

## S

**SALICYLATES ( ACETYLSALICYLIC ACID – ASPIRIN )**

Specimen required: **Serum (1 x SST)**  
 Department: Referred test  
 Results: As stated on report  
 Half life: Dose dependent, approx 3-6 hours.  
 Note: Collect 1-3 hours post-dose or immediately for overdose. Note times of dose and collection.

**SALIVARY HORMONES - PROGESTERONE / TESTOSTERONE / OESTRADIOL**

Specimen required: **0.5 - 1.0mL Saliva - See below**  
 Department: Biochemistry  
 Collection: Must obtain saliva from mouth NOT sputum from lungs. Generally taken after 1 hour fast and the mouth has been rinsed out first. Make a note of any hormone therapy.  
 Note: This is NOT a Medicare rebatable item. Contact the Laboratory for current cost to patient.

**SALMONELLA SEROLOGY**

Specimen required: **1 x SST (Serum). Diagnosis of salmonella is best done on culture – see below**  
 Department: Referred test.

**SALMONELLA TYPHI, PARATYPHI A,B (ENTERIC FEVER)**

Specimen required: **Blood cultures x 3**  
 +/- Stool sample for MCS  
 +/- Urine for MCS  
 Department: Microbiology/Referred test.

**SARS VIRUS**

Specimen required: **NOTIFY MICROBIOLOGIST ASAP PRIOR TO ANY SAMPLING.**  
 SEE ALSO INFLUENZA

**SCHILLINGS TEST****TEST DISCONTINUED**

Comment: The European manufacturer of the Schillings test kits has withdrawn the product from service due to strict controls to combat BSE (Mad Cow Disease). It is unlikely that the test kits will become available in the future. Recommended tests are B12, Parietal cell antibodies (see auto antibodies), Intrinsic Factor antibodies, and serum Gastrin (see GASTRIN). Suggest consultation with a Haematologist to discuss other options.

**SCHISTOSOMIASIS ( BILHARZIA ) SEROLOGY**

Specimen required: **Serum (1 x SST)**  
 Department: Referred test  
 Note: Testing at least 3-4 months after exposure is optimum

**SCHISTOSOMIASIS (BILHARZIA ) URINE**

Specimen required: **Collect the terminal stream of urine, after exercising if possible. Between 10.00am-2.00pm**  
 Department: Microbiology  
 Note: Testing should be performed at least 4-8 weeks post exposure and repeated up to at least 3 months after exposure.  
 See also: SCHISTOSOMIASIS (BILHARZIA) SEROLOGY for additional testing.

**SCOLINE APNEOA**

See CHOLINESTERASE

**SECOND TRIMESTER SCREENING ( TRIPLE TEST )**

Specimen required: **Serum (1 x SST) Collect sample between 14 weeks and 17 weeks gestation.**  
**NOTE: NO ULTRASOUND is performed with this test!**

Department: Referred test

Note: **Please fill out checklist supplied for this test.**  
 Information Required: - Last Menstrual Period (LMP),  
 - Estimated Date Delivery (EDD) by ultrasound result  
 - Weight of mother  
 - History of previous Downs, NTD or diabetes

Comment: Samples collected with gestation 14 -15 weeks will be tested; however a risk of NTD will NOT be reported.

**SECRETOR STATUS**

Test no longer performed

**SELENIUM**

Specimen required: **2 x Trace Element (Royal blue top K<sub>2</sub>EDTA)**

Department: Referred Test

Reference range: 0.6 - 1.8  $\mu$ mol/L.

Interpretation: LOW – Dialysis, cirrhosis, malignancy, alcoholics, Crohn's disease, coeliac disease.

**SEMEN**

Department: Microbiology

**(A) FOR FERTILITY INVESTIGATIONS**

Specimen Required: 1. Seminal fluid is best collected by masturbation. The entire sample is required to accurately calculate sperm concentration. Coitus interruptus is not acceptable. Condoms should NOT be used as these contain substances which are spermicidal.

2. Three (3) days must elapse between the day of collection and the previous ejaculation.

3. The specimen should not be cooled.

4. The following information is required with the sample:

- Method and time of collection.
- Date of previous ejaculation.
- Complete or incomplete sample.

**Note:** **The specimen should be delivered to the Main Laboratory as soon as possible after collection (maximum 1 hour). Specimens delivered to other collection centres may provide misleading results.** Specimens to be collected at the main laboratory can only be performed between 07.30am to 09.30am and 1500hrs to 1750hrs

Reference range: Count > 20 x 10<sup>6</sup>/mL  
 Motility > 50 % actively motile or  $\geq$  25 % with rapid progression.  
 Volume > 2 mL  
 Morphology  $\geq$  15 % normal forms

**(B) POST VASECTOMY**

Specimen Required: 1. Seminal fluid is best collected by masturbation. The entire sample is required to accurately calculate sperm concentration. Coitus interruptus is not acceptable. Condoms should NOT be used as these contain substances which are spermicidal.

2. Three (3) days must elapse between the day of collection and the previous ejaculation.

3. The specimen should not be cooled.

4. The following information is required with the sample:

- Method and time of collection.
- Date of previous ejaculation.
- Complete or incomplete sample.

