

HOW TO USE THE PATHCARE LABORATORY TEST MANUAL

(A new edition of this handbook will be published when necessary. Interim updates will be e-mailed to clients and will be incorporated into the next edition).

SENDING SAMPLES TO PATHCARE

It is important for the samples to arrive as safely and quickly as possible so that the integrity of the samples and a quick turnaround time can be assured.

Some samples need to be kept cool / cold on icepacks (not directly on ice), while others need to be frozen on dry ice and transported frozen in special packaging. Send EDTA samples uncentrifuged unless otherwise stated.

Please adhere to postal or transporting regulations of your country.

The handbook will assist you in knowing which samples need special care. Please contact us if you have any queries.

The samples need to be sent to:

PATHCARE KENYA LTD
Regal Plaza, Limuru Road
Tel.Nos 020-3753416/7/8/9,020-2430854, 020-2430753
Email:enquiries@pathcarekenya.com
P.O.BOX 1256-00606
NAIROBI

A request form or a worksheet needs to accompany the sample. The sample needs to be identified through a laboratory number and client name on the sample. We also require patient details, tests required, relevant clinical information and who to contact with the results.

Standard Operating Procedures (SOP)

Where these are referred to, they pertain to the procedures used by Pathcare Kenya Laboratory. Please use your own SOP's if so desired. If you require information on our SOP's, please contact our A & QA Department.

Prices

Please contact our marketing department for information concerning prices of tests.

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SAMPLE INFORMATION

Urgent / Stat Requests

Please label these samples clearly as "URGENT". We can then prioritise them and the results will be sent to you as soon as they are available through telephone call, email and a hard copy will also be delivered.

Problems with samples

- Samples should be marked with the client's initial, surname and date of birth.
- Incorrectly or inaccurately labelled samples may cause the sample to be rejected.
- Insufficient or inappropriate samples may also prevent the test being done. Please contact us if you are having difficulty in obtaining a sufficient sample. We will try our best to perform the assays required.
- Cancellations need to be done timeously.

Results

Turnaround times given are guidelines. We will try to adhere to the times as closely as possible.

Adding on Tests

If further tests are required, please contact our Technical Manager and, if sufficient sample is available, we will do the test.

Minimal Amounts

The more sample we receive the better, as it allows us to do repeat (confirmatory) tests if required.

Turn-around Time

Please note that "day" refers to normal working day i.e. Monday – Friday

Therefore this excludes weekends and public holidays

Requests received on Saturday might have extended turnaround times as reports will be delivered the following Monday

IMPORTANT CONTACTS

Dr. Kiran Radia	Chief Executive Officer/Chief Pathologist	0733 926 878
Dr. Kishor Mandaliya	Coast Pathologist	0722 413 330
Dr. Joseph Kiwinda	Histopathologist	0703 102 647
Dr. David Atandi	Histopathologist /Cytologist	0115 933 867

For more information please contact:
customerservice@pathcarekenya.com | 0111 121 500

CYTOLOGY INFORMATION

RECOMMENDATIONS FOR CYTOLOGY SPECIMENS

The main objective for the collection of many of these specimens is to exclude underlying malignancy. In addition to this it also highlights inflammatory conditions and may promote detection of certain pathogens and infective conditions.

The patient's surname and initials must be written on the slides or specimen container for proper identification and prompt processing. A proper completed requisition form must accompany the specimen to laboratory, e.g. patient and doctor details, type of specimen, collection date and time and relevant clinical history.

Time Limits for Additional After Requests:

Cytology: Non- Gynae specimen: If the specimen is fixed, additional requests can be done within a week. **LBC:** Specimens are stored for 2 to 4 weeks, (can vary from lab to lab) any after requests can be done within that period.

1. Cervical smears: Conventional

It is advised to rotate the cervix brush 5 times clockwise to ensure an adequate smear. Transfer cervical cell sample onto a marked glass slide with an even spreading motion.

Spray fixed the slide(s) IMMEDIATELY with a cytologic fixative containing alcohol and wax (cytospray). Shake the spray can thoroughly. The cytospray is held 30cm away from the slide. If held too close, the cells may be blown off the slide or ice crystals may form resulting in artefact formation on the slides. The fine mist spray is applied in a sweeping motion over the slide. Ensure that the nozzle of the spray can is not partially blocked as the fixative may then form too strong a spray and blow the cells off the glass slide. The slide is then left to dry. If placed in a cardboard holder while still wet it may cause paper fibre contamination of the smear.

2. Cervical smears: Liquid based Cytology (LBC)

It is recommended to use the Rovers® Cervex-Brush® Combi for LBC specimens. This brush only requires 2 clockwise rotations. After the smear is taken detach the head of the brush and place it into the LBC vial containing the preservation fluid. Mark the vial and send to the laboratory. Ancillary tests e.g. HPV typing can also be performed on the LBC specimen. This can be requested together with the cytology or as an after request.

3. Urine:

The first early morning urine specimen of the day is often not the ideal one from a cytological perspective as the exfoliated cells often show degenerative changes as a result of lying in the urine for many hours. Therefore, the second subsequent urine specimen is often the best specimen from a cytological perspective. **A fresh mid-stream urine sample should be obtained.**

In female patients vaginal contaminants are common and therefore the patient should be instructed to wash the labia, separate them and try to pass urine without labial contamination. Urine should then be voided directly into the urine container.

Fixation: Equal volumes of 50% alcohol for preservation or kept in the fridge if delay is anticipated.

Amount of specimen: 10 - 30 ml of urine is usually adequate and no large volumes are required.

(Continued) **CYTOLOGY INFORMATION**

4. Sputum, Bronchials:

Sputum:

It is mandatory to get a good representative sample of the lower respiratory tract – this is evidenced by the presence of carbon-laden macrophages or bronchial mucosal cells in the sputum. Many sputum specimens are poorly collected samples and contain mainly salivary material.

Three separate early morning deep cough specimens are recommended. The specimens are collected into wide necked sterile containers.

Fixation: Sputum samples should be stored in the fridge until sent to the laboratory for analysis. This helps prevent cell degeneration and overgrowth by organisms.

Sputum's are NOT PRESERVED IN ALCOHOL as this causes severe mucolytic changes.

Amount of specimen: 3 consecutive early morning deep cough specimens are recommended.

Bronchial washings/brushing:

Fixation: Equal volume of 50% alcohol for preservation and the specimen may be stored in the fridge prior to processing.

Bronchial lavage for differential count:

Fixation: Equal amounts of formalin, delivered immediately on ice to the cytology laboratory.

5. Body Fluid – Ascitic, Pleural, Pericardial and Gastric etc.

When body fluids are tapped they should always be submitted for cytological examination. Large effusions, when initially tapped, may not be cytologically adequate due to degenerative changes or a poor cellular yield. Cells lying in free fluid for too long often undergo severe degenerative changes, which limit accurate cytodiagnosis.

If the fluids however, need to be tapped repeatedly, re-accumulation of the fluids often yield more cells which are better preserved and it is recommended therefore that each time an effusion is tapped, it is sent for cytological evaluation if a definitive diagnosis has not been made previously.

Fixation: An equal volume of 50% alcohol is added once the fluid has been aspirated and may be preserved for 24 - 48 hours with refrigeration.

Volume of specimens: Minimum of 10 ml – the laboratory will accept up to 1000 ml.

6. Gastric washings: Deliver on ice immediately to the laboratory.

7. CSF:

CSF should be collected into sterile **plastic** containers (cells adhere to glass) and delivered to the laboratory immediately. The specimen should be processed within in 30 minutes and kept at body temperature if possible. If any delay occurs, keep specimens in the refrigerator to prevent bacterial growth.

Fixation: Fresh, unfixed specimen. If processing will be delayed, it should be fixed with 50% alcohol.

8. Scrapings – Skin, Tongue, Nasopharynx and Nipple secretions etc.

These are usually done to detect the presence of viral inclusions, fungal elements or malignant cells. Scrapings are done in a similar way to cervical scrapings.

The surface area is scraped with a spatula and the material is smeared directly onto a glass slide, which should be FIXED IMMEDIATELY with cytology fixative to avoid air-drying artefact and maintain preservation.

Fixation: Spray fixed, hold can 30 cm away from the slides.

9. Nipple Secretions:

Procedure:

- Label at least 6 clean slides. Number in numerical order.
- Gently massage the subareolar area and nipple, using the thumb and forefinger. When a secretion occurs allow a small drop to accumulate on the apex of the nipple.
- With the other hand support the areola and nipple.
- Place the slide on the nipple, touching the drop, which will spread laterally, then draw the slide quickly across the nipple.
- Place two slides together and gently pull the slides apart.
- When no nipple secretion can be obtained, but nipple erosion or ulceration is present, touch slide directly onto the nipple and make an imprint smear.
- Fixation: Spray fix the smears by holding the can 30 cm. away from the slides.

10. Fine needle aspirates (FNA):

Fine needle aspirates are usually done on more solid masses in the body. These may be superficial or deep. The deeper ones are often done under radiologic guidance, either under ultrasound or CT scan and hence the majority are done in the radiology department. The most common superficial masses aspirated are soft tissue masses, breast masses and thyroid masses.

The FNA sampling procedure is highly operator dependent and formal training should be received in this procedure.

See separate recommendations for FNA or breast masses – guidelines for varying sampling techniques for palpable breast masses based on type, location and size (recommendations assume aspirator proficiency in performing FNA).

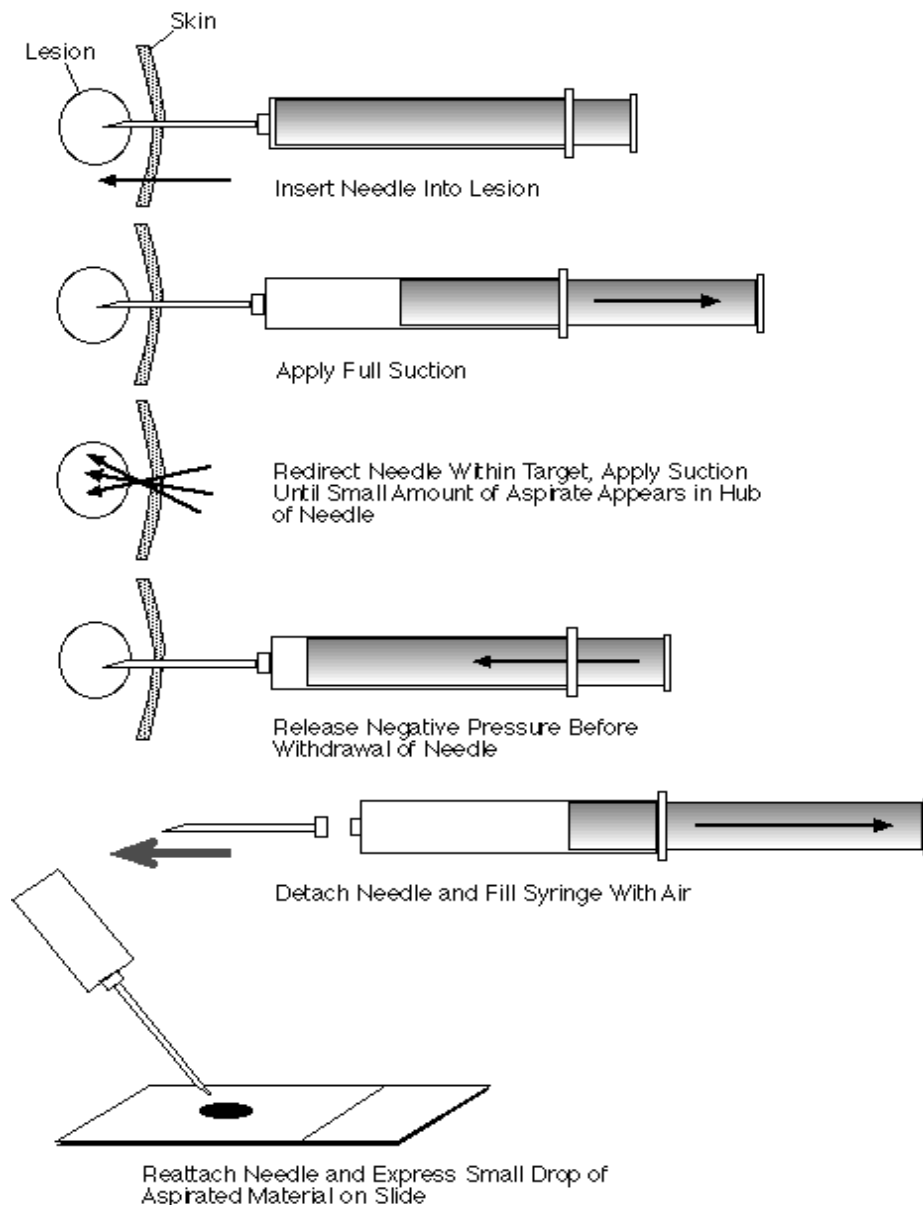
Choice of needles

- Generally, FNA utilizes 22-25 gauge needles and 10cc syringe.
- Larger needles work well on lesions with high density of epithelial cells and minimal stroma.
- Smaller gauge needles are superior for highly fibrous lesions.
- Very small 26-27 gauge needles are useful for intracutaneous lesions and, sometimes, for very small targets.
- The length of the needle is a function of the size and depth of the target. Generally, the needle should be significantly longer than necessary to sample the target.

Aspiration guidelines:

- Aim needle for the central portion of the tumour.
- Immobilise the lesion, introduce the needle and apply suction.
- Move the needle in and out in a sewing cutting motion, until material is present in the hub of the needle. This motion is required to obtain an adequate sample.
- Release suction and withdraw the needle.
- Remove needle, introduce air into syringe, attach needle again and express material onto a slide. Place second slide parallel to first, apply gentle pressure and pull slides apart.
- Spray fix the slides immediately.

Aspiration of Palpable Masses



PROFILES

PLEASE NOTE: The profiles & specimen instructions differ from region to region.

HAEMATOLOGY

Antenatal Screen

Restricted: HB, Blood Group, RPR, HIV

Inclusive: HB, Blood Group, RPR, HIV, Hepatitis B Surface Antigen, Indirect Coombs

Iron Studies + Ferritin

Serum Iron, Transferrin, Saturation, Ferritin

Bleeding Tendency Screen

FBC & platelets, INR, PTT, Fibrinogen, (Request Bleeding Time if required)

DIC Screen

FBC & platelets, INR, PTT, D-dimer, Fibrinogen

Hypercoagulability Screen

Factor V Leiden PCR, Prothrombin 20210A PCR, Protein C, Protein S, Antithrombin III, Homocysteine

Haemolysis Screen

FBC & platelets, Reticulocytes, Bilirubin, LD, Haptoglobin, Direct Coombs Test

Lupus Anticoagulant

RVV clotting time, SCT screen, Anti-cardiolipin Ab, Anti-B2GP1 IgG & IgM

CHEMISTRY

U&E, Creatinine

Na, K, Cl, Total CO₂, Urea, Creatinine

LFT

Bilirubin total & conjugated, ALP, GGT, ALT, AST

Cardiac Markers

CK-MB Mass, Troponin I, (Please state time of suspected M.I.)

