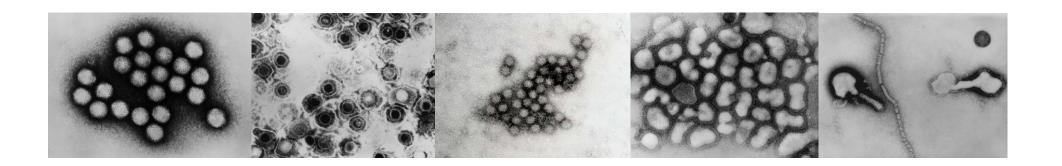


# Virology Department

# **User Manual**



# Department of Paediatric Laboratory Medicine Virology User Manual



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**NHS Foundation Trust** 

#### **General Information**

#### Location

Department of Microbiology, Virology and Infection Control Level 4 Camelia Botnar Laboratories Great Ormond Street Hospital Great Ormond Street London WC1N 3JH

Hays DX Number: GOSH DX 6640203, Bloomsbury 91 WC

Website: Laboratory Medicine | Great Ormond Street Hospital (gosh.nhs.uk)

Intranet: https://gosh.interactgo.com/

UPDATE February 2024 - See details regarding the GOSH closed entrances

Travelling to GOSH | Great Ormond Street Hospital

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Tails total Heatman St.	B The Foundling Museum	wen'st.
bury Bowling By The Brunswick	Coram's Fields & Goodenough College ®	B502
onal integration	International Hall  Charles Dicke	ns Museum @ Blown Mews
Russell Square ↔ Hotel Russell :=	Colonnade \$2 B502  Camelia Bote  Great Ormond H	nar Labs Roger
B502	Street Hospital	nar Labs John's Mey's
Russell Square		
Pt - Male	Acest W. 24  Heather 24	Jockey's Fields
Mandale September 1	SOUTH GOLDON ST. Op.	ockey's Fields Pockey's Fields  The Ped Lion St

Camelia Botnar Laboratories	Level	Room number
Specimen Reception	4	P4.042
Virology Laboratory	4	P4.036 and P4.040

#### An Overview

Great Ormond Street Hospital (GOSH) Laboratory Medicine offers a range of unique clinical laboratory services. Our expert teams support the tertiary paediatric services provided at Great Ormond Street Hospital as well as acting as a specialist referral centre for hospitals, clinics and clinicians across the world.

Our teams are comprised of medics, clinical scientists, researchers, technologists and administrative support staff. Our laboratory teams play an essential role in the diagnosis and treatment of childhood illness. We also provide some services for testing of adult samples.

A key part of our service is the expert clinical advice that supports the delivery of results and diagnosis. Close links are also maintained with clinical colleagues and researchers at the UCL Institute of Child Health (ICH).

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The laboratories and associated facilities are housed within a purpose-built facility on the GOSH site. Our services are fully accredited with UKAS against ISO 15189: 2012 and conform to all the legal and statutory regulatory requirements of the Human Tissue Act and MHRA. The laboratories subscribe to national and international quality assurance schemes for all assays where available.

Disclaimer - Some of the links to the GOSH Intranet page may require Microsoft Authenticator application to be downloaded.



