



Public Health
England

Protecting and improving the nation's health

National Infection Service Specialist Microbiology Network Public Health Laboratory London

Public health microbiology services user handbook

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health, and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

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1. Role of the PHE Specialist Microbiology Network

PHE has a network of eight specialist microbiology laboratories across England. Each lead laboratory provides:

- microbiology support for the investigation, management and control of infection and outbreaks of communicable disease both during and out of routine working hours
- expert medical and scientific microbiological advice, including access to PHE experts locally and nationally as necessary
- a wide range of diagnostic, specialist and reference tests
- assistance during field investigations by processing microbiology clinical samples
- national standard methods and PHE testing algorithms
- clear guidance for users
- surge capacity to deal with large (up to 500 specimens per day) unanticipated outbreaks at short notice. PHE can also provide additional capacity for larger testing numbers and access to specific typing if required to define the epidemiology of outbreaks
- support for regional and national capacity to respond to specific events of potential public health importance (ie London 2012 Olympic and Paralympic Games)
- testing for look-back exercises for health protection teams (HPTs), acute NHS trusts, clinical commissioning groups (CCGs), and local authorities
- reporting of laboratory results within specified turnaround times for diagnostic specialist and reference tests. Results will be communicated by electronic means wherever possible and may be supported by paper reports as required or appropriate – these services will be provided to all customers (HPTs, NHS trusts and CCGs)
- standard interpretive comments as a part of test reports
- receipt, processing and reporting of laboratory results and epidemiological data in a timely and efficient manner
- specific interpretation and further advice relevant to individual patient needs or for public health significance from senior clinical and scientific staff
- mechanisms for the proper handling, storage and security of all samples and documentation at all times. This will be carried out in accordance with PHE guidelines, national guidelines and regulatory/legal requirement
- efficient and timely communications with public health organisations, both within the PHE (including HPTs) and externally – ie local authorities and primary care groups/clusters involved in communicable disease control

- assistance in maintaining an efficient communication network with all public health and NHS organisations including hospital infection control teams involved in communicable disease control in London

All PHE diagnostic laboratories have Clinical Pathology Accreditation (CPA) or UK Accreditation Service (UKAS) accreditation. The Food, Water and Environment (FW&E) laboratories are all recognised as EU official testing laboratories and are also accredited by UKAS.

2. Role of the Public Health Laboratory London

Public Health Microbiology services for London were delivered by the Public Health Laboratory London (PHL London) in partnership with Bart's Health NHS Trust (BHT) and sited at the Royal London Hospital, Whitechapel. The contract at this site between PHE and BHT is now completed.

From **Monday 5 December 2016** all public health microbiology tests (with the exception of Middle East Respiratory Syndrome Coronavirus (MERS-CoV)) have been temporarily moved to the Public Health Laboratory (PHL) Cambridge. This is an interim measure during the PHE tender process for public health microbiology services for London.

PHL London uses the services of the PHL Cambridge to provide a range of public health microbiology services for London. These include:

- a full range of tests to investigate any event or outbreak of possible public health significance in the community or healthcare setting
- advice on the best diagnostic strategies to be adopted
- advice on interpretation of test results and additional investigations that may be helpful
- support to incident/outbreak investigation teams
- prompt communication of results in agreement with published turnaround times
- follow-up/clearance testing of patients or contacts of patients in whom organisms of public health importance are detected
- support for trusts/private hospitals/HPTs/prisons/care homes/schools/detention centres and other non-NHS institutions in the specialist investigation of health-care associated infection

These public health microbiology services are available to:

- environmental health officers (EHOs)
- staff in HPTs
- consultants in communicable disease control
- local authority staff and directors of public health
- clinical commissioning groups
- NHS hospitals
- private hospitals
- hospital infection control teams
- acute trusts
- primary care groups

The laboratory is linked to a network of specialised PHE National Infection Service (NIS) laboratories across England (including laboratories testing food, water and environmental samples) and to major reference units at PHE Colindale and PHE Porton (microbiology research services).

This user manual describes the provision of, and access to, public health microbiology services and gives contact details for the laboratory and its key personnel. It is also available on the PHE website at the following link:

<https://www.gov.uk/london-public-health-laboratory-services>

Please note that PHL London also provides a regional *Clostridium difficile* ribotyping service which has now been moved as an interim measure to the PHL Cambridge and a supra-regional service for suspected MERS-CoV infection which has now been moved as an interim measure to the PHL Birmingham.

London support and access to food, water and environmental microbiology services can be obtained from the PHE FW&E laboratory at Colindale (refer to Section 9).

3. Key contacts

Lead Public Health Microbiologist for South East Region & Interim Lead Public Health Microbiologist for London

Dr John Paul

Tel: 01273 664596

Mob: 07810 815445

Email: john.paul@phe.gov.uk

PHL London Office Administrators

Tel: 0300 303 2429

Each sector of London has a named Consultant Microbiologist as detailed below. In the event of a suspected outbreak or incident please contact the appropriate Consultant so that appropriate arrangements for investigation can be made. All Consultants attend regular meetings with their respective HPTs including EHOs. There is also an on-call rota for out-of-hours service. Specialist virology advice is provided by a consultant virologist as detailed below.

