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PATHOLOGY

NHS Partnership

Microbiology and Infection User Manual

Version 8

Surrey and Sussex **NHS**
Healthcare NHS Trust

NHS
Brighton and Sussex
University Hospitals
NHS Trust

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ABOUT US

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LP-MIC-MicUserMan	Dept: Microbiology and Infection	Activation Date: 01/08/2020

The Microbiology and Infection laboratory at Crawley Hospital is a service provided by Surrey & Sussex Healthcare NHS Trust (SASH) under Frontier Pathology partnership established in April 2015.

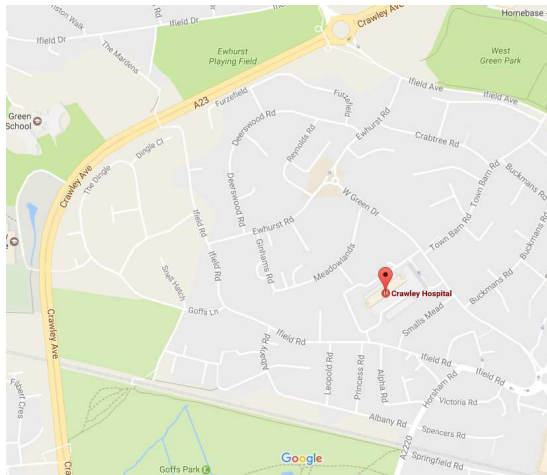
The laboratory processes in excess of 200,000 clinical samples every year. We strive to provide timely and quality service in the diagnosis, management and control of infectious diseases covering a wide range of routine and specialised investigation in Bacteriology, Virology, Mycology and Parasitology.

Our skilled professional team is available to provide our users with expert advice 24 hours a day.

The department in coordination with Frontier Pathology is committed in actively seeking advances to be able to provide the most current and specialised diagnostic platforms and techniques available.

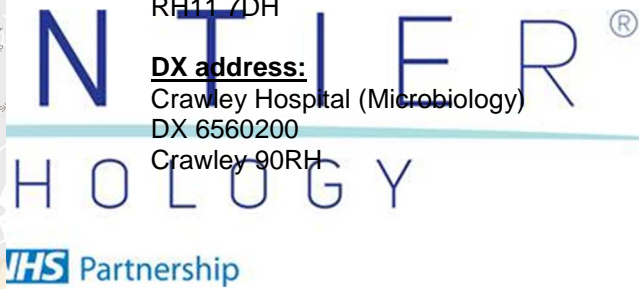
Location

The Infection Diagnostics Laboratory is located on the ground floor of Crawley Hospital.



Postal address:
 Microbiology department
 Crawley Hospital
 West Green Drive
 Crawley, West Sussex
 RH11 7DH

DX address:
 Crawley Hospital (Microbiology)
 DX 6560200
 Crawley 90RH



Microbiology & Infection Lab		
09:00 – 17:30	Monday to Saturday	Crawley Hospital (CRW) ext 3079
09:00 – 13:00	Sunday and Bank Holidays	Crawley Hospital ext 3079
<i>Please note an on-call system is in operation out of hours.</i>		

Clinical Advice		
09:00 – 17:00	Monday to Sunday and Bank Holidays	East Surrey Hospital (ESH) ext 2778
17:00-09:00	On call service	Duty microbiologist via ESH switchboard

Key contacts

	Telephone	Email

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Laboratory			
Microbiology and Infection		CRW ext 3079	microbiology.crawley@nhs.net
Microbiology Management Team			
Head of Service	Clare Reynolds	CRW ext 3379; Brighton&Sussex University Hospitals NHS Trust (BSUH) ext 3678	clare.reynolds11@nhs.net
Deputy Head	Jackie Longbone	CRW ext 3379; BSUH ext 3678	j.longbone@nhs.net
Site Manager	Komal Vaghela	CRW ext 3379; BSUH ext 3678	komal.vaghela@nhs.net
Site Manager	Clare McKoen	CRW ext 3379; BSUH ext 3678	clare.mckoen@nhs.net
Quality Manager	John McBride	CRW ext 3379; BSUH ext 3678	john.mcbride1@nhs.net
Clinical Staff			
Lead Consultant Microbiologist	Bruce Stewart	CRW ext 3081; ESH ext 1904	bruce.stewart@nhs.net
Consultant Microbiologist	Karen Knox	CRW ext 3081; ESH ext 2963	karen.knox@nhs.net
Consultant Microbiologist	Stephanie Smith	CRW ext 3081; ESH ext 2964	stephaniejane.smith@nhs.net

		Telephone	Email
Other			
East Surrey Hospital Infection Prevention Team		ESHT ext 6481,6477& 6478; Bleep 479	
Pathology supplies			sash.pathstores@nhs.net
Surrey & Sussex HPT – South East		0344 225 3861 (option 3); 0844 967 0069 (out of hrs)	PHE.sshpu@nhs.net

Complaints or compliments

If there is an issue that needs to be raised with the department please contact the Microbiology laboratory first on 01293 600300 extension 3079 and ask to speak to a laboratory manager. Wherever possible it will be dealt with straightaway.

If it is a serious complaint then it should be raised either by Datix or in writing to the head of service.

Service users are encouraged to provide feedback via the annual pathology user survey, accessible through the SASH Trust website.

Policy on Protection of Personal Information

The laboratory is in accordance with the is in accordance with the Caldicott Principles and the Data Protection Act 1998.

, and with SASH Trust's policy on Information Governance. All patient and user information are held confidentially, maintained securely, and not disclosed or shared inappropriately.

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ADVISORY SERVICES

Clinical Advice

Our clinical advisory service is a Consultant delivered service. The demand for this service is very high so please ensure calls are clinically necessary and the case/query has been discussed with senior medical team (*preferably the Consultant in charge*) and the relevant clinical information is to hand prior to contacting the Duty Consultant Microbiologist (DCM).

- clinical indications and requesting appropriate investigation/s
- advice on patient management
- interpretation of examination results

Scientific and Technical Advice

BMS staff in Microbiology & Infection are available for scientific and technical advice.

- Sample collection and requirement including acceptance and rejection
- Specimen handling transport
- Turnaround time
- Limitation of examination procedure

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SAMPLE ACCEPTANCE REQUIREMENT

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All samples must be collected and labelled according to SASH Pathology specimen collection guidelines.

Specimen

Specimens labelled with inadequate patient identification details or with mismatching details will NOT routinely be processed.

Essential:

- Minimum of two patient identification details (full name or dedicated clinic number plus date of birth and/or SASH hospital or NHS number) are required. Without this information, the sample will NOT be processed.
- Specimen type and sample site.
- Date of specimen (time of collection is essential for T-SPOT.TB, CSF and blood cultures).