#### **Key Contacts**

Microbiology and Virology Telephone I	Numbers	Telephone extension	Bleep / direct line
Laboratories			
Microbiology Laboratory		5280/ 8661	Direct line 020 7829 8661 Bleep 0670
Virology Laboratory		8506	Direct line 020 7813 8506
Senior laboratory staff			
Lead Laboratory Manager	Christine Morris	8664	Direct line 0207 829 8664
Laboratory Manager	Francis Yongblah	5658	Direct line 0207 813 8468
Principal Clinical Scientist	Dr. Julianne Brown	5929	Direct line 0207405 9200
Senior Clinical Scientist	Laura Atkinson	0437	Direct line 0207 405 5929
Quality Lead	Paula Keelan	8507	Direct line 0207 813 8507
Training Lead	Donna Andrews	8507	Direct line 0207 813 8507
Asset and Validation lead	James Burton	8507	Direct line 0207 813 8507
Health and Safety Lead	Hannah Brosnan	8506	Direct line 0207 813 8506
Clinical advice			
Microbiology and Virology Specialist Registrar	On rotation	5282	Direct line 0207405 9200
Microbiology and Virology Consultants	Dr. James Hatcher (Clinical Lead)	8594	Direct line 0207 813 8594
	Dr. John Hartley	7930	Direct line 0207 813 7930
	Dr. James Soothill	5237	Direct line 0207 813 5237
	Dr. Garth Dixon Dr Surjo K De	4583 7930	Direct line 0207 813 4583 Direct line 0207 813 7930
	Prof. Judy Breuer (Virology only)	n/a	Mobile 07880 793143



### **Laboratory Service**

### **Routine Working Hours**

**Normal Working hours** 

08:00 - 17:30

Clinical advice

Monday to Friday

The laboratory specialist registrars and consultants are contactable for clinical advice from 09:00 – 17:30 Monday to Friday. See table above for contact numbers. At all other times a Specialist Registrar and Consultant are on call and contactable via the switchboard. 020 7405 9200

Saturday and Bank holiday service

08:00 – 15:00 Reduced service – Please see table below.

#### **Tests Available Out of Hours**

#### Saturday and Bank holiday service

**Viral respiratory PCR including PCP PCR for BALs** 

Viral gastroenteritis PCR

Clostridium difficile PCR

Varicella contact IgG testing

Needlestick injury testing of donor (HIV antibody, HCV antibody and Hepatitis B surface antigen)

Viral neurological PCR screen on CSF (VZV, HSV, Parecho and enterovirus)

#### **Out of hours Monday to Sunday**

Needle-stick injury testing and VZV contact testing is available out of hours. Please contact the Microbiology department to arrange. BLEEP 0670



### **Laboratory Advisory Services**

#### Clinical advice

The laboratory Specialist Registrars and Consultants are contactable for clinical advice including:

- · clinical indications and choice of appropriate tests
- advice on individual clinical cases
- professional judgement on the interpretation of the results of examinations

Please refer to the above table for contact details.

#### Scientific and Technical Advice

Biomedical Scientists in the laboratory are available for scientific and technical advice. Please refer to the above table for contact details.

The laboratory calculates and monitors measurement uncertainty values for all assays that involve a quantitative element, applying these where deemed appropriate for result interpretation. Details of measurement uncertainty values and application can be obtained from the laboratory upon request.

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## **Test Requesting**

#### Internal

All test requests must be made through EPIC, following appropriate local protocols.

#### **External Test Requests**

It is important that full contact details are provided on the request form, so that contact can be made if necessary and to allow the accurate and timely release of results and reports.



# **Sample Labelling**

Samples should be clearly labelled, using the labels generated by EPIC. Missing or inaccurate patient data will lead to delays in testing/ rejection of sample.

All samples must be taken and labelled in accordance with the Clinical Procedure Guidelines, which are available on the hospital intranet (GOS web).

Please place the label on the sample container so that it does not obscure the view of the sample.

In instances where a sample fails to meet laboratory acceptance criteria, the requesting ward or doctor will be contacted and a statement to that effect documented in the report. Please refer to the policy: Accepting unlabelled and mislabelled samples available in the GOS web document library

### **Rejection of Samples**

Although every effort is taken to avoid rejecting samples received in the lab, in some circumstances specimens cannot be accepted for testing. Reasons include, but are not limited to:

- Missing/ incomplete/ illegible patient identifiable information
- Incorrect or un-matching patient identifiable information
- Leaking specimens
- Incorrect sample type
- Insufficient sample
- Compromised sample integrity e.g. haemolysis of blood specimen, age of specimen, incorrect sample transport

Dry swabs are not appropriate for virology testing except SARS-CoV-2 PCR. Please use Sigma Virocult, green or red topped tubes which contain virus transport medium. Please contact the lab on 8506 to arrange swabs to be sent via the chute or collect from Level 4, CBL.