Lipogram

Total Cholesterol, Triglycerides, HDL, LDL

Comprehensive Metabolic Profile

U/E/C, Ca⁺⁺, Alb, AST, ALT, ALP, BIL (T&D), Glucose

(Continued) **PROFILES**

PLEASE NOTE: The profiles & specimen instructions differ from region to region.

ALLERGY

Phadiatop

Screen for inhalant allergens. If positive, please inform lab if individual inhalant RASTS are required (Moulds, Weeds, Grasses, Trees, House dust mite, Cat, Dog)

Paediatric Food Screen

Peanut, Soya bean, Egg white, Milk, Wheat, Fish

Adult Food Screen

Paediatric food screen plus Nuts, Seafood, Cereal

ENDOCRINOLOGY

Thyroid Functions

TSH, Free T4, Free T3

Menopausal Screen

FSH, LH, Oestradiol (E₂)

Hirsutism Screen (Full)

Total Testosterone, SHBG (FAI), DHEAS, 17-OH Progesterone, Serum Cortisol
Androstenedione

Infertility Female

FSH, LH, Prolactin, Oestradiol, Progesterone, Total Testosterone, SHBG, TSH, Free T4, DHEAS (take specimen on day 21)

Infertility Male

(Abnormal semen analysis assumed): FSH, LH, Prolactin, Total Testosterone

Thyroid Antibodies

Thyroid Peroxidase, Thyroglobulin Ab's and TSH Rec Ab's

IMMUNOLOGY

Arthritis Screen

ESR, CRP, RF, Uric acid

Auto-Immune Screen

FBC & platelets, ESR, CRP, RF, ANF (If ANF positive, anti-DNA and ENA will be done)

STD Screen

RPR, T.Pallidum IgG, PCR Haemophilus Ducreyi, PCR Herpes simplex type 1 & 2

Acute Hepatitis (Hep A, B)

Hep A IgM, Hep Bs Ag, Hep B c IgM, Hep BS Ab
(If Hep B is positive, Hep B e Ag and Ab will be done)

Chronic Hepatitis (Hep B, C)

Hep Bs Ag, Hep B c Total Ag, Hep B c IgM, Hep BS Ab
(If positive, Hep B e Ag and Ab will be done), Hep C Ab

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
5HIAA	Approximately 4-5 days after reaching the analysing laboratory.	20ml of concentrated HCL added to container before collection. Patient must be on a diet and avoid using certain drugs for 3 days prior and during the collection. Contact the closest laboratory for more information. If aliquotting, record volume and ensure the ph (2 to 3) is correct. Send 2 x 50ml from the 24hr urine collection at 2 - 8° C if transporting from far.
11 Deoxycortisol *	Approximately 5 weeks after reaching the analysing laboratory.	Transport < 24 hours at 2 - 8° C. Transport > 24 hours at -20° C. 2ml of serum
1,25 Dihydroxyvitamin D3 *	Up to 2 months	Separate serum as soon as possible. Transport on dry ice. 2 ml of frozen serum
17OH Progesterone *	5 days	Separate serum within 2 hours. 2 ml of serum.
Acetone *	Approximately 3 weeks after reaching the analysing laboratory.	3 ml of whole – FLUORIDE–grey top - blood.
Acetone – urine *	Approximately 3 weeks after reaching the analysing laboratory.	25ml of frozen random urine
Acetylcholinesterase – amniotic *	Approximately 5-10 days after reaching the analysing laboratory.	Record on the form if the sample has been spun or not. 2ml of amniotic fluid.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Acetylcholinesterase – whole blood	See Cholinesterase – red cell	
Acetylcholine Receptor Ab *	2 weeks	Lipaemic or haemolysed specimens cannot be used. 2ml of frozen serum.
Acid Phosphatase -Total	No longer available	
ACTH	3-5 days	Draw 5ml of blood into a cold EDTA tube. Keep specimen cold. Must be separated within 6 hours. 2ml of frozen – EDTA-purple top – plasma.
ACTH stimulation	1 day	Phone Pathcare first. Do according to the SOP. Mark tubes with time taken, as well as the client's name. 3 x 2ml of serum
ADAMTS 13 Ag	Approximately 5 weeks after reaching the analysing laboratory	Contact a Haematologist prior to collecting specimen. Centrifuge specimen for 10 minutes at 1500g within 4 hours of collection. Freeze plasma as soon as it is centrifuged. Frozen plasma from a full – CITRATE-blue top – tube.
Adenovirus Ab *	3-5 days after reaching the analysing laboratory	2ml of serum
Adenosine deaminase (ADA)	5 days	If a fluid, record site and / or type of fluid on form. 2ml of serum or fluid.
Adenosine deaminase – CSF	5 days	2ml of cerebrospinal fluid.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Adrenal Ab *	Approximately 1 week after reaching the analysing laboratory.	2ml of serum
Adrenaline / Noradrenalin & Dopamine 24hr urine *	Approximately 7 days after reaching the analysing laboratory.	20ml of concentrated HCL added to container before collection. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from the 24hr urine collection.
Albumin – s	3 hours .	Transport serum at 2 - 8° C if transporting for longer than 8 hours. 1ml of serum
Alcohol	Approximately 3-5 days after reaching the analysing laboratory.	Do not clean arm with alcohol prior to collection. Separate and topple plasma as soon as possible. Do not open the toppled plasma prior to analysis. All of - Fluoride-grey top – plasma.
Aldolase *	Approximately 3 – 5 days after reaching the analysing laboratory.	Haemolysed blood cannot be used. 4 ml of serum
Aldosterone – active or resting	Approximately 1 week days after reaching the analysing laboratory	Please indicate if sample taken as resting (minimum 2 hours rest) or active / ambulant. 4 ml of serum
Alkaline Phosphatase (ALP)	3 hours.	Transport serum at 2 - 8° C if transporting for longer than 8 hours. 2mL of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Aldosterone – u (24hr) *	No longer available	
Alkaline phosphatase - Bone specific *	Approximately 7 days after reaching the analysing laboratory.	Transport at 2 - 8° C. If transportation is longer than 48 hours, freeze serum at -20/-70°C. Haemolysed blood cannot be used. 2 ml of serum.
Alanine Aminotransferase (ALT)	3 hours	Transport serum at 2 - 8° C if transporting for longer than 8 hours. 1ml of serum.
Alpha fetoprotein	3 hours	1ml of serum.
Alpha fetoprotein – amniotic	Approximately 3-5 days after reaching the analysing laboratory.	Do not centrifuge. Must be between 15 to 20 weeks 6 days gestation. 2ml of amniotic fluid.
Alpha-1-antitrypsin	Approximately 2 weeks after reaching the analysing laboratory.	2ml of serum.
Alpha-1-antritrypsin PCR *	Approximately 3-5 days after reaching the analysing laboratory.	3ml of whole – EDTA-purple top - blood
Aluminium – s	Approximately 4 weeks after reaching the analysing laboratory.	Avoid contact with glass and metal. Serum must be kept cool. 2ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Aluminium – u *	Approximately 4 weeks after reaching the analysing laboratory.	25ml of frozen urine.
Amenorrhoea screen	Approximately 1 day after reaching the analysing laboratory.	Record LMP and medication. Client must rest for 15 minutes. See list of profiles at the front of the handbook. 2ml of serum
Amikacin – pre + post	Approximately 3-5 days after reaching the analysing laboratory.	Mark tubes clearly as pre or post. Record dosage and time last taken. Post levels: 30 minutes after IVI completed or 60 minutes after an IMI or oral dose. 1ml of serum each
Amino acids- s *	Result may take approximately 3 weeks after reaching the analysing laboratory.	Separate serum as soon as possible for > 30 minutes, aliquot serum into another container and transport serum frozen. 2ml of frozen serum
Amino Acids – u *	Results may take approximately 3 weeks after reaching the analysing laboratory.	25ml of frozen random urine
Amitriptyline *	Approximately 5 days after reaching the analysing laboratory.	Record dosage and time taken. Part of the Tricyclic drug screen. Trough level. 1ml of serum.
Amlodipine levels	Approximately 1 month after reaching the analysing laboratory.	Trough level required. 1mL of EDTA – purple top - plasma
Amoebiasis *	Approximately 5 days after reaching the analysing laboratory.	2ml of serum

Ammonia – p**Contact Pathcare First****Amniotic fluid (LS/PG) ***Approximately 5 days
after reaching the
analysing laboratory.**Must be at the analysing
laboratory within 48 hours.**
Record gestation in weeks.
Transport at 2 - 8° C.
2ml of amniotic fluid**Amniotic fluid Bilirubin
OD450 ***

5 days

Wrap specimen in foil and
transport at 2 - 8° C.
2ml of amniotic fluid**Amphetamines**Approximately 3-5 days
after reaching the
analysing laboratory.Transport urine at 2 - 8° C if
transporting for longer than 18
hours. Record dosage and time
taken if possible. Supervised
collection preferred.
25ml of random urine.**Amylase – s**Approximately 1 day after
reaching the analysing
laboratory.Transport serum at 2 - 8° C if
transporting for longer than 8
hours.
2 ml of serum.**Amylase – u (24 hr)**

1 day

No preservative. If aliquoting
record volume and ensure the PH
is correct if required. 10ml from a
24hr urine collection**Aniline ***Approximately 3 weeks
after reaching the
analysing laboratory.25ml of **frozen** random urine.**Androstenedione ***Approximately 5 days
after reaching the
analysing laboratory.Separate serum as soon as
possible. If transporting for longer
than 24 hours, **freeze** serum.
2ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Angiotensin Converting Enzyme (ACE)	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum.
<hr/> Antenatal profile		
	Approximately 1 day after reaching the analysing laboratory.	See list of profiles at the front of the handbook. 3ml of whole – 6mL EDTA-purple top - blood + 2ml whole - EDTA-purple top - blood + 2ml of serum.
<hr/> Anthrax *		
	Approximately 5 days after reaching the analyzing laboratory.	Contact Pathcare before collecting these specimens.
<hr/> Anti DNA'SE B / Latex		
	Approximately 3-5 days after reaching the analyzing laboratory. Done at least once on the weekend.	Transport serum at -20° C 2ml of frozen serum.
<hr/> Anti hyaluronidase		
	No longer available	
<hr/> Antibody Identification *		
	Approximately 3-5 days after reaching the analysing laboratory.	Separate plasma within 8 hours. 3ml of frozen – 6mL EDTA-purple top – plasma. Send the red cells at room temperature.
<hr/> Antibody Titration*		
	Approximately 2 days after reaching the analysing laboratory.	Separate plasma within 8 hours. 3ml of frozen – 6mL EDTA-purple top – plasma. Send the red cells at room temperature.
<hr/> Antimony *		
	Approximately 5 weeks after reaching the analysing laboratory.	50ml of frozen random urine
<hr/> Antinuclear Ab		
	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Anti-Neutrophil cytoplasmic Ab * (ANCA)	Approximately 3 - 5 days after reaching the analysing laboratory.	2ml of serum.
Antinuclear Ab	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.
Antinuclear factor and DNA	Approximately 3-5 days after reaching the analyzing laboratory. Done at least once on the weekend.	2ml of serum.
Anti-Streptolysin O (ASOT)	3 hours	2ml of serum.
Antithrombin III	Approximately 3-5 days after reaching the analysing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
APC resistance	Replaced by the Factor V Leiden test.	
Apolipoprotein A1	Approximately 5-10 days after reaching the analysing laboratory.	Fasting specimen. Transport at 2 - 8° C. 2ml of serum.
Apolipoprotein B	Approximately 5-10 days after reaching the analysing laboratory.	Fasting specimen. Transport at 2 - 8° C. 2ml of serum.
APTT	3 hours	Record any anticoagulation therapy. Frozen plasma from a full – CITRATE-blue top – tube.
Arbovirus Ab	Approximately 7 days after reaching the	Complete the Arbovirus form Transport serum at -20° C.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Arsenic blood *	analyzing laboratory.	2mL of frozen serum
Arsenic – hair / nails *	Approximately 3 weeks after reaching the analysing laboratory.	Not to eat seafood for 72 hours before collecting specimen. 4ml of whole – EDTA-purple top - blood
Arsenic - urine *	Approximately 3 weeks after reaching the analysing laboratory.	Not to eat seafood for 72 hours before collecting specimen. 25ml of urine.
Arthritis profile	Approximately 1 day after reaching the analysing laboratory.	See list of profiles at the front of the handbook. 2ml whole – EDTA-purple top - blood + 2ml of serum.
Arylsulphatase A *	Approximately 2-3 weeks after reaching the analysing laboratory.	A Blood transfusion will influence results as transfused white cells could affect the assay. 4ml of frozen Heparin – green top - blood from both client and non- relative control.
Ascorbic acid	No longer available	
Aspirate – gastric	Approximately 3-5 days after reaching the analysing laboratory.	1ml of gastric aspirate.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Aspirates: Albumin Amylase; Chloride; Cholesterol; Chylous ascites; Creatinine; LD; pH; Potassium; Protein: Protein electrophoresis; SG; Sodium; Triglyceride; Urate: Urea	Approximately 1 day after reaching the analysing laboratory. Except Protein Electrophoresis which takes 3-5 days.	Record site and / or type of aspirate on form. Aspirate in a plain sterile container. 2ml of aspirate.
Aspirate – glucose	Approximately 1 day after reaching the analysing laboratory.	Record site and / or type of aspirate on form. Aspirate in a – FLUORIDE-grey top – tube. 1ml of aspirate.
ASOT	3 hours	Transport specimen at -20° C 1ml of frozen serum.
Aspartate Aminotransferase (AST)	3 hours.	Transport serum at 2 - 8° C if transporting for longer than 8 hours. 1ml of serum.
Aspergillus Fumigates IgG *	Approximately 10 days after reaching the analysing laboratory.	2ml of serum. Transport serum at 2 - 8° C if transporting for longer than 24 hours. Keep the specimen closed. 3 ml of serum.
Aspergillus Galactomannan *	Approximately 3-5 days after reaching the analysing laboratory.	Transport serum at 2 - 8° C if transporting for longer than 24 hours. Keep the specimen closed. 3 ml of serum.
Atrial natriuretic peptide	No longer available	