Request form

All specimens for investigation must be accompanied by an electronic request (Cerner Millenium for hospital users or Sunquest ICE for GPs) or paper request forms ([Printable Pathology paper request form](#)).

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Essential:

- Minimum of two patient identification details (full name or dedicated clinic number plus date of birth and/or SASH hospital or NHS number) are required. Without this information, the sample will NOT be processed.
- Ward or clinical area and Consultant or General Practitioner.
- Date and time of specimen.
- Specimen type and sample site.
- Test requested.
- Relevant contact number (telephone or bleep). Contact information must be adequate to enable Laboratory staff to contact the clinician/staff member who is responsible for clinically managing the result.

Additional:

- Relevant clinical details, signs and symptoms, date and onset of illness, and underlying conditions.
- Current, recent or planned antibiotic treatment.
- Relevant epidemiology – travel, occupation or hobbies.

Request for additional test/s

If additional test(s) are required on a sample already received in the laboratory, it may be possible to accept a verbal request depending upon sample type and test required. Please contact Microbiology Laboratory to discuss.

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SPECIMEN COLLECTION AND TRANSPORT

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The collection of correct microbiology specimens, taken at the appropriate time is essential in the diagnosis of infection and disease. Specimens must be sent to the Laboratory in a timely fashion.

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Specimen transport

The Pneumatic Tube Transport System must NOT be used to transport the following specimen types:

- Specimens requiring urgent processing (as outlined in Section 5)
- Glass bottles containers
- Tissue samples

The following timetable indicates the times for routine transport of microbiology specimens from the General Pathology Reception at East Surrey Hospital to the Microbiology Laboratory (Crawley)

Transport run	Time to depart East Surrey Hospital – Pathology reception	
	Monday to Friday	Saturday, Sunday, BH
1	08:45	09:00
2	10:45	11:00
3	13:15	16:00 (<i>Diamond courier</i>)
4	14:45	
5	16:00	

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Optimum time and conditions for collection

Specimens for bacterial culture, wherever possible, should be collected prior to commencement of antibiotic treatment.

Actual pus or tissue samples are always preferable to a swab.

To avoid inadvertent contamination of a specimen during collection, an aseptic technique must be used.

Specimens **must** be collected into sterile containers with close fitting lids. The specimen must be clearly labelled.

If specimens cannot be sent to the Laboratory immediately then they should be stored as follows:

Sample	Storage if significant delay anticipated	Comment
Blood cultures	Room temperature	To be delivered to the laboratory within 18-24 hours (next available routine transport).
CSF specimens Sterile fluid aspirates	Delivery of these samples to the laboratory must not be delayed. Store at room temperature whilst awaiting transport	These specimens are considered urgent and must be sent to the laboratory without delay.
Lithium heparin blood for T-SPOT.TB (IGRA)	Cannot be stored	Samples must be received in the laboratory on the day of collection.
All other specimens	Refrigerate	Specimens for bacterial culture should ideally be processed within 48 hours of sampling.

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Test available out of hours

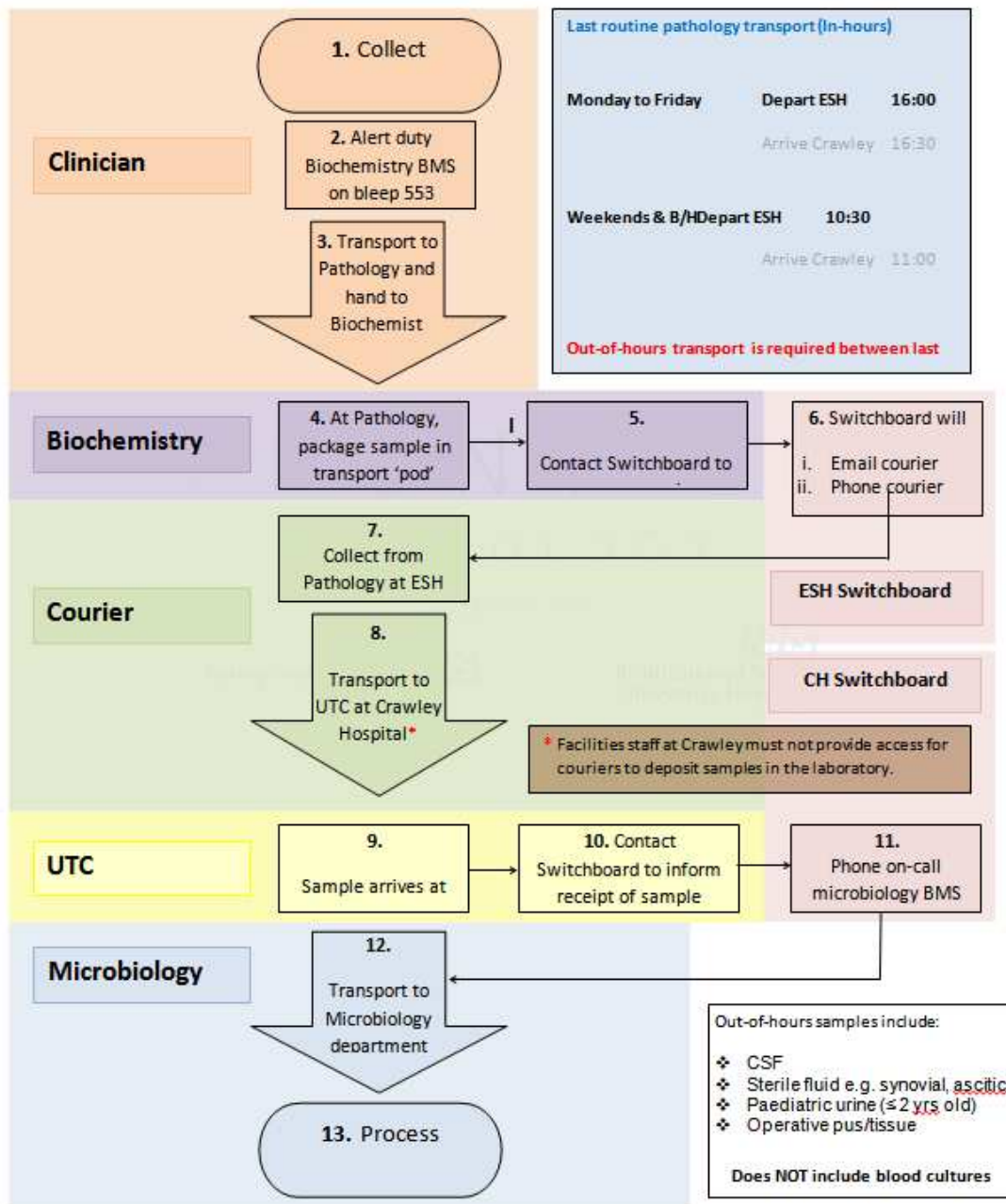
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Specimen	Additional info/ requirement
Sterile fluid samples: synovial, ascetic, pleural and vitreous	Do not include blood cultures or fluids from indwelling drains
Pus/ tissue	Taken at operation
Paediatric urine	From children \leq 2 yrs old
Cerebro-spinal fluid (CSF)	For microscopy and culture
Paediatric NPA samples for RSV	Available on a daily basis during winter season

Out-of-hours Transportation of Microbiology Specimens from East Surrey Hospital to Crawley Hospital



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Health & Safety

Every clinical specimen sent for microbiology examination should be treated as potentially infectious. Standard precautions must be observed at all times.