# Sample Transport to the Laboratory

The pneumatic chute system should be the primary mode of transport for the delivery of pathology samples. In addition, the Site Services department provides a routine specimen transport service.

### Virology/Microbiology chute number 041

Certain samples require hand delivery and must not be placed in the chute.

Samples requiring hand delivery	Delivery location	Room number
Post mortem samples	Specimen Reception	P4.042
Respiratory samples (NPA, BAL)	Specimen Reception	P4.042

#### If the chute is unavailable

Site Services can be contacted on ext 8282 to arrange an urgent delivery.

Ward staff may bring specimens to the laboratories, which are located on level 4 Camelia Botnar Laboratories.

### **Delivery of samples from external sources**

Samples can be delivered to the Virology Department by Royal Mail, a trusted courier or Hays DX. (Please refer to General Information for the address)

Please ensure that all samples are packaged appropriately in suitable containers with enough absorbent material present to absorb any spillage that may occur in the event of a leak or damage to the packaging. Relevant request forms and paperwork should be included, outside of the sample containment as to avoid spoilage in the event of a leak.

It is the responsibility of the sender to ensure that samples are sent in an appropriate manner to protect the health and safety of the chosen delivery service.

The following link has links to appropriate guidance and legislation for the transport and handing of infectious material.

Transportation of infectious substances - Blood borne viruses (BBV) (hse.gov.uk)

The following link provides guidance from the Royal Mail on using their services: http://www.royalmail.com/business/services/sending/parcels-uk/safebox

# **Accessing Results**

We endeavour to produce and report all of our results in a timely manner, fitting in with turnaround times stated with our listed investigations.

Results will not be communicated directly to patients.

#### **Internal Computer Access to Results**

Results are accessible via EPIC. Significant results are phoned or emailed by the Microbiology medical team.

Please refer to the tables on the following pages for turnaround times for each test.

#### **External results**

For external requesting laboratories who have not signed up to the results portal, result reports are printed and posted to the address of the requesting laboratory or GP supplied on the request form.

If results are required urgently, copies of the report can be emailed using the NHS encrypted email system. Results can be released over the phone to Doctors, Nurses and other healthcare professionals in line with current Caldicott legislation.

For interpretation of results, clinical guidance can be given from the appropriate sources (see above for a list of contacts).

#### **Results portal - Outreach**

GOSH offers an online web-based results portal, allowing external health care providers to view the results and reports for their patients. This is a secure service; access is granted by registration and creation of an account.

Once an account is set up, paper reporting will be turned off.

Full details on the service and how to set up an account can be found at the following website:

OutReach Login (gosh.nhs.uk)



### **Biological Reference Intervals**

Investigation	Reference interval
Rubella IgG	>10 IU/ml is considered protective
Hepatitis B surface antibodies	>100 IU/ml is considered protective 10-100 IU/ml is considered partially protective, a booster vaccination is recommended

#### Requesting additional investigations

If additional investigations are required after the specimen has been dispatched or processed by the laboratory, please telephone as soon as possible. There is a practical time limit for requesting additional investigations, as the laboratory stores specimens for variable time periods before disposal. Please note that some specimens deteriorate in storage rendering them unsuitable for further investigation. In addition to this, sample volume may be insufficient to carry out additional testing.

Sample retention times	
Molecular	1 Year
Serology	10 Years

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### **Limitations and Factors Effecting Testing**

The accuracy of results can be impacted by a number of factors, many of which can be controlled or avoided.