Dr Eliza Alexander (North Central London including Barnet, Camden, Enfield, Haringey and Islington)

Tel: 0300 303 2429

Mobile: 07831 645208

Email: eliza.alexander@phe.gov.uk

Dr Jayshree Dave (South West London including: Croydon, Kingston, Merton, Richmond and Twickenham, Sutton and Wandsworth)

Tel: 0300 303 2429

Mobile: 07917 613574

Email: jayshree.dave@phe.gov.uk

Dr Rohini Manuel (North East London including Barking, City of London, Dagenham, Hackney, Havering, Newham, Redbridge, Tower Hamlets and Waltham Forest)

Tel: 0300 303 2429

Mobile: 07776 477021

Email: rohini.manuel@phe.gov.uk

Dr Albert Mifsud (South East London including Bexley, Bromley, Greenwich, Lambeth, Lewisham, Southwark)

Tel: 0300 303 2429

Mobile: 07738 526979

Email: albert.mifsud@phe.gov.uk

Dr Bharat Patel (North West London including Brent, Ealing, Harrow, Hammersmith & Fulham, Hillingdon, Hounslow & Westminster and Kensington and Chelsea)

Tel: 0300 303 2429

Mobile: 07920 501636

Email: bharat.patel@phe.gov.uk

Consultant Virologist (pan London)

Dr Gee Yen Shin

Tel: 0300 303 2429

Mobile: 07920 081924

Email: geeyen.shin@phe.gov.uk

In addition to supporting the HPTs, EHOs and NHS trusts in their local geographical areas, the PHL London consultants provide incident and outbreak support across London. Apart from specimens processed related to these incidents, London PHL consultants provide formal and informal advice when on duty or covering their geographical patch. The PHL London consultants also provide support on national PHE committees and provide input for guidance documents.

Each consultant currently provides expert advice in the following areas:

- Dr Eliza Alexander Paediatric infections
- Dr Jayshree Dave Sexually Transmitted Infections (STIs), Typhoid
- Dr Rohini Manuel Gastrointestinal Infections (GI), Mycology, *Clostridium Difficile* Ribotyping (CDRN) service
- Dr Albert Mifsud Respiratory infections, Tuberculosis, chair of SMIs
- Dr Bharat Patel HCAI, AMRS, IPC
- Dr Gee Yen Shin Virology

3.1 Medical advice

During working hours, the duty PHL London consultant will be happy to help you with any enquiries that you may have or an office administrator will put you through to the most appropriate person to answer your call:

Tel: 0300 303 2429

Out-of-hours the on-call PHL London consultant may be contacted on the following number:

Tel: 0300 303 2429

3.2 General enquiries

Tel: 0300 303 2429

3.3 Key operations and laboratory personnel and contact details

Regional Head of Operations for London

Dr Julie Johnson

Tel: 0300 303 2429

Mobile: 07780 223993

Email: julie.johnson@phe.gov.uk

Lead Clinical Scientist for PHL London

Dr Marcus Pond

Tel: 0300 303 2429

Mobile: 07891 544007

Email: marcus.pond@phe.gov.uk

4. Laboratory location, working hours and access details

PHL London **Administrative Office and Postal Address** is temporarily based at:

Public Health England
Third Floor
Zone C
Skipton House
80 London Road
London. SE1 6LH

Tel: **0300 303 2429**

Email: **PHE.phllondon@nhs.net**

Public Health Microbiology diagnostic services for London are temporarily based at:

Clinical Microbiology & Public Health Laboratory (CMPHL),
Level 6
Box 236
Addenbrooke's Hospital,
Hills Road,
Cambridge. CB2 0QW

Tel: **0300 303 2429**

Email: **PHE.phllondon@nhs.net**

For details on the PHL Cambridge please see the Specialist Microbiology Network East of England Public Health Microbiology User Handbook:

<https://www.gov.uk/guidance/east-of-england-public-health-laboratory-services>

4.1 PHL London Laboratory working hours and out-of-hours service

Please contact PHL London in advance of submission, with details of the incident/outbreak and investigations required. Please include in the information the log/outbreak identifier if one has been assigned.

All non-urgent specimens should arrive in the laboratory within the hours specified. Contact the on call duty PHL London Consultant for specific delivery arrangements out-of-hours.

4.1.1 Routine working hours

From Monday to Friday between 09:00 and 17:00 please contact PHL London on telephone number **0300 303 2429** for results, scientific or clinical advice.

4.1.2 Out-of-hours service

Between 17.00 and 09.00 hrs, on weekends and bank holidays please contact the on-call Public Health Microbiologist on telephone number **0300 303 2429**.

5. NHS laboratories and access to public health testing in London

All NHS laboratories have responsibilities for health protection which includes providing support for the investigation of local outbreaks in their catchment area, through:

- contributing to the formulation of local contingency plans and participation in exercises
- detection of local outbreaks through monitoring laboratory findings
- detection and prompt reporting of unusual occurrences of public health significance
- providing initial laboratory support for outbreaks, incidents and look-back exercises as appropriate
- attendance of appropriate staff at local community control of infection meetings and incident/outbreak control team meetings
- advice on appropriate investigations, interpretation of results etc.
- forwarding of appropriate specimens to reference laboratories

If outbreak specimens are normally sent to the local NHS laboratory in the first instance, then this practice can continue.

Initially, diagnostic patient specimens are likely to be examined at the local NHS laboratory. However, once an outbreak has been recognised and declared by the HPT or other appropriate authority there should be a discussion between the initial investigating local laboratory or HPT with the regional microbiologist or duty PHL London consultant to decide on testing of additional specimens and the method of transport. If either the number of specimens expected is likely to exceed the capacity of the local laboratory or requires specialist tests, then this should be discussed with the relevant public health microbiologist.

6. Definition of a public health microbiology specimen

A public health microbiology specimen is usually submitted to determine the cause and extent of an outbreak in a defined community (institution, family group or the wider community) or to see whether an observed cluster of cases is related and constitutes an outbreak.

Specimens may also be submitted to detect spread and contain and/or prevent an outbreak (eg diphtheria, group A streptococcus).

