- If an urgent or unusual test is required please contact the department on 01305 254343 during routine laboratory opening hours (9.00 - 17.00 Monday to Friday, 8.00 - 12.00 Saturday) or the on-call Biomedical Scientist via switchboard at all other times or on-call microbiology consultant out of hours if urgent advice is required. This includes samples such as CSFs and others from other sterile sites.
- Turnaround times are provided for guidance but earlier results may be possible for urgent requests.
- Quality of result depends on quality of sample collection and timely transport to the lab. Please refer to our **Collection of Microbiological Specimens Policy on website (under General Information)** for the appropriate method of collection ,specimen container and volume, and requirements for transport and storage
- Quantitative results will be reported with normal ranges and/ or interpretive comments.
- Correct interpretation of test results depends on accurate clinical details including date of onset, travel history, antibiotic therapy where relevant. Requests may be refused or pathogens missed if these are omitted. Samples will be retained for 7 days to allow additional information to be supplied by the requestor.
- Note that serology refers to tests that detect the antibody response to an infection, whereas molecular tests detect the genetic material of a specific pathogen, by nucleic acid amplification methods such as polymerase chain reaction (PCR).
- Notifiable diseases are marked in table with an asterisk (*). PHE should be notified if infection is confirmed or strongly suspected clinically to enable public health actions. South West Health Protection Unit is available in and out of hours on 0300 303 8162.

Footnotes:
[1]Turn around times for specimens received during normal working hours. For specimens received on weekends or bank holidays additional days might need to be added.
[2] If an additional test is subsequently required on a specimen, this will be performed where possible if sufficient volume is available. Samples may degrade over time, contact the laboratory for serology requests beyond the time limits in the tables

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
Adenovirus PCR	EDTA blood Nose/ throat swab (viral) Eye swab Faeces	Included in full respiratory PCR panel	Suspected adenovirus infection. Monitoring of blood PCR may be indicated post bone marrow transplant.		Public Health England Bristol Laboratory	5 working days	7 days
Adenovirus	Faeces	Combined Adenovirus/ rotavirus EIA	Investigation of diarrhoea in children	Positive results in neonates must be confirmed by ref lab, which may lengthen turnaround time in this age group.	In house	3 working days	7 days
Amoebic serology	Clotted blood, serum gel tube	IFAT	Suspected amoebic liver abscess or amoebic dysentery.	Serology positive in 95% of ALA, but can be negative in colitis. Consider faeces for microscopy (ideally fresh and warm)	Hospital for Tropical Diseases, London	14 working days	2 years
Anti Strep antibodies	Clotted blood serum gel tube	ASO, ASOT, Anti DNase B	Useful for investigation of possible post-Streptococcal conditions		Public Health England Bristol Laboratory	7 working days	2 years
Antibiotic assay (includes antifungals)	Clotted blood, serum gel tube	Antibiotic levels, TDM (therapeutic drug monitoring), Gentamicin, vancomycin, tobramycin, amikacin levels etc		Blood taken from lines used to administer antibiotics may give erroneous results Please give dose regimen and time of last dose Refer to BNF or trust policies for interpretation and for when Gentamicin or Vancomycin levels should be taken. For all other assays please contact a Microbiology consultant on 01305 254343.	Gentamicin & vancomycin – tested in DCH blood sciences.	1 working day	N/A
					Others: Southmead Antibiotic Reference laboratory	1 working day (RL: one day)	N/A
Arbovirus	Clotted blood, serum gel tube +/- EDTA blood	Dengue fever, west Nile Virus, Haemorrhagic fever. Exotic viruses. Arthropod borne viruses. Mosquito-borne viruses. Tick borne infections.		Requestor should discuss with microbiology consultant as cases are likely to need discussion with PHE Imported Fever Service. It is essential to state countries visited, duration of stay and return date with full clinical details and vaccines given	Rare and Imported Pathogens Laboratory PHE, Porton Down	3-7 working days. (RL: 3-5 working days)	2 years