- Extended delay between collection and receipt into the laboratory extended delays in receipt of specimens can result in a deterioration of the specimen quality and therefore the quality of the result. Correct storage of samples is key to maintaining integrity. Please ensure that samples are delivered to the laboratory in a timely manner after collection
- Haemolysed, heat inactivated, lipaemic or bacterial/ fungal contaminated samples may produce inaccurate results
- Small volume samples small volume samples may need to be diluted, therefore affecting the accuracy of the result and a repeat, larger volume may need to be sent for confirmation
- In early acute phases of infection, markers of viral infection may not be detectable and therefore a negative result does not exclude the possibility of an active infection.
- Specimens from patients receiving therapeutic doses of **Vitamin H (biotin)** may interfere with the assay used for **HCV antibody** detection; such results should be interpreted with care
- Specimens from patients receiving therapeutic doses of **Vitamin H (biotin)** may give false negative results with the assay used for **HIV antibody**, during acute HIV infection; such results should be interpreted with care.
- Specimens from patients receiving preparations of mouse monoclonal antibodies for therapy or diagnosis may interfere with the assays used for HBsAg and CMV
   IgG detection; such results should be interpreted with care.

#### Consent

Verbal agreement from parents for HIV testing is required and must be detailed in the patient notes

### **Patient preparation**

Please follow GOSH guidelines/local trust policy on appropriate patient preparation when taking samples

Further information on sample types and collection can be found at the following address:

https://gosh.interactgo.com/Interact/Pages/Content/Document.aspx?id=4873&SearchId=2388659&utm\_source=interact&utm\_medium=general\_search&utm\_term



# **Quality Assurance and Accreditation**

The GOSH Virology department currently maintains accreditation from the following bodies:

- UKAS
- IBMS

The GOSH Virology department operates a robust quality management system, following trust policy as outlined below:

The department operates a robust quality management system and is a UKAS accredited medical laboratory (No.8675). The schedule of accreditation for all UKAS accredited tests can be found on the UKAS website here

Work conducted under accreditation shall be reported in a clear and unambiguous way. It is a mandatory requirement for an accredited laboratory to clearly reference UKAS accreditation on all reports that include accredited results, either by use of the appropriate symbol or statement. When reports incorporating reference to UKAS accreditation contain results from non-accredited tests, the non-accredited work shall be clearly identified as 'Not UKAS accredited'.

The laboratory currently subscribes to external quality assurance panels provided by UK National External Quality Assessment Scheme (UKNEQAS), Quality Control for Molecular Diagnostics (QCMD), Instand and Labquality. Certification to confirm participation is available upon request.

The laboratory also carries out internal quality assurance in the form of anonymous resubmission of previously tested samples.

#### **Laboratory Complaints Procedure**

The medical and senior management staff in the Department of Paediatric Laboratory Medicine work very closely with users both within the Hospital Trust and with external referring clinicians. In order to provide the best service to its users, the department encourages both positive and negative feedback. The laboratory manager can be contacted to discuss concerns.

The Trust also has a general complaints policy, which can be located on the GOS web document library

### **Laboratory Policy on Protection of Personal Information**

The laboratory adheres to the Trust's Policy on Information Governance to ensure compliance with the key principles of Information Governance. The Trust wishes to ensure all patients and service users to have confidence that their records will be maintained securely and will not be disclosed or shared inappropriately.

Details of the Trust's Information Governance Policy can be located on the GOSH web document library.

### **In-house Laboratory Services**

Please refer to page 12 for limitations applicable to CMV IgG, HCV antibody, HBsAg and HIV antibody testing in some patients.

The table below outlines the testing provided by the GOSH Virology department that is carried out in-house; further or additional testing that is tested by an external laboratory are noted.

Unless otherwise stated, minimum volumes are as follows:

EDTA Whole blood 3ml, Serum 3ml, CSF 300ul, Urine 3ml

In cases where only a small sample volume can be acquired, please contact the lab to discuss.

Serological screening tests for a range of antibodies will require larger sample volumes. Below are the available screening panels and required sample volumes.