**Note:** **The specimens for post vasectomy checks can be delivered to any collection centre and forwarded to the laboratory with the next courier. For post vasectomy specimens, there is no requirement for the specimen to reach the laboratory within 1 hour.**

**SEMEN (CONT.)****(C) FOR CULTURE**

Specimen required: Spot sample collected into a sterile container. There is no urgency for delivery to the Laboratory. The specimen will routinely be cultured for bacterial pathogens.

**(D) FOR PCR**

Semen for Chlamydia PCR. Mycoplasma/Ureaplasma PCR may be possible with consultation with microbiologist

**SEROTONIN**

Specimen Required: **2 x EDTA whole blood**

Do not centrifuge or refrigerate, sample stable for 24hrs at room temperature. Send sample same day of collection at room temperature, samples to reach RPH within 22 hours of collection.

**DO NOT collect Friday, Saturday or Sunday.**

Department: Referred test

**SEROLOGICAL INVESTIGATIONS:**

Specimen Required: (i) For some viruses, detection of IgM antibodies in a single sample is diagnostic of recent infection.  
(ii) For other viruses, two specimens of 10 mL of clotted blood taken two (2) weeks apart are required. The first specimen should be collected as early as possible after the onset of symptoms, and the second during the convalescent period. A four fold rise in titre or significant elevation in OD, is regarded as diagnostic.

See also: Entries for individual viruses for more information.

**SERTRALINE**

Specimen Required: **1 x Heparin NO GEL - Collect sample just prior to next dose.**

Department: Referred test

Therapeutic Range: As stated on report

**SERUM FREE LIGHT CHAINS**

See FREE LIGHT CHAINS

**SERUM FOLATE**

See FOLIC ACID

**SEX HORMONE BINDING GLOBULIN ( SHBG )**

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

Department: Biochemistry

Reference range: Male (17-40yr): 15 - 45 nmol/L  
(14-65yr): 14 - 50 nmol/L  
Female: (17-50): 26 -110 nmol/L  
(>50): 14 - 69 nmol/L

Comment: Transport protein. Aids in interpretation of Androgen Studies; included in Free Androgen Index.

Interpretation LOW – Hirsutism, polycystic ovary disease and virilisation.

HIGH – Hormone replacement therapy, hyperthyroidism, pregnancy.

**SGOT**

See LIVER FUNCTION TESTS

**SG**

See OSMOLALITY

**SIFE IMMUNOFIXATION**

See IMMUNOELECTRPHORESIS

**SIROLIMUS**Specimen Required: **1 x EDTA**

Department: Referred

**SKIN SCRAPINGS FOR FUNGI OR SCABIES**

Specimen required: Plucked hairs, skin scales, particularly from the active edge of the lesion, crusts, vesicle tops, nail clippings as appropriate. Ask the patient where the most recent outbreak area is and sample from here.

Department: Microbiology

Specimen collection: Before taking the specimen the affected part should be thoroughly cleaned, using 70% alcohol if possible, **treatment should NOT be applied 3 days prior to scraping**. As much specimen as possible should be collected.

In the case of infected nails, pare well into the diseased area and collect any soft material beneath the nail.

Skin and nail specimens should be scraped directly onto black transport cards provided by the laboratory and then tipped into a sterile MSU jar. After collecting the sample, discard the blade in the sharps container and the black card into the rubbish bin.

**Do not send the blade to the laboratory.**

Comment: A report will be issued following direct microscopy indicating the findings. The specimen will then be cultured for up to four (4) weeks and progress reports will be issued as appropriate.

Note: PBS access to restrictive oral medications can proceed if microscopy is positive for fungal elements.

**SODIUM ( Na + )**Specimen required: **Serum (1 x SST)**

Department: Biochemistry

Reference range: 134 - 146 mmol/L

Interpretation: HIGH – Dehydration, excessive intake.  
 LOW – Renal failure, oedematous states (cirrhosis, CCF, nephrotic syndrome), Addison's disease, over hydration, diuretics, vomiting, sweating, syndrome of inappropriate ADH secretion, pseudohyponatraemia (hyperlipidaemia, hyperproteinaemia)

**SOLUBLE TRANSFERRIN RECEPTOR ( STFR )**Specimen required: **Serum (1 x SST)**

Department: Referred test

Indication: Soluble transferrin receptor concentration increases in response to iron deficiency but does not change in the anaemia of chronic disease where iron deficiency is not a feature.

**SPERM ANTIBODIES**

Specimen required: DIRECT assay - **Semen Sample (DIRECT)**  
 INDIRECT assay - **Serum (1 x SST) (INDIRECT)**

Department: Referred test

**SPERM COUNT**

See SEMEN – FOR FERTILITY INVESTIGATIONS or POST VASECTOMY

**SPUTUM****(A) FOR EXAMINATION FOR TUBERCULOSIS - SEE TUBERCULOSIS.**

Department: Microbiology

**(B) FOR ROUTINE EXAMINATION**

Specimen required: Purulent lower respiratory tract secretions with minimal contamination by saliva.  
The Patient should be asked to take a deep breath and cough as vigorously as possible, spitting the sputum into the container. If possible an early morning specimen should be collected. Patient instruction sheets are available on request.