Patient specimens may also be submitted for clearance purposes (eg faeces for *Escherichia coli* O157) or to detect carriage of pathogens in asymptomatic individuals (eg *Salmonella typhi*)

The list below provides some of the circumstances in which public health specimens may be submitted (this list is not exhaustive):

- in the investigation of an outbreak (eg diarrhoea and vomiting in a nursing home or other institution)
- suspected food poisoning in a group or community
- to check for clearance of certain pathogens (see above) in individuals working in high risk situations (eg food handlers, those working with children or other vulnerable groups)
- screening of contacts of index cases (eg diphtheria, poliomyelitis)
- look-back exercises (eg carriage of blood borne viruses in a health care worker)
- TB contact tracing
- investigation of a cluster of cases of (eg Legionnaires' disease, which could have a common source)

Such specimens are usually submitted at the request of:

- senior staff of a HPT
- an EHO
- at the request, or on behalf of, the director of public health or consultant in communicable disease control
- at the instigation of the lead public health microbiologist (eg for specialist typing in the investigation of episodes of health care associated infection)
- at the request, or on behalf of, a director of hospital infection prevention and control or a hospital infection control doctor

7. Collection of specimens

In order to provide the best quality results, it is essential that specimens are collected properly and at the appropriate time. It is also important that they are transported to the laboratory safely and without undue delay (See **Appendix 1** for Sample Submission Safety Considerations).

Inappropriate specimens or those that are inadequately labelled, damaged or leaking are liable to be delayed or discarded. Should this occur, every attempt will be made to inform the sender so that a second specimen can be collected.

Special request forms are used for public health specimens. Since the majority of specimens received for public health investigations are either faecal samples or respiratory samples, a request form for each has been specifically designed. The request forms will be available as Word documents and will be sent electronically. These can be completed online or hand-written.

All specimens must be transported in appropriate packaging and accompanied by a properly completed request form. Both the request form and specimen container must be labelled with:

- patient's full name
- hospital/clinic number or NHS number
- the date the sample was taken
- patient's date-of-birth
- case location

The above will assist PHE in the surveillance of communicable diseases. Please provide full details of where to send the result and who to contact if we need to report sample collection and submission:

Please ensure that all details are completed on the request form and specimen container before it is given to the patient.

These must include:

- first name
- second name
- date of collection

7.1 Faeces

The most common specimens processed for public health purposes are faecal samples from cases of suspected food poisoning in the community.

The PHL London request form for submission of public health gastrointestinal samples is regularly updated and is attached.

- **Appendix 2_Request Form for Submission of Public Health Gastrointestinal Samples**

Please give full clinical details and brief details of the outbreak on the request form. In outbreak situations or when unusual pathogens may be implicated, it is essential to discuss the request with one of the PHL London consultants before submission of specimens.

For evaluation of the carrier state and before returning to work as a food handler, three specimens are collected on three separate days. Collection methods are the same as for symptomatic patients. Proof of eradication of a carrier state is not necessary after proven viral diarrhoea.

Faecal samples will routinely be examined for the presence of:

- *Salmonella* spp
- *Shigella* spp
- *Campylobacter* spp
- *E. coli* O157
- *Norovirus*

Should you suspect any of the following pathogens this should be indicated on the request form with the reason for the request. This should also be discussed with the PHL London consultant or a member of the PHL London scientific staff:

- *Cryptosporidium* spp
- *Giardia lamblia*
- *Entamoeba histolytica*
- *Vibrio cholera*
- *Diarrhoeagenic E. coli* (other than *E.coli* O157)
- *Yersinia enterocolitica*

Please also discuss with the PHL London consultant or a member of PHL London laboratory staff if you suspect food poisoning due to:

- *Staphylococcus aureus*
- *Clostridium perfringens*
- *Bacillus cereus*

- *Vibrio parahaemolyticus*
- *Clostridium botulinum*

Should the clinical history suggest infection with viral pathogens, this too should be clearly indicated on the request form.

When a viral aetiology is suspected faeces for virology will be routinely investigated for norovirus, rotavirus, sapovirus, adenovirus 40/41 and astrovirus.

- **Appendix 3_Patient guidance on Faeces Sample Collection and Faeces Postal Collection Kit**

7.2 Viral respiratory specimens

Occasionally outbreaks of influenza occur in institutions. It is important to contact the PHL London consultant in your sector for advice regarding submission of specimens. Your PHL London consultant can also advise on access to swabs, methods of collection of nose and throat swabs and transport of specimens to the laboratory.

For the GP influenza surveillance scheme only, influenza collection kits can be obtained from the laboratory (these include instructions for collection).

PHL London also provides a supra-regional diagnostic service for suspected MERS-CoV infection (See Section 10.1)

- **Appendix 4_Request Form for Submission of Public Health Non-Gastrointestinal Samples**
- **Appendix 5 _Request Form for Submission of Public Health MERS-CoV**

7.3 Sputum

Please contact the laboratory to discuss the submission of specimens. Should you need to submit sputum specimens to examine for the presence of mycobacteria (eg in cases of suspected tuberculosis), the PHL London consultant should be contacted for advice and discussion before submitting any specimens and for incident management.

7.4 Urine

Fresh urine specimens (in a sterile universal container) are required for the diagnosis of Legionnaires' disease in addition to a sputum or deep lung aspirate.

7.5 Serum

Specimens of clotted blood may be required for:

- investigation of clusters of atypical pneumonia
- look-back exercises to detect the transmission of blood borne viruses, by arrangement with laboratory/incident or outbreak management team

7.6 Measles swabs

Use a viral swab and put under the tongue or gum margin like using a toothbrush and place in the transport medium. For clinical samples which are posted or sent via courier, use a UN3773 compliant packaging. Oral fluid samples for Measles RNA detection particularly by HPTs is being validated at the PHL Cambridge for testing.