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
Aspergillus pptns	Clotted blood, serum gel tube.	Precipitating serum antibodies	Investigation of ABPA. May be used to investigate Farmer's lung (EAA).		Public Health England Bristol Laboratory	10 working days	2 years
Aspergillus antigen	Bronchial washings	Galactomannan	May be useful in investigation of suspected invasive aspergillosis		Public Health England Bristol Laboratory	10 working days	1 month
	Clotted blood, serum gel tube						2 years
Avian pptns	Clotted blood, serum gel tube.	Poultry, budgie, parrot only	Diagnosis of hypersensitivity pneumonitis. (Extrinsic allergic allveolitis)	Please specify type of bird	Public Health England Bristol Laboratory	10 working days	2 years
Beta D Glucan	Serum	N/A	Diagnosing invasive or disseminated fungal infections	1ml serum (not plasma)	Bristol PHE Mycology Reference Laboratory	3 working days	48 hours from collection
Blood culture	Blood		Investigation of sepsis and deep seated infections such as infective endocarditis. Send PRIOR to commencing antibiotic therapy wherever possible.	Use blood culture kits to avoid contamination. Using the same needle that has been used to take other blood tubes may result in false positive results. See trust blood culture policy. Sensitivity is improved by collecting adequate volume (5-10ml per bottle) and sending >1 set. Send 3 sets if IE is suspected. All positive results are telephoned	In house	2 working days for negatives. Up to 7 working days for positives.	N/A
Bordetella pertussis* serology	Clotted blood, serum gel tube.	Whooping cough, Pertussis	Diagnosis of pertussis infection after >2/52 of symptoms	Investigation of suspected whooping cough or persistent cough. False negatives may occur if blood taken within 2 weeks of start of symptoms For children aged 5-16y with cough >2 weeks, who have not had pertussis vaccine in the past year, Oral fluid testing kits are the preferred test - available from PHE (on notification)	Public Health England Bacteriology Reference Department Colindale	21 working days (RL: 10 days)	2 years
Bordetella pertussis culture*	Pernasal swab.	Whooping cough, Pertussis	Diagnosis of pertussis infection during first 2/52 of symptoms	Sensitivity can be low. Most likely to be culture positive within 2 weeks of onset. If aged under 1 and hospitalised, PCR is available.	In house	Up to 7 working days	N/A
Bordetella PCR*	Nasal secretion Nasopharyngeal aspirate Nasal Swab.	Whooping cough, Pertussis	Available for suspected whooping cough cases in inpatients under 1 year of age		Public Health England Bacteriology Reference Department Colindale	RL: 10 working days	N/A
BK virus PCR	EDTA blood Urine		For screening post renal transplant, investigation of BK virus nephropathy or haemorrhagic cystitis in the immunocompromised.	Refer to renal guidelines for interpretation of result.	Public Health England Bristol Laboratory	7 working days	7 days
Brucella* serology	Clotted blood, serum gel tube.	Undulant fever. B.abortus (cattle) B.melitensis (goats, sheep)	Suspected Brucellosis, PUO	No longer endemic in UK. Give dates of travel, animal contact or unpasteurised food exposure.	Royal Liverpool & Broadgreen Hosp. Liverpool	10 working days	2 years
Campylobacter antibodies	Clotted blood, serum gel tube.		Significant cause of Guillain Barre		FWE Microbiology Network, Preston Lancs	10 working days	2 years

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
CAPD Fluid	Fluid	peritoneal dialysis fluid	PD peritonitis	An additional sample in blood culture bottles improves likelihood of positive culture. WBC >100X10^6/L suggests infection	In house	Microscopy within 2 hours if urgent (unless after 10pm). Culture 7 working days.	7 days
CD4 Count	EDTA blood				Bournemouth Microbiology Laboratory	5 working days	N/A
Chlamydia	Urine or yellow chlamydia swab	C.trachomatis. Chlamydia NAAT (Nucleic acid amplification technique)	Part of STI screen Neonatal conjunctivitis	Please follow kit instructions. For women, send vaginal+/- cervical swabs. Vaginal swab can be self-collected. For men, preferred specimen is urine after a 1 hour hold, plus rectal and throat swabs where relevant. GUM clinic samples are tested by combined chlamydia and gonorrhoea NAAT.	In house	5 working days	N/A
Chlamydia Serology		Chlamydia L2		Serology is rarely helpful in genital infection except in PID or infertility	Public Health England Bristol Laboratory	10 working days	2 years
Clostridium difficile toxin	Faeces		Investigation of diarrhoea, particularly in the elderly and inpatients	Test is performed automatically on all liquid stools from inpatients (over 2 years old) and community patients over 65 years. Occasionally equivocal result will be obtained. For inpatients, PCR will be performed on equivocal results to determine whether toxigenic C difficile bacteria are present.	In house	1 working day	7 days
CMV IgG	Clotted blood, serum gel tube	Cytomegalovirus	To determine past infection		In house	1 working day	12 months
CMV IgM	Clotted blood, serum gel tube	Cytomegalovirus	Test if acute infection is suspected		In house	1 working day	2 months
CMV PCR	EDTA blood Urine	Cytomegalovirus	Useful to confirm disease process or monitor treatment in immunosuppressed patients	Results are quantitative viral loads	Public Health England Bristol Laboratory	3 working days	7 days
CMV salivary PCR	Saliva swab. Contact lab under Ext 4349 to request swab	Congenital CMV	For investigation of congenital CMV in neonates		Southampton PHE laboratory	3 working days	N/A
Corneal scrape	Corneal scrapings		Investigation of microbial keratitis/ corneal ulcer	Contact lenses and cases should be sent to lab in addition, where available.	In house	3 working days	N/A
Coxiella burnetii serology	Clotted blood, serum gel tube	Q fever, Queensland fever	Can cause subacute bacterial endocarditis, respiratory disease, or chronic Q fever	May be negative acutely, send convalescent sera too.	Public Health England Bristol Laboratory	7 working days	2 years
CRE screen	Rectal swab or any other wound or lesion site. Faeces	Carbapenemase producing organisms/ Enterobacteriacea, Carbapenem resistant organisms	Screen on admission patients with recent hospital contact from abroad or high risk UK hospitals. Screen contacts of cases as advised by IPC	3 samples, 48h apart are required. Please ensure that there is visible faecal material on any rectal swabs.	In house	1-3 working days	N/A N/A