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Auto-immune profile	Approximately 3-5 days after reaching the analyzing laboratory.	See list of profiles at the front of the handbook. 4ml of serum.
Avian IgG mix: Budgie / pigeon / parrot *	Approximately 3 weeks after reaching the analysing laboratory.	Order Budgie, Parrot and Pigeon IgG mix individually. 2ml of serum each.
Babesia parasites	Approximately 3-5 days after reaching the analysing laboratory.	2ml of whole – EDTA-purple top – blood.
Barbiturates – s	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum.
Barbiturates – u	5 hours.	5ml of frozen random urine.
BCR-ABL Copies *	Approximately 2 - 3 weeks after reaching the analyzing laboratory.	Contact Pathcare on call before collecting these specimens. Transport at 2 - 8° C. Viable for 48 hours or until reconstituted with Trizol. 15mL of whole EDTA – purple top – blood.
Bence Jones urine	Approximately 3-5 days after reaching the analysing laboratory	Transport at 2 - 8° C. 5ml of random urine.
Benzene – blood *	Approximately 3 weeks after reaching the analysing laboratory.	Keep cool at 2 - 8° C. 5ml of whole – EDTA-purple top - blood.
Benzene – urine *	Approximately 2 weeks after reaching the analyzing laboratory.	10mL of frozen random urine

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Benzodiazepine – blood	Approximately 3-5 days after reaching the analysing laboratory.	Record type, dosage and time last taken. Wrap specimen in foil. 2 x 3ml of frozen EDTA-purple top – plasma.
Benzodiazepine – u	Approximately 3-5 days after reaching the analysing laboratory.	Record dosage and time last taken if possible 10ml of urine.
Beta 2 Glycoprotein	Approximately 3-5 days after reaching the analysing laboratory.	2mL of serum.
Beta 2 Microglobulin	Approximately 3-5 days after reaching the analysing laboratory.	Transport serum at 2 - 8° C if transporting for longer than 8 hours. 2ml of serum.
Beta-crosslaps * (CTX Telo peptide)	Approximately 5 days after reaching the analysing laboratory.	A morning fasting specimen preferred. Transport at 2 - 8° C. 2ml of - EDTA-purple top – plasma
Beta D Glucan (Fungitell)	Approximately 24 hours after reaching the analysing laboratory.	Do not aliquot or open specimen. Transport primary specimen at 2 - 8° C if transporting for longer than 12 hours. Do not freeze serum. 2ml of serum.
Beta-galactosidase *	3-5 days	Must reach the analysing laboratory within 24 hours. Keep at 2 - 8° C, but not frozen. Wrap icepack in bubble- wrap before placing specimen on it. A non-relative control should also be sent with the client's specimen. Label these tubes as the control. 2 x ACD-yellow top - blood each.
Beta HCG male	3 hours	1ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Beta HCG quantitative	3 hours.	Record LMP. 1ml of serum.
Beta HCG – screen	Done as soon as possible: Approximately 3 hours after reaching the analysing laboratory.	Record LMP. 1ml of serum.
Beta-Hydroxybuterate - Humans	Approximately 24 hours after reaching the analysing laboratory.	Separate serum as soon as possible. Transport at 2 - 8° C. 2mL of serum.
Bile pigments urine	Approximately 2 weeks after reaching the analysing laboratory.	Wrap in foil. 15ml of random urine.
Bilharzia Ab	Approximately 3-s days after reaching the analyzing laboratory.	2ml of serum.
Bilharzia serum – CAA * (Circulating anodic antigen)	3-5 days	Transport serum at 2 - 8° C if transporting for longer than 8 hours. 2ml of serum.
Bilharzia urine – CCA * (Circulating cathodic antigen)	3-5 days	Transport urine at 2 - 8° C. 5ml of random urine.
Bilirubin – total and conjugated	3 hours.	Transport serum at 2 - 8° C if transporting for longer than 8 hours. 2ml of serum.
Bilirubin / HCT (neonate)	3 hours	As per the procedure for the laboratory.
Bleeding time	Done immediately.	As per the procedure for the laboratory.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Blood gas profile	Done immediately	Expel all air. If no gas machine nearby, put specimen immediately on ice and transport to the nearest machine as soon as possible.(Only Kisumu lab for now)
Blood group + Antibody screen *	Approximately 10 days after reaching the analysing laboratory.	3ml of – 6mL EDTA-purple top – frozen plasma and the red cells at room temperature.
Bordetella Parapertussis	3-5 days	A dry swab or sputum or nasopharyngeal specimen
Bordetella Pertussis IgM *	Approximately 1 week after reaching the analysing laboratory.	2mL of serum.
Borrelia parasite	Approximately 3-5 days after reaching the analyzing laboratory.	1ml of whole – EDTA-purple top – blood.
Borrelia IgG *	See Lyme's disease	
Borrelia Western Blot *	Approximately 1 week after reaching the analysing laboratory.	Transport at 2 - 8° C. 2ml of serum
BNP (Pro-Brain Natriuretic Peptide)	3 hours.	1ml of frozen Heparin –green top - plasma.
Bromide – s *	Batched Approximately 3 weeks after reaching the analysing laboratory.	Do not use a glass tube. 2ml of serum.
Brucella Ab	No longer available PCR Brucella test only	

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Budgie IgG mix *	Approximately 3 weeks after reaching the analysing laboratory.	1ml of serum
Bubbles – Gastric test	Contact Pathcare before collecting sample	2ml of gastric fluid
C-peptide *	Approximately 10 days after reaching the analysing laboratory.	Client must be fasting. Separate serum as soon as possible. 2ml of frozen serum.
C-reactive protein	3 hours.	1ml of serum.
C1-esterase inhibitor *	Approximately 7 days after reaching the analysing laboratory.	Separate serum as soon as possible. 2ml of frozen serum.
Cancer antigen 125 (OV 125)	3 hours.	1ml of serum
Cancer antigen 15-3 (BR 15.3)	3 hours.	1ml of serum.
Cancer antigen 19-9 (GI 19.9)	3 hours.	1ml of serum.
Cancer antigen 72-4 *	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum
Cadmium – blood *	Approximately 2 weeks after reaching the analysing laboratory.	3ml of whole – HEPARIN-green top – blood
Cadmium – u *	Approximately 2 weeks after reaching the analysing laboratory.	5ml of random urine.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Caeruloplasmin *	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum.
Calcitonin	Approximately 1 week after reaching the analysing laboratory.	2ml of serum.
Calcitriol	See Vitamin D3 (1,25 Dihydroxyvitamin D)	
Caffeine *	Approximately 2 weeks after reaching the analysing laboratory.	Transport serum at 2 - 8° C. 2ml of serum.
Calcium	Approximately 1 day after reaching the analyzing laboratory.	Do no use a cuff. Mark the tube as "no cuff". 1ml of serum.
Calcium, ionized		Contact Pathcare First
Calcium – u	Approximately 1 day after reaching the analysing laboratory.	10ml of random urine.
Calcium – u (24hr)	Approximately 3-5 days after reaching the analysing laboratory.	20ml of concentrated HCL added to container before collection. If aliquotting, record volume and ensure the pH is correct if required. Send 20ml from the 24hr urine collection.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Calculus analysis	Approximately 3-5 days after reaching the analyzing laboratory.	Record origin of calculi.
Candida Albicans IgA *	3-5 days	2ml of serum
Cannabis – u Quantitative	3 hours.	Record dosage and time taken if possible. 10ml of random urine.
Carbamazepine	Approximately 3-5 days after reaching the analyzing laboratory.	Take specimen before next dosage. Record time and dosage last taken. 2ml of serum
Carbon Dioxide	3 hours.	2ml of serum.
Carbon disulphide exposure *	Approximately 3 weeks after reaching the analysing laboratory.	10ml of frozen random urine.
Carbohydrate deficient Glycoprotein (CDG) screen *	Approximately 1 month after reaching the analyzing laboratory.	4 circles of a Guthrie card.
Carbohydrate-deficient Transferrin * (CDT)	Approximately 10 days after reaching the analyzing laboratory.	Separate serum within an hour. 2ml of frozen serum.
Carboxyhaemoglobin	Approximately 3-5 days after reaching the analysing laboratory.	Avoid exposure of sample to the atmosphere. Stable of 4 months if tube is full, kept closed and refrigerated. Transport at 2 - 8° C. 5ml of whole – HEPARIN-green top – blood
Carcinoembryonic Antigen (CEA)		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Cardiac marker profile	Approximately 1 day after reaching the analyzing laboratory.	2ml of serum
Cardiolipin Ab	3 hours.	Record time of onset of pain. 2ml of whole - HEPARIN-green top - blood + 1ml of serum.
Carnitine profile – s *	Approximately 3-5 days after reaching the analyzing laboratory. Done at least once on the weekend.	1ml of serum.
Carnitine profile – u *	Approximately 2 weeks after reaching the analysing laboratory.	Separate serum as soon as possible, aliquot serum into another container and freeze serum. 2ml of frozen serum.
Carotene	Approximately 2 weeks after reaching the analysing laboratory.	10ml of frozen random urine
Cat scratch disease *	No longer available	
CCP Ab (Cyclic Citrullinated Peptide)	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.
CDT *	Approximately 3-5 days after reaching the analyzing laboratory.	Transport serum at 2 - 8° C or frozen if transporting for longer than 48 hours. 1ml of cold serum.
	See Carbohydrate-Deficient Transferrin	

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
CD4 + CD8	4 days	Must be analyzed within 72 hours. Transport at room temperature. Do not store on mixing device. Must reach the lab within 48 hours. 3ml of whole – EDTA-purple top - blood.
Centromere U1 Ab	Approximately 24 hours after reaching the analysing laboratory.	Transport at 2 - 8° C. 2mL of serum.
Chickungunya HAI, Ab or PCR *	Approximately 10 days after reaching the analysing laboratory.	Complete the Arbovirus form Transport specimens at -20° C. 2 ml of frozen serum.
Chlamydia Pneumonia Ab	10 days	A dry swab or sputum or nasopharyngeal specimen.
Chlamydia PCR	Approximately 3-5 days after reaching the analyzing laboratory.	Preferred specimen: Dry urethral swab or Random urine as below: The specimen for validated Urine Chlamydia PCR testing: The first catch urine (the first part of the stream) preferably from the first urine specimen passed in the morning. Transport urine frozen .
Chlamydia Psittaci IgG *	10 days	2ml of serum
Chlamydia IgG (Elisa)	Approximately 3-5 days after reaching the analyzing laboratory.	2mL of serum.
Chloramphenicol *	Approximately 3 weeks after reaching the analysing laboratory.	Record dosage and time last taken. Mark tubes as pre or post. 10ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Chloride – s	3 hours.	2ml of serum.
Chloride – u	3 hours.	10ml of random urine.
Chloride – u (24hr)	3 hours.	Nil preservative. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from the 24hr urine collection.
Chloroform – blood *	Approximately 1 month	Contact Pathcare first
Cholesterol	3 hours.	Record if fasting or random. 1ml of serum.
Cholesterol HDL	3 hours.	Record if fasting or random. 1ml of serum.
Cholesterol LDL	3 hours.	Record if fasting or random. 1ml of serum.
Cholinesterase – whole blood	Approximately 10 days after reaching the analyzing laboratory.	Keep specimen cool. Do not spin sample. 2.5ml of whole - EDTA-purple top - blood.
Cholinesterase – s	3 hours.	2ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Chromium – blood *	Approximately 10 days after reaching the analyzing laboratory.	1 x EDTA must be separated and 1 x EDTA remains as whole blood. 1ml of plasma plus 2ml of whole blood.
Chromium – u *	Approximately 10 days after reaching the analysing laboratory.	20ml of frozen random urine.
Chromogranin A *	Approximately 3 weeks after reaching the analysing laboratory.	Client must rest for 30 minutes prior to collection. Separate serum asap (within 4 hours of collection) 1ml of frozen Plasma
Chromosomes	See Cytogenetic analysis	
Circulating immune complexes *	Approximately 10 days after reaching the analyzing laboratory.	Transport at 2 - 8° C. Do not freeze serum. 2ml of serum.
Citrate – u (24hr)	Approximately 1 week after reaching the analyzing laboratory.	Nil preservative. If aliquotting, record volume and insure the pH is correct if required. Send 10ml from the 24hr urine collection.
CK-MB mass	3 hours.	1ml of serum.
Clomipramine *	Approximately 1 week after reaching the analysing laboratory.	Transport at 2 - 8° C. 2 x 3ml of – EDTA-purple top – plasma.
Clonazepam *	Approximately 7 days after reaching the analysing laboratory.	Record dosage and time last taken. Wrap specimens in foil. 2 x 3ml of whole – EDTA-purple top – blood.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Clozapine *	Approximately 7 days after reaching the analyzing laboratory.	Transport plasma frozen. 3mL of frozen EDTA – purple top - plasma.
Coagulation screen	Approximately 24 hours after reaching the analyzing laboratory.	Bleeding time is optional. 3ml of whole – EDTA-purple top – blood + all CITRATE-blue top – plasma. Freeze Citrate plasma immediately.
Cobalt – blood *	Approximately 2 weeks after reaching the analysing laboratory.	Separate plasma as soon as possible. Transport at 2 - 8° C. 2ml of – 6mL EDTA-royal top - plasma.
Cobalt – u *	Approximately 2 weeks after reaching the analysing laboratory.	10ml of random urine.
Cocaine – u	Approximately 24 hours after reaching the analyzing laboratory.	Record dosage and time taken if possible. Supervised collection preferred. Keep cool or freeze urine if stored for more than 24 hours. 10ml of random urine.
Codeine	See Opiates	
Coeliac Screen	Approximately 5 days after reaching the analysing laboratory.	Transport at 2 - 8° C. 3mL of serum.
Cold agglutinins at 4°C		Must be analyzed as soon as possible. Allow specimen to clot at 37° C before spinning. 2mL of serum
Codeine	See Opiates	

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Cocaine – u	Approximately 24 hours after reaching the analysing laboratory.	Record dosage and time taken if possible. Supervised collection preferred. Keep cool or freeze urine if stored for more than 24 hours. 10ml of random urine.
Coeliac Screen	Approximately 5 days after reaching the analysing laboratory.	Transport at 2 - 8° C. 3mL of serum.
Cold agglutinins at 4°C		Must be analyzed as soon as possible. Allow specimen to clot at 37° C before spinning. 2mL of serum
Colon Ab *	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum.
Complement C3	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.
Complement C4	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.
Complement C6 *	3 - 4 weeks	2ml of frozen serum.
Complement CH100 *	Approximately 7-10 days after reaching the analyzing laboratory.	2ml of frozen serum.
Complement Haemolytic Activity *	Approximately 10 days after reaching the analyzing laboratory.	Haemolysed blood cannot be analysed. Freeze serum as soon as possible. 2ml of frozen serum