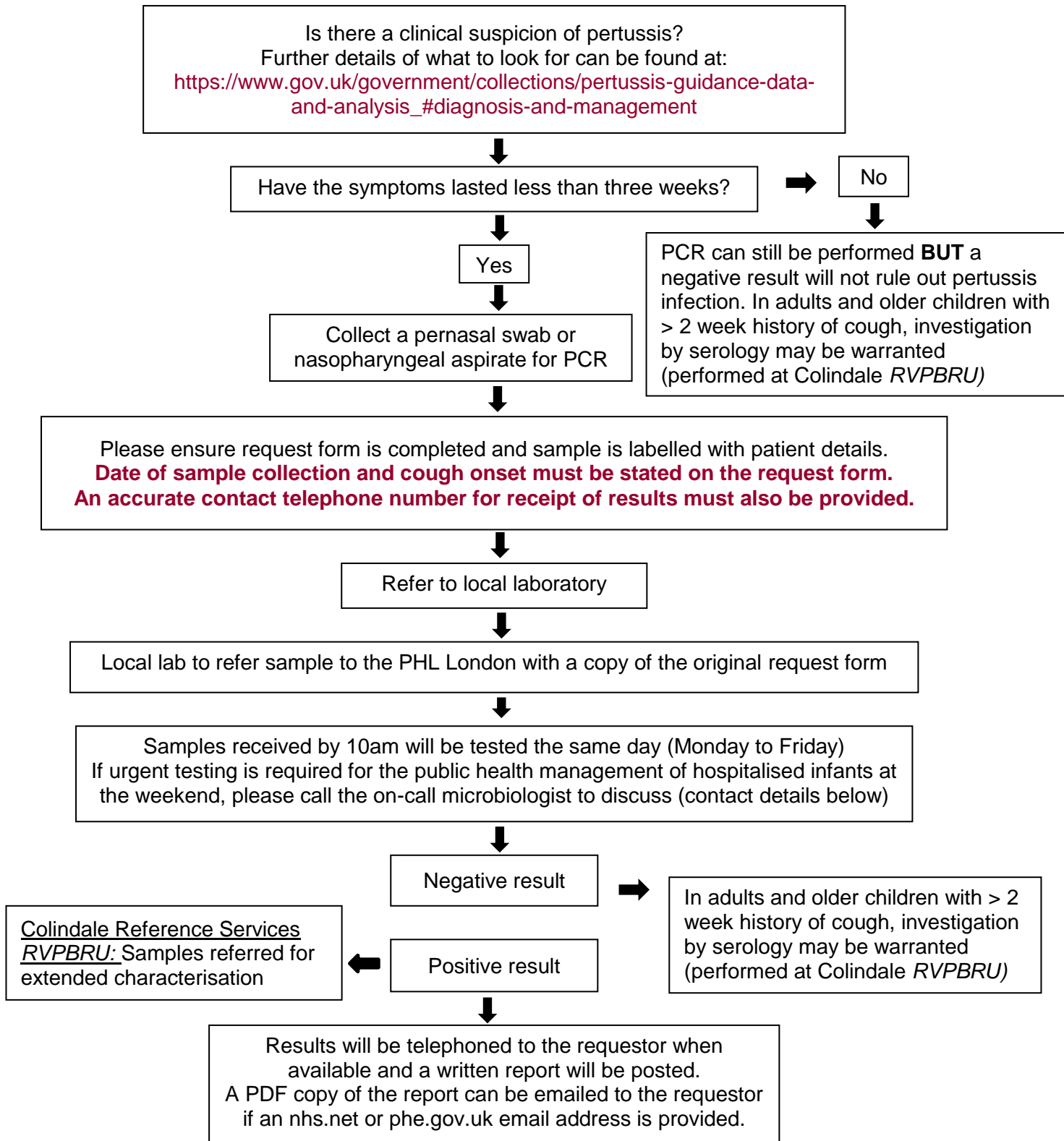
7.7 *Bordetella pertussis*

From 3 November 2014, PHL London has been providing a free of charge *Bordetella pertussis* PCR. The assay was developed in Colindale and has been modified and revalidated for use in the regional PHLs. This assay is available at the PHL Cambridge where the public health microbiology for London is now processed.

If urgent testing is required for the public health management of hospitalised infants at the weekend then this can be discussed with the on-call PHL London Consultant.

Please find see below instructions on sample collection and an algorithm for the referral of specimens for pertussis PCR testing.

Algorithm for referral of samples to PHL London for Pertussis PCR testing



PHE PHL London

Clinical Microbiology & Public Health Laboratory (CMPHL),
Level 6, Box 236, Addenbrooke's Hospital, Cambridge. CB2 0QW
Tel: 0300 303 2429

Sample collection instructions for Pertussis PCR testing

Suitable specimen types

Bordetella pertussis resides in the posterior nares, which can only be reached by certain swab types. For PCR testing please send one of the following specimen types:

- Pernasal swabs (PNS) 'dry' (with flexible wire shaft and rayon/Dacron/nylon bud). We are aware of two suppliers in the UK:
 - Medical Wire: MW160 Dryswab™ Pernasal
 - Sterilin/ThermoFisher: F168CA Twisted wire/Rayon (Blue cap) Pernasal and nasopharyngeal
- Nasopharyngeal swabs (NPS) 'dry'
- The Copan style nasopharyngeal swab is also acceptable
- Nasopharyngeal aspirates (NPA) – not less than 400µl in sterile container
- Throat swabs 'dry' will be accepted from GP surgeries if the other swab types are not available
- All swabs should be 'dry' ie **NOT** submitted in transport media, but in sterile container