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
Cross infection screen	Nose and groin swabs plus any wound or lesion sites	MRSA screen			In house	1-3 working days	N/A
CSF	Cerebrospinal fluid	Spinal fluid	Investigation of meningitis and other CNS infections. *Bacterial meningitis is a notifiable disease	The preferred number of samples is 3 tubes, which must be numbered consecutively. Sample 2 will be sent to Biochemistry, and any further tubes will be stored in Microbiology. Please ensure adequate volumes, min 0.5ml (10 drops) per tube, but ideally 1ml (20 drops). For PCR requests, an additional 1-2 ml (20-40 drops) is preferred, and for AFB investigations >6ml of sample is optimal for adequate sensitivity, but it is understood that this amount of sample will not always be possible. It is safe to remove 15ml of CSF in adults, 4ml in older children and 2ml in children <5 years old. WBC count is less reliable in heavily blood stained samples, and invalid in clotted samples. WBC:RBC ratio of 1:500 to 1:1000 is not indicative of infection. Normal microscopy values are age related: WBC <5 x10^6/l in adults. WBC <30 in neonates. Samples must be delivered immediately by hand (e.g. porter) but **must NOT be sent via the vacuum pod system.** Please note requests for viral PCRs are not processed automatically if the CSF WC and protein parameters are normal, as infection is unlikely; please discuss the request with the microbiology consultant if PCRs are still required.	In house	Microscopy within 2 hours . Culture 3 working days.	1 month
CSF viral PCR	Cerebrospinal fluid		Investigation of meningitis and other CNS infections	Sample can be sent to reference labs for additional viral and bacterial PCRs eg. Parechovirus, N. meningitides, S. pneumonia. Please note requests for viral PCRs are not processed automatically if the CSF WC and protein parameters are normal, as infection is unlikely; please discuss the request with the microbiology consultant if PCRs are still required. See above for information on sample volume required.	Royal Bournemouth Hospital University of Warwick Science Park, Coventry Meningococcal reference Unit, Manchester	RL: 2-3 working days	1 month
Diphtheria antibodies	Clotted blood, serum gel tube		Test of functional immunity (IgG) For suspected case of diphtheria see throat swab		PHE Manchester, Medical Microbiology Partnership	21 working days (RL: 28 working days)	2 years
Viral haemorrhagic fever (incl. Ebola virus*)	Suspected or possible Ebola/ VHF. Cases MUST be discussed with on call microbiologist first to confirm risk assessment and sampling requirements. See DCH Ebola operational guidance.				Rare and Imported Pathogens Laboratory PHE, Porton Down	RL: 1-2 working days	N/A

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
EBV serology	Clotted blood, serum gel tube	Epstein-Barr, Glandular fever, Infectious mononucleosis	Investigation of glandular fever, PUO, hepatitis	IgM, IgG and EBNA are tested. Follow up sample may help determine whether recent infection has occurred.	In house	2 working days	6 months
EBV PCR	EDTA blood		Detects EBV viraemia in high risk haematology patients. May be suggested by lab to confirm acute infection.		Public Health England Bristol Laboratory	7 working days	7 days
Enterovirus serology	Clotted blood, serum gel tube.	Bornholm's disease, coxsackie virus		Test covers a range of enteroviruses. Test acute and convalescent serum (PCR testing is preferred in acute infection)	Epsom & St.Helier NHS Trust, Surrey	7 working days (RL: 1-8 working days)	2 years
Enterovirus PCR	Throat swab (viral), faeces	Bornholm's disease, coxsackie virus	Suspected enterovirus infection	Test covers a range of enteroviruses Test in acute infection	Public Health England Bristol Laboratory	7 working days	7 days
Eye swab bacterial culture	Eye swab	MC&S	Investigation of bacterial conjunctivitis		In house	3 working days	N/A
Eye swab virus	Eye swab (viral)	Adenovirus + Herpes Simplex	Investigation of viral conjunctivitis/ keratitis		Public Health England Bristol Laboratory	5 working days	7 days
Faeces for culture	Faeces	MC&S	For investigation of suspected infective diarrhoea, food poisoning*, enteric fever* /typhoid, Haemolytic uraemic syndrome (HUS)*	Please include travel history as additional tests may be indicated	In house	3 working days	7 days
Faeces for H pylori antigen test	Faeces			False negative results may occur if the patient has been on PP inhibitors, bismuth preparations or antibiotics in the last 2 weeks	In house	1 working day	7 days
Norovirus	Faeces	Norovirus PCR, norovirus EIA		Testing is performed in outbreak setting on the advice of Infection control, not generally for individual patient management. Will normally be tested by PCR as more sensitive. EIA may be used out of hours but sensitivity only 50% per sample.	In house	1 working days	7 days
Parasite microscopy	Faeces			Sensitivity is improved by examining 3 separate samples Please state travel history	In house	3 working days	7 days
Fluid/aspirate/pus	Fluid	Fluid/aspirate/pus		Send material if available NOT just a swab	In house	3 working days for solid culture. Additional 4 working days for enrichment culture	1 month
Fungal culture	Nails, skin scrapings, hair roots Swabs accepted if for yeasts only	Tinea, onchomycosis, ringworm, dermatophyte infection	For investigation of superficial fungal infections. The best samples are crumbly parts of nail, root end of hair, skin scrapings from edge of lesion.	Nails are easily contaminated with environmental fungi. Positive microscopy is more indicative of infection than positive culture alone.	In house	7-14 working days	N/A