Department: Microbiology

Comment: All specimens must be refrigerated after collection. This is essential to prevent overgrowth by contaminants.

**SPUTUM (FOR MALIGNANT CELLS)**

See CYTOLOGY

**STAPHYLOLYSIN SEROLOGY**

See ANTI STAPHYLOLYSIN TITRE

**STREPTOCOCCAL SEROLOGY**

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

Department: Referred test

Note: Tests available are ANTI-DNAse B and ASOT

Comment: Group A streptococci produce many exoenzymes to which antibodies are raised in the convalescent phase of an infection, both upper respiratory tract infection and pyoderma. Several tests are available which measure different antibodies and some are more relevant for post-streptococcal complications e.g. Glomerulonephritis we recommend ASOT and anti DNAase B.

**STRONGYLOIDES SEROLOGY**

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

Department: Referred test

Comment: Parasite of the intestinal tract (Strongyloides stercoralis).

See also: Faeces for parasites

**SWABS - FOR MICRO CULTURE & SENSITIVITY- MC&S**

Specimen Required: **Nose or Throat swabs:**

- (i) Plain cotton tipped swab in transport medium. (gel swab)
- (ii) PCR testing from throat swabs requires plain dry swab (No transport medium)

**Ear Swabs:**

- (i) Plain cotton tipped swab in transport medium. (gel swab)
- (ii) Smear of discharge on a clean glass slide - air dried.

**Eye Swabs:**

- (i) Plain cotton tipped swab in transport medium (gel swab). If no obvious discharge then swab may be moistened in sterile saline.
- (ii) Plain dry swab (NO transport medium) for viral PCR or swab in virus transport medium if viral culture required (Referred test.)
- (iii) PCR Chlamydia Swab (see Chlamydia PCR Detection). Plain dry swab

**Pus or Wound swabs:**

- (i) Plain cotton tipped swab in transport medium (gel swab) . If a sinus is present, a wire swab should be inserted as deeply as possible into the sinus, avoiding skin contamination, and then placed in transport medium.
- (ii) If possible, prepare a direct smear on a clean glass slide and allow to air dry.
- (iii) Please indicate site and supply relevant history e.g. "dog bite" etc.

**Nasopharyngeal Swabs for Pertussis Culture:**

- (i) If it is not possible to send the patient to the Main Laboratory for a post nasal aspirate (see PNA) then a dry throat swab for PCR can be collected. PNA is the preferred specimen.

**Fluids:**

- (i) Collect with a sterile syringe and transfer to a sterile yellow top container. Please note site of fluid collection. For joint aspirates see SYNOVIAL FLUID.

**Urethral and Vaginal Swabs:**

See GENITAL SWABS

Department: Microbiology

Note: 1. **Paediatric patients:** If gel swab is too large for patient e.g. young child, collect sample using dry (PCR) swab and place the swab into gel medium.  
 2. If more than two PCR tests are requested i.e. more than Chlamydia and Gonorrhoeae, **two** swabs should be sent in to ensure there is enough material to perform all tests.  
 It is essential that all specimens are accompanied by a Request Form outlining relevant clinical details such as recent and present antibiotic therapy, the physical nature of discharges, the clinical appearance and site of rashes, wounds, etc. This is to ensure that suitable media are set up to isolate all likely pathogens and to get the maximum information from each specimen.  
 Plain cotton tipped wooden swabs with transport medium (gel swab) are available from the Laboratory and are suitable for the majority of aerobic and anaerobic organisms. Wire cotton tipped swabs are also available for nasopharyngeal, ear, sinus and chlamydial swabs.

**SYNACTHEN STIMULATION TEST**

Specimen required: **See collection procedure below (By appointment at the Main Laboratory after consultation with the Chemical Pathologist)**

**COLLECTION PROCEDURE:**

1. The patient should be resting.
2. Collect Serum (SST) for basal Cortisol level.
3. Intramuscular injection of synacthen 0.25 mg should be given.
4. Collect Serum (SST) at 30 minutes post injection.
5. Collect Serum (SST) at 60 minutes post injection.

Department: Biochemistry

Reference range: 30 and 60 minutes post injection: Should exceed basal level by 200 nmol/L and be above 550 nmol/L.

Interpretation: Failure to respond indicates adrenal insufficiency.

**SYNOVIAL FLUID**

Specimen required: The joint should be aspirated aseptically and fluid placed in a sterile container. A small portion of the **aspirate should be placed in an EDTA tube for a cell count.**

Department: Microbiology

Comment: All joint aspirates are examined for uric acid and calcium pyrophosphate crystals. Positive culture results are reported immediately.

**SYPHILIS SEROLOGY**

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

Department: Serology

Tests Performed: (i) RPR (VDRL)  
 (ii) Syphilis IgG  
 (iii) If either RPR or Syphilis IgG are reactive the specimen is referred for confirmation tests.

**SYPHILIS PCR TEST**

Specimen required: **Dry swab of chancre**

Department: Referred test

See also: ULCER PCR