Screening Panel	Antibodies/ antiger	n detected		Volume required
Leukaemia Screen	HSV IgG Measles IgG	VZV IgG EBV VCA IgG	CMV IgG	5ml Brown top serum tube (minimum)
Renal Transplant Screen	VZV IgG CMV IgG Measles IgG	HCV Antibodies HIV1 and 2 Antibodies EBV VCA IgG	HBsAg	5ml Brown top serum tube (minimum)
Heart/lung Transplant Assessment	HSV IgG VZV IgG CMV IgG Measles IgG	Toxoplasma total Ab HCV Antibodies HIV 1 and 2 Antibodies Rubella IgG	HBsAg EBV VCA IgG	5ml Brown top serum tube (minimum)
Hepatitis Screen	EBV VCA IgG EBV VCA IgM CMV IgG	Hep A total Ab HBsAg HCV Ab/Ag	CMV IgM Anti-HBc total Ab	5ml Brown top serum tube (minimum)
Haemophiliac Screen	HIV 1 and 2 Ab Anti-HBsAb	Hep A total Ab HCV Ab		5ml Brown top serum tube (minimum)
Gene therapy serology	HTLV 1 and 2 Ab HIV 1 and 2 Ab HBsAg	Anti-HBc total Ab HCV Ab/Ag Syphilis serology		5ml Brown top serum tube (minimum)
Sibling donor BMT	HBsAg HIV 1 and 2 Ab CMV IgG	Anti-HBc total Ab Syphilis serology EBV VCA IgG	HCV Ab/Ag Hepatitis E serology/ PCR HTLV 1 and 2 Ab	6ml Brown top serum tube (minimum) 5ml EDTA red top (minimum)



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Virus	Test method	Sample types	Turn around time	Special instructions
Adeno Virus	Real time PCR	EDTA whole Blood Urine NPA CSF Faeces Eye swab	48 Hours	
Borrelia - Lyme	Serology – IgM and IgG	Brown top serum tube	72 Hours	
Clostridium difficile (tested routinely as part of the gastroenteritis panel)	Real time PCR	Stool sample (Approx. walnut size)	48 Hours	
Cytomegalovirus (CMV)	Real time PCR	EDTA whole blood Urine NPA CSF	48 Hours	
	Serology – IgM and IgG	Brown top serum tube	72 Hours	
	Referred – Resistance testing	EDTA whole blood	14 Days	
Enterovirus	Real time PCR	EDTA Whole blood NPA CSF Faeces Throat swab	48 Hours	
	IgM Serology	NO LONGER AVAILABLE. Test suspended		
	Referred – Typing	As appropriate	30 days	



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Epstein Barr Virus (EBV)	Real time PCR	EDTA whole Blood CSF BAL	48 hours	
	Serology – IgM and IgG	Brown top serum tube	72 hours	
	Referred serology (EBNA)	Brown top serum tube	14 days	
Faecal Pancreatic Elastase	Serology	Formed stool sample (Approx. walnut size)	7 Days	Liquid stools are not appropriate for testing. Samples can be stored for 3 days at 4°C. Samples received from external sources should arrive on ice or dry ice to maintain sample integrity
Gastroenteritis Virus panel – This panel tests for Astro Virus, Noro virus G1 and G2, Rota virus, Sapo virus and Adeno virus. Clostridium difficile is also routinely tested as part of this panel.	Real time PCR	Stool sample (Approx. walnut size)	48 hours	
Hepatitis A Virus (HAV)	Serology – IgM and Total antibody	Brown top serum tube	72 hours	
	Referred - PCR and reference	Brown top serum tube	7 Days	
Hepatitis B Virus (HBV)	Real time PCR	5ml EDTA whole blood	48 hours	Ensure sample reaches laboratory within 24 hours after collection
	Serology – HBsAb, HBsAg, HBcT, HBeAg/ Ab	Brown top serum tube	72 hours	
	Referred – HBcore IgM,	Brown top serum tube	14 Days	