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
Genital swabs	Urethral swab, cervical swab, high vaginal swab, low vaginal swab		For investigation of thrush, discharge, bacterial vaginosis. Additional samples (eg chlamydia) required for full STI screen, discuss with GUM. If N. gonorrhoea is suspected, please refer to the GUM, because organism may not survive at low temperature.	Please state if pregnant or recent surgery/ instrumentation.	In house	3 working days	7 days
H. influenzae antibodies	Clotted blood, serum gel tube	Haemophilus, Hib	Test of functional immunity (IgG)		PHE Manchester, Medical Microbiology Partnership	20 working days (RL: 28 working days)	2 years
Filariasis	Clotted blood, serum gel tube	Main species of worms causing filariasis are *Loa loa, Wuchereria bancrofti, Onchocerca volvulus, Brugia malayi*	Investigation of various tropical conditions, usually associated with eosinophila	Definitive diagnosis is usually made by peripheral blood film at specific times of day. Please discuss with microbiology consultant.	Hospital for Tropical Diseases, London	14 working days	2 years
Hep A IgM*	Clotted blood, serum gel tube lithium heparin, EDTA		Test in acute hepatitis with raised bilirubin and ALT (usually ALT >400)		In house	1 working day	12 months
Hep A IgG	Clotted blood, serum gel tube lithium heparin, EDTA, citrate		Evidence of previous infection or vaccination		Public Health England Bristol Laboratory	10 working days	2 months
Hepatitis B surface antigen	Clotted blood, serum gel tube lithium heparin	HBsAg	Test in acute or chronic hepatitis, or to screen people at risk of Hepatitis B infection	Marker of circulating virus, chronic or acute infection. May not become positive until up to 3 months after exposure ('window period')	In house	1 working days. Same day if urgent.	2 months
Hep B confirmation markers	Clotted blood, serum gel tube	Hep B e antigen, Hep B e antibody, Hep B core IgM		Markers of infectivity, and chronicity of infection. Only performed in positive cases. Positive core IgM indicates recent infection*.	Public Health England Bristol Laboratory	7 working days	2 years
Hep B core Ab	Clotted blood, serum gel tube lithium heparin, EDTA, citrate		To identify patients at risk of reactivation prior to immunosuppression, test in conjunction with surface antigen.	Indicates previous infection	In house	1 working days	2 months
HBV Viral Load	Clotted blood, serum gel tube, EDTA		For infectivity in long term carriers and to monitor treatment		Public Health England Bristol Laboratory	7 working days	7 days
Hep B surface Ab	Clotted blood, serum gel tube Lithium heparin EDTA (411), citrate (411)		For post vaccination testing and needle stick recipients	<10 IU/mL = susceptible. >10 IU/mL = Positive responder. Please interpret in conjunction with current guidelines.	In house	1 working day	6 months 3 months (411)
Hepatitis C antibody	Clotted blood, serum gel tube lithium heparin, EDTA (411), citrate (411)		Test in suspected chronic hepatitis/ abnormal LFTs, or to screen people at risk of Hepatitis C.	HCV antibody may not be detectable early in the infection or at all in immunocompromised patients Positive antibody does not indicate immunity. It indicates cleared or chronic infection. Qualitative PCR distinguishes between these states.	In house	3 working days. Same day if urgent.	12 months (vidas) 3 months (411)
HCV genotype	Clotted blood, serum gel tube EDTA		To determine subtype for treatment purposes		University of Warwick Science Park, Coventry	7 working days	2 years

