#### **Microbiology**



#### PATIENT INFORMATION

Receipt of a request form by the laboratory is accepted by us with the understanding that consent has been given by the patient.

The Microbiology laboratory has the following service provisions: Bacteriology including antibiotic assays; Mycology; Parasitology; Virology, Serology and Molecular diagnostics. You may be asked to transport your sample to your local GP practice or directly to the laboratory, either at Telford or Shrewsbury (9am – 5pm, weekdays). We have transport vehicles picking up samples daily from every GP practice, usually during the morning, so samples left at your GP practice first thing in the morning should catch this transport service. It might be worth checking with your GP practice if they haven't advised you. If you are asked to drop a sample off, please bear in mind that once the sample has been collected it should reach the laboratory as soon as is practicably possible. Most, but not all samples can be refrigerated if there is a delay.

NB. Please do not telephone the laboratory for results; please contact your Ward, Clinic or GP.

Sample/Test	Sample information	Expected turnaround time
Abscesses and deep-	Pus is sent in a sterile white topped container, or	>90% of samples will have a final report within 3 days
seated wounds	swabs placed into charcoal transport	
	media	
Antibiotic assays	The laboratory measures Gentamicin,	>90% of samples will have a final report within 24hrs.
	Vancomycin and Tobramycin in-house. Samples	Most results are issued on day of receipt for
	of blood are collected in red topped vacutainers.	assays performed in house.
Blood cultures	Adults: 8 - 10mls of blood into aerobic and	Positive bottles are reported as they flag on the
	anaerobic bottles; Paediatrics 1-3 ml minimum	system. Negative results are issued at 36 - 48hrs.
	in a paediatric bottle.	Bottles are incubated for 5 days but a further report is
		only issued if positive
Continuous Ambulatory	60mls is required for testing from the CAPD bag	>90% reported within 3 days
Peritoneal Dialysis fluids	submitted	

Sample/Test	Sample information	Expected turnaround time
Cerebrospinal fluids	1ml is sufficient for cell count, gram and culture	Cell counts, and gram films when performed, are reported on the day of receipt. A positive culture result will have an interim result until all work is completed. All negative results are reported after 48hrs
Eye swabs, intraocular fluids and corneal scrapes	Eye swabs for bacterial culture should be taken into the black charcoal transport media. Where herpes infection is suspected red viral transport media should also be taken. Intraocular fluids should be sent in the syringe used for collection (needle removed) Corneal scrapes are inoculated directly onto plates provided by the laboratory. Contact lenses and fluid should be submitted if Acanthamoeba infection is suspected	Gram films from corneal scrapes and intra-ocular fluids are reported on the day of receipt. A positive culture result will have an interim result for corneal scrapes and intraocular fluids until all work is completed. All negative results are reported after 48hrs
Faeces – culture	Faeces should be passed into a clean, dry disposable container. A representative portion should be transferred to an approved sterile container. (White topped universal or blue capped faces pot). If possible ½ fill the container.	90% of samples will have a final report within 5 days.
Faeces – Clostridium difficile testing	Faeces should be passed into a clean, dry disposable container. A representative portion should be transferred to an approved sterile container. If possible ½ fill the container. NB. Formed stools WILL NOT be tested for C difficile	90% of samples will have a result within 2 days.  Negative GP results are only reported once the final culture report is completed.

Sample/Test	Sample information	Expected turnaround time
Genital swabs- urethral	We culture for Neisseria gonorrhoeae, Candida	90% of samples will have a final report within 2 days
exudate, Endocervical	species (thrush), Beta haemolytic streptococci	
and high vaginal swabs	and Staphylococci	
MRSA screens	Patients are tested on admission and pre-	90% of samples will have a final report within 2 days.
	operatively for MRSA. Urine culture is advised for	Negative results and presumptive positive are
	patients with chronic indwelling catheters.	reported within 24hrs
Mycology	We culture for fungi and yeasts from the	90% of samples will have a final report within 25 days.
	following specimens: Skin scrapings, Nails and	Microscopy is reported on the day the sample is
	Hair from conditions like athletes' foot and ring	processed.
	worm.	
Parasitology	Faeces: should be passed into a clean, dry	90% of samples will have a final report within 5 days.
	disposable bedpan or similar container. A	Positive results will be interim released when
	representative portion should be transferred to	detected.
	an approved sterile container.	
	Sellotape slides: attach to the perianal region at	
	night pressing firmly against the perianal folds	
	several times. Sample between 10pm and	
	midnight or early in the morning before	
	defaecation. Remove and attach smoothly to a	
	microscope slide.	
	Worms / Proglottids: Transfer the suspected	
	worm to a sterile wide capped container.	
Parasitology – non	Skin scrapings - ensure sample taken from the	90% of samples will have a final report within 3 days.
enteric pathogens	red inflamed area if scabies suspected	
	Sputum - samples from the lower respiratory	
	tract expectorated by deep coughing is required.	