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Complex PSA *	Approximately 5 days after reaching the analysing laboratory.	2ml of frozen serum.
Condensed metal Profile * (Done on non-industrial patients)	Approximately 10-15 days after reaching the analysing laboratory.	20ml of frozen urine.
Congo Fever Ab *	PathCare staff may not handle these specimens.	The referring doctor may contact KEMRI with the patient's clinical history and to find out regarding the specimen requirements.
Coombs test *	5 hours	2ml of – 6mL EDTA-purple top – frozen plasma and the red cells at room temperature.
Copper – s	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum
Copper – u *	Approximately 10-15 days after reaching the analysing laboratory.	20ml of random urine in a plastic container.
Cortisol – s	3 hours.	Record time taken on tube. 2ml of serum.
Copper – u (24hr) *	Approximately 10-15 days after reaching the analysing laboratory.	25ml of concentrated HCL added to container before collection. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from the 24hr urine collection.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Cortisol –u (24hr)	3 hours.	Nil preservative. If aliquotting, record volume and ensure the pH is correct if required. Send 20ml from the 24hr urine collection.
Cotinine – s	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum.
Coxsackie B virus Ab *	Approximately 10-15 days after reaching the analysing laboratory.	2ml of serum.
Creatinine Clearance	3 hours	Nil preservative. If aliquotting record volume and ensure the pH is correct if required. Record height and weight of client. Send 10ml from the 24hr urine collection plus 1ml of serum. Blood to be taken after urine collection.
Creatine Kinase electrophoresis *	Approximately 10-15 days after reaching the analysing laboratory.	Avoid repeated freezing and thawing of sample as it destroys CK activity. Viability of specimen: At - 20° C for 3 days. 3ml of frozen serum.
Creatine Kinase total	3 hours.	1ml of serum
Cytology	Gynae, 5-7 days Non-Gynae, 4-6 days	Gynae samples must be fixed in 95% Isopropanol while Non Gynae in 50% Isopropanol in equal parts
Creatinine – s	3 hours.	1ml of serum

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Creatinine – u	3 hours.	5ml of random urine.
Creatinine – u (24hr)	3 hours	Nil preservative. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from the 24hr urine collection.
Crimean-Congo virus *	PathCare staff may not handle these specimens.	The referring doctor may contact KEMRI with the patient's clinical history and to find out regarding the specimen requirements.
CRP Ultrasensitive	Approximately 1 day after reaching the analyzing laboratory.	1mL of serum.
Cryohaemolysis	Approximately 10-15 days after reaching the analysing laboratory.	2ml of serum.
Cryptococcus antigen	3 hours.	1ml of CSF or 1ml of serum.
CSF – Adenosine deaminase	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of cerebrospinal fluid.
CSF – analysis	1 day for cells and chemistry. 3-5 days for culture.	1ml cerebrospinal fluid.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
CSF – B2 Microglobulin	Approximately 3-5 days after reaching the analysing laboratory.	1ml cerebrospinal fluid
CSF – Cysticercosis *	Approximately 3-5 days after reaching the analysing laboratory.	CSF in sterile container.
CSF – globulin	Approximately 3-5 days after reaching the analyzing laboratory.	1ml cerebrospinal fluid.
CSF – glucose	2 hours.	1ml of cerebrospinal fluid in a – FLUORIDE-grey top – tube.
CSF – glutamine *	See collection instructions.	Specimen must be frozen and sent as soon as possible. Must not defrost during transport. Viable for 24 hours if frozen. 1ml of frozen cerebrospinal fluid
CSF – IgG index	Approximately 1 day after reaching the analysing laboratory.	Separate serum as soon as possible. Transport specimens at 2 - 8° C. 2ml of cerebrospinal fluid and 1ml of serum.
CSF – IgA, G, M	Approximately 3-5 days after reaching the analysing laboratory.	2ml of cerebrospinal fluid.
CSF – lactate	See collection instructions	Transport at 2 - 8° C. Must reach the laboratory within 4 hours. 1ml of cerebrospinal fluid in a – FLUORIDE-grey top – tube
CSF – Oligoclonal bands	3 -5 days	Transport specimens at 2 - 8° C. 2ml of cerebrospinal fluid and 1ml of serum.
CSF – protein		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	3 hours.	1ml of cerebrospinal fluid.
CSF – RPR		
	Approximately 1 day after reaching the analyzing laboratory.	1ml cerebrospinal fluid.
CSF – Toxoplasma Ab *		
	Approximately 3-5 days after reaching the analysing laboratory.	2ml of cerebrospinal fluid.
Cyanide – blood *		
	Approximately 10 days after reaching the analysing laboratory.	2ml of – EDTA-purple top – plasma
Cyclosporine – blood		
	Approximately 3-5days after reaching the analysing laboratory.	Record dosage and time last taken. Sampling time: 2hrs post dosage for transplant patients. Transport at 2 - 8° C or frozen. 2ml of whole – EDTA-purple top – blood.
Cysticercosis IgG *		
	3-5 days.	2ml of serum.
Cystic Fibrosis PCR (Delta 508)		
	Approximately 3-5 days after reaching the analyzing laboratory.	Clinical data is important. 3ml of whole – EDTA-purple top – blood.
Cystine screen		
	Approximately 3-5 days after reaching the analysing laboratory.	10ml of random urine.
Cystine – u (24hr) *		
	Approximately 10-15 days after reaching the analysing laboratory.	Nil preservative. If aliquotting record volume and ensure the pH is correct if required. Freeze urine aliquot. Send 25ml frozen urine from the 24hr urine collection.
Cytogenetic analysis *		
	Approximately 10-15 days	10ml of whole - HEPARIN-green

TEST

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after reaching the
analyzing laboratory.

top – blood **or** 1ml of amniotic
fluid **or** a tissue biopsy.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Cytomegalovirus IgG / IgM	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum.
Cytomegalovirus Qualitative PCR	Approximately 3-5 days after reaching the analysing laboratory.	Tissue or sputum or swab
Cytomegalovirus viral load (Quantitative)	Approximately 3-5 days after reaching the analysing laboratory.	Transport blood at room temperature or if specimen is CSF, at 2 - 8° C. 2ml of whole – EDTA-purple top - blood or 1ml of CSF.
D-Dimer test	3 hours.	Please contact Pathcare First Frozen CITRATE-blue top – plasma
Dengue fever Ab/Ag or PCR*	3 hours	Complete the Arbovirus form 2ml of serum/plasma PCR- Serum
Deoxyypyridinoline – urine * (DPD)	Approximately 10-15 days after reaching the analysing laboratory.	First early morning specimen. Wrap in foil and freeze as soon as possible. 20ml of frozen random urine.
Dexamethazone suppression	Approximately 3-5 days after reaching the analysing laboratory.	Mark tubes clearly with time and date. Do according to the SOP. 2 x 1ml serum.
DHEAS	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
DIC screen	Approximately 1 day after reaching the analysing laboratory.	Record medication taken. Frozen plasma from a full - CITRATE-blue top - tube and 2ml of whole – EDTA-purple top – blood and 2ml of whole – HEPARIN-green top – blood.
Dichloromethane – blood *	Approximately 3 weeks after reaching the analysing laboratory.	3ml of whole – Fluoride-grey top - blood.
Digoxin	Approximately 3-5 days after reaching the analysing laboratory.	Record dosage and time last taken. Trough level. 2ml of frozen serum.
Diphtheria Ab *	Approximately 4 weeks from reaching the analysing laboratory.	2ml of serum.
Dormicum *	Approximately 3-5 days after reaching analyzing laboratory.	Wrap specimen in foil. Record dosage and time last taken. 2ml of whole – EDTA-purple top – blood.
Dormonoc *	Approximately 5-10 days after reaching the analysing laboratory.	Record dosage and time last taken. 2ml of serum.
Down syndrome screen (2nd Trimester)	Approximately 3-5 days after reaching the analyzing laboratory.	Complete special form. Gestational age must be between 15 and 20 weeks. 2ml of serum.
First Trimester Down screen	Approximately 48 - 72 hours after reaching the analyzing laboratory.	Done from 11 to 13 weeks 6 days gestation. All information on the special form must be filled in correctly. Separate serum as soon as

TEST

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TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Duchenne Muscular Dystrophy Screen *	Approximately 8 – 10 weeks after reaching the analyzing laboratory.	possible (must be within 6 hours). Transport serum at 2 - 8°C. 2mL of serum. 2mL of whole – EDTA – purple top – blood.
Ebola virus *	PathCare staff may not handle these specimens.	The referring doctor may contact KEMRI with the patient's clinical history and to find out regarding the specimen requirements.
EBV profile (IgG / IgM / EA/NA)	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.
Echinococcus / Hydatid Ab *	Approximately 3-5 days after reaching the analyzing laboratory.	2 mL of serum.
Ecstasy *	Approximately 3-5 days after reaching the analysing laboratory.	10ml of random urine
Efavirenz level *	Approximately 2 weeks after reaching the analyzing laboratory.	NB! The dosage, the last time the drug was taken and the collection time of the specimen must be recorded. The latest viral load and CD4 results (and the date resulted) should accompany the specimen. Record the height and weight of the client. Separate specimen within 4 hours of collection. Transport plasma frozen. 2 ml of frozen plasma.
Elastase – faecal *	5-10 days	Stool must be firm. Frozen Stool or at 2 - 8° C in a sterile container.
Electrolytes		

TEST

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3 hours.

1ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Endomysial IgA *	Approximately 3-5 days after reaching the analyzing laboratory.	1ml of serum
Entamoeba histolytica *	See Amoebiasis	
Eosinophil Cationic Protein (ECP) *	Approximately 10 -15 days after reaching the analysing laboratory.	Allow specimen to stand at room temperature for 60 – 115 minutes before centrifuging. Centrifuge within 2 hours and separate serum from the gel barrier. 2 ml of frozen serum.
Epanutin	Approximately 3-5 days after reaching the analysing laboratory.	Record dosage and time last taken if possible. 1ml of serum.
Epstein-Barr virus	See EBV	
Erythropoietin *	Approximately 5-10 days after reaching the analysing laboratory.	1ml of serum.
Estrogens (E2)	3 hours	Record LMP 1ml of serum.
Ethyl Benzene – p *	Approximately 2 weeks after reaching the analysing laboratory.	2ml of - FLUORIDE-grey top – plasma
Euglobulin Lysis test		Contact Pathcare First Must be done within one hour of collection.
Everolimus *	Approximately 3-5 days after reaching the analyzing laboratory.	NB: Record the time medication last taken and time specimen collected. Otherwise, the therapeutic ranges have no meaning.

TEST

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10ml of **frozen** whole EDTA-
purple top – blood.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Extractable nuclear antigens (ENA)	Approximately 3-5 days after reaching the analyzing laboratory. Done at least once on the weekend.	Transport at 2 - 8° C or frozen. 4 ml of serum
Factor II	Approximately 5-10 days after reaching the analyzing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
Factor IX (nine) *	Approximately 3-5 days after reaching the analyzing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
Factor V (five)	Approximately 3-5 days after reaching the analysing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
Factor V Leiden	Approximately 3-5 days after reaching the analyzing laboratory.	Haemolysed blood cannot be used. 1ml of whole - EDTA-purple top - blood.
Factor VII (seven)	Approximately 3-5 days after reaching the analysing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
Factor VIII (eight)	Approximately 3-5 days after reaching the analyzing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
Factor VIII Inhibitor	Approximately 4 days after reaching the analyzing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
Factor X (ten)	Approximately 3-5 days after reaching the analysing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
Factor XI (eleven)		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Factor XII (twelve)	Approximately 3-5 days after reaching the analysing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
Factor XIII (thirteen)	Approximately 3-5 days after reaching the analysing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
Faecal Calprotectin *	Approximately 3-5 days after reaching the analyzing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube.
Faecal eosinophils	Approximately 3-5 days after reaching the analyzing laboratory.	Fresh stool in a sterile container.
Faecal trypsin	Approximately 1 day after reaching the analysing laboratory.	Fresh stool in a sterile container.
Faecal occult blood (Faecal Human Hb)	3 hours.	The diet is not absolutely necessary, but It is best to avoid red meat; dried meat; strong spices; tomatoes and acidic foods. Rather eat fish or chicken; nuts; fruit; whole wheat bread and cereals. Stool in a sterile container.
Ferritin	3 hours.	1ml of serum.
Fibrin degradation products	No longer available	
Fibrinogen	Approximately 3-5 days after reaching the analysing laboratory.	Frozen plasma from a full – CITRATE-blue top – tube. Freeze plasma immediately.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Fish genotyping 1 – 5 *	Approximately 5 – 7 working days or Tissue: 2 – 3 weeks after reaching the analyzing laboratory.	Keep cool, not frozen. 2ml of whole – HEPARIN-green top – blood or 10ml of Amniotic fluid in a non-plastic sterile container or Tissue or 1 – 2ml of Cord blood in - Heparin–green top - tube
Fish procedure – prenatal *	Amniotic fluid – 5-10 working days and Cord blood – 7-10 working days after reaching the analyzing laboratory.	Keep cool, but not frozen. 10ml of amniotic fluid in a non- plastic sterile container or 1 –2 ml of Cord blood in - HEPARIN- green top - tube.
Fluoride – u *	Approximately 7-10 days after reaching the analyzing laboratory.	10ml of frozen random urine.
FK506 (Tacrolimus)	Approximately 3-5 days after reaching the analysing laboratory.	NB! Record dosage, last time taken and the date of transplant. Wrap specimen in bubblewrap and transport at 2 - 8° C. 2ml of whole – EDTA-purple top – blood.
Fluoxetine *	Approximately 2 weeks after reaching the analysing laboratory.	Record dosage and time last taken. 3ml of – EDTA-purple top – plasma
Foetal lung maturity – PG/Lamellar bodies in amniotic fluid	3-5 days Always urgent	Contact Pathcare First 1ml of amniotic fluid.
Follicle stimulating hormone (FSH)	3 hours	Record LMP. 1ml of serum
Folate - s	3 hours	A fasting specimen is preferred. Separate serum as soon as

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
		possible. Specimens must be kept and transported at 2 - 8° C. Haemolysed specimens cannot be analysed. 1ml of serum.
<hr/> Folate – red cell + serum		
	Approximately 3-5 days after reaching the analyzing laboratory.	A fasting specimen is preferred for serum folate. Separate serum as soon as possible. Wrap EDTA specimen in bubblewrap prior to placing at 2 - 8° C. Specimens must be kept and transported at 2 - 8° C. Haemolysed specimens cannot be analysed. 2ml of whole – EDTA-purple top – blood + 1ml of serum.
<hr/> Fragile X – PCR *		
	The result takes 1 month once analysis starts.	Keep cool, not frozen. Supply all clinical data. 4ml of whole – EDTA-purple top – blood.
<hr/> Free androgen index		
	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.
<hr/> Free fatty acids *		
	Results available after approximately 1 month	Fasting specimen. No alcohol for 24 hours before specimen is drawn. Transport frozen. 2ml of frozen serum.
<hr/> Free Light Chain - s		
	Approximately 3-5 days after reaching the analyzing laboratory.	Separate serum as soon as possible. Transport serum at 2 - 8°C 2ml of serum.
<hr/> Free PSA and ratio		
	Approximately 3-5 days after reaching the analysing laboratory.	Transport serum at 2 - 8° C or Frozen. 2ml of frozen serum.
<hr/> Free testosterone		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.