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
HCV PCR	Clotted blood, serum gel tube	Qualitative PCR	To detect chronic/ active infection	Confirms infectivity status, and potential for HCV treatment.	Public Health England Bristol Laboratory	7 working days	2 years
HCV Viral Load	Clotted blood, serum gel tube, or EDTA	Quantitative PCR	May be used to monitor response to treatment		In house	7 working days	7 days
Hepatitis D	Clotted blood, serum gel tube EDTA	Delta agent	May be indicated in Hepatitis B patients whose liver function deteriorates. Please state if serology or PCR required.	Only co-infects with Hepatitis B	Public Health England Virus Reference Division Colindale	21 working days (RL: 15 working days)	2 years
Hep E serology	Clotted blood, serum gel tube		Test in acute hepatitis with raised bilirubin and ALT (usually ALT >400)	If immunocompromised, please state on form: lower ALT and chronic infection is possible, PCR may be indicated.	Public Health England Bristol Laboratory	21 working days	2 years
	EDTA blood	HSV 1, HSV 2	To confirm suspected herpes rash eg genital herpes, orofacial herpes (swab fluid/ lesions) Investigation of suspected neonatal herpes or disseminated disease in immunocompromised (surface swabs and blood)		Public Health England Bristol Laboratory	5 working days	7days
	CSF – see CSF viral PCR				University of Warwick Science Park, Coventry		1 month
Herpes simplex serology	Clotted blood, serum gel tube	HSV type specific serology	Occasionally indicated to assess risk of mother to child transmission from genital herpes	Can be used to distinguish between primary infection and reactivation	Southampton PHE laboratory	21 working days	2 years
HIV antibody	Clotted blood, serum gel tube, lithium heparin, EDTA	AIDS	Screening test for HIV infection	May be negative in early infection ('window period'). First positive results will be confirmed at reference laboratory.	In house	3 working days. Same day if urgent.	2 months 3 months (411)
	Clotted blood, serum gel tube EDTA				Confirmation: Public Health England Virus Reference Division Colindale	14 working days (RL: 8 working days)	N/A
HIV Viral Load	EDTA blood		To monitor infectivity and treatment		In house	1 working day	
HTLV I/II	Clotted blood, serum gel tube		Significant in transplant and milk donors.	Blood borne virus. Unusual in UK but common in some countries eg the Caribbean. Not associated with acute illness, usually asymptomatic. Occasional chronic illness (adult T cell lymphoma, tropical spastic paraparesis).	Public Health England Bristol Laboratory	7 Working days	2 years
Hydatid Serology	Clotted blood, serum gel tube	Echinococcus granulosus, dog tapeworm	Suspected hydatid disease/ cysts	Rare in the UK. Associated with sheep and cattle rearing and contact with dogs. Serological cross reactions (false positives) can occur in other parasitic infections, notably larval cestodes and filarial worms and with some neoplasms. False negatives may occur and are common in the case of non-hepatic hydatid cysts	Hospital for Tropical Diseases, London	14 Working days	2 years

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
Intra Ocular Fluid Procedure	Tiny samples produced during procedures			Samples from these sites should be inoculated directly onto the surface of agar plates. Laboratory staff will attend, telephone ext 4343 or call out the duty "on-call "staff to attend. Ideally they would have 30 minutes notice of the need to attend. This is particularly important out of normal hours where staff will not be on site.	In house	2 working days for solid culture, additional 5 working days for enrichment culture.	N/A
Influenza PCR	Nose/Throat swabs (viral) Bronchial washings/ aspirates	Seasonal flu, H1N1 (note that H1N1, previously referred to as swine flu, is now one of the dominant circulating strains of seasonal influenza)	Suspected influenza	Seasonal flu panel includes circulating Flu A and Flu B. Avian or swine influenza (zoonotic infection) can be tested if requested, at reference lab. Please discuss with consultant microbiologist with animal exposure/ travel details.	In house	1 working day	N/A
JC virus	Clotted blood, serum gel tube	PML (progressive multifocal leucoencephalopthy) Polyoma virus	Serology may be indicated when treating with certain monoclonal antibodies	JC virus can cause PML in immunocompromised patients	Public Health England Virus Reference Division Colindale	14 Working days (RL: 10 working days)	2 years
Legionella* urinary Antigen	Urine	Pontiac fever, legionnaire's disease	Rare cause of pneumonia with public health implications. Testing is recommended in severe CAP (CURB65≥3).	Antigen remain positive for up to 10-14 days. Antigen does not detect all strains of legionella but does detect those commonly implicated in human disease. Culture is also available if requested on respiratory samples	In house	1 working day	N/A
Leishmaniasis	Clotted blood, serum gel tube for serology Tissue for PCR		Suspected leishmaniasis	Discuss with medical microbiologist, with travel history. A negative result does not exclude visceral leishmaniasis, particularly in HIV positive individuals. Leishmania serology is not helpful in the diagnosis of cutaneous leisnmaniasis. PCR and histology of biopsy material is the best test.	Hospital for Tropical Diseases, London	14 Working days	2 years
Leptospira	Clotted blood, serum gel tube, or EDTA blood Urine, CSF, Blood culture	Weill's disease	Suspected leptospirosis	Please give possible contact, occupation and leisure activities, and date of symptom onset. Serology usually positive from 5 days after onset of symptoms although antibiotic therapy may delay it. PCR may be performed on acute samples. IgM may be elevated for months or even years with little or no IgG detected	Rare and Imported Pathogens Laboratory PHE, Porton Down	3-7 Working days (RL: 2-4 working days)	N/A
Lyme Disease	Clotted blood, serum gel tube, lithium heparin, sodium	B. burgdorferi	Suspected Lyme disease. Note that erythema migrans should be	Please include details of symptom onset and tick exposure history. Antibody test may be negative for some weeks (up to 8 weeks) after infection has occurred. Antibody response may be abrogated by antibiotic treatment of early infection	In house	1 working day	6 months