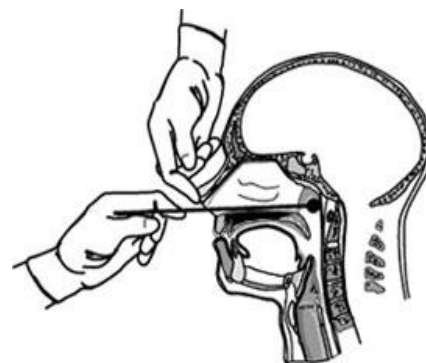
Collection procedure

Personal protection during specimen collection:

Minimise self-exposure by minimising the amount of time spent in taking a sample, wearing personal protection and following infection control practices. Hands should be washed and fresh gloves used for each new patient.

Pernasal specimens:

1. **Label** the container with the patient's **full name** and **date of birth**.
2. Gently insert swab into one nostril **straight back** (not upwards) until it reaches the posterior wall. The distance from the nose to the ear gives an estimate of how far back the swab should be inserted. Do not force the swab. If an obstruction is encountered, try the other side.
3. Rotate swab a few times, loosening the cells in the mucus cavity and then remove.
4. Place the swab into the tube.
5. Complete the request form.
6. Seal in specimen bag and refer to local laboratory.



Please note

- **Date of specimen collection, date of onset of cough and interval post-onset of cough are important so please include this information on the request form.**
- The closer to the date of onset of cough the specimen is collected the greater the probability of positivity.
- Specimens for PCR should be taken < 3 weeks post-onset of cough.
- Antibiotic treatment, vaccination status and increasing age of patient can affect/ decrease likelihood of detecting *B. pertussis*.

7.8 Throat/pharyngeal swabs for other pathogens

For detection of carriage of *Neisseria meningitidis*, the swab should be taken through the mouth (sweeping posterior pharynx behind the uvula).

For detection of group A streptococci, swab the tonsillar area.

For detection of *Corynebacterium diphtheriae*, nose and throat swabs should be submitted. If infection with *C. diphtheriae* is suspected on clinical grounds, a public health microbiologist should be contacted without delay (ie without waiting for confirmation by culture). A single suspected case of diphtheria requires urgent public health action.

8. Methods of specimen submission

8.1 Direct submission to the laboratory

During an interim period from 5 December 2016, public health microbiology for London will be provided from the PHL Cambridge. Direct submission of the specimen to the laboratory is therefore not a readily available option however the address for delivery of specimens directly to the laboratory is:

Clinical Microbiology and Public Health Laboratory (CMPHL),
Level 6, Box 236, Addenbrooke's Hospital, Cambridge, CB2 0QW

8.2 Submission to the laboratory via GP surgeries

As public health microbiology for London is temporarily relocated to PHL Cambridge, it is not possible for local authorities to submit samples via local GP surgeries.

8.3 Submission to the laboratory via other hospital pathology departments- DX

The DX system may be used for submission of Public Health Microbiology samples for London to the Cambridge laboratory from alternative sites using the DX system. Please note that the **DX number (DX6640601)** for all public health microbiology specimens referred to the PHL London will remain unchanged but the exchange for delivery will be Cambridge 90CB.

Please ensure that your laboratory updates all relevant documents and send-away package labels to reflect this change.

The new temporary address and contact details for PHL London will be as follows:

**Clinical Microbiology & Public Health Laboratory (CMPHL),
Level 6
Box 236
Addenbrooke's Hospital
Cambridge
CB2 0QW**

**DX number DX6640601
DX Exchange CAMBRIDGE 90CB**

8.4 Submission to the laboratory via post

PHL London has implemented a Faecal Postal Return Kit system which enables its users to submit faecal samples for testing via the post. This system enables the user to commence the submission of non-urgent faecal samples by post from Thursday 1 December 2016. Other samples that are deemed not urgent may also be sent by post.

8.4.1 Details of how more faecal postal return kits can be obtained

If you require stocks of faecal postal return kits these can be arranged by contacting the PHL London administration team by phone on **0300 303 2429** or by emailing PHE.phllondon@nhs.net.

Any specimens sent by post must comply with infectious substances transport regulations:

http://www.who.int/ihr/publications/who_hse_ihr_2012.12/en/

8.4.2 Postage costs

All HPTs and EHOs are encouraged to use the pre-paid Faecal Postal Return System for transfer of public health microbiology faecal specimens to Cambridge. This scheme will be maintained and funded by PHL London. Postage costs for other sample types must be paid for by the requestor.

8.5 Submission to the laboratory using an agreed PHE courier

In instances when urgent testing is deemed necessary, it will be possible to arrange a courier service to deliver Public Health Microbiology samples for London to the PHL at Cambridge.

The urgent testing must be agreed by the PHL London clinical team. The urgent courier should be arranged through CitySprint either directly yourself as you do currently using the PHL London CitySprint account number or by contacting the PHL London administration on **0300 303 2429**.

This service is paid for by PHL London and will be audited on a monthly basis to ensure that only urgent authorised samples are being sent to Cambridge using this service.

9. Investigation of local outbreaks

EHOs, HPTs and General Practitioners can continue to refer specimens for investigation of individual cases of infection and small community outbreaks using their local NHS laboratories if this has been their normal practice.

If an outbreak control team is convened by the HPT and specimen numbers exceed or are likely to exceed the capacity of the PHL Cambridge, this should be discussed with the public health microbiologist leading the investigation. A mechanism for the continued investigation of the outbreak will then be agreed by the outbreak control team.