Used sharps must be disposed of according to local policy (see Trust Sharps Policy -Section C3 of the Infection Control Manual). This is the responsibility of the individual(s) who generates them.



It is the responsibility of the person collecting the specimen to ensure that it is properly labelled and safe for transportation.

Specimen container/ type



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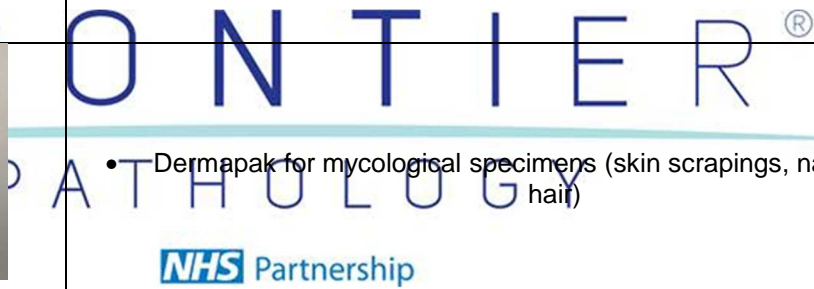
Use specimen collection consumables within the stated expiry date

Blood for infection serology	
	<p>See individual tests listed in manual for details if in doubt:</p> <ul style="list-style-type: none"> • Clotted blood vacuette (red top with gold insert): - for infection serology (antibody detection) • EDTA vacuette (purple top) - PCR/molecular testing for infectious agents where test available • Lithium heparin vacuette (green top) - Gamma-interferon test for latent tuberculosis - Mycobacterial culture from blood if disseminated infection (eg MAI in immunocompromised patient) suspected
Sterile containers	
	<ul style="list-style-type: none"> • White top containers for: - sterile fluids (e.g. CSF, pleural, peritoneal, synovial); - sputum; - tissue samples; - urine for <i>Legionella</i> and pneumococcal antigen, and <i>Schistosoma ova</i> • Blue top with spoon: - stool/faeces samples • Red top boric acid containers for: - Urine microscopy and culture. Paediatric size available. Fill to line indicated.
	<ul style="list-style-type: none"> • Plastic and metal top sterile polystyrene containers (60ml) for: - sputum, - larger volume sterile fluids and tissue samples <p>Ensure top is tightly closed.</p> <p>NOTE: Do not send samples in DAVOL traps. If samples are collected into DAVOL traps, they must be transferred into a leak-proof container (as above) for transport to the laboratory.</p>
Swabs	
	<ul style="list-style-type: none"> • Black top or Blue top swabs with culture media for bacterial culture.
	<ul style="list-style-type: none"> • Black top or Blue top Pernal swabs with bacterial culture media. These swabs have a fine flexible twisted wire shaft.

	<ul style="list-style-type: none"> • Green top swabs with liquid transport medium for viral antigen detection. <p>NOTE: Can also be used for CONJUNCTIVAL swab where <i>Chlamydia trachomatis</i> infection is suspected</p>
	<ul style="list-style-type: none"> • black top swab for <i>Chlamydia trachomatis</i> and <i>Neisseria gonorrhoeae</i> nucleic acid amplification test (NAAT).

Other collection devices

	<ul style="list-style-type: none"> • Blue top (aerobic) and Purple top (anaerobic) top bottles: adult blood culture set. Inoculate blue top bottle first. • Pink top bottle: paediatric blood culture
	<ul style="list-style-type: none"> • Dermapak for mycological specimens (skin scrapings, nail clippings, hair)




MICROBIOLOGY TEST REPERTOIRE & SAMPLE COLLECTION GUIDANCE

The following guidance for specimen collection is based upon the UK Standards for Microbiology Investigations (SMIs), published by Public Health England (PHE). The development of SMIs is accredited by the National Institute of Clinical Excellence (NICE) and is undertaken within PHE in conjunction with the NHS, Public Health Wales and representatives from Scotland and Northern Ireland. These procedures are produced in association with a range of professional organisations including the Royal College of Pathologists, the British Infection Society and the Institute of Biomedical Science. The standard method publications are accessible online <https://www.gov.uk/government/collections/standards-for-microbiology-investigations-smi>.

BACTERIOLOGY

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
Amoebiasis	Amoebic dysentery –for examination of trophozoites and cysts.	Fresh stool sample collected in sterile container (minimum of 1 ml or 'pea-size')	3 WD	Positive samples are referred to: Hospital for Tropical Disease
	Visceral amoebic disease	Clotted blood (red top vacuette).	14 WD	Samples are referred to: Hospital for Tropical Disease
Antibiotic Assay	Timing of Levels: Gentamicin Amikacin Vancomycin Tobramycin Teicoplanin	Clotted blood (red or gold top vacuette); minimum 1 ml	14 WD	Samples are referred to: Antimicrobial Reference Laboratory, Southmead Bristol

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	<p>have finished before the flush is started.</p> <p>Please note: BLOOD FOR ANTIBIOTIC ASSAY MUST NEVER BE TAKEN FROM A LINE WHICH HAS BEEN USED TO GIVE THAT ANTIBIOTIC AT ANY TIME.</p> <p>For other antimicrobial assays please contact the laboratory. Please note a MicroGuide antibiotic app</p>  <p>is available on SASH website.</p>			
Anti-pneumococcal Ab; Anti-tetanus Ab; Anti-Haemophilus influenzae b Ab	Used to measure response to vaccine in immuno-compromised or asplenic patients	Clotted blood (red top vacuette)	14 WD	Samples are referred to: Brighton & Sussex NHS Trust
Anti-streptolysin O titre (ASOT)	For diagnosis of immunologically mediated streptococcal disease	Clotted blood (red top vacuette); Paired samples 14-28 days apart ideal	5 WD (in-house)/ 14 WD (referred)	
	Site of active infection	sample for culture	4 WD	
Aspergillus antigen (galactomannan)	<p>For diagnosis and follow up of invasive aspergillosis (not allergic disease) in immunocompromised and haematology/oncology patients.</p> <p><i>Send appropriate tissue samples for culture where possible</i></p> <p><i>For allergic bronchopulmonary aspergillosis (ABPA) – see Pulmonary eosinophilia type disease</i></p>	Clotted blood (red top vacuette)	14 WD	Samples are referred to: National Infection Services, PHE South Laboratory, Southmead Hospital, Bristol
'Atypical' community acquired	<p>DNA/RNA PCR testing for <i>Mycoplasma pneumoniae</i> and Respiratory viruses (e.g. Influenza A&B,</p>	nasopharyngeal aspirate (NPA), broncho-alveolar lavage (BAL) endotracheal tube (ETT) aspirate	5 WD (in-house)/ 14 WD (referred)	Samples are referred to:

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
pneumonia	Parainfluenza, Parechovirus etc)	green top combined throat and nose swab		Brighton & Sussex NHS Trust
	Antigen testing for <i>Legionella pneumophila</i> serogroup 1	Urine (sterile plain universal container)		
	Antibody testing for <i>Chlamydia psittaci</i> & <i>pneumoniae</i> and <i>Coxiella burnetti</i> (Q fever)	Clotted blood (red top vacuette); acute and convalescent samples required		
Blood cultures	<p>Bacteria are not normally found in blood thus any growth (<i>not the normal skin flora</i>) is considered significant. A strict aseptic technique during sample collection is essential. Where CVC infection is suspected, take blood cultures both peripherally and through the line. Blood culture is not 'routine' investigation. Taken only when active clinical infection is suspected and when antibiotics had been given. Collect the sample as soon as possible or after a spike in body temperature.</p> <p><u>Blood culture pack</u> The following items are included</p> <ul style="list-style-type: none"> • Blood culture bottles • 1x Frepp for venepuncture site antisepsis (NOTE: for neonatal skin antisepsis use 0.5% Chlorhexidine swab) • 1x 2% Chlorhexidine swab for wiping blood culture bottle tops before inoculation • Winged collection set (butterfly) • Blood collection adapter cap 	<p>Adults: 8-10 ml blood inoculated in a Blue top (<i>aerobic</i>) blood culture bottle Purple top (<i>anaerobic</i>) blood culture bottle</p> <p>Children: 3 ml of blood inoculated in a Pink top blood culture bottle</p>	<p>7 WD (includes transport time)</p> <p>Note, blood cultures cultured for 5 days, however can be extended up to 10 days in particular clinical situations (e.g endocarditis)-please discuss with duty microbiologist if required.</p>	

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	<ul style="list-style-type: none"> Procedural instructions Information sticker to be completed and placed in patient's notes indicating when and by whom the blood culture was taken. 			
<i>Bordetella pertussis</i> (Whooping cough)	<u>Culture:</u> Pernasal swab consists of a fine flexible wire with a small cotton wool bud on the end. Take specimen if pertussis (whooping cough) is suspected. The sample will be processed for <i>Bordetella pertussis</i> only.	Pernasal swab	4 WD	
	<u>DNA detection:</u> If patient is ≤ 12 months and is admitted to paediatric ward with suspected pertussis then molecular testing is indicated. Please indicate high clinical suspicion on clinical info. Please do not send suction tubing.	Pernasal swab or NPA	14 WD	Samples are referred to: PHE Colindale <i>Whooping cough is a notifiable disease and must be reported to the local Public Health England Centre.</i>
	<u>Serology (antibodies):</u> For acute/recent infection where culture is negative (after more than 2 weeks of symptoms). For Immunological status check for immuno-suppressed or asplenic patient	Clotted blood (red top vacuette)	14 WD	
<i>Borrelia serology</i> (Lyme disease)	Patient's risk of exposure to ticks and clinical features must be indicated on the form. Serology tests have a lower sensitivity when detecting LB in samples taken during the early stages of the disease (30-70%).	Clotted blood (red top vacuette)	14 WD	
Cerebro-spinal fluid (CSF)	This type of specimen must be processed urgently to minimise degradation of cells	0.5-1 ml sample in sterile plastic universal	Microscopy: Within 2H of receipt	

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	<p>and organisms. Do not refrigerate. Do NOT send in the Pneumatic Tube Transport System Collect and split CSF sample in 3 sterile containers. Retain sample 1 and 3 for Microbiology.</p> <p><u>Routine tests performed:</u></p> <ul style="list-style-type: none"> • Cell count (+ differential count if raised WCC) • Gram stain for bacterial organisms • Bacterial culture (for 48 hours) <p>Please indicate if patient is immunocompromised or when fungal or mycobacterial infection is suspected.</p> <p>For molecular testing request please discuss with Microbiology staff.</p>		<p>Culture: 4 WD</p>	
<p>‘Cervical lymphadenopathy’</p>	<p>If no specific organism test is requested then test for the following:</p> <ul style="list-style-type: none"> • Toxoplasma antibodies • Cytomegalovirus (CMV) IgG- would it not be IgM(?) • Epstein Barr virus (EBV) VCA IgM <p><i>Consider also Bartonellosis (‘Cat-scratch’ disease), Mycoplasma, HIV and mycobacterial disease.</i></p>	<p>Clotted blood (red top vacuette)</p>	<p>5 WD (in-house)/ 14 WD (referred)</p>	
<p>Chlamydia trachomatis molecular detection</p>	<p>If test of cure is indicated, (pregnancy or suspected non-compliance) defer after 6 weeks post treatment.</p>	<p>Black top swab for CT/GC NAAT</p>	<p>5 WD (in-house)/ 14 WD (referred)</p>	<p>Samples are referred to: Brighton & Sussex</p>

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	<p>Genito urinary disease:</p> <p><u>Females</u>- A vulvo-vaginal swab (more sensitive than a cervical swab or first catch urine).</p> <p><u>Males</u>- First catch urine (first 20 - 50ml). Patient must not have voided urine for at least 1 hour prior to taking sample. Do not use metal topped container. If a delay of more than 12 hours is predicted then refrigerate. Neat urine may be stored for up to 5 days in the fridge (2-8°C). Conjunctival disease:</p> <p>Do not send if fluorescein dye has been used.</p>	<p>Urine sample Approximately 20 - 50ml in a sterile plastic top container.</p> <p>Black top swab for CT/GC NAAT</p>		NHS Trust
<i>Clostridium difficile</i> antigen and toxin detection	<p>Samples must reach the Microbiology Laboratory in Crawley within 48 hours of collection. Samples are tested for the presence of <i>C.difficile</i> bacterial antigen and <i>C.difficile</i> toxin. The presence of both antigen and toxin is consistent with active disease. Do not send repeat samples within four weeks of a positive result.</p> <p>Positive toxin results will be communicated directly by Laboratory or Infection Control Staff as soon as available</p>	Minimum 1 ml of unformed stool sample	1 WD	
<i>Coxiella burnetti</i> (Q fever)	<p>Send acute and convalescent blood samples (10-14 days apart).</p>	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p>
<i>Cryptococcal</i>		Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD	Sample referred to:

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
Antigen		Cerebrospinal fluid (CSF)	(referred)	Brighton & Sussex NHS Trust
Ear swabs	If inner ear infection is suspected then a deeper swab sample may be required. Antibiotics or other chemotherapeutic agents should not be used in the aural canal for three hours prior to sample collection.	bacterial swab in transport media	4 WD	
		For viral investigations use swabs with viral transport media (green top).	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
Eye samples	Bacterial swabs are routinely cultured for primary pathogens (skin and respiratory type).	bacterial swabs in transport media	4 WD	
		For viral investigations use swabs with viral transport media (green top)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
	Corneal scrape: Microscope slides and culture media can be obtained via Pathology stores (ESH) or the Microbiology Laboratory (Crawley) respectively. NOTE: For <i>Chlamydia trachomatis</i> infection see above (<i>Chlamydia trachomatis</i> molecular detection)	Scraped material from base of ulcer	4 WD	
Faeces – community pathogens	Molecular screen for community-type pathogens on stool samples. - <i>Campylobacter</i> spp - <i>Salmonella</i> spp	unformed stool sample	Microscopy: 3 WD Culture:	<i>Food poisoning is a notifiable disease and must be notified to the local Public Health</i>

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	<ul style="list-style-type: none"> - <i>Shigella</i> spp. - <i>Verotoxigenic E.coli</i> (VTEC including <i>E.coli</i> O157) - <i>Giardia lamblia</i> - <i>Cryptosporidium</i> spp <p>Microscopy for other parasites and culture for <i>Vibrio</i> spp (Cholera) and <i>Yersinia</i> spp is only performed if appropriate clinical and epidemiological (travel) information is provided.</p> <p>Formed (non-diarrhoeal) stool are not routinely processed other than for parasite or 'clearance' type investigation.</p> <p>Hospitalised patients for ≥ 3 days will only be tested for <i>Clostridium difficile</i> antigen/toxin.</p>		5 WD	England Centre.
Faeces – Ova Cysts and Parasites	Where parasitic infection is strongly suspected, send up to three stools taken on different days.	Formed stool	3 WD	
	<p><i>Enterobius</i> spp (pinworm/threadworm), which cause of pruritis ani lay eggs on the perianal skin area. Detection of ova requires sampling using swab or sellotape.</p>	Plain swab in a sterile container or [®] Sellotape slide in a slide container		
Fungal antigens: Galactomannan and Beta-D glucan	For diagnosis and follow in immunocompromised and haematology/oncology patients. Galactomannan – for <i>Aspergillus</i> Beta-D-Glucan – pan-fungal antigen	Clotted blood (red top vacuette)	14 WD	Samples are referred to: Mycology Reference Laboratory, Bristol
Gamma-Interferon Tests for <i>Mycobacterium tuberculosis</i> (TB ELISPOT/ T-SPOT-TB or IGRA or Quantiferon) – see Mycobacterial disease				
Gastric or duodenal/	Gastric aspirates may be indicated for detection of mycobacteria in young children	Please contact Laboratory directly prior to procedure.	14 WD	Samples are referred to:

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jejunal aspirates or biopsies	(see Mycobacterial disease). Gastric biopsies are indicated for culture of <i>Helicobacter</i> sp. Jejunal aspirates or biopsies are indicated for detection of <i>Giardia</i> and/or <i>Strongyloides</i> where clinically indicated.			PHE Colindale
<i>Helicobacter pylori</i> antigen	Stool antigen testing is performed where active disease is suspected. PPI or antibiotic treatment should be stopped for at least 2 weeks prior to the test.	Stool sample	14 WD	Samples are referred to: PHE Colindale
HVS, Cervical and urethral swabs	Group B <i>Streptococcus</i> is part of normal vaginal flora but where isolated it will be reported. In complex situations (e.g. post-operative, PID, post partum), where other potential pathogens are pure or predominant growth, they will be reported. HVS swabs are currently used for routine culture of <i>N.gonorrhoeae</i> but endocervical or urethral swabs are the preferred sample collection device.	bacterial swab in transport medium	4 WD	
	Suspected viral infection such as Herpes Simplex Virus.	green top/ viral swab	14 WD	Samples are referred to: Brighton & Sussex NHS Trust
Intravascular catheter tips	In cases where line related infection/sepsis is suspected.	last 4 cm of line tip in a sterile container	4 WD	

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TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
Legionella	Urinary antigen: For patients admitted with clinical signs and symptoms consistent with severe pneumonia (e.g. CURB-65 \geq 3) or where epidemiologically indicated (e.g. atypical features or associated with known <i>Legionella</i> outbreak). NOT for COPD exacerbation. Detects <i>Legionella pneumophila</i> serogroup 01 only.	Urine sample	1 WD	
	Respiratory culture: Broncho-alveolar lavage or ETT aspirates are the most appropriate sample. Please provide relevant clinical and epidemiological information as culture is not routinely performed	Broncho-alveolar lavage; ETT aspirate	10 WD	
Leptospira antibodies (Weil's disease)	Relevant clinical and epidemiological history essential. Antibody detection: Earliest at 7 days post onset of symptomatic disease.	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: PHE Colindale
	DNA detection: Detection for diagnosis in early stages of disease is available. Please discuss with Duty Consultant Microbiologist.	EDTA blood (purple top) vacuette		
Meningitis and Encephalitis	All cases of suspected bacterial meningitis must be nursed in isolation side room. Use surgical masks if performing aerosolising procedure or if patient has respiratory symptoms – until non-infections (after 48 hours appropriate antibiotic)	Cerebrospinal fluid (CSF) is primary sample;	4 WD	Samples are referred to: Meningococcal Reference Unit <i>Infective meningitis/encephalitis is</i>
		Blood cultures	7 WD	
		if antibiotics already give in community also	4 WD	

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	Discuss all molecular/PCR test requests with Duty Microbiology Consultant or Senior Laboratory Biomedical Scientist	EDTA blood (purple top vacuette) for meningococcal DNA PCR Where viral meningitis/encephalitis suspected also send: Viral (green top) throat swab for respiratory viruses and enterovirus; Faeces sample for enterovirus.	5 WD (in-house)/ 14 WD (referred) 5 WD (in-house)/ 14 WD (referred)	<i>a notifiable disease and must be notified to the local Public Health England Centre.</i>
MRSA screen	Refer to Trust MRSA Screening policy. Take swabs or samples from: <ul style="list-style-type: none"> • Nose (same swab for both nostrils) • Perineum • Wounds • Manipulated site such as IVI devices; PEG, drain and tracheostomy sites, CSU • Any previous site that has been positive 	Use bacterial swabs with transport medium for routine culture	4 WD	
Mycobacterial disease	Only request where mycobacterial disease is genuinely suspected. Swabs are NOT suitable for mycobacterial culture – send tissue or fluid.	Respiratory disease: A minimum of three early morning sputum samples on consecutive days. Broncho-alveolar lavage (BAL); Endo-tracheal tube (ETT) aspirates; Pleural aspirate and/or biopsy; lung /lymph node biopsy	12 WEEKS	Samples are referred to: National Mycobacterium Reference Lab <i>Tuberculosis is a notifiable disease and must be notified to the local Public Health England Centre.</i>