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
	lithium heparin, sodium heparin		treated on clinical suspicion.	antibiotic treatment of early infection. Positive screens are confirmed by reference laboratory	For confirmation: Rare and Imported Pathogens Laboratory PHE, Porton Down	Positive requiring confirmation 5-7 working days (RL: 5 working days)	2 years
Malaria antibody	Clotted blood, serum gel tube		There are very limited indications for this test. Please discuss with microbiology consultant. Investigation of suspected acute malaria is by urgent EDTA blood film examination and antigen (performed by Haematology)		London School of Hygiene & Tropical Medicine, London	14 working days	N/A
Measles* (IgM)	Clotted blood, serum gel tube EDTA		Suspected measles	In addition to serology, or alternatively, ALL cases of suspected measles should be tested by oral fluid using salivary test kit, available from HPU Tel: 0300 3038162. Please discuss with microbiology if urgent result is required for management of patient or contacts	Public Health England Virus Reference Division Colindale	4 working for serology (RL: 4 working days)	N/A
Measles immunity (IgG)	Clotted blood, serum gel tube		May be indicated in pregnant or immunocompromised patients exposed to measles	Test may not detect low levels of circulating antibody. Discuss with consultant microbiologist if post exposure prophylaxis of a vulnerable measles contact is being considered.	In house	1 working day	info not provided
					Public Health England Bristol Laboratory	1 Working days	2 years
Measles PCR					Public Health England Bristol Laboratory		7 days
Meningococcal* PCR	EDTA blood, CSF, pleural fluid	Neisseria meningitidis	Investigation of suspected meningococcal disease, especially if blood and /or CSF cultures are negative	S. pneumonia on CSF may be included if specified Heparinised, clotted blood, serum or citrated samples can be tested, but EDTA is preferred. Whole CSF (i.e. an uncentrifuged specimen) should be sent in small sterile containers such as a sterile 2mL screw capped vial (rather than universal containers). Where a CSF sample is available, this should be sent in addition to an EDTA blood sample	PHE Manchester, Medical Microbiology Partnership	2-3 working days (RL:3 working days)	7 days
Mumps* IgM IgG	Clotted blood, serum gel tube		Suspected mumps	In addition to serology, or alternatively, suspected mumps can be tested by oral fluid using salivary test kit, available from HPU Tel: 0300 3038162 Please discuss with microbiology if urgent result is required for management of patient.	Public Health England Bristol Laboratory	5 Working days	2 years
	Clotted blood, serum gel tube EDTA				Public Health England Virus Reference Division Colindale	RL: 10 days)	
Mycoplasma PCR	Throat swab (viral), CSF		Suspected mycoplasma infection. Please discuss with consultant microbiologist.		University of Warwick Science Park, Coventry	7 working days	N/A

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
Orf	Biopsy specimens are preferable for suspected orf. Suitable alternative specimens are either smears of vesicle fluid dried onto a microscope slide, or a piece of crust or biopsy of the lesion placed in a dry container.	Parapox virus, contagious pustular dermatosis		Acquired by contact with infected sheep or goats. Please give exposure details. Please note swabs of skin lesions in liquid media are not recommended for electron microscopy	Public Health England Virus Reference Division Colindale	4 working days	N/A
Parvovirus IgM	Clotted blood, serum gel tube	Parvovirus infection. Slapped cheek.	Test available for pregnant women, for investigation of rash illness. Booking bloods can be tested retrospectively to compare with current blood		Public Health England Bristol Laboratory	5 working days	2 years
Parvovirus IgG	Clotted blood, serum gel tube	Parvovirus - immunity	Test available for pregnant women pregnancy, if contact with a rash illness occurs. Booking bloods can be tested retrospectively.	Positive IgG at the point of contact with a rash illness indicates immunity. Negative IgG indicates patient is susceptible to parvovirus. Susceptible pregnant contacts should have follow up testing at 4 weeks	Public Health England Bristol Laboratory	5 working days	2 years
16S PCR	Tissue, fluids	Broad range PCR	May be helpful where infection is suspected but deep specimen eg joint fluid is culture negative. Discuss with microbiology consultant to arrange.	Detects DNA from any bacterial species, but is less sensitive than organism-specific PCR tests.	Great Ormond Street Hospital	5 working days	Up to 1 month
PCP PNEUMOCYSTIS JIROVECII	EDTA blood, BAL, Sputum				PHE Manchester, Medical Microbiology Partnership	4 working days	EDTA 7 days BAL
Pneumococcal Antibodies	Clotted blood, serum gel tube		Test of functional immunity (IgG)		PHE Manchester, Medical Microbiology Partnership	20 working days	2 years
Pneumococcal urinary Antigen	Urine		Testing is recommended in severe community acquired pneumonia (CURB65≥3).).	A negative result does not exclude pneumococcal infection.	In house	1 working day	N/A
Rabies	Serum				Vet lab agency	20 working days	
Respiratory virus PCR	Nose/Throat swab (viral) Bronchial washings	PCR panel includes influenza A&B, adenovirus, RSV, parainfluenza, human metapneumovirus, rhinovirus.	Full respiratory PCR panel usually reserved for immunosuppressed patients. Influenza A&B testing is available on site – see influenza PCR.		Public Health England Bristol Laboratory	5 working days	7 days
Respiratory serology	Clotted blood, serum gel tube	Atypical respiratory pathogen CFTs. Panel may include Q fever (Coxiella burnetii), legionella, Mycoplasma, Chlamydia pneumoniae, Chlamydia psittici, influenza A & B, RSV, adenovirus.	Investigation of atypical pneumonia	Detects antibody response to infection. May be negative early in illness. A convalescent sample should be tested too. Please give full clinical details including date of onset, exposure history, travel etc to ensure relevant tests are performed	Public Health England Bristol Laboratory	10 working days	2 years