As soon as an outbreak is recognised (of whatever size) the HPT will assign an outbreak number/identifier and this should be used to identify specimens associated with the outbreak or incident.

If an outbreak is identified initially by an Environmental Health Department (EHD) or HPT, the outbreak specimens should be referred to PHL London under an outbreak number/identifier if one has been allocated by the EHD or HPT.

If a food or water source is implicated then advice on sampling and sample submission should be sought from a food examiner at the Food, Water and Environmental Microbiology Laboratory Colindale. PHE operates a courier system for the collection and transport of FWEM samples to the laboratory at Colindale.

The contact details of the Colindale laboratory are:

Food Water and Environmental Microbiology Laboratory London
PHE Colindale
61 Colindale Avenue
London
NW9 5EQ

Telephone: 020 8327 658 / 6550 / 6551

Email: fwem@phe.gov.uk

Key staff

National Lead:

Dr Jim McLauchlin

jim.mclauchlin@phe.gov.uk

Head of Laboratory Operations:

Ross McEwan

Unit Head:

Ross.mcewan@phe.gov.uk

Dr Nicola Elviss

Nicola.elviss@phe.gov.uk

10. Other communicable diseases

Less common infections may require different specimen types or have less distinct storage and transport needs. In such circumstances, please consult with laboratory staff before taking and submitting specimens.

PHL London provides a supra-regional diagnostic service for suspected MERS-CoV infection.

10.1 Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

The Public Health Microbiology service for London for MERS-CoV is already provided from the PHL Birmingham on a temporary basis.

Should you wish to discuss the referral of a specimen to the PHL London for testing for MERS-CoV you should continue to contact the on-call PHL London Consultant on **0300 303 2429 at any time of day.**

The current process of consultant-to-consultant triage of MERS-CoV requests will continue and if the specimen is authorised for processing the sample should be sent to the PHL Birmingham. You will be given full details of where to send the specimen which will include the following:

- courier details: City Sprint (Category B Transport)
- telephone No: 0845 020 3000 or 0844 888 4115
- you will be given an account number to quote when ordering the courier
- the specimen must be packaged for Category B transport and clearly labelled "MERS-CoV testing"
- **Do NOT** order the ADR service as this is for Category A specimens only, a Pathology vehicle or emergency vehicle is sufficient
- delivery address: Public Health England FAO Virology, Heart of England Foundation Trust, Bordesley Green East, Birmingham, B9 5SS

All contact for MERS-CoV testing remains with the PHL London team using the **0300 303 2429** telephone number, including queries and issue of results.

10.2 Avian Influenza, Measles RNA detection, *B. pertussis* DNA detection and Urgent VZV serology

The Public Health Microbiology service for London for Avian influenza, Measles RNA detection, *B. pertussis* DNA detection and urgent VZV serology has moved to the PHL Cambridge on a temporary basis.

Should you wish to discuss referral of a specimen to the PHL London for Avian influenza, Measles RNA detection, *B. pertussis* DNA detection or urgent VZV serology you should continue to contact PHL London on **0300 303 2429**.

If the specimen is authorised for testing you will be provided with guidance regarding sending samples to the PHL Cambridge:

- courier details: City Sprint (Category B Transport)
- telephone No: 0845 020 3000 or 0844 888 4115
- you will be given an account number to quote when ordering the courier
- the specimen must be packaged for Category B transport and clearly labelled “Avian influenza, Measles RNA detection, *B. pertussis* DNA detection or Urgent VZV serology”
- **Do NOT** order the ADR service which is for Category A specimens only, a Pathology vehicle or emergency vehicle is sufficient
- delivery address: Clinical Microbiology & Public Health Laboratory (CMPHL) Level 6, Box 236, Addenbrooke’s Hospital, Cambridge, CB2 0QW

All enquiries including clinical queries and issue of results should be made to PHL London using the **0300 303 2429** telephone number.

11. Test turnaround times

Information on tests performed and approximate turn-around times (TATs) can be obtained direct from PHL London. Please call: **0300 303 2429** or in the East of England Public Health Laboratory Services Handbook which may be accessed via this link:

<https://www.gov.uk/guidance/east-of-england-public-health-laboratory-services>

For communication on high priority specimens or any concerns during regular working hours, please call a member of the PHL London team on **0300 303 2429**

12. Reporting results

All urgent results will be directly communicated to EHOs and HPTs by the PHL London team.

Users will no longer be able to use Cyberlab for electronic access to public health microbiology results for London.

All results will be uploaded by the PHL London administration team onto the Gateway system.

All EHOs and HPTs should have access to iGateway. If you are unsure or require confirmation please contact the PHL London administration team by phone on **0300 303 2429** who keep records for all of the London boroughs and should be able to help you.

Should you require training on iGateway please contact Nick Richardson, Project Technical Lead/Senior Systems Developer, Infectious Diseases Informatics Department, National Infection Service by email nick.richardson@phe.gov.uk or telephone 020 8327 7811.

iGateway URL: <https://www.dm.hpa.org.uk/datamart/Login.aspx>

NHS trust users may receive reports using NHSnet.

Appendix 1: Sample submission safety considerations

1.1 Health and safety

The specimen containers and mail transport systems provided by the laboratory should be used. The individual requesting or taking specimens from patients known to be infectious must ensure that both the form and specimen container are appropriately labelled and completed in full.

It is essential, where the requester knows or strongly suspects that the patient is infected with a dangerous pathogen that this specific information is provided with every specimen or request form.

1.2 Packaging of specimens

Specimens should be placed in the appropriate specimen container, which must be securely fastened and any accidental spillage cleaned immediately, with an appropriate chlorine containing disinfectant (see below for details).