Fructosamine

Approximately 3-5
days after reaching
the analysing
laboratory.

2ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Fructose – semen	3-5 days	Contact Pathcare First
FT3 (Triiodothyronine)	3 hours.	Record any thyroid medication taken. 1ml of serum.
FT4 (Thyroxine)	3 hours.	Record any thyroid medication taken. 1ml of serum.
FTA IgG (Fluorescent treponemal antibody absorption)	Approximately 3-5 days after reaching the analysing laboratory.	1ml of serum.
Full blood count (FBC)	3 hours.	2ml of whole – EDTA-purple top – blood.
G6PD (Glucose-6- Phosphate Dehydrogenase) *	Approximately 5 days after reaching the analysing laboratory.	Transport blood at 2 - 8° C. A red cell count result is necessary for this test to be done. 2ml of whole – EDTA-purple top – blood.
Gabapentin (Neurontin) *	Approximately 10 days after reaching the analyzing laboratory.	Record dosage and time last taken. 3mL of whole EDTA – purple top – blood.
Galactosaemia *	Approximately 2 weeks after reaching the analysing laboratory.	Wrap specimen in bubblewrap and transport at 2 - 8° C. Do not freeze specimen. 2ml of whole – ACD-yellow top – blood. Neonates: 0.5ml of whole blood.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Gallstone analysis *	Approximately 3-5 days after reaching the analyzing laboratory.	Label specimen as a gallstone.
Ganglioside Ab *	Approximately 7- 10 days after reaching the analyzing laboratory.	2 ml of serum.
Gamma GT	3 hours	1ml of serum.
Gastrin *	Approximately 7 – 10 days after reaching the analyzing laboratory.	Absolute fasting. Separate within an hour and freeze serum as soon as possible or keep at 2 - 8° C until serum can be frozen. 2ml of frozen serum.
Gastro-intestinal peptide *	Approximately 1-3 months	Contact Pathcare First
Genetic tests	Depends on the test	Contact Pathcare First
Glomerular basement Membrane Ab	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.
Glucagon *	See Gastro-intestinal peptide	Unavailable on its own. Part of the Gastro-intestinal peptide profile only.
Glucose - p	3 hours	Record when the client last ate or drank anything. 1ml of – FLUORIDE-grey top – plasma.
Glucose – u	3 hours	Record when the client last ate or drank anything. 5ml of random urine.
Glucose tolerance test		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Glutamic acid decarboxylase Ab (GAD) *	3 hours.	Fasting. Do according to the SOP for the specific test requested. 1ml of – FLUORIDE-grey top – plasma x the number for the test.
Gluten IgA & IgG * (Gliadin)	Approximately 7 – 10 days after reaching the analyzing laboratory.	Always done with the IA2 antibody. 2ml of serum
Glyceric acid – u *	Approximately 5-10 days after reaching the analyzing laboratory.	Transport serum at 2 - 8° C 2 ml of serum.
Glycated haemoglobin (HbA1c)	Approximately 5-10 days after reaching the analysing laboratory.	10ml of frozen random urine.
Glycosaminoglycans *	Approximately 1 day after reaching the analyzing laboratory.	2ml of whole – EDTA-purple top – blood.
Growth hormone *	Approximately 3-5 days after reaching the analyzing laboratory.	Transport urine at 2 - 8° C. 20mL of random urine.
Growth hormone stimulation *	Approximately 5-10 days after reaching the analysing laboratory.	2ml of serum.
Growth hormone suppression*	Approximately 5-7 days after reaching the analysing laboratory.	Label specimens carefully. Do according to the SOP. 7 x 1ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	Approximately 5-7 days after reaching the analysing laboratory.	Label specimens carefully. Do according to the SOP. 6 x 1ml of serum and 6 x FLUORIDE - grey top - plasma.
H1N1 (Swine Flu)	Approximately 3-5 days after reaching the analysing laboratory.	Contact Pathcare First Transport in viral medium. 3 x special swabs, one from each nostril and one throat swab.
Haematocrit	Approximately 1 day after reaching the analysing laboratory.	Capillary tube on a neonate or 1ml of whole – EDTA-purple top – blood.
Haemoglobin	Approximately 1 day after reaching the analysing laboratory.	1ml of whole – EDTA-purple top – blood.
Haloperidol	Approximately 7 days after reaching the analysing laboratory.	Transport plasma at 2 - 8° C. 4ml of EDTA-purple top – plasma.
Haptoglobin – s	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum.
Hb Electrophoresis	Approximately 3-5 days after reaching the analyzing laboratory.	Contact Pathcare First Specimens should reach the analysing laboratory within 5 days of collection. Arrangements must be made if longer required. Transport specimen at 2 - 8° C. 3ml of whole – EDTA-purple top – blood.
Hb F Denaturation	See Hb Electrophoresis	
Heart muscle Ab *	Approximately 3 weeks after reaching the analysing laboratory.	1ml of serum
Heavy Metal screen * (On Industrial workers only)		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	Approximately 3 weeks after reaching the analysing laboratory.	25ml of frozen urine
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Helicobacter pylori Ab	Approximately 3-5 days after reaching the analyzing laboratory.	2 ml of serum.
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Helicobacter pylori Ag	1 hour	Fresh stool specimen
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Hepatitis A IgG / IgM	3 hours.	Transport serum at 2 - 8° C 2ml of serum
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Hepatitis A, B & C virus	3 hours.	2ml of serum.
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Hepatitis B core Ab	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum
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Hepatitis B e Ag / Ab	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.
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Hepatitis B PCR Quantitative	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum.
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Hepatitis B Genotype	Approximately 10 days after reaching the analysing laboratory.	5mL of whole EDTA – purple top- blood.
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Hepatitis B surface Ab	3 hours	Transport serum at 2 - 8° C 2ml of serum.
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Hepatitis B surface antigen	3 hours	2ml of serum.
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TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Hepatitis C Ab	3 hours	2ml of serum.
Hepatitis C PCR - Qualitative	3-5 days	Separate plasma within 6 hours of collection. Transport plasma at -20° C. 5ml of EDTA-purple top- plasma
Hepatitis C PCR Viral load	3-5 days	Separate plasma within 6 hours of collection. Transport plasma at -20° C. 5ml of EDTA-purple top plasma.
Hepatitis C Genotype	Approximately 7 days after reaching the analysing laboratory.	Contact Pathcare First Separate plasma within 4 hours. Transport plasma < 48 hours at 2 - 8° C and > 48 hours at -20° C. 2mL of EDTA– purple top- plasma
Hepatitis D	No longer available	
Hepatitis E Ab *	Approximately 5 - 7 days after reaching the analysing laboratory.	2 ml of serum.
Hepatitis G PCR *	Approximately 2 weeks after reaching the analysing laboratory.	2 ml of serum.
Heroin	See Opiates	
Herpes PCR	Approximately 3-5 days after reaching the analysing laboratory.	Special Dry Swab or vesicle fluid in a special medium. CSF for Herpes meningitis
Herpes simplex Ab	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Herpes type 6 Ab *	Approximately 5-7 days	
Herpes zoster Ab	Approximately 3-5 days after reaching the analyzing laboratory.	1ml of serum.
Hippuric acid *	Approximately 2 weeks after reaching the analysing laboratory.	10ml of frozen random urine.
Hirsutism screen	Approximately 3-5 days after reaching the analysing laboratory.	See list of profiles at the front of the handbook. 2ml of serum.
Histamine – u	No longer available	
Histoplasma Ab *	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum.
HIV I & II Elisa + P24 Ag	4 hours.	2ml of serum.
HIV PCR Qualitative	1 day	Only done on babies under 18 months old. Transport at 2 - 8° C. 2mL of whole –EDTA – purple top - blood.
HIV Genotypic drug resistance	Approximately 2 weeks after reaching the analyzing laboratory.	Record any medication taken. Plasma must be separated within 48 hours. Haemolysed samples cannot be used. Plasma must be frozen. It may be thawed once only. 3ml of frozen – EDTA-purple top – plasma.
Histology	5-6 days	Biopsy MUST be fixed in 10% formalin