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
Rickettsia	Clotted blood, serum gel tube, EDTA blood Eschar biopsy / CSF / swab	Different rickettsial species cause travel-related, insect borne infections including Typhus, Rocky mountain spotted fever.		Requestor should discuss with microbiology consultant as cases are likely to need discussion with PHE Imported Fever Service. It is essential to state countries visited, duration of stay and return date with full clinical details and vaccines given	Rare and Imported Pathogens Laboratory PHE, Porton Down	3-7 working days (RL: 2-5 working days)	2 years
Rotavirus	Faeces	Combined Adenovirus/ rotavirus EIA	Investigation of diarrhoea in children	Positive results in neonates must be confirmed by ref lab, which may lengthen turnaround time in this age group.	In house	1 working day	7 days
RSV test pack	NPA in transport medium		Investigation of bronchiolitis	RSV rapid testing is not as sensitive as PCR. A negative result does not exclude RSV infection.	In house	1 working day	N/A
Rubella IgG	Clotted blood, serum gel tube lithium heparin, EDTA	German Measles - immunity	Screening of health care workers or pregnant women having contact with a rash illness. It is essential to include contact date and details.	As of April 2016, this is no longer included in routine antenatal bloods, as per PHE guidance. History of vaccination should be documented instead.	In house	1 working day.	2 months
Rubella IgM*	Clotted blood, serum gel tube	German Measles - infection	Test if current infection is suspected, or for investigation of rash illness in pregnancy. Please give onset date and any contact dates.		Public Health England Bristol Laboratory	5 working days	N/A
SARS CoV 2 PCR	Nose/Throat swabs (viral)	COVID-19	Screening and if current infection suspected		In house rapid test	1 working day	
	Nose/Throat swabs (viral), sputum Nasopharyngeal aspirates				Public Health England Bristol	2 working days	N/A
	Nose/Throat swabs (viral)				Public Health England Porton Down	2 working days	
Shistosomiasis serology	Clotted blood, serum gel tube	Bilharzia, *S haematobium, S mansoni, S japonicum*	Test if acute or chronic schistosomiasis is suspected. Asymptomatic individuals with exposure to fresh water in endemic areas should be tested 12 weeks after exposure.	Antibody takes 6-12 weeks to develop. Check dipstick for haematuria and FBC for eosinophilia. Serology does not distinguish between active or treated infections, nor the species. Diagnosis should be confirmed by detection of ova in urine or stool where possible, as false positive serology can occur (send 3x stool and a terminal urine)	Hospital for Tropical Diseases, London	14 Working days	2 years
Schistosomiasis microscopy	Terminal urine (*S. haematobium*)	Schistosomes, ova	Test if acute or chronic schistosomiasis is suspected. Test in patients with positive serology.	Eggs may not appear in urine/stool until some months after infection	In house	3 working days	7 days
	Faeces (S. mansoni, S japonicum)				In house		
Sputum for culture	Sputum and Broncho-alveolar lavages		Investigation of lower respiratory tract infection and pneumonia	Please indicate if sputum is from a patient with cystic fibrosis, or if TB or fungal infection is suspected, as additional culture will be performed.	In house	3 working days	BALs 4 weeks. Sputums require fresh sample.