Each specimen should be placed in a clear plastic self-sealing bag with the request form stored separately from the sample. See:

http://www.who.int/ihr/publications/who_hse_ihr_2012.12/en/

Where a needle has been used to obtain the specimen, the needle should be disposed of safely into an approved sharps container at the point of use, and not included in the packet transported to the laboratory.

Packaging of specimens from patients should be placed in the appropriate specimen container, which must be securely fastened and any accidental spillage cleaned immediately with an appropriate chlorine containing disinfectant:

- 10,000ppm available chlorine for blood spillage (do not use on urine spills)
- 1,000ppm for surface disinfection

NB undiluted domestic bleach contains 100,000ppm available chlorine.

1.3 Packaging of “high-risk” specimens

Specimens from patients in the “infection risk from blood” category should be placed in the appropriate specimen container, which must be securely fastened

and any accidental spillage cleaned immediately with an appropriate chlorine containing disinfectant:

- 10,000ppm available chlorine for blood spillage (do not use on urine spills)
- 1,000ppm for surface disinfection

NB: Undiluted domestic bleach contains 100,000ppm available chlorine

This should be placed in a clear plastic self-sealing bag with the request form stored separately from the other the specimen. Specimens should then be placed in a second (outer) plastic bag and appropriately labelled. All specimens and forms should be clearly labelled with an “Infection risk from blood” label.

1.4 Transport of specimens

Specimens packaged as above must be transported to the laboratory in a robust, lidded, washable transport box or individual UN3373 compliant and labelled packaging. Do not use ordinary envelopes or “jiffy” bags for transportation. Do not staple or puncture polythene bags.

1.5 High-risk incidents and safety

Universal precautions should be observed and appropriate personal protective equipment worn when specimens are collected (sterile gloves to take blood, masks, protective eyewear and a plastic apron if splashing of blood or other body fluids is likely to occur). Any inoculation incidents (needlesticks or contamination of conjunctiva, mucous membranes or broken skin, with blood or body fluids), must be reported as soon as possible - within two hours - to your occupational health service so that any required action can be instituted promptly.

THIS PROCEDURE MUST BE FOLLOWED WHETHER OR NOT THE PATIENT IS PERCEIVED TO BE HIGH RISK.

Appendix 2: Request form for submission of public health gastrointestinal faeces samples



Protecting and improving the nation's health

Deliver specimen to:

PHL London, c/o:
 Clinical Microbiology & Public Health
 Laboratory (CMPHL) Level 6
 Box 238, Addenbrooke's Hospital
 Cambridge, CB2 0QW.
 Telephone: 0300 303 2429
PHE_phllondon@nhs.net

Request Form Public Health Gastrointestinal Samples

TRACKING BARCODE:

(EHO to place tracking label here)

Incident/HP Zone Number:






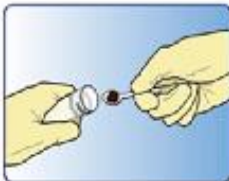






EHO/Council Reference Number:

Local authority information		HPT information			
Investigating officer to receive report:		HPT contact name:			
Telephone:		Telephone In-hours:			
Secure email:		Telephone Out-of-hours:			
HPT contacted: Yes <input type="checkbox"/> / No <input type="checkbox"/>		Secure email:			
Patient details					
Surname:		Address:			
First name:					
Date of Birth:					
Sex: Male <input type="checkbox"/> Female <input type="checkbox"/>					
NHS Number:					
Postcode:					
Date and time of sample		Date and time of onset of symptoms			
/ / Time:		/ / Time:			
Clinical details		Case details		Investigations required	
<input type="checkbox"/> Recent travel <input type="checkbox"/> Diarrhoea <input type="checkbox"/> Fever <input type="checkbox"/> Vomiting <input type="checkbox"/> Blood in stools		<input type="checkbox"/> New case <input type="checkbox"/> Contact <input type="checkbox"/> Possible outbreak <input type="checkbox"/> Clearance		<input type="checkbox"/> Outbreak Screen <input type="checkbox"/> <i>Salmonella</i> <input type="checkbox"/> <i>Shigella</i> <input type="checkbox"/> <i>E. coli</i> O157 <input type="checkbox"/> Viruses only <input type="checkbox"/> Other (please comment in the box below)	
Additional details or comments					

Request Form: Public Health Gastrointestinal Samples	Author	Michelle Calms	Authoriser	Julie Johnson
Version 3 Page 1 of 1	Date of Issue	November 2016	Date of Review	November 2018

Appendix 3: Patient guidance on faeces sample collection and faeces postal collection kit

Faeces Sample Collection Guidance Document

<p>Before you start: You may wish to purchase a pair of plastic gloves from your local supermarket/pharmacy</p> <p>Step 1 Check that the correct name and date of birth is on the sample pot</p> 	<p>Step 2 To prevent the sample from falling into the toilet either:</p> <p><i>Option A</i> Place a container (a clean empty plastic food container e.g. margarine tub) in the toilet bowl</p> <p><i>Option B</i> Place clingfilm over the toilet seat opening under the lid (this will not be suitable for liquid samples)</p>  	
<p>Step 3 Collect the faeces sample either into the container or onto the clingfilm</p>  		
<p>Step 4 Using the spoon built into the cap of the sample pot, collect small scoops of sample from each end and the middle.</p> <p>Replace the cap and make sure it is tightly closed</p> <p>DISPOSAL: Dispose of remaining faeces down the toilet. Wrap the container or clingfilm and gloves in a clean newspaper and dispose of in a plastic bag</p> 	<p>Step 5 Wash hands with soap and warm water</p> 	
<p>Step 6 Check that the name and date of birth are clearly visible on the outside of the sample container before returning the sample</p> 	<p>Step 7 Place the sample pot into the white plastic container</p> 	<p>Step 8 Place the white plastic container into the cardboard box and close the lid</p> 
<p>Step 9 Place the cardboard box into the white plastic envelope ensuring the paper request form is also present. Seal the plastic envelope</p> 	<p>Step 10 Put in a post box the same day</p> 	