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
HIV PCR – quantitative	Approximately 3-5 days after reaching the analysing laboratory.	Transport at room temperature if less than 3 days. 2 x EDTA is preferred. 5ml of whole – EDTA-purple top – blood If longer than 3 days, separate and freeze plasma within 6 hours. 2ml of frozen - EDTA-purple top – plasma
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HLA Ab Class 1 ID *	3 - 4 weeks	2mL of serum
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HLA B51 *	Approximately 3-5 days after reaching the analysing laboratory.	Transport at room temperature. Do not place near ice - it destroys the lymphocytes. Must reach the laboratory within 24 hours. 10ml of whole – Heparin-green top – blood.
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Homocysteine - p	Approximately 3-5 days after reaching the analyzing laboratory.	Fasting specimen. The client should not eat protein for at least 18 hours before testing. Keep specimen at 2 - 8° C. Preferably separate plasma within 1 hour. Specimens MUST be separated within 6 hours. Record the time the specimen was separated. Freeze plasma on dry ice for transportation. 3ml of frozen – EDTA-purple top – plasma.
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Homocysteine – u (24hr)	Approximately 1 day after reaching the analysing laboratory.	Nil preservative. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from the 24hr urine collection.
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Homovanillic acid – u (24hr)	Approximately 5-10 days after reaching the analysing laboratory.	20ml of concentrated HCL added to container before collection. If aliquotting, record volume and ensure the pH is correct if required.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
HPV	See PCR HPV	
Human T-cell lymphotropic virus * (HTLV I & II)	Approximately 5 -10 days after reaching the analyzing laboratory.	2 ml of serum.
Hydatid / Echinococcus Ab*	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.
Hydroxypyrene u *	Approximately 2 weeks after reaching the analyzing laboratory.	15mL of random urine.
IgF Binding Protein 3 *	Approximately 3-5 days after reaching the analyzing laboratory.	Transport serum at 2 - 8° C or -20° C 2mL of serum.
IgG Subfractions 1 – 4 *	Approximately 5 days after reaching the analyzing laboratory.	2mL of serum.
Immunofixation – s	Approximately 3-5 days after reaching the analyzing laboratory.	2 ml of serum.
Imipramine *	Approximately 3-5 days after reaching the analyzing laboratory.	Part of the Tricyclic Antidepressant screen. Stability: 24 hours at 2 - 8° C thereafter must be frozen. Trough level. Record dosage and time last taken. 2 ml of frozen serum.
Immunofixation Electrophoresis - u	Approximately 3-5 days after reaching the analyzing laboratory.	10 ml of random urine.
Immunoglobulin D *		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	Approximately 5-10 days after reaching the analysing laboratory.	Separate within 2 hours. Stable for < 72 hours at 2 - 8° C 2 ml of serum.
Immunoglobulin E		
	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of serum.
Immunoglobulin G, A, M		
	Approximately 1 day after reaching the analysing laboratory.	2ml of serum.
Indirect Coombs *		
	3 hours.	3ml of whole – 6mL EDTA-purple top – blood.
Infertility screens		
	Approximately 1 day after reaching the analysing laboratory.	Rest for 15 minutes prior to drawing sample. Record medication taken recently. 2ml of serum.
Influenza virus Ab		
	No longer available Do the PCR Respiratory Viral Panel.	
Inherited Thrombophilia		
	Approximately 7-10 days after reaching the analyzing laboratory.	Separate citrate plasma and freeze immediately on dry ice. One EDTA-purple top tube must be spun down as soon as possible and the plasma frozen. Frozen plasma from 1 x full – CITRATE-blue top – tubes and 3ml of whole – EDTA-purple top – blood and 2ml of frozen – EDTA- purple top – plasma.
Insulin		
	3 hours	Fasting if possible. 1ml of serum.
Insulin-like growth factor-1 * (IgF1)		
	Approximately 2-3 weeks after reaching the analysing laboratory.	Separate serum once well clotted. Transport serum frozen. 1ml of frozen serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Insulin Resistance	3 hours.	Client must be fasting. 1ml of serum and 1 ml of FLUORIDE-grey top – plasma.
Interleukin 6	Approximately 5 days after reaching the analyzing laboratory.	1ml of serum.
International Normalized Ratio (INR)	3 hours	Collect full tube. Record medication, dosage, time last taken, who doses the client and how long the client has been on that dose. It transporting overnight, separate plasma and freeze immediately on dry ice. Frozen plasma from a full – CITRATE-blue top – tube.
Intrinsic factor Ab *	Approximately 3-5 days after reaching the analyzing laboratory.	2 ml of serum.
Iodine - u (24 hr)	Approximately 3 - 4 weeks after reaching the analysing laboratory.	Keep refrigerated and away from light. Nil preservative. If aliquotting, record volume. Transport at 2 - 8° C. Send 25ml from the 24hr urine collection.
Ionized calcium	See Calcium, ionized	
Iron profile	3 hours.	1ml of serum.
Iron – s	3 hours	1ml of serum.
Islet cell Ab * (Anti-Gad/IA2 Ab)	Approximately 5-10 days after reaching the analysing laboratory.	2ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
JAK2 analysis *	Approximately 3-5 days after reaching the analyzing laboratory.	Transport specimen at 2 - 8° C. 2mL of whole – EDTA-purple top – blood.
Ketones – quantitative *	Approximately 3-5 days after reaching the analysing laboratory.	This test must be booked in advance. Separate plasma within 15 minutes, add equal amounts of plasma and 4% Perchloric acid, mix well and centrifuge again. Aspirate the supernatant and freeze it as soon as possible. Viable for 48 hours only. 2mL of frozen – HEPARIN-green top – supernatant.
Ketones – screen	Approximately 1 day after reaching the analysing laboratory.	5ml of urine or 1ml of serum.
Kleihauer test	Always urgent Approximately 3-5 days after reaching the analysing laboratory.	Contact Pathcare First 3ml of whole – EDTA-purple top – blood.
Lactate	Approximately 3-5 days after reaching the analysing laboratory.	Do not use a cuff or allow the clients to clench their hand. Mark the tube as “no cuff”. Must be separated within 15 minutes. Freeze plasma on dry ice. Record if arterial or venous blood. 2 ml of frozen – FLUORIDE-grey top – plasma.
Lactose tolerance test	No longer available	Contact Pathcare First. Client must be fasting. Label tubes clearly. Record any symptoms. Do according to the SOP. 6 x 1ml of – FLUORIDE-grey top – plasma.
Lactulose: Mannitol ratio – u *		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Lamotrigine * (Lamictin)	Approximately 1 month after reaching the analyzing laboratory.	Contact Pathcare First. Fasting. Client must abstain from alcohol and NSAID's for 24 – 48 hours prior to the test. Do according to the SOP. Sodium Azide must be added to urine jars. 2 x special urine specimens.
Largactil (Chlorpromazine) *	Approximately 10-15 days after reaching the analysing laboratory.	NB! Therapeutic drug monitoring requires the weight, age, dosage, time between last dose and sample collection, duration of drug therapy and other drugs taken by client. Peak: Sample needs to be taken 2 hrs after dosage. Trough: Sample needs to be taken 8 hrs after dosage 2ml of serum.
Lassa virus *	Approximately 10-15 days after reaching the analysing laboratory.	Wrap in foil. 2ml of - EDTA-purple top - plasma.
LD (LDH)	Approximately 1 day after reaching the analysing laboratory.	The referring doctor may contact KEMRI with the patient's clinical history and to find out regarding the specimen requirements.
LD Isoenzymes *	Approximately 1 month after reaching the analyzing laboratory.	1ml of serum.
Lead - blood	Approximately 3-5 days after reaching the analyzing laboratory.	3ml of frozen serum.
Lead – u	Approximately 3-5 days after reaching the analyzing laboratory.	2ml of whole – EDTA-purple top – blood.
	Approximately 3-5 days after reaching the analyzing laboratory.	10ml of random urine.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Legionella IFA *	Approximately 3-5 days after reaching the analysing laboratory.	1ml of serum.
Leponex *	Approximately 7-10 days after reaching the analysing laboratory.	Trough level. Record dosage and time last taken. Transport plasma frozen. 3ml of frozen – EDTA-purple top – plasma.
Leptospira IgM	Approximately 7-10 days after reaching the analyzing laboratory.	Transport serum frozen . 2ml of frozen serum.
Leucocyte Arylsulphatase A *	Approximately 3 weeks after reaching the analyzing laboratory.	Do not separate. Must reach the analysing laboratory within 24 hours . Transport at 2 - 8° C. 3 x full whole – EDTA-purple top – blood. 2 from client and 1 from a non-relative as a control.
LH	3 hours.	Record LMP 1ml of serum.
LHRH stimulation	3-5 days	Follow the SOP. LHRH ampoule is necessary.
Librium (Chlordiazepoxide) *	Approximately 7-10 days after reaching the analyzing laboratory.	Wrap specimens in foil. Record dosage and last time taken. 10ml of whole EDTA-purple top – blood.
Lidocaine screen *	Approximately 3-5 days after reaching the analyzing laboratory.	Transport at 2 - 8° C or frozen. 5ml of random urine.
Lipase		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	3 hours	1ml of serum.
Lipogram	3 hours.	Record if random or fasting. State when the client last ate or drank something. 1ml of serum.
Lipoprotein (a)	Approximately 3-5 days after reaching the analysing laboratory.	2ml of serum.
Listeria Ab *	Approximately 3-5 days after reaching the analyzing laboratory.	1ml of serum.
Lipoprotein electrophoresis *	Approximately 7 – 10 days after reaching the analyzing laboratory.	Fasting specimen. Separate plasma as soon as possible. Transport at 2 - 8° C. Do not freeze. A Lipogram result must accompany the specimen. 1ml of EDTA – purple top - plasma
Lithium	Approximately 3-5 days after reaching the analysing laboratory.	Record dosage and time last taken if possible. Transport serum on dry ice. 2 ml of frozen serum.
Liver function	3 hours	2 ml of serum.
Liver / kidney Ab	Approximately 3-5 days after reaching the analyzing laboratory.	2 ml of serum.
Lopinavir level *	Approximately 3-5 days after reaching the analyzing laboratory.	NB! The dosage, the last time the drug was taken and the collection time of the specimen must be recorded. The latest viral load and CD4 results (and the date resulted) should accompany the specimen.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Lorazepam levels *	Approximately 3-5 days after reaching the analyzing laboratory.	Wrap specimen in foil. 3ml of EDTA –purple top – plasma
LSD *	Approximately 3 weeks after reaching the analysing laboratory.	20ml of random urine
Lupus anticoagulants	Approximately 3-5 days after reaching the analyzing laboratory.	Freeze Citrate plasma immediately. Frozen plasma from 2 x full – CITRATE-blue top – tubes and 2ml of serum.
Lyme's disease Ab *	Approximately 5-10 days after reaching the analyzing laboratory.	2ml of serum.
Lymphocyte subsets	Approximately 3-5 days after reaching the analyzing laboratory.	2 x 5ml whole – EDTA-purple top - blood. More blood will be needed if the Lymphocyte count is less than $5 \times 10^9/l$. Must be analyzed within 72 hours after collection.
Lymphocytotoxic Ab *	See HLA Ab Class 1 ID	2ml of serum.
Lysosomal Ab *	Approximately 3-5 days after reaching the analysing laboratory.	1ml of serum.
Macroprolactin	Approximately 5 days after reaching the analysing laboratory.	2 mL of serum.
Magnesium - s	3 hour	1ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Magnesium – red cell	Approximately 3-5 days after reaching the analysing laboratory.	Keep at room temperature – may not get cold. Must be analyzed within 48 hours. 3ml of whole – EDTA-purple top – blood.
Magnesium – u	1 hour	5ml of random urine
Magnesium – u (24hr)	1 hour	20ml of concentrated HCL added to container before collection. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from the 24hr urine collection.
Malaria profile	3 hours	2ml of whole – EDTA-purple top – blood.
Mandrax	Approximately 3-5 days after reaching the analysing laboratory.	10ml of random urine.
Manganese *	Approximately 5 days after reaching the analysing laboratory.	Stable for 7 days at room temperature. 3ml of whole – EDTA-purple top – blood.
Manganese – u *	Approximately 3-5 days after reaching the analyzing laboratory.	10 ml of frozen random urine.
Mantoux	72 hours	Contact Pathcare
Marburg virus Ab *	PathCare staff may not handle these specimens.	The referring doctor may contact KEMRI with the patient's clinical history and to find out regarding the specimen requirements.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Measles IgG / IgM	Approximately 3-5 days after reaching the analyzing laboratory. PCR is the preferred method. See PCR Measles	2ml of serum.
Melanin – u	No longer available.	
Mellaril *	Approximately 10 days after reaching the analysing laboratory.	Wrap specimens in foil. Record dosage and time last taken. 4ml of whole – EDTA-purple top – blood.
Menopause screen	Approximately 1 day after reaching the analyzing laboratory.	Record LMP See list of profiles at the front of the handbook. 1ml of serum.
Mercury – blood *	Approximately 2 weeks after reaching the analysing laboratory.	3ml of whole – EDTA-purple top – blood.
Mercury – hair *	Not done individually. See Metal screen hair.	
Mercury – urine *	Approximately 10 days after reaching the analysing laboratory.	10ml of random urine
Metabolic Screen – u & s *	Approximately 2 – 3 weeks after reaching the analysing laboratory.	10ml of frozen urine plus 1mL of frozen serum.
Metal screen hair *	Approximately 4 – 6 weeks after reaching the analyzing laboratory.	300mg hair in a sterile container. Get some with roots and as long as possible. If the head hair has been chemically treated, use pubic hair instead.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Metanephrines	Approximately 3 – 4 days after reaching the analyzing laboratory.	20ml of concentrated HCL added to container before collection. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from the 24hr urine collection.
Methadone	Approximately 1 day after reaching the analyzing laboratory.	5ml of random urine.
Methanol – u *	Approximately 2 weeks after reaching the analysing laboratory.	10ml of frozen urine.
Methaqualone	See Mandrax	
Methotrexate	Approximately 1 day after reaching the analyzing laboratory.	1ml of serum.
Methylhistamine	No longer available	
Methylmalonic Acid *	Approximately 5-10 days after reaching the analysing laboratory.	Transport at 2 - 8° C. 2mL of EDTA-purple top - plasma
Microfilaria Parasite	Approximately 1 day after reaching the analysing laboratory.	1ml of whole – EDTA-purple top – blood
Microalbuminuria screen	Approximately 1 day after reaching the analysing laboratory.	First early morning specimen. Transport at 2 - 8° C. Must not be frozen. 5ml of random urine.
Mitochondrial Ab	Approximately 3-5 days after reaching the analyzing laboratory.	2 ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Microalbuminuria – u (24hr)	Approximately 1 day after reaching the analysing laboratory.	Nil preservative. Unable to test urine containing blood. Transport at 2 - 8° C. Send 10ml from the 24hr urine collection
Mitochondrial Antigen Subtypes	Approximately 3-5 days after reaching the analysing laboratory.	2mL of serum.
Mitochondrial DNA study *	Approximately 1 month after reaching the analysing laboratory.	Transport blood at 2 - 8° C. 2ml of whole – EDTA-purple top – blood.
Mucopolysaccharide *	Approximately 10 days after reaching the analysing laboratory.	10 ml of frozen urine.
Mucopolysaccharide Electrophoresis *	Approximately 10 days after reaching the analysing laboratory.	10 ml of frozen urine
Mullerian Ab * (Anti-Mullerian Ab)	Approximately 5 days after reaching the analysing laboratory.	Transport serum frozen. 2ml of frozen serum.
Mumps virus Ab	Approximately 3-5 days after reaching the analyzing laboratory.	2 ml of serum.
Muscle Specific Kinase IgG	Approximately 2 - 3 weeks after reaching the analyzing UK laboratory.	A full patient history is required. Transport < 3 days at 2 - 8° C. Transport > 3 days at -20° C. 2 ml of serum.
Mycoplasma Pneumonia Ab *	Approximately 3-5 days after reaching the analysing laboratory.	1ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Mycoplasma / Ureaplasma culture	Approximately 5-10 days after reaching the analyzing laboratory.	10ml of random urine
Myelin Associated Glycoprotein (MAG / MOG Ab)	Approximately 21 working days after reaching the analysing UK laboratory.	Transport at 2 - 8° C 3ml of serum or CSF.
Myoglobin cardiac marker – p	3-5 days	Separate within 2 hours. Transport plasma at 2 - 8°C. 2 ml of – HEPARIN-green top – plasma.
Neisseria gonorrhoea	Do PCR Gonococcus. Antibodies no longer available	
Neonatal T4	3-5 days	Send any other thyroid test results if possible. May use a full gel microtainer. 1ml of serum.
Neonatal TSH	3-5 days	1ml of serum.
Neuron specific enolase *	2 weeks	2 ml of serum.
Neurotensin *	See Gastro-intestinal peptide profile.	Available only as part of the GI Peptide profile.
Neutrophil alkaline phosphatase	3-5 days	Contact Pathcare prior to doing test. A finger prick slide with a special fixative.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Newborn metabolic screen *	5 days	Should be taken between 2 and 6 days old. Preferred time is between 48 and 72 hours post birth. 4 x blood spots on a Guthrie card.
Nickel – u *	2 weeks	10ml of random urine
Nortriptyline *	3-5 days	Done as part of the Tricyclic antidepressant drug screen. Trough level. Transport serum frozen. Record dosage and time last taken. 2ml of frozen serum.
NTX Osteomark	10 days	Do Beta Crosslaps
Occult blood (Faecal Human HB)	3 hours	Fresh stool in a sterile container
Oestriol E3 *	10 days	2 ml of serum.
Oligosaccharide *	2 weeks	Transport at 2 - 8° C. 10ml of random urine.
Opiates	3-5 days	Transport urine at 2 - 8° C if transporting for longer than 18 hours. Record dosage and time taken if possible. 10ml of random urine.
Oral fat loading test	Contact Pathcare first	Call Pathcare First. Replaces the 72 hour faecal fat test. Client must be fasting. Special meal given. Do according to the SOP. 2 x 1ml of serum.
Organic acid – s *	7 – 10 days	Separate serum as soon as possible, aliquot serum into another container and transport frozen. 2ml of frozen serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Organic acid – u *	10 days	10ml of frozen random urine. (Send 2ml of frozen serum in case further testing is necessary)
Organophosphate poisoning	See Cholinesterase – Red cell	
Orotic acid *	10 days	20ml of frozen random urine.
Osmolality – s & u	3-5 days	10ml of random urine and 2ml of serum.
Osteocalcin *	10 days	Separate and freeze serum as soon as possible. 2ml of frozen serum.
Ovarian Ab *	3-5 days	2ml of serum.
Osteoporosis screen	3-5 days	Do not use a cuff. Height and weight is important. Record which medications have been taken? 1 x 24hr urine for calcium, phosphate & Creatinine clearance – please make sure the 20ml of conc. HCL was added before the urine collection. 4ml serum to be collected after the urine collection. Send 10ml from the 24hr urine collection and 4ml serum.
Oxalate – u (24hr) *	10 days	10mL HCL preservative needed. If aliquotting, record volume and ensure the pH is correct if required. Restrict vitamin C intake 48 hours prior to and during urine collection. Send 20ml from the 24hr urine collection.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Oxcarbazepine *	3-5 days	Record dosage and time last taken as well as weight, age, duration of drug therapy and other drugs taken by the client. 2ml of serum.
PAP (Prostatic Acid Phosphatase)	No longer available	
Paracetamol	3-5 days	If transporting for more than 48 hours, freeze serum. 2ml of serum.
Parainfluenza virus Ab * (Type 1 – 3)	3-5 days	2 ml of serum.
Paraquat – u screen *	2 weeks	10 ml of frozen random urine.
Parathormone (PTH)	3 hours	Separate plasma as soon as possible. Must be centrifuged within 8 hours. Plasma and primary tube must be transported at -20° C. 2mL of frozen EDTA –purple top - plasma.
Parietal cell Ab	3-5 days.	2 ml of serum.(Must be ordered with intrinsic factors test)
Parotid Ab *	3-5 days	Keep out of the sun. 2ml of serum
Parrot IgG Mix *	2 weeks	2ml of serum
Parvovirus B19 IgG / IgM *	10 days	2 ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Paternity test *	10 days	Contact Pathcare First Do according to the SOP. Blood card or 3ml of – EDTA- purple top – blood as per number of clients.
Paul Bunnell	3-5 days	2ml of serum.
PCR Adenovirus	3-5 days	4ml of whole – EDTA-purple top – blood. Alternatively: Serum or EDTA plasma, Stool, tissue samples, urine or CSF are also acceptable
PCR Alpha-1-antitrypsin *	1 month	3ml of whole – EDTA-purple top – blood.
PCR Alpha Thalassaemia *	1 month	The client must have had a FBC and Iron Studies done prior to this test. If they have not had them done recently, please inform the requesting doctor that these tests need to be done before the PCR can be done. There is a special form that must be completed prior to collection. 3ml of whole - EDTA-purple top – blood.
PCR Apolipoprotein E	10 days	Clinical data is important. 3ml of whole – EDTA-purple top – blood.
PCR Bordetella Pertussis	3-5 days	Done as part of the PCR Respiratory Bacterial panel. Nasopharyngeal swab in viral medium or dry swab or sputum.
PCR BRAF	3 weeks	Tissue block with >50% neoplastic cells.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
PCR BRCA (Breast Cancer)	Depends on which mutations are being analysed. Contact the laboratory.	Special form to be completed with full history of the client. Transport at room temperature. 4ml of whole – EDTA-purple top – blood.
PCR Brucella	3-5 days	2 ml of serum.
PCR Cadasil	3 weeks	2ml of whole EDTA-purple top – blood
PCR Chlamydia / Gonococcus	5-10 days	See Chlamydia PCR for collection instructions for the urine sample. 5ml of urine
PCR Chlamydia Psittaci	Approximately 3-5 days after reaching the analysing laboratory.	Preferred specimen: Sputum in a sterile jar. Also done on Tracheal aspirates, Nasopharyngeal swabs and Bronchial lavage specimens.
PCR Charcot-Marie-Tooth Type A1 *	1 month	4ml of whole EDTA-purple top – blood.
PCR Clostridium Difficile	3-5 days	Transport at 2 - 8° C 2ml of liquid or unformed stool in a sterile container.
PCR CMV Quantitative	5 days	4ml of whole – EDTA-purple top – blood.
PCR Cystic Fibrosis	5-10 days	Clinical data is important. 1ml of whole – EDTA-purple top – blood for adults; 2 x 4ml whole EDTA – purple-top – blood preferred.
PCR Cystic Fibrosis Extended screen	5-10 days	Transport specimen at 2 - 8° C.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
PCR Dihydropyrimidine Dehydrogenase	2 weeks.	2 x 4ml of whole EDTA-purple top – blood.
PCR EBV	3-5 days	2 ml of whole – EDTA-purple top – blood.
PCR Enterovirus	3-5 days	1ml of Cerebrospinal fluid. Alternative specimens: Stool / Lesion aspirate / Throat swab Viable for 72 hours only.
PCR Fanconi *	10 days	Transportation of sample if longer than 12 hours: Wrap specimen in bubblewrap or paper towel and keep cool at 2 - 8° C. Do not freeze. 4ml of whole – HEPARIN-green top – blood and 4mL of whole – EDTA-purple top – blood.
PCR FAP (Familial adenomatous polyposis)	1 month	Transport specimen at 2 - 8° C. 2 x 4ml of whole EDTA-purple top – blood.
PCR FLT3/ITD	2 weeks	Bone marrow specimen.
PCR Fragile X *	3-5 days.	3ml of whole EDTA –purple top – blood.
PCR Gastro – Viral or / and Bacterial	Approximately 3-5 days after reaching the analysing laboratory.	Contact Pathcare First