Sample/Test	Sample information	Expected turnaround time
	Urine - for Schistosomiasis - send the terminal	
	20ml of a midday sample of urine, collected	
	between 10am and 2pm, in a sterile white-	
	topped universal container.	
	Mites- Transfer the suspected mite to a sterile	
	wide capped container.	
Respiratory samples –	2mls minimum of freshly expectorated sputum	90% of samples will have a final report within 3 days.
routine culture	or BAL collected into a sterile wide topped	
	laboratory container for investigation of chest	
	infections	
Skin and superficial	Covers superficial infections e.g. cellulitis,	>90% of samples will have a final report within 3 days
wound swabs	burns, paronychia, ulcers, infected eczema etc.	
	Pus is preferred to swabs if available.	
Sterile fluids– excluding	Minimum 1ml in a sterile white topped universal.	>90% of samples have a negative culture report within
Blood cultures and CSFs	Samples include fluids from swollen joints	3 days. When enrichment culture is set up a final
		report is issued at 5 days
Mycobacterium	2mls minimum of freshly expectorated sputum	Positive samples telephoned to the lab on detection
tuberculosis culture (TB)	or BAL collected into a sterile wide topped	and passed to the Consultant for transmission to the
culture – respiratory	laboratory container. The laboratory does not	requesting source or Consultant. Negatives reported
samples	process TB samples on site but refers them all to	once culture complete at 10 weeks
	the regional laboratory at Birmingham.	
Mycobacterium	We also receive Bone, tissues, Bone marrow	Positive samples telephoned to the lab on detection
tuberculosis culture (TB)	Pus and sterile fluids –, Skin fragments and Urine	and passed to the Consultant for transmission to the
– non-respiratory	for Tuberculosis. The laboratory does not	requesting source or Consultant. Negatives reported
samples	process TB samples on site but refers them all to	once culture complete at 10 weeks
	the regional laboratory at Birmingham	

Sample/Test	Sample information	Expected turnaround time
Mycobacterium tuberculosis – blood tests for Mycobacterial infection	T- Spot –6ml green topped blood tube with black rings (lithium heparin).  MAC blood culture – 2 X 6ml blue topped blood tube (Tri sodium citrate).	Samples are sent away. T Spot results usually take 5 days. MAC culture will take up to 10 weeks
Tips and lines	Samples include IV, Hickman lines, cannulas etc. for bacterial culture. Urinary catheter tips and drain tips are unsuitable.	>90% of samples will have a final report within 3 days
Tissues	We culture Tissue samples arthroplasty samples and small biopsies	>90% of samples have a negative culture report within 11 days once the enrichment culture is completed. Positive results will have an interim report as soon as the preliminary identification and sensitivities are Available.
Upper respiratory tract samples– excluding whooping cough	Specimens include Ear, Nose, Throat, Mouth, Pernasal, Antral washouts for routine culture	>90% of samples will be reported within 3 days.
Investigation for whooping cough)	If symptoms for less than 3 weeks Swabs to the laboratory without delay for PCR. The laboratory issues fine wire swabs for per nasal sampling. Fluid or nasopharyngeal samples can also be taken.  10mls clotted blood sample required for serological investigation for patients who have had symptoms for over 3 weeks.	>90% of samples will be reported within 7 days
Urines – routine culture	Please use the 7mL borate primary containers and NOT universal containers as these will be	>90% of urines are reported within 3 days

Sample/Test	Sample information	Expected turnaround time
	rejected; 3-7mls of urine is plenty. Please do not	
	overfill the pot.	
Urinary antigen testing –	Collect Urine samples into a sterile universal	Results issued on day of receipt.
Legionella and	(both white and red topped are suitable).	
Pneumococcal		
Serology/Virology		
testing:		
Routine antenatal	Blood is usually collected at the first antenatal	90% of results issued within 3 working days. Referred
patient screen	appointment (usually between 6 and 12 weeks).	samples will have an interim report.
	Tests performed: Hepatitis B surface antigen,	
	Syphilis antibody, HIV antibody/antigen	
Renal dialysis patient	Tests performed: Hepatitis B surface antigen,	90% of results issued within 3 working days. Referred
screen	Hepatitis C antibody, HIV antibody/ antigen, &	samples will have an interim report.
	Anti Hepatitis B core (new patients only)	
Needlestick	Tests performed source: Hepatitis B surface	90% of results issued within 3 working days. Referred
source/recipient screen	antigen, Hepatitis C antibody, HIV antibody/	samples will have an interim report.
	antigen (with consent)	
	Tests performed recipient: Stored sample. If a	
	healthcare worker or member of public known	
	to have had Hepatitis B vaccine, Anti HBs will be	
	tested.	
Fertility patient screen	Tests performed: Hepatitis B surface antigen,	90% of results issued within 3 working days. Referred
	Hepatitis C antibody, HIV antibody/ antigen (with	samples will have an interim report.
	consent, AHBc, HTLV & CMV IgG (females also	
	get Chlamydia serology)	