Faeces Sample Collection Guidance Document	Author	Michelle Cairns	Authoriser	Julie Johnson
Version 1	Page 1 of 1	Date of Issue	November 2016	Date of Review
				November 2018

Appendix 4: Request form for submission of non-gastrointestinal public health samples



Protecting and improving the nation's health

Please deliver sample to:

PHL London, c/o:
Clinical Microbiology & Public Health
Laboratory (CMPHL) Level 6
Box 236, Addenbrooke's Hospital
Cambridge, CB2 0QW.

Request Form Non-Gastrointestinal Samples

Incident/HP Zone Number:

Public Health Laboratory (PHL) London Contact
Email: PHE.phllondon@nhs.net
Working hours telephone: 0300 303 2429

Sender's Information					
NAME:		NAME OF PHE CONSULTANT CONTACTED:			
CONTACT NUMBER/S FOR RESULTS:		ADDRESS/HOSPITAL:			
In-hours:					
Out-of-hours:					
Patient Details					
SURNAME:		DATE OF ONSET OF SYMPTOMS:			
FIRST NAME:		RECENT TRAVEL:			
DATE OF BIRTH: / /		SYMPTOMS/OTHER INFORMATION:			
Sex: Male <input type="checkbox"/> Female <input type="checkbox"/>					
NHS Number:					
Laboratory Investigation Required					
<i>Bordetella pertussis</i>	<input type="checkbox"/>	Sporadic	<input type="checkbox"/>	Possible Outbreak	<input type="checkbox"/>
Measles	<input type="checkbox"/>	Other information:			
Other Respiratory viruses	<input type="checkbox"/>				
Other	<input type="checkbox"/>				
Specimen Information					
Sample Type	Sent	Lab Number	Sample Type	Sent	Lab Number
Sputum	<input type="checkbox"/>		Oral Fluid Swab	<input type="checkbox"/>	
BAL	<input type="checkbox"/>		Blood	<input type="checkbox"/>	
Perinasal Swab	<input type="checkbox"/>		Serum	<input type="checkbox"/>	
Nasopharyngeal Swab	<input type="checkbox"/>		Other	<input type="checkbox"/>	
Nasopharyngeal Aspirate	<input type="checkbox"/>		Sample Date:		
Throat Swab in VTM	<input type="checkbox"/>				
Comments and /or further information					

Appendix 5: Request form for submission of public health MERS-CoV samples



Protecting and improving the nation's health

Please refer sample to:

Virology Specimen Reception
6th Floor
Public Health Laboratory
Birmingham
Heart of England NHS Foundation Trust
Birmingham B9 5SS

Request Form Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

Incident/HP Zone Number:

Public Health Laboratory (PHL) London Contact
Email: PHE.phllondon@nhs.net
Telephone: 0300 303 2429

Send via City Sprint Courier (Enhanced Category B Transport)
Tel 0845 020 3000 or 02075104081 (CScode: M70113) - *Package to be clearly labelled 'MERS CoV Testing'*

Sender's Information					
NAME:		NAME OF PHL CONSULTANT CONTACTED:			
CONTACT NUMBER/S FOR RESULTS:		ADDRESS/HOSPITAL:			
In-hours:					
Out-of-hours:					
Patient Details					
SURNAME:		DATE OF ONSET OF SYMPTOMS:			
FIRST NAME:		RECENT TRAVEL:			
DATE OF BIRTH:		SYMPTOMS/OTHER INFORMATION:			
Sex: Male <input type="checkbox"/> Female <input type="checkbox"/>					
NHS Number:					
Epidemiology					
Unknown <input type="checkbox"/>		Possible Outbreak <input type="checkbox"/>		Contact <input type="checkbox"/>	
Specimen Information					
Sample Type	Sent	Lab Number	Sample Type	Sent	Lab Number
Sputum	<input type="checkbox"/>		Blood	<input type="checkbox"/>	
BAL	<input type="checkbox"/>		Serum	<input type="checkbox"/>	
ETA	<input type="checkbox"/>		Other	<input type="checkbox"/>	
Nose Swab	<input type="checkbox"/>		Sample Date: / / Time:		
Nose & Throat combined	<input type="checkbox"/>				
NPA	<input type="checkbox"/>				
Comments and /or further information					

Request Form: Public Health London MERS-CoV	Author	Michelle Cairns	Authoriser	Julie Johnson
Version 1 Page 1 of 1	Date of Issue	November 2015	Date of Review	November 2018

Appendix 6: Additional specimen types that may be submitted to the laboratory

Swabs can be submitted to the laboratory for testing. Please note that there are different types for Viral and Bacteriology (MC&S) investigations and liquid swabs are used for microbiology.

These samples must be transported to the laboratory using the mechanism given for faecal samples.



Viral swab

Snap off into red capped tube containing viral transport medium



Swab for MC&S

Swab is placed into long transport tube containing charcoal agar

Appendix 7: *Clostridium difficile* ribotyping network userguide links

The CDRN web site address for requesting tests & viewing reports is:

<https://cdrn.phe.nhs.uk/>

The weblink for CDRN service user guides is:

<https://www.gov.uk/clostridium-difficile-ribotyping-network-cdrn-guide-to-services>