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
PCR Gonococcus (done with Chlamydia)	3-5 days	Preferred specimen: Dry urethral swab or Random urine as below: The specimen for validated Urine Chlamydia PCR testing: The first catch urine (the first part of the stream) preferably from the first urine specimen passed in the morning. Transport urine frozen .
PCR Haemophilia A *	2 months	Contact Pathcare before collecting these samples. Transport specimen at 2 - 8° C. 5ml of whole EDTA-purple top – blood.
PCR Hepatitis	See Hepatitis tests	
PCR Hereditary Haemochromatosis	3-5 days	Clinical data is important. 2ml of whole EDTA-purple top – blood.
PCR Herpes Type 1 & 2	3-5 days	Dry swab x 1
PCR Herpes 8 *	5-10 days.	6ml of whole EDTA-purple top - blood.
PCR – HIV	See HIV PCR	
PCR HIV Resistance	10 days	NB: Record medication taken, height and weight of patient. Separate plasma within 30 minutes or no later than 2 hours after collection. If transporting for longer than 24 hours, freeze plasma. 2 x 4ml of frozen EDTA –purple top – plasma.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
PCR HLAB27	3-5 days	2ml of whole – EDTA-purple top - blood
PCR HLA B5701	2 weeks	Transport specimen at 2 - 8° C. 2ml of whole EDTA-purple top – blood.
PCR Human Papilloma Virus (HPV)	3-5 days	Female: Preferred sample is a LBC specimen or dry swab (black top swab). Male: 2 x swabs: Anal and penile swabs must be taken.
PCR Huntington Chorea *	5 weeks	Genetic counselling is very important prior to ordering this test. 2ml of whole EDTA-purple top – blood.
PCR KPC & NDM-1	3-5 days	Transport specimen at 2 - 8° C. Rectal swab x 1
PCR Legionella Pneumophilia	3-5 days	Part of the PCR Respiratory Bacterial panel. Nasopharyngeal swab or Sputum in a sterile container
PCR LDL (Hypercholesterolemia)	2 weeks	Clinical data is important. 1ml of whole - EDTA-purple top – blood.
PCR M.TB	5-8 hours	Preferred specimen: Sputum in a sterile jar. Also done on CSF, aspirates and bone marrow.
PCR Malaria (P. falciparum)	3-5 days	3ml of whole EDTA-purple top – blood.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
PCR Measles	3-5 days	2 x Special nasopharyngeal swabs (702412) and 1ml of serum.
PCR Meningitis Bacterial panel	Batched twice a day.	Transport CSF at 2 - 8° C. Do not freeze specimen. 2mL of CSF.
PCR Meningitis Viral panel	3-5 days	Transport CSF frozen. 2ml of frozen CSF.
PCR MTHFR	3-5 days	3ml of whole –EDTA-purple top – blood.
PCR Multi-drug Resistant Tuberculosis	3-5 days	Early morning sputum in a sterile container or CSF.
PCR Mumps	3-5 days	Throat swab or CSF
PCR Mycobacterium Screen	Not available at present.	
PCR Mycoplasma Pneumoniae	3-5 days	Part of the PCR Respiratory Bacterial panel. Nasopharyngeal swab or Sputum in a sterile container
PCR Papovavirus BK *	3-5 days	Transport at 2 - 8° C. 10ml of random urine
PCR Papovavirus JC *	3-5 days	Transport at 2 - 8° C. 2ml of CSF

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
PCR Parvovirus	3-5 days	2 ml of serum or 1ml of amniotic fluid.
PCR Pneumocystis Jiroveci / Carinii	5 days	Sputum in a sterile container
PCR Porphyrin RBC	5 days	Clinical data is important. 2 ml of whole - EDTA-purple top – blood.
PCR Prothrombin 20210 A	3-5 days	2 ml of whole – EDTA-purple top – blood.
PCR Rabies *	5 days	Complete the rabies form. The specimen will not be analysed without the form. History of the patient is essential. Transport at 2 - 8° C. Saliva in a sterile container.
PCR RAS Molecular Screen	Approximately 15 days after reaching the analysing laboratory.	FFPE Tissue block & H&E slide clearly indicating tumour cells.
PCR Respiratory Bacteria Panel	3-5 days	Acceptable Specimens: Special nasopharyngeal swab in viral medium or Special nasopharyngeal dry swab or sputum or tracheal, bronchial or nasopharyngeal aspirate.
PCR Respiratory Viral Panel	3-5 days	Acceptable Specimens: Special nasopharyngeal swab in viral medium or Special nasopharyngeal dry swab or sputum or bronchial wash.
PCR Rickettsia	3-5 days	Transport at 2 - 8° C. 2ml of whole – EDTA purple top – blood.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
PCR Rubella	3-5 days	Throat swab or CSF.
PCR Sickle Cell *	2 weeks.	Contact Pathcare First
PCR Spinal Muscular Atrophy * (Not for Carrier Screening.)	5 – 10 days	Transport at 2 - 8° C. 2ml of whole – EDTA purple top – blood.
PCR Spinocerebellar Ataxia *	4 – 6 weeks	4ml of whole – EDTA purple top – blood.
PCR Swine Flu (H1N1 virus)	5 days	Acceptable Specimens: 3 x Special swab in viral medium. 1 swab from each nostril and one from the throat.
PCR T-cell Receptor *	2 – 4 weeks	Bone marrow specimen.
PCR Toxoplasma Gondi	10 days	Transport specimen frozen. 2ml of frozen whole EDTA – purple top – blood.
PCR Varicella (qualitative)	3-5 days	2 ml of whole –EDTA-purple top – blood or 2ml of CSF fluid.
Pethidine *	2-3 days.	Contact Pathcare First Record dosage and time last taken if possible.
PH – blood	NOT AVAILABLE AT THE MOMENT	Done on a blood gas machine. Use a HEPARIN syringe. Stable for 1 hour only

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Phadiatop	5 days	2ml of serum.
Phencyclidine	3-5 days	Transport urine at 2 - 8° C if transporting for longer than 18 hours. Record dosage and time last taken if possible 5ml of random urine.
Phenobarbitone	3-5 days	Record dosage and time last taken if possible. 2ml of serum.
Phenol – u *	2 weeks	Keep at 2 - 8° C immediately. Must be frozen within 6 hours. 5ml of frozen random urine.
Phenylalanine *	10 days	Transport plasma frozen . 2ml of – EDTA-purple top – frozen plasma or a Guthrie card for a screen.
Phenytoin	See Epanutin	
Phosphate – s	3 hours	2ml of serum.
Phosphate – u	3 hours	10ml of random urine.
Pigeon IgG mix *	2 weeks	2ml of serum
PI% (Prothrombin index)	3 hours	Collect full tube. Record medication, dosage, time last taken, who doses the client and how long has the client has been on that dose. Frozen plasma from a full – CITRATE-blue top – tube.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Platelet count	3 hours	1ml of whole – EDTA-purple top – blood.
Plasminogen Activator Inhibitor-1 PAI-1	Approximately 7 days after reaching the analysing laboratory.	Separate within 6 hours. Transport plasma frozen . 5mL CTAD frozen plasma.
Polio virus *	Approximately 2 weeks after reaching the analysing laboratory.	2 x Stool specimens at 2 - 8° C, 48 hours apart, is the preferred specimen for Polio or 2ml of serum.
Porphobilinogen – u	3-5 days	Wrap in foil. 25ml of random urine.
Porphyrin – quantitative *	2 weeks	Wrap in foil. Clinical date is important 10ml stool in sterile jar and 25ml of random urine and 3ml of whole – EDTA-purple top – blood all sent at the same time.
Porphyrin screen	3-5 days	Wrap in foil. Clinical data is important. 10ml stool in a sterile jar and 25ml of random urine sent at the same time.
Potassium - s	3 hours	1ml of serum.
Potassium-u	3 hours	5ml of random urine.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Potassium –u (24hr)	3 hours	No preservative. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from a 24hr urine collection.
PP hormone (Pancreatic polypeptide) *	1-3 months	Unavailable on its own. Part of the Gastro-intestinal peptide profile only.
Primidone	No longer available.	
Probrain Natriuretic Peptide (BNP)	3 hours	Transport Plasma frozen. 1ml of serum/ Heparin Plasma
Procalcitonin	3 hours	1ml of serum/frozen Heparin Plasma
Progesterone	3 hours	Record LMP and medication. 1ml of serum.
Prolactin	3 hours	Record LMP and medication. Client must rest for 15 minutes before collection of sample. 1ml of serum.
Prostatic acid phosphatase	No longer available	
Protein electrophoresis	3-5 days	2ml of serum.
Protein – s	3-5 days	1ml of serum.
Protein –u	3 hours	5ml of random urine.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Protein –u (24hr)	3 hours	No preservative. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from a 24hr urine collection.
Protein C	3-5 days	Full – CITRATE-blue top – tube. Freeze all plasma immediately.
Protein S	3-5 days.	Full – CITRATE-blue top – tube. Freeze all plasma immediately.
PSA	3 hours	1ml of serum.
Pyruvate Kinase screen	No longer available	
Pyruvic acid / Pyruvate *	5-10 days	Plain tube (red top) with 2ml of 8% perchloric acid added. The tube must be defrosted before using. Check the expiry date on the tube – the perchloric acid is stable for 1 month only. 1ml of blood is then added to the tube. (It must be exactly 1ml). Put immediately on ice. Spin and topple specimen. Send both tubes. Transport at 2 - 8° C.
Q-fever *	3-5 days	2 ml of serum.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Quantiferon TB	5 days	<p>3 special blood tubes must be used. Each tube must be filled only as far as the black line on the tube (approximately 1mL). Invert the tube once drawn.</p> <p>If at all possible do not draw blood with a syringe. If a butterfly is used, draw some blood into a plain tube before drawing into the Quantiferon tubes. Discard the plain tube.</p> <p>Once all Quantiferon tubes are drawn, shake all 3 tubes up and down for 5 seconds OR invert the tubes 8 - 10 times. Do NOT refrigerate or store tubes not centrifuged on ice.</p> <p>Blood must be incubated at 37° C as soon as possible after collection but can be kept at room temperature for a maximum of 16 hours before incubation. Keep filled tubes upright at all times. If the blood is not incubated immediately after collection, mixing of the tubes must be repeated immediately prior to incubation. Incubate tubes upright for 16 - 24 hours, then centrifuge for 15minutes at 2000 to 3000 RCF (g).</p> <p>Viability of specimen: 8 weeks at 2 - 8° C</p>
Quinine – p *	2 weeks	<p>Wrap in foil.</p> <p>2 x 2ml of frozen – EDTA-purple top – plasma.</p>
Rabies IgG & IgM	5 days	<p>Complete the rabies form. The specimen will not be analysed without the form. Transport specimens at 2 - 8° C.</p> <p>1mL of serum plus 1mL of CSF.</p>
Rabies PCR	5 days	<p>Complete the rabies form. The specimen will not be analysed without the form. Clinical history is important.</p> <p>Place specimen immediately on ice. Transport at 2 – 8° C.</p> <p>Saliva in a sterile jar.</p>

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
RA (R.F.)	2 hours	Transport serum at 2 - 8° C Do not freeze specimen. 1ml of serum.
RAST	Depends on the allergen.	Please designate specific allergen. Check with the Endocrine laboratory as to availability. 1ml of serum for an individual test. If a profile, 2ml of serum.
Red cell cholinesterase	See Cholinesterase – red cell	
Red cell count	2 hours	1ml of whole – EDTA-purple top – blood.
Reducing substances – faecal screen	3-5 days	Contact Pathcare First Specimen is viable for 24 hours only. Stool in a sterile container
Reducing substances – faecal TLC	3-5 days	Frozen stool specimen.
Reducing substances – urine screen	3-5 days	10ml of random urine.
Respiratory syncytial virus Ab (RSV Ab) *	7 days	2ml of serum.

