norovirus performed at Pathwest by PCR.

Comment: Faeces testing for enteric viruses is not included in the examinations described above and must be requested specifically, eg. “viral studies”, “rotavirus” ± “adenovirus” and “norovirus”. Rotavirus and adenovirus are common causes of diarrhoea in the paediatric age group and should be suspected in adults parenting infected children. Norovirus is a common cause of diarrhoea in debilitated and elderly patients. Norovirus previously know as Norwalk, calici and small round virus.

In order to help the Laboratory to optimise the detection of gastrointestinal specimens and comply with the Medicare Benefits Schedule, doctors are asked to request faeces examination in the following way:

Specimen 1: M,C&S; O,C&P

Specimen 2: O,C&P

and add viral studies as indicated.

(D) FOR OCCULT BLOOD

Two type of test are performed for Faecal occult blood detection, a chemical test and an immunological test

Specimen required: Ideally, fresh stool samples should be collected on three (3) separate days and submitted to the Laboratory as soon as possible. **Please note:** To comply with Medicare requirements we can only process multiple specimens (eg FOBx3) if they are written on the request form. If the doctor only writes FOB we can only process one specimen. There are no dietary restrictions, as interference is not caused by Vitamin C, iron tablets etc. Interference can occur with the chemical test but not usually with immunological test.

Comment: An immunological test method is used which is more sensitive and specific than chemical methods, however false results may still be obtained, both false positive and false negative. The test detects human haemoglobin and is very sensitive at detecting bleeding from the lower gastro-intestinal tract. Please note that the presence of frank blood may interfere with the test result.

(E) REDUCING SUBSTANCES

Specimen required: A fresh faeces sample is required. This sample must be kept refrigerated, see requirements below:

- If time from collection to testing is <2hr - refrigerate at 4 degrees C transport in esky
- If time from collection to testing is 2-6 hr - refrigerate at 4 degrees C transport in esky taped to an ice brick.
- If time from collection to testing is >6hr - sample must be frozen. **If MC&S is requested on same request form and sample is to be frozen, two samples will need to be collected with one being frozen.**

FAI

See FREE ANDROGEN INDEX

FASTING METABOLIC BONE STUDY

See METABOLIC BONE STUDY

FBC

See FULL BLOOD COUNT

FERRITIN

Specimen required: **Serum (1 x SST*)***

Department: Biochemistry

Interpretation: HIGH - Iron overload, (Haemosiderosis, Haemochromatosis) liver damage, infection, inflammation, neoplasia.

LOW - Iron deficiency.

FIBRINOGEN

Specimen required: **1 x Sodium citrate.**
Reference range: 2.0 - 4.5 g/L
Department: Haematology
Interpretation: HIGH - Acute phase response.
LOW - Liver failure, haemorrhage, dysfibrinogenaemia, disseminated intravascular coagulation (DIC).

FIBRIN / FIBRINOGEN DEGRADATION PRODUCTS (FDP)

See D-DIMERs.

FILARIA SEROLOGY / DETECTION

Specimen required: **Serum (1 x SST)**
Department: Referred test
Note: May detect various worms, including Wucheria and Onchcerea.
Some microfilaria worms may also be detected in blood films made in Haematology

FINE NEEDLE ASPIRATION CYTOLOGY

See CYTOLOGY.

FIRST TRIMESTER SCREENING (PAPP-A, FREE BETA HCG)

Specimen required: **Serum (1 x SST) - Blood must be spun and frozen within 6 hours of collection**
Attach Process Immediately sticker
Collect BETWEEN 9 & 13 weeks 6 days gestation. Double check gestation/EDD before blood is collected.
Please complete check list provided for this test.
Department: Biochemistry
Note: **Always performed in conjunction with an ultrasound**. Test can be performed anytime within the required gestation dates of 9 weeks and 13 weeks 6 days. The blood is no longer required to be taken a certain number of days before/after the ultrasound. Results are issued direct to the Ultrasonographer. Ultrasound practitioner will calculate the Risk of Downs using biochemical markers and Nuchal Translucency Measurement from ultrasound. Please ensure patient is give a First Trimester screening card with the collection details on it.
Under **no** circumstances discourage a woman who presents for this test for the sake of a timeframe - **the process is flexible –** provided the blood is taken between 9 and 14 weeks.

FK506 (TACROMILUS LEVEL)

Specimen required: **1 x EDTA** – **refrigerate sample after collection.**
Department: Referred test
Reference range: As stated on report.
Note: Sample preferably in the morning at least 12 hours post dose or just prior to next dose.