	HBsAg confirmation			
Hepatitis C Virus (HCV)	Real time PCR	5ml EDTA whole blood	48 hours	Ensure sample reaches laboratory within 24 hours after collection
	Serology – antibodies	Brown top serum tube	72 hours	
	Referred - Confirmation testing	5ml EDTA whole blood	14 Days	
	Referred - genotyping	5ml EDTA whole blood	14 Days	
Herpes Simplex Virus (HSV)	Real time PCR	EDTA whole blood Mouth Swab CSF Lesion swabs Eye swabs	48 Hours	
	Serology - IgG	Brown top serum tube	72 hours	
HTLV 1 and 2	Referred - Real time PCR	EDTA whole blood Brown top serum tube	7 Days	
	Serology – HTLV 1 and 2 antibodies	Brown top serum tube	72 hours	
Human Herpes Virus 6 (HHV6)	Real time PCR	EDTA whole blood CSF	48 hours	
	Referred - Serology	Brown top serum tube	30 Days	



Human Immunodeficiency Virus (HIV)	Real time PCR	5ml EDTA whole blood	48 hours	Ensure sample reaches laboratory within 24 hours after collection
	Serology - antibodies	Brown top serum tube	72 hours	
	Referred – Confirmation	5ml EDTA whole blood	14 Days	
	Referred – Pro-viral PCR	5ml EDTA whole blood	3 Days	
	Referred – Resistance Genotyping	5ml EDTA whole blood	14 Days	
Measles	Referred - PCR	Oracol Oral Fluid Throat Swab Urine NPA	7 Days	
	Serology – IgG	Brown top serum tube	72 hours	
	Referred - Serology	Brown top serum tube	14 Days	
Mycoplasma	Referred - PCR	EDTA Whole blood CSF NPA BAL	72 Hours	
	Serology – IgG and IgM	Brown top serum tube	72 hours	
Parechovirus	Real time PCR	EDTA Whole blood NPA CSF Faeces Throat swab	48 hours	

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Parvovirus B19	Real time PCR	EDTA whole blood CSF	48 hours	
	Serology – IgG and IgM	Brown top serum tube	72 hours	
Pneumocystis jirocecii pneumonia (PCP)	Real time PCR	Bronchoalveolar lavage (BAL)	72 hours	
Polyoma BK and JC Virus	Real time PCR	EDTA whole blood Urine CSF	48 hours	
	Referred - Serology	Brown top serum tube CSF	21 Days	
Respiratory Virus Panel: Flu A, B and H1N1, Paraflu 1, 2 and 3, RSV A and B, Human metapneumo Virus, Adeno virus, Rhinovirus and SARS- CoV-2	Real time PCR	Nasopharyngeal Aspirate (NPA) Bronchoalveolar lavage (BAL) Nose and throat swab (NT)	24 hours	For samples that arrive before 11am Monday to Sunday, every effort will be made to have results released by 17:30 that day.
Extended Respiratory Panel: (Internal only)	QIAstat Diagcore	Nasopharyngeal Aspirate (NPA) Bronchoalveolar lavage (BAL)	3 hours	Coronavirus types included in assay are Coronavirus 229E, Coronavirus HKU1, Coronavirus NL63 and Coronavirus OC43, Bocavirus, Mycoplasma pneumonaie & Parainfluenza 4.
Rhinovirus/ Enterovirus differentiation	Referred externally	Nasopharyngeal Aspirate (NPA) Bronchoalveolar lavage (BAL) Nose and throat swab (NT)	3 days	Only performed if Rhinovirus/ Enterovirus RNA detected by other methods & if discussed with Consultant Microbiologist or Infection Control.
Rubella	Referred - PCR	Oracol Oral Fluid NPA Urine Throat swab CSF	14 Days	