Renin *

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	7 days	Separate plasma within 6 hours. Separated samples must then immediately be put into a -20° C freezer. AT NO stage must the sample be put on ice or into the fridge as Renin is generated at temperatures between 0 and 4° C. Mark tubes and form as active or resting. 1.5ml of frozen – EDTA-purple top – plasma.
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Reticulocyte count		
	3 hours	2 ml of whole – EDTA-purple top – blood.
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Reverse T3 *		
	3 weeks	Transport serum frozen. 2ml of frozen serum.
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Rhesus Ab screen *		
	1 day	3ml of – 6mL EDTA-purple top – frozen plasma and the red cells at room temperature.
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Rheumatoid factor		
	1 day	1ml of serum.
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Ribosomal Ab		
	3-5 days	2ml of serum.
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Rickettsia Conori Ab		
	3-5 days	2 ml of serum.
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Rift Valley HAI & Ab or PCR *		
	7-10 days	Complete the Rift Valley form Transport specimens at -20° C. 2mL of frozen serum.
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Ristocetin Co-Factor		
	5 - 7 days	Full – CITRATE-blue top - tube. Freeze all plasma immediately.
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Rohypnol *		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	10 days	Wrap specimen in foil. Maximum detection time: 20 - 24 hours - I.e. blood must be taken within 20 - 24 hours of alleged dosage. Transport at 2 - 8° C. 3ml of whole – EDTA-purple top – blood.
Rose Waaler (SCAT)		
	3-5 days	Only done on specimens with a positive RF of > 40. 2ml of serum.
RPR & T Pallidum		
	3-5 days.	2ml of serum.
RPR		
	2 hours	2 ml of serum.
Rubella Ab		
	3-5 days	1ml of serum.
Rubella avidity index		
	3-5 days	1ml of serum.
S100B Malignant Melanoma *		
	3-5 days	2ml of frozen serum.
Saccharomyces Cerevisiae		
	5 days	Transport serum at 2 - 8° C 2ml of serum.
Salicylate – s		
	3-5 days	Record dosage and time last taken if possible. 2ml of serum.
Salivary Gland Ab *		
	See Parotid Ab	
Salivary IgA *		
	5-10 days	Transport saliva frozen. Frozen Saliva in a sterile jar.
Saquinavir level *		
	5 – 7 days	It is very important that the drug,

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
SCL-70 Ab	3-5 days	dosage, last time the drug was taken and the collection time of the specimen is recorded. Take a trough level prior to the next dose. The latest viral load and CD4 results (and the date resulted) should accompany the specimen. Record the height and weight of the patient as well as any other medication taken. Separate plasma within 4 hours of collection. Transport at 2 - 8° C. 2mL of plasma.
Sedimentation rate (ESR)	2 hours	2ml of whole – EDTA-purple top – blood.
Selenium – s *	3 – 6 weeks	2ml of serum.
Selenium – u *	3 weeks	Part of the Condensed Metal Profile. 20ml of random urine.
Semen Alpha-Glucosidase *	2 weeks	Freeze semen immediately on dry ice. Do not defrost before analysis
Semen analysis	2-3 days	Must reach the laboratory within 1 hour. Record number of days abstinence, exact time specimen was collected and the time it arrived at the laboratory. Do according to the SOP. Collect all semen possible.

Semen – post vasectomy

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	2- 3 days	Preferably to reach the laboratory within 1 hour. Record the exact time specimen was collected and the time if arrived at the laboratory. Do according to the SOP Collect all semen possible.
Serotonin *	7 days	Separate as soon as possible. 2ml of frozen serum.
Serotonin – urine	See 5HIAA	
SHBG (Sex Hormone Binding Globulin)	3-5 days	2ml of serum.
Sexually Transmitted Infections (Contact Pathcare First)	Approximately 3 day after reaching the analysing laboratory.	Transport at 2 - 8° C. Specimens: Random urine or Swab or LBC
Sickle cell screen	1 day	3ml of whole – EDTA-purple top – blood.
Sindbis HAI & Ab or PCR*	7 days	Complete the Arbovirus form Transport specimens at -20° C. 2 ml of frozen serum.
Sirolimus *	3 - 5days	Record dosage regime and when last taken. 5mL of frozen whole –EDTA-purple top – blood.
Smooth muscle, parietal & mitochondrial Ab	3-5 days	2ml of serum.
Sodium – s	3 hours	1ml of serum.
Sodium – u	3 hours	5ml of random urine.
Sodium –u (24hr)		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	3 hours	No preservative. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from a 24hr urine collection.
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Soluble Transferrin receptor *	3-5 days	Transport frozen. 2ml of frozen serum.
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Somatomedin IgF *	2 weeks	Separate serum once well clotted.

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Sperm Ab *	According to type.	Freeze serum immediately. Transport frozen. 2ml of frozen serum.
Spermiogram	3-5 days	Must reach the laboratory within 1 hour. Record number of days abstinence, exact time specimen was collected and the time it arrived at the laboratory. Do according to the SOP. Collect all semen possible.
Squamous cell carcinoma *	3 – 5 days	1ml of serum.
STD profile	Approximately 48 hours after reaching the analyzing laboratory.	1 x dry swab plus 2ml of serum.
Striated muscle Ab *	5 days	1ml of serum.
Strychnine *	10 days	Transport at 2 - 8° C. Do not freeze. Collect as soon as possible after ingestion / contact. 2ml of serum
Sulphaemoglobin	3-5 days	Must reach the analysing laboratory within 2 hours.
Sulfonylurea *	2 weeks	Wrap specimen in foil. Record dosage and time tablet(s) last taken. 2 x 2ml – EDTA-purple top – plasma
Sweat test	NOT AVAILABLE AT THE MOMENT	Special instrument needed. At least 2 ring of sweat.
Swine Flu	See PCR Swine Flu	

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Syphilis	2 hours	1ml of serum.
T-cell receptor gene *	1 week	Specimen of choice: Bone Marrow. Alternative specimens: Flow cells, tissue. As a last resort: 2ml of whole – EDTA-purple top – blood.
Tay Sachs *	2 weeks	Stable for 24-48 hours only. It is preferable if both partners are tested. 1 x ACD-yellow top – tube each.
TB Lipoarabinomannin Ag (LAM)	Approximately 4 hours after reaching the analyzing laboratory.	First void urine. Transport urine at 2 - 8° C. 10mL random urine.
TB skin test	See Mantoux	
Teicoplanin	No longer available	
Testosterone – total	3 hours	Specimens should be taken before 10h00. 1ml of serum.
Testosterone – total (Female)	3 hours.	Specimens should be taken before 10h00. 1ml of serum.
Tetanus IgG *	3-5 days	2ml of serum.
Theophylline	3-5 days	Record dosage and time last

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Thiamine	See Vitamin B1	taken. 2ml of serum.
Thrombin time	1 day	Separate plasma and freeze on dry ice. Full – Citrate-blue top – tube Freeze all plasma immediately.
Thymidine kinase	1-2 months	2ml of serum
Thyroglobulin	3-5 days	Transport at 2 - 8° C if for less than 48 hours. Freeze sample if transport longer than 48 hours. 4 ml of serum.
Thyroid Ab	3-5 days.	Transport at 2 - 8° C if for less than 48 hours. Freeze sample if transport longer than 48 hours. 4 ml of serum.
Thyroid functions	3 hours	Record medication taken. 1ml of serum.
Tissue polypeptide Ag *	See TPA	
Tissue Transglutaminase IgA	3-5 days	If transport < 48 hours, transport at 2 - 8° C or frozen if longer. 2ml of frozen serum.
Tissue Transglutaminase IgG	Approximately 24 hours after reaching the analysing laboratory.	If transport < 48 hours, transport at 2 - 8° C or transport serum frozen if longer. 2ml of frozen serum.
Tissue typing – A and B locus (HLA) DNA*		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	5 – 7days	Record type of tissue typing required. 6 x 5ml whole EDTA –purple top – blood.
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Tissue typing B Locus 27 (HLA)	See PCR HLAB27	
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Tissue typing Bone Marrow transplant *	2 – 3 weeks	Transport at ambient temperature. 1 x 5ml of whole – ACD-yellow top – blood and 6 x 5ml of whole – EDTA-purple top – blood and 2 x whole - HEPARIN-green top – blood and 2ml of serum.
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Tissue typing Class I DNA*	3 – 5 days	Transport at ambient temperature. 6 x 5ml of whole – EDTA-purple top – blood.
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TMX	No longer available. Order individual tests if required.	2ml of serum.
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Tobramycin – pre + post	3-5 days	Mark tubes clearly as pre or post. Record dosage and time last taken. Post levels: 30 minutes after IVI completed and 60 minutes after an IMI or oral dose. 2ml of serum each.
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Toluene exposure	2 weeks	10ml of frozen random urine.
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Topiramate	2 weeks	Separate plasma as soon as possible and transport plasma frozen . 2ml of frozen - EDTA-purple top – plasma.
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Torch screen	3-5 days	3ml of serum.
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Total haemolytic CH100 *	10-15 days	2 ml of frozen serum.
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TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Toxicology screen		
Urine: Benzodiazepines Barbiturates, Cocaine Cannabinoids, Opiates Mandrax (methaqualone), Amphetamines, Methadone, Phencyclidine Serum: Tricyclic antidepressants Paracetamol, Salicylates, Plasma: Alcohol	3-5 days for alcohol 5 hours for urine tests	Contact Pathcare First Transport urine at 2 - 8° C or frozen if transporting for longer than 18 hours. Depending on the required tests. 5ml of random urine and / or 2ml of serum / or 2ml of FLUORIDE- grey top - plasma.
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Toxocara Canis IgG *	1 - 2 weeks	2ml of serum.
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Toxoplasma Ab – IgG + IgM	3-5 days	2ml of serum.
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TPA (Tissue polypeptide antigen) *	2 weeks	Transport serum at 2 - 8° C. Do not freeze specimen. 2ml of serum.
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Transferrin	3 Hours.	2ml of serum.
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Treponema Pallidum Ab	3-5 days	3 ml of serum.
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TRH stimulation test	3-5 days	Do according to the SOP. Give TRH. Mark tubes clearly. 3 x 1ml of serum.
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Trichloroacetic acid & Trichloroethanol *	2 weeks	10ml of frozen urine.
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Trichloroethylene – blood *	2 weeks	2 x 3ml of whole – EDTA-purple top - blood.
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Tricyclic antidepressants		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	3-5 days	Stability: 24 hours at 2 - 8° C thereafter must be frozen. 2ml of serum.
Triglyceride		
	3 hours	Must be fasting specimen. Record when the client last ate or drank. 2ml of serum.
Trileptal *		
	3-5 days	Record dosage and time last taken as well as weight, age, duration of drug therapy and other drugs taken by patient. 2ml of serum.
Troponin-I quantitative		
	4 hours.	Whole blood viable only for 2 hours at room temperature; Plasma viable for 24 hours at 2 - 8° C and 6 months at -20° C. Centrifuge for 15 minutes at 3500rpm. 1ml of frozen Heparin – green top – plasma.
Troponin-T quantitative		
	No longer available	
Trypanosoma parasite		
	1 day	1ml of whole – EDTA-purple top – blood.
Trypanosoma Ab *		
	5 days	Contact Pathcare First
Tryptase *		
	1 week	1 x 1 – 2 hours post, 1 x 4 – 5 hours post and 1 x 14 hours after an allergenic episode or a single baseline specimen. 3 x 1ml of serum or 2ml of serum.
TSH		
	3 hours	Record medication taken. 1ml of serum.
TSH receptor Ab *		
	2-5 working days	4ml of serum.
Urate – s		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	3 hours	1ml of serum.
Urate – u		
	3 hours	5ml of random urine.
Urate – u (24hr)		
	3 hours	No preservative. If aliquotting, record volume and ensure the pH is correct if required. 10ml from a 24hr urine collection.
Urbanol *		
	No longer available	
Urea – s		
	3 hours	1ml of serum.
Urea – u		
	3 hours	5ml of random urine.
Urea – u (24hr)		
	3 hours	No preservative. If aliquotting, record volume and ensure the pH is correct if required. Send 10ml from a 24hr urine collection.
Valproic acid		
	3-5 days	Record dosage and time last taken. 2ml of serum.
Vanadium – u *		
	2 weeks	5ml of frozen random urine.
Vancomycin		
	3-5 days	Record dosage and time last taken. 2ml of serum.
Vanillylmandelic acid (VMA)		
	See Metanephrines	VMA is only done on clients under 16 years old. Consult a Pathologist before doing test.
Varicella Ab		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
	3-5 days	2ml of serum.
Varicella zoster Ab	See Herpes Zoster	
Vasoactive Intestinal Polypeptide (VIP) *	See the Gastro-intestinal Peptide test.	Same as the Gastro-intestinal Peptide test.
Very Long Chain Fatty Acids *	1 month	Separate serum as soon as possible. Haemolysed specimens cannot be analyzed. Freeze serum immediately. Transport frozen serum on dry ice. 4ml of frozen serum.
Vitamin A *	7-10 days.	Wrap plasma in foil. Transport plasma on dry ice. 3ml of frozen – EDTA-purple top – plasma.
Vitamin B1 *	7days	Transport at 2 - 8° C. Must be at the analysing laboratory within 72 hours. 4ml of whole – EDTA-purple top – blood.
Vitamin B6	No longer available	
Vitamin B12	3 hours	Freeze specimen within 24 hours. Thaw sample once only. 2ml of frozen serum.
Vitamin C	No longer available	
Vitamin D, 25-hydroxy	3 hours	Separate serum as soon as

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
		possible. Transport <72 hours at room temperature and > 72 hours at 2 - 8° C. 2ml of serum.
Vitamin D3, 1,25 Dihydroxy *	1-2 months	Separate serum as soon as possible. Freeze serum immediately. Transport serum on dry ice. 2ml of frozen serum.
Vitamin E *	7-10 days.	Wrap plasma in foil. Transport plasma on dry ice. 3ml of frozen – EDTA-purple top – plasma.
Von Willebrand disease	10 days	Collect 2 x full – CITRATE-blue top – tubes. Separate all plasma into 4 aliquots and immediately freeze on dry ice.
Voriconazole levels *	2 weeks	Transport plasma frozen. Frozen plasma from 2 x full EDTA –purple top – tubes.
Warfarin *	2 weeks	Must be kept cool, but not frozen. 2 x 2ml of – EDTA-purple top – plasma
Weil Felix	No longer available	
West Nile HAI & Ab or PCR*	7-10 days	Complete the Arbovirus form (ECS #37614). Transport specimens at -20° C. 2ml of frozen serum. (Always available on request).
White cell count + diff	2 hours	2ml of whole – EDTA-purple top – blood.
Widal		

TEST	FREQUENCY / TURN AROUND TIME	COLLECTION INSTRUCTIONS & MINIMAL AMOUNTS
Wuchereria Bancrofti Ag *	No longer available 3-5 days	Transport specimen at 2 - 8° C. 2ml of whole – EDTA-purple top – blood.
XDP	See D-Dimer test	
Yellow fever virus IgM / IgG IFA or PCR *	10 days	Complete the Yellow Fever form Transport at -20° C. 2ml of frozen serum.
Zinc – P *	5-7 days	Separate plasma within 45 minutes. A fasting morning specimen is preferred. Avoid contact with glass. Plastic tube only. 2 ml of HEPARIN – green top - plasma.
Zinc – u *	2-3 weeks	10ml of random urine.
Zolpidem levels *	5 – 7 days	Wrap specimen in foil. Record dosage and time last taken. 5ml of whole EDTA-purple top - blood.
Zopiclone levels *	5-7 days	Contact Pathcare First