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
		<p><u>Extra-pulmonary disease:</u></p> <p>Early morning urine (EMU) samples; Lymph node and tissue samples; Bone marrow aspirates/biopsies;; Blood culture; Pus samples</p>		
<p>Mycobacterial specialist tests</p>	<p>These tests must be pre-arranged with the Microbiology Laboratory. Monday – Friday only.</p> <p>The sample must be received in the Microbiology Laboratory by 14h00 on the day it is taken</p> <p>Gamma Interferon Tests (e.g. T-SPOT.TB, TB ELISPOT, <i>Quantiferon</i>[®]): These tests do not differentiate between latent and active disease.</p> <p>Molecular tests (PCR): Performed on smear positive samples where drug resistance is strongly suspected. Requests must be discussed with Consultant Microbiologist.</p>	<p>peripheral blood collected in lithium heparin tubes (green top vacuette)</p> <p>Minimum volume required:</p> <ul style="list-style-type: none"> • ≥ 8 years: 6mL • 2 – 8 years: 4mL • < 2 years: 2mL <p>Please send 2 samples (if possible).</p>	<p>14 WD</p>	



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TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
Mycology	<i>Malassezia furfur</i> infection (pityriasis versicolor) is diagnosed by microscopy only. Prolonged culture is required for dermatophytes (2 – 4 weeks) Serological tests may be appropriate. Please discuss with Duty Microbiology Consultant.	hair (with root); skin nail clippings in a sterile plastic container or folded in black paper e.g. Dermapak <u>Invasive fungal disease:</u> BAL; tissue biopsy; blood cultures; CSF; urine	28 WD	
Nose swabs	For detection of carriage of <i>Staphylococcus aureus</i> or Group A <i>Streptococcus</i> . (same swab for both nostrils).	Use bacterial swabs with transport medium	4 WD	
Pneumococcal (<i>Streptococcus pneumoniae</i>) urinary antigen	For patients admitted with clinical signs and symptoms consistent with severe pneumonia (e.g. CURB-65 \geq 3) as for Legionella above. NOT for COPD exacerbation. Pneumococcal vaccination within previous week may give positive result.	Urine in sterile container (plain or boric acid) – collect as soon as possible after onset of symptoms	1WD	
Pulmonary eosinophilia type diseases	Farmers lung, Bird fanciers lung, Allergic Broncho-pulmonary Aspergillosis (precipitins) Please give relevant epidemiological exposure	Clotted blood (red top vacuette)	14 WD	Samples are referred to: Microbiology Department, Royal Brompton Hospital
Rickettsial disease (e.g. Tick bite fever)	Relevant clinical and epidemiological history essential. Antibodies usually detectable > 7 days after	Clotted blood (red top vacuette) and, if acute disease suspected, EDTA blood (purple top vacuette)	14 WD	Samples are referred to:

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	onset of symptoms at earliest. Early treatment may lead to delayed or aborted antibody response			Rare and Imported Pathogens, PHE
Schistosomiasis (Bilharzia)	Relevant clinical and epidemiological history essential. First 3 months post exposure, if suspecting schistosomiasis	end-stream urine sample (the last 10 to 20ml of urine) in a sterile container.	3 WD	
	3 months or more post exposure: Additional Clotted blood for schistosoma serology	Stool sample (x3, taken 2 days apart)		
		<u>Antibodies:</u> Clotted blood sample (red top vacuette) – at least 12 weeks post exposure	14 WD	
Sterile fluid aspirates	Do NOT send these samples in the Pneumatic Tube Transport System	Ascitic/ Peritoneal fluid Pleural fluid Synovial/ bursa/ joint fluid Vitreous fluid	9 WD	
Throat swabs	Bacterial throat swabs will be routinely cultured for primary pathogens i.e. Groups A, C and G β-haemolytic streptococci. If Fusobacterium necrophorum suspected, please discuss clinical case with duty Microbiologist as required.	Bacterial swab in transport media	4 WD	
		If viral investigation is required use viral (green top) swab		
Toxoplasma serology	Serology test. If in-house test positive, <i>sent to an Accredited Reference Laboratory</i> for confirmation and tests for acute infection	Clotted blood (red top vacuette)	14 WD	Samples are referred to:

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	<i>In congenital infection please discuss with Consultant Microbiologist.</i>	<u>Congenital infection</u> amniotic fluid fetal whole blood neonatal cord blood		Brighton & Sussex NHS Trust
Treponemal serology	If in-house screening test positive samples are sent to ref lab for confirmation. If first diagnosis, a second sample from patient is required for comparative purposes & to confirm correct patient result. if neurosyphilis suspected please discuss with Consultant Microbiologist	Clotted blood (red top vacuette)	14 WD	Samples are referred to: Brighton & Sussex NHS Trust
		CSF sample		
Urine	<p>Urine samples (other than routine antenatal samples) are screened using automated microscopy. Samples will then only be cultured if likely infection is indicated by the microscopy result or if patient falls within a pre-defined risk group i.e.</p> <ul style="list-style-type: none"> Children <5 years of age); Urology patients or renal failure Pre-orthopaedic surgery screening Immunocompromised patients. <p>Transport the sample to the laboratory as soon as possible (within 48h). If a delay is anticipated refrigerate sample Routine antenatal screening urines will be cultured only. Automated microscopy will not be performed.</p> <p>NOTE: For otherwise healthy adult females (14 to 65 years old) with signs/symptoms of uncomplicated lower UTI (and leucocyte esterase and/or nitrite positive urine dipstick), it is not necessary to send MSU for culture in the first instance. Treat</p>	urine in red-topped boric acid containers adults 20-30 ml paediatric 2-5 ml Catheter Specimen of Urine (CSU)	3 WD	




TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	empirically according to local protocols. NOTE: Send sample for microscopy and culture if clinically suspected UTI and any of the following: <ul style="list-style-type: none"> • Pregnancy • Signs of systemic or upper urinary tract infection (e.g.: fever, loin pain, renal angle tenderness) • Immunocompromised or diabetic patients • Male patients • Children • Female patients ≥ 65 years old • Anatomically abnormal urinary/renal tract • Failure to respond to empirical therapy • History of recurrent UTIs (≥ 3 episodes/year) • Patients with indwelling catheters ONLY if symptoms or signs of infection. 			
Wound swabs	Samples from chronic wounds (e.g. leg ulcers) will not be processed unless adequate clinical details indicating infection (as above) are provided.	bacterial swabs in transport medium	4 WD	
	Use viral swabs (green top) where viral infection suspected (for skin surface swabs this is usually HSV and/or VZV). <i>Viral swabs are</i>		14 WD	Samples are referred to Brighton & Sussex NHS Trust