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		Amniotic Fluid		
	Serology – IgG	Brown top serum tube	72 Hours	
	Referred – IgM Serology	Brown top serum tube Plasma Oracol Oral Fluid	7 Days	
SARS-CoV-2	Real Time PCR	Nasopharyngeal Aspirate (NPA) Bronchoalveolar lavage (BAL) Nose and throat swab (NT	24 hours	For samples that arrive before 9.30am and 13:30pm Monday to Friday, every effort will be made to have results released by 19:00 hours that day. Saturday and Sunday, samples that arrived before 12:30pm, every effort will be made to have results released by 17:00 hours.
Syphilis Antibody	Serology	Brown top serum tube	72 hours	
TB Quantiferon	Serology	Please collect or phone the lab for the correct vacutainers to be sent.	7 days	Vacutainers must be filled to the appropriate level. Over or under filling will result in inaccurate results leading to delays in testing. Samples must be received into the lab within 16 hours of being taken and taken in the correct order. A guidance sheet is available upon request.
Toxoplasma	Serology – IgG	Brown top serum tube	72 hours	
	Referred - PCR	EDTA Whole Blood CSF	3 Days	
	Referred - IgM	Brown top serum tube	14 days	

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Varicella Zoster Virus (VZV)	Real time PCR	EDTA whole blood NPA CSF	48 hours	Additional reference services are available for VZV, please see below.	
		Vesicle/Eye Swab			
	Serology - IgG	Brown top serum tube	72 hours	In contact cases, please phone discuss with the lab for urgent testing.	



The following PCR panels can be requested by PIMS:

Panel	Investigations included	Sample type and volume required
CSF – Viral PCR	HSV 1 and 2, VZV, Entero and Parecho	0.5 ml CSF
Gene therapy blood borne virus PCR	HCV and HBV	10ml EDTA whole blood
Gene therapy blood PCR	Adenovirus, CMV, EBV, Toxoplasma	5ml EDTA whole blood

Panel	Investigations included	Sample type and volume required
QIAstat Respiratory panel (Diagcore)	SARS-CoV-2 Adenovirus, Coronavirus 229E, Coronavirus HKU1, Coronavirus NL63, Coronavirus OC43, SARS-CoV-2, Human Metapneumovirus A+B, Influenza A, Influenza A H1, Influenza A H3, Influenza A H1N1/pdm09,	NPA & BAL
	Influenza B, Parainfluenza virus 1, Parainfluenza virus 2, Parainfluenza virus 3, Parainfluenza virus 4, Rhinovirus/Enterovirus, Respiratory Syncytial Virus A+B, Bordetella pertussis, Chlamydophila pneumoniae, and Mycoplasma pneumoniae.	



# **Referred Testing**

A number of tests are sent away to external laboratories. Below are common requests. Additional tests not listed can be discussed with the laboratory or a clinical consultant

Virus	Tests	Sample Requirements	Turnaround Time	Additional Information
Alpha/Hantavirus	Serology	5ml EDTA Whole Blood Brown top serum Tube	31 Days	UKHSA Porton Down
Arbo/flavivirus	Serology	5ml EDTA Whole Blood Brown top serum Tube	14 Days	UKHSA Porton Down
Chlamydia pneumoniae	PCR	Eye swab Throat swab Urine	7 Days	Micropathology Ltd
Hepatitis D Virus	PCR Serology	EDTA Whole Blood Brown top serum Tube	14 Days	UKHSA Colindale
Hepatitis E Virus	Referred PCR and serology	EDTA Whole Blood	14 Days	UKHSA Colindale
HHV7	PCR	EDTA Whole Blood	3 Days	Micropathology Ltd
Mumps	PCR and Serology	Oracol Oral fluid (contact lab) Throat swab NPA Urine CSF	14 Days	UKHSA Colindale
Rickettsia/Coxiella/Q Fever	Serology	5ml EDTA Whole Blood Brown top serum Tube	14 Days	UKHSA Porton Down



### **Metagenomics Service**

The Metagenomics testing is based at Great Ormond Street Hospital and is headed by Dr Julianne Brown (see below for contact details for samples and advice). Please use our request forms for requesting of tests, found on the GOSH website.