FLECAINIDE

Specimen required: **1 x Lithium Heparin. Collect pre dose (Trough)**
Department: Referred test
Reference range: As stated on report

FLUORESCENT IN SITU HYBRIDIZATION STUDIES (FISH TESTS)

See CYTOGENETICS

FLUORIDE

Specimen required: **Serum (1 x SST), Spot Urine**
Department: Referred test
Note: If testing for occupational exposure, spot urine is the specimen of choice.
Patient will be invoiced directly. Refer to Main Laboratory for current charging.

FLUOXETINE

Specimen required: **1 x Heparin NO GEL. Collect PRE-DOSE sample (Trough).**
Department: Referred test
Reference range: Fluoxetine 50 - 450 ug/L
Norfluoxetine 50 - 450 ug/L
(at an oral dose of 20 - 60 mg/day.)

FNA

See CYTOLOGY.

FOLATE /FOLIC ACID (RED CELL FOLATE)

Specimen required: **1 x EDTA**
Department: Biochemistry
Reference range: 267-1023 ug/L
Note: **If FOLATE is requested, Red Cell Folate will be assayed.**
Red cell folate is less affected by diet than serum folate and is an indication of total body folate.

FOLIC ACID (SERUM FOLATE)

Specimen required: **Serum (1 x SST) + 1 x ETDA**
Department: Biochemistry
Reference range: NORMAL 4.6 - 20 ug/L
DEFICIENT < 2.32 ug/L
Note: Serum folate reflects folate absorption in the past week. **Only assayed if SERUM Folate is specified**, as Red Cell Folate is the assay of choice.

FOLLICLE STIMULATING HORMONE (FSH)

Specimen required: **Serum (1 x SST)**
Department: Biochemistry
Reference range: Female:
Follicular phase 1 - 10 U/L
Mid-cycle peak 6 - 17 U/L
Luteal phase 1 - 9 U/L
Post menopausal 19 - 100 U/L
Male: 1 - 15 U/L

FRAGILE X

See GENETIC DISORDERS

FREE ANDROGEN INDEX (FAI)

Specimen required: **Serum (1 x SST)**
Department: Biochemistry
Reference range: Female 0.51 - 6.5 %
Request includes: TESTOSTERONE & SEX HORMONE BINDING GLOBULIN.
Interpretation HIGH - Polycystic Ovary Disease
-Virilisation

FREE LIGHT CHAINS

Specimen required: Serum (1x SST)
Department: Referred test
Reported as: Kappa Free Light Chains in mg/L (NR <19.4)
Lambda Free Light Chains in mg/L (NR <26.3) and Kappa/Lambda ratio (NR 0.3-1.7)

FREE PSA

See PROSTATE SPECIFIC ANTIGEN – FREE

FREE TESTOSTERONE (CALCULATED FREE TESTOSTERONE)

Supercedes FAI, especially in men

Specimen required: **Serum (1 x SST)**
Department: Biochemistry
Reference range: 0.204 -0.637 in males
0.004 – 0.039 in females
Note: Calculated from SHBG and Testosterone
Interpretation: Best calculated index of free (active) testosterone

FRUCTOSAMINE

Specimen required: **Serum (1 x SST)**
Department: Referred test
Reference range: As stated on report.
Note: The result is indicative of the circulating levels of glucose over the previous 17 days (which is the half-life of Albumin). The report will include an estimation of the mean blood glucose level in the patient over that period.

FSH

See Follicle Stimulating Hormone

FULL BLOOD EXAMINATION (FBC)

Specimen Required: Adult: **1 x EDTA**
Children: **1 x EDTA**
Neonates: **EDTA** heel prick at Main Laboratory.
Department: Haematology
Reference range: **ADULT**

Haemoglobin:	Male:	130 - 180 g/L
	Female:	115 - 160 g/L
	(if pregnant	104 - 165 g/L)
White Cells (WCC):		4.0 - 11.0 x 10^9/L
Platelets:		150 - 400 x 10^9/L
Haematocrit:	Male:	0.40 - 0.54
	Female:	0.37 - 0.47
Mean Cell Volume (MCV):		80 - 100 fL
Mean Cell Hb (MCH):		28 - 34 pg
Mean Cell Hb Conc.(MCHC):		31.0 - 36.0 g/dL

Neutrophils:	2.0- 7.5	x 10^9/L
Lymphocytes:	1.2- 3.5	x 10^9/L
Monocytes:	< 0.8	x 10^9/L
Eosinophils:	< 0.5	x 10^9/L
Basophils:	< 0.1	x 10^9/L

Paediatric and Child Reference ranges are available.

FUNGAL CULTURE

See specific samples including SKIN SCRAPING

FUNGAL SEROLOGY

Specimen required: **Serum (1 x SST)**
Department: Referred test

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