Sample/Test	Sample information	Expected turnaround time
Rashes screen	Tests performed: ASOT, Parvovirus IgG & IgM, Rubella IgG & IgM, Measles IgG, VZV IgG, Lyme, Herpes simplex, HHV6 (rare), Meningococcal PCR, Measles PCR	90% of results issued within 10 days. Referred samples will have an interim report.
Hepatitis screen	Tests performed acute: Hepatitis A IgM, Hepatitis B surface antigen, CMV IgM, EBV, Hepatitis E IgM. Tests performed chronic: Hepatitis B surface antigen, Hepatitis C	90% of results issued within 7 days. Referred samples will have an interim report.
Respiratory screen	Tests performed: Coxiella burnetti (Q fever) serology, Chlamydia pneumoniae & Chlamydia psittaci (PCR only), Mycoplasma pneumoniae PCR. Respiratory viruses Inc. Influenza A & B, RSV, SARS-CoV-2, Parainfluenza, Rhinovirus & Adenovirus, Bordetella pertussis.	90% of results issued within 10 days. Referred samples will have an interim report.
Infections in pregnancy screen	Tests performed: Parvovirus IgG/IgM, Toxoplasma, CMV, HSV, Enterovirus, VZV, Rubella, HIV	Toxoplasma, CMV, VZV, Rubella and HIV serology; 90% of results issued within 3 working days. Parvovirus IgG/IgM, HSV and Enterovirus; 90% of results issued within 10 days. Referred samples will have an interim report.
Lymphadenopathy screen	Tests performed: Toxoplasma, EBV, HIV, CMV IgM, ASO, (Mumps – referred test)	90% of results issued within 4 working days. Referred samples will have an interim report.
PUO (Pyrexia of Unknown Origin) / Endocarditis screen	Tests performed: Toxoplasma, Atypical screen (PCR for <i>C. pneumoniae</i> , <i>C. psittaci</i> and <i>Mycoplasma pneumoniae</i> , serology for <i>C. burnettii</i> Q Fever), HIV (PUO)	Toxoplasma and HIV serology; 90% of results issued within 3 working days.  Referred samples will have an interim report.

Sample/Test	Sample information	Expected turnaround time
IDU (Intravenous Drug	Tests performed: Hepatitis C, HIV, Hepatitis B	90% of results issued within 3 working days. Referred
User) screen	surface Antigen (HBsAg), Hepatitis A IgG, Anti	samples will have an interim report
	Hepatitis B surface antibody (AHBs), Syphilis	
Sexually transmitted	Tests performed: Syphilis antibody, HIV	HIV and syphilis; 90% of results issued within 3
infections (Serology/	antibody/antigen, Herpes simplex	working days. HSV PCR – 90% of results issued within
Virology)		10 days (referred samples have an interim report).
Encephalitis / Meningitis	Tests performed: Herpes simplex virus (HSV),	Reference laboratory tests can take up to 7-10 days
screen	Enterovirus, Parechovirus, Varicella zoster,	although positive results are usually telephoned
	Meningococcal/Pneumococcal.	immediately (i.e. within 1-2 days).
Molecular testing		
(PCRs)		
Conjunctivitis & eye	Tests performed: HSV, Chlamydia trachomatis	HSV PCR – 90% of results issued within 10 days
swab screen	and Neisseria gonorrhoea	(referred samples have an interim report).
		Chlamydia/Gonorrhoea – 90% of results issued within
		3 working days
Chlamydia & Neisseria	Cervical or vulvo-vaginal swab in COBAS PCR	90% of results issued within 3 working days.
gonorrhoeae screen	Female swab kit.	
	Urine in Cobas PCR urine Sample kit	
COVID-19 (SARS-CoV-2)	SARS-CoV-2 Real time PCR; Nose/throat swabs	90% of results issued within 1 day of receipt. Referred
	in VTM (Virus Transport Medium	samples will have an interim report.
Norovirus Testing	Tests performed: Norovirus I and II PCR testing;	90% of results issued within 2 days. Referred samples
	Faeces samples	will have an interim report.
Viral Respiratory Testing	Tests performed: Respiratory viruses Inc.	90% of results issued within 1 day of receipt. Referred
	Influenza A & B, RSV, Parainfluenza, Rhinovirus &	samples will have an interim report.
	Adenovirus	

#### Pathology Care Group



Sample/Test	Sample information	Expected turnaround time
CSFs for Viral meningitis	Tests performed: Herpes simplex 1&2, Varicella	90% of results issued within 2 working days.
	zoster, Enterovirus and Parechovirus	
Hepatitis C viral load	HCV is a quantitative nucleic acid test	90% of results issued within 10 working days.
testing (HCV)	for use as an aid to the management of	
	HCV infected patients undergoing anti-viral	
	therapy	