VIROLOGY

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
'Abnormal LFTs'	Hepatitis B surface antigen (HBsAg) Hepatitis C antibody (HCV Ab)	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
'Acute hepatitis' or 'jaundice'	Hepatitis A IgM (HAV IgM) Hepatitis B surface antigen (HBsAg) Hepatitis C antibody (HCV Ab)	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust <i>Acute infectious hepatitis is a notifiable disease and must be notified to the local Public Health England Centre.</i>
Antenatal screen (see also 'TORCH' screen below)	This Trust has an 'opt-in' strategy. Only tests that are requested will be performed: Syphilis (Treponemal) serology Hepatitis B surface Antigen (HBsAg) HIV combined antibody/antigen (HIV Ab/Ag)	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
		For confirmation EDTA blood (purple top vacuette).	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
Arboviruses	Including Dengue, chikungunya and zika viruses. Travel history (with dates) and an adequate summary of clinical features must be provided. Please discuss with duty Consultant Microbiologist as required.	Clotted blood (red top vacuette) EDTA blood (purple top vacuette) <i>Referred to an Accredited Reference Laboratory</i>	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust

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TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
Cytomegalovirus (CMV)	<p>State whether test is for: Diagnosis of acute/recent or reactivated disease (IgM) or If evidence of past infection/exposure required (IgG) For diagnosis of congenital CMV send neonatal urine sample within first three weeks of life CMV DNA PCR is a specialist test (see adjacent) – outside of these specialties discuss with Duty Consultant Microbiologist.</p>	<p>Antibodies (IgG/IgM): Clotted blood (red top vacuette)</p> <p>CMV DNA</p> <ul style="list-style-type: none"> • EDTA blood (purple top vacuette) • CSF • BAL • Urine (plain universal container) 	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p>
Enteroviruses	<p>When the following is suspected Acute myopericarditis Meningitis Acute febrile illness (Paediatrics) myo/pericarditis or neonatal infection is suspected- why is this in purple?</p>	<p>Viral (green top) throat swab or faeces sample CSF Pericardial fluid EDTA blood (purple top vacuette) – acute myo-pericarditis or neonatal infection</p>	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p>
Epstein Barr Virus (EBV)	<p>EBV DNA PCR is a specialist test (see adjacent) – outside of these specialties discuss with Consultant Microbiologist</p>	<p>Antibodies (IgG/IgM): [®] Clotted blood (red top vacuette)</p> <p>EBV DNA: EDTA blood (purple top vacuette) for DNA detection – specialist test</p>	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p>
Exposure to Blood-Borne Viruses Incident (‘Sharps’ or	<p>DONOR sample  Follow Trust Policy for management of exposure incident to blood-borne viruses </p>	<p>Clotted blood (red top vacuette)</p> <p></p>	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p>

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
'Needlestick injury')	RECIPIENT sample Follow Trust policy for management of exposure incident to blood-borne viruses.	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
Hepatitis A Virus	Hepatitis A IgM: For diagnosis of acute Hepatitis A infection (jaundice in adults).	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust <i>Acute infectious hepatitis is a notifiable disease and must be notified to the local Public Health England Centre.</i>
	Hepatitis A total Ab: Used to screen for Hepatitis A past infection or immunity.	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	
Hepatitis B Virus (HBV)	Hepatitis B surface Antigen (HBsAg): For diagnosis of acute or recent hepatitis or carrier state. If positive in-house test, <i>samples are sent to ref lab.</i> If first diagnosis of Hepatitis B infection, a repeat sample from patient is required to confirm result.	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust <i>Acute infectious hepatitis is a notifiable disease and must be notified to the local Public Health England Centre.</i>
	Hepatitis B surface antibody (anti-HBs or HBsAb): Test for response to Hepatitis B vaccine.	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	<p>Hepatitis B core total antibody (anti-HBc total): Serves as a marker of past infection.</p> <p>Where HBcAb is detected, further testing for presence of HBsAg (i.e. active infection) will automatically be performed if sufficient serum.</p>	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p>
	<p>Hepatitis B e-antibody/e-antigen ('e-markers') and HBV core IgM (HBcIgM): Routinely performed on sample if newly detected HBsAg, for confirmatory purposes and to help assess timing and infectivity of disease. Also used to monitor response to treatment.</p>	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p>
	<p>Hepatitis B virus DNA: If required outside of this specialty please discuss with Duty Microbiology Consultant.</p>	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p>
<p>Hepatitis C Virus (HCV)</p>	<ul style="list-style-type: none"> • Hepatitis C Antibodies (HCV Ab): Marker of infection at some time. If positive in-house test, <i>sample is sent to a CPA/UKAS Accredited Reference laboratory</i> for HCV RNA for diagnosis of active infection. • Hepatitis C virus RNA: for diagnosis of active infection and follow up during treatment. <ul style="list-style-type: none"> ○ Qualitative assay: Performed on first positive HCV Ab diagnoses to 	<p>Antibody: Clotted blood (red top vacuette)</p> <p>If first diagnosis of Hepatitis C infection, a repeat clotted blood (red top vacuette) sample from patient is required to confirm correct result.</p>	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p> <p><i>Acute infectious hepatitis is a notifiable disease and must be notified to the local Public Health England Centre</i></p>

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TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
	confirm active disease. o Quantitative assay: Specialist test – Gastroenterology indicated during treatment process.	HCV RNA: Clotted blood (red top vacuette)		
Hepatitis D 'Delta' Virus (HDV)	Only appropriate for patients known to be HBsAg positive.	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
Hepatitis E virus	Relevant epidemiological history essential.	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust <i>Acute infectious hepatitis is a notifiable disease and must be notified to the local Public Health England Centre</i>
Herpes Simplex Virus (HSV)	For diagnosis of acute disease send a sample for viral DNA detection.	Cerebrospinal fluid (CSF) Viral swab (green top) of vesicle fluid/mucous membrane <i>Referred to an accredited Reference Laboratory</i>	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust <i>Viral meningitis is a notifiable disease and must be notified to local Public Health England Centre</i>
Human Immunodeficiency Virus (HIV)	Note re-testing after 6 weeks recommended if negative result after high risk exposure.	Initial test: Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to:

TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
Combined antibody/antigen (HIV Ab/Ag or anti-HIV)	All first positive results require confirmation on a second sample. <u>Vertical Transmission (neonates):</u> <ul style="list-style-type: none"> at birth neonatal samples - at birth, 3, 6 and 9 months of age. 	<u>Confirmatory sample for first positive diagnosis:</u> EDTA blood (purple top vacuette) If positive in-house test sample is <i>sent to a CPA/UKAS Accredited Reference laboratory</i> for confirmation.		Brighton & Sussex NHS Trust
Human T-cell Lymphotropic Virus (HTLV)	For diagnosis of HTLV infection. <u>Relevant epidemiological history essential.</u>	Clotted blood (red top vacuette) <i>Referred to an accredited Reference Laboratory</i>	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
Influenza virus	Component of respiratory virus screening panel for the diagnosis of acute respiratory disease.	Viral (green top) paired deep nasal and throat swabs; NPA, BAL or ETT aspirate.	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
IVF 'screen' (workup for infertility treatment)	<u>Standard tests:</u> Hepatitis B surface antigen (HBsAg) Hepatitis B core antibody (HBcAb) Hepatitis C antibody (HCV Ab) HIV combined antibody/antigen Treponemal (Syphilis) Ab HTLV-1 antibody* for patients (or where partner) living in or originating from an endemic area.	Clotted blood (red top vacuette)		Samples are referred to: Brighton & Sussex NHS Trust

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PATHOLOGY




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TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
Measles	<p><u>Measles RNA detection:</u> To confirm active measles infection (may also be detectable if recent vaccination).</p> <p>Note an oral fluid sampling kit can be obtained from PHE for testing of suspected community cases</p>	<ul style="list-style-type: none"> Viral (green top) throat swab. CSF sample where clinically indicated. 	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p> <p><i>Measles is a notifiable disease and must be notified to the local Public Health England Centre</i></p> <p><i>The Infection Control Team must be informed of any suspected cases of measles presenting to hospital.</i></p>
	<p>Measles Antibody detection: IgG IgM</p>	Clotted blood sample (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p>
<p>Meningitis and encephalitis (see also Meningitis and encephalitis in the General Microbiology section)</p>	<p>Discuss all molecular/PCR requests with Duty Microbiology Consultant or Senior Laboratory Biomedical Scientist.</p>	<p><u>Primary sample:</u></p> <ul style="list-style-type: none"> Cerebrospinal fluid (CSF). <p><u>Other samples where indicated:</u></p> <ul style="list-style-type: none"> Viral (green top) throat swab for respiratory viruses and enterovirus. Faeces sample for enterovirus. 	5 WD (in-house)/ 14 WD (referred)	<p>Samples are referred to:</p> <p>Brighton & Sussex NHS Trust</p> <p><i>Infective meningitis/encephalitis is a notifiable disease and must be notified to the local Public Health England Centre</i></p>

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TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
Myocarditis and pericarditis	Common infectious agents: <ul style="list-style-type: none"> • Enteroviruses (e.g. Coxsackie) • 'Atypical' respiratory agents: <ul style="list-style-type: none"> ○ <i>Mycoplasma</i> ○ <i>Chlamydia pneumoniae</i> ○ <i>Coxiella burnetti</i> • Influenza A+B (seasonal) • Parvovirus 	for Enterovirus, mycoplasma and influenza virus.	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
		Viral throat (green top) swab		
		For <i>Chlamydia pneumoniae</i> or <i>Coxiella burnettii</i> : Clotted blood (red top vacuette)		
		Parvovirus: EDTA blood (purple top vacuette)		
Parvovirus (‘Slapped cheek’ or ‘Fifth disease’)	IgM is usually positive at time of presentation with acute symptoms. May remain detectable for up to 3 months. DNA detection may be indicated if significant immuno-suppression (e.g. HIV disease or organ transplant).	Antibody IgG/IgM): Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
		Parvovirus DNA: EDTA blood (purple top vacuette) clotted blood (red top vacuette)		
Rash illness (particularly in childhood) – excluding Varicella (see below)	In the acute setting, viruses are shed in respiratory secretions and a viral throat swab is the most appropriate sample. Serology is adjunctive in this setting, but may be useful in the convalescent stages.	Acute presentation: Viral throat (green top) clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
		Convalescent (10-14 days): Clotted blood (red top vacuette)		
Respiratory Syncytial Virus	Seasonal test. Out-of-hours testing performed as agreed with Paediatrics	BAL	5 WD (in-house)/ 14 WD (referred)	Samples are referred to:

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TEST	DETAILS/ INFORMATION	SAMPLE REQUIREMENT	TURNAROUND TIME (from receipt to authorisation – in working days)	NOTES
(RSV) antigen test	department. If negative screening test, the sample will be sent for extended viral antigen testing (PCR).	ETT aspirate		Brighton & Sussex NHS Trust
Respiratory virus detection	<p><u>Standard test panel:</u></p> <ul style="list-style-type: none"> • Influenza A and B • Parainfluenzae 1,2,3,4 • RSV • Human metapneumovirus • Human Bocavirus • Rhinovirus • Adenovirus • Enteroviruses • Parechovirus • (Mycoplasma) <p>If CMV pneumonitis suspected please indicate.</p>	Bronchial lavage/washing ETT aspirate or NPA Viral (green top) paired nose and throat or eye swabs	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
Rotavirus antigen detection	Paediatric patients or if outbreak situation. Fresh sample preferred. Can be refrigerated for up to 72 hours.	Diarrhoeal stool (minimum of 1 ml or 'pea' size) in sterile container.	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
Rubella antibodies (IgG/IgM)		Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust <i>Rubella is a notifiable disease and must be notified to the local Public Health England Centre</i>
Small round structured virus (SRSV, Norovirus)	For use during outbreak situations under direction of IPCAS team or local CCDC.	Brighton and Sussex University Hospitals NHS Trust	5 WD (in-house)/ 14 WD (referred)	Samples are referred to:

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				Brighton & Sussex NHS Trust
'TORCH' screen	<ul style="list-style-type: none"> Toxoplasma antibodies Rubella IgM CMV IgG and IgM 	Clotted blood (red top vacuette)	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
Varicella Zoster Virus (VZV) (Chickenpox/zoster)	If an urgent VZV IgG is required after exposure, the Microbiology Lab or Duty Microbiologist must be notified , and information provided on nature of contact and date of exposure .	<u>Antibodies (IgG/IgM):</u> Clotted blood (red top vacuette) <u>VZV DNA:</u> <ul style="list-style-type: none"> CSF Viral swab (green top) of vesicle fluid or mucous. 	5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust
Viral Haemorrhagic Fever (VHF) e.g. Ebola virus	Do not take samples without first discussing with the Duty Infectious Diseases Consultant at the Royal Free Hospital (telephone 0207 7940500) and informing the SASH Duty Consultant Microbiologist – refer to the Trust Viral Haemorrhagic Policy.		5 WD (in-house)/ 14 WD (referred)	Samples are referred to: Brighton & Sussex NHS Trust

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