Test	Sample Type	Turnaround time	Additional Comments		
Metagenomics	Tissue biopsy (fresh/frozen or FFPE) CSF	2-4 weeks	<ul> <li>Specimen Transport cor</li> <li>Tissue in RNALa</li> <li>FFPE: Ambient t</li> <li>Frozen tissue: D</li> <li>CSF: Dry ice</li> </ul>	ter: Ambient temperature emperature	
<b>Contact Details</b>	Virology Laboratory	Gener	al Enquiries:	Clinical Enquiries:	
	Level 4, Camelia Botnar Laboratories	Dr. Jul	ianne Brown	Professor Judy Breuer	
	Great Ormond Street Hospital for Childre	en Tel: 02	0 7405 9200 Ext 5929	Tel: 07880 793 143	
	Great Ormond Street	Email:	julianne.brown@nhs.net	Email: judith.breuer@gosh.nhs.uk	
	London WC1N 3JH				
	Hays Dx: GOSH DX 6640203, Bloomsb	ury 91 WC			

For further information & guidance on sample collection and requirements please refer to:

https://media.gosh.nhs.uk/documents/Metagenomics\_Pathogen\_Detection\_Service\_Summary.pdf



### **VZV Reference Testing**

The Varicella Zoster Reference Laboratory (VZRL) is based at Great Ormond Street Hospital and is headed by Professor Judith Breuer (see below for contact details for samples and advice). Please use our request forms for requesting of tests, found on the GOSH website.

VZV Reference Testing					
Test	Sample Type	Turnaround	l time	Additional (	Comments
VZV quantitative IgG	Serum	72 hours		Method char	nge as of May 2023 (now tested on Liaison XL)
VZV Viral Whole Genome Sequencing	Original specimen or purified DNA	2-4 weeks		Institute of C Microbiology	Genome Sequencing (WGS) is performed at the Child Health Pathogen Genomics Unit (PGU). The Value department at GOSH can facilitate nucleic acid and reporting of results.
Contact Details	VZV Reference Lab		General Enquiries	s:	Clinical Enquiries:
	Virology Laboratory		Dr. Julianne Brown	า	Professor Judy Breuer
	Level 4, Camelia Botnar Laboratories		Tel: 020 7405 920	0 Ext 5929	Tel: 07880 793 143
	Great Ormond Street Hospital for Child	dren	Email: julianne.bro	own@nhs.net	Email: judith.breuer@gosh.nhs.uk
	Great Ormond Street				
	London WC1N 3JH				
	Hays Dx: GOSH DX 6640203, Blooms	sbury 91 WC			



References and links	
	ble on the hospital intranet (GOSweb) and Qpulse, the Trust's Quality Management System able on the hospital website http://www.gosh.nhs.uk/health-professionals/clinical-guidelines/
Forms	
VZV reference request forms	https://www.gosh.nhs.uk/wards-and-departments/departments/laboratory-medicine/
Metagenomics request form	https://www.gosh.nhs.uk/wards-and-departments/departments/laboratory-medicine/
Outreach user registration and guidance	OutReach Login (gosh.nhs.uk)
Documents	
Patient Identification Policy	Patient identification policy - Our GOSH (interactgo.com)
Accepting Unlabelled and Mislabelled Samples Policy	Accepting unlabelled or mislabelled samples by paediatric laboratory medicine policy - Our GOSH (interactgo.com)
Trust Complaints Policy	Complaints policy - Our GOSH (interactgo.com)
Information Governance Policy	Information governance and data protection policy - Our GOSH (interactgo.com)
Image references	
Adenovirus	http://www.microbiologybook.org/virol/adenocdc.jpg
Herpes virus	http://www.microbiologybook.org/virol/hsv1.jpg
Noro virus	http://www.daviddarling.info/images/norovirus.jpg
Influenza A	http://www.microbiologybook.org/mhunt/fluA.jpg
Parainfluenza	http://www.microbiologybook.org/virol/paraflu.jpg