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
Syphilis serology	Clotted blood, serum gel tube lithium heparin, EDTA, citrate	Lues, Wasserman,WR,VDRL, RPR,TPHA	Antenatal and STI screening, or in suspected syphilis or congenital infection.	Primary screening test performed in house. Positive samples will be sent to reference for confirmation and further markers eg RPR. Antibodies may not become positive for 6-12 weeks from exposure ('window period'), and may be negative for up to 2 weeks after development of chancre.	In house for confirmation: Public Health England Bristol Laboratory	3 working days. Same day if urgent.	12 months 2 years
Trypanosomiasis	Clotted blood, serum gel tube	African trypanosiasis (*T brucei*) - Sleeping sickness. American trypanosomiasis (*T. cruzi*) – Chagas diseases.		Discuss with medical microbiologist. Examination of fresh blood films may be indicated.	Hospital for Tropical Diseases, London	14 Working days	2 years
TB microscopy and culture*	Sputum, urine, Broncho-alveloar lavages, tissues, CSFs	Mycobacterial culture	Suspected TB. Culture detects M. tuberculosis and atypical mycobacteria.	Positive cultures will be sent to reference laboratory for speciation and sensitivity testing TB PCR is available for a rapid result when clinically indicated, please discuss with consultant microbiologist	In house Positives and rapid PCR sent to Public Health England National Mycobacterium Reference Unit, Colindale	Microscopy 24hrs. Culture 1-6 weeks TB PCR 72h	Tissues, BALs and CSFs 4 weeks. Sputums that have already been cultured for routine organisms cannot be
Tetanus Ab	Clotted blood, serum gel tube		Response to tetanus vaccine may be used to assess immunodeficiency. In suspected tetanus*, collect a baseline sample before tetanus immunoglobulin is administered.	Please include indication for test. Discuss any case of suspected tetanus with microbiology consultant	PHE Manchester, Medical Microbiology Partnership	20 working days (RL: 28 working days)	2 years
Thread worms microscopy	Sellotape slide	pin worms	Suspected threadworms. Investigation of pruritis ani in children	Sellotape slide - impression of anal area taken with clear tape and stick to one side of glass slide.	In house	3 working days	N/A
Throat swab for bacterial culture	Swab	MC&S		Please include any travel history or if diphtheria is suspected. Please specify if part of meningitis screen (detection of N. meningitidis)	In house	3 working days	N/A
Tissue	Tissue	MC&S		If sample is small and at risk of drying out, add a little sterile saline.	In house	2 working days for solid culture, additional 6 working days for enrichment culture.	N/A
Toxocara	Clotted blood, serum gel tube	Dog round worm, T canis	Investigation of ocular or visceral larva migrans.	Negative serum result does not exclude ocular toxocara; vitreous sampling may be required.	Hospital for Tropical Diseases, London	14 Working days	2 years

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
Toxoplasma	Clotted blood, serum gel tube lithium heparin , EDTA				In house	1 working day	2 months
				Positive screens are sent to reference laboratory for confirmation	Swansea Public Health, Swansea	14 working days	2 years
T-spot TB test	Whole blood	TB interferon gamma release assay (IGRA) TB Elispot	Used to detect latent TB by showing a cell-mediated immune response to TB antigens.	Only accepted following discussion with Consultant Microbiologist, or respiratory physician. Cannot distinguish between latent or active TB. Not affected by prior BCG vaccination. **Do not send samples through vacuum system. MUST BE FRESHLY COLLECTED AND DELIVERED BY HAND mon-thurs only, before 3.30pm, and by prior agreement. Do not refrigerate**	Oxford Diagnostic Laboratories	3 working days	Fresh sample always required.
Urine microscopy and culture	Urine	MC&S	Diagnosis of urinary tract infection.	To reduce contamination, samples should ideally be a clean catch, mid stream specimen. Please include clinical details and antibiotic therapy. CSUs from long term catheters should only be sent when there are clinical signs of UTI or sepsis.	In house	1 working day	N/A
VZV immunity	Clotted blood, serum gel tube	Chicken pox, varicella zoster virus	For assessment of immunity, usually in pregnant or immunocompromised patients	For pregnant or immunocompromised patients who have had contact with chicken pox or shingles, it is essential to give contact date. Laboratory testing is not required in pregnant women who have a history of chicken pox in the past. Negative or equivocal IgG results need to be confirmed by reference lab. Please discuss if VZIG may be required urgently (ie approaching 7-10 days since contact with chicken pox)	In house for confirmation: Public Health England Bristol Laboratory	1 working day 2 working days	2 years
VZV PCR	Vesicle fluid skin swab	varicella zoster virus	Can be used to confirm acute chicken pox or shingles, eg if atypical features		Public Health England Bristol Laboratory	3 working days	N/A
VZIgM	Clotted blood, serum gel tube	Chicken pox, varicella zoster virus	To demonstrate recent infection. Not useful for Shingles		Epsom & St.Helier NHS Trust, Surrey	7 working days (RL: 1-5 working days)	N/A

Test Name	Sample type	Alternative names	Indication	Test info	Department/ ref lab address	Turn around times[1]	Time limit to request an add on test[2]
Wound swab for bacterial culture	Swab	MC&S	Investigation of skin and soft tissue infection	Surface swabs cannot differentiate infection from colonisation. Please send only if clinical signs of infection. If pus is available, please send this in a sterile container rather than a swab. Include full clinical history, and whether related to surgery	In house	3 working days	7 days
Yersinia	Faeces Tissue			Yersinia serology is currently not available, culture of stool or tissue is available, if requested specifically.	In house	3 working days	7 days
Zika virus	Clotted blood, serum gel tube +/- EDTA blood Urine		Suspected zika infection in pregnant woman. Must be discussed with microbiology consultant, including symptom onset and travel history		Rare and Imported Pathogens Laboratory PHE, Porton Down	5-7 working days	N/A