

13 February 2020

Home Diagnostic Sampling Guidance

1 Scope of this guidance

This guidance gives details on the procedures and equipment required for home diagnostic sampling in those persons who have been identified via NHS 111 as suitable for sampling for Coronavirus (Covid-19) in a community setting.

Home sampling helps to protect NHS emergency departments, primary care settings (such as GP surgeries, pharmacies, dentists and opticians) and ambulance transport for 'business as usual'.

NHS111 may assess a person is suitable for home sampling if:

- 1. The patient meets the case definition for possible Covid-19.**
- 2. Patient is symptomatic with mild to moderate symptoms but has been assessed as clinically well and suitable to remain at home and self-isolate.**
- 3. Does not require immediate hospital assessment.**
- 4. Patient is able to self-isolate. Advice for patients and those living with patients who are self-isolating is available here:**

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-self-isolation-for-patients-undergoing-testing>

The case definition may change over time and the assessment will be based on updated guidance here:

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases/investigation-and-initial-clinical-management-of-possible-cases-of-wuhan-novel-coronavirus-wn-cov-infection>

This guidance covers:

- the use of Personal Protective Equipment (PPE)
- the competent collection of samples, safe packaging and transport of specimens to the laboratory
- the safe disposal of waste.

This guidance does not specify who should undertake the testing. However, they should they have been adequately trained to do the following:

- choose the appropriate PPE
- don and doff (put on and take off) PPE
- safe disposal and management of waste

- take the samples
- safely package samples for transport

A FFP3 respirator conforming to EN149 must be worn by all personnel doing the sampling. Fit testing must be undertaken before using this equipment and a respirator should be fit-checked every time it is used.

The transportation needs of the tester and the associated logistics for samples and waste should be agreed locally, with due consideration of staff safety and welfare.

2 Steps once an individual has been identified for home diagnostic sampling

Once a case has been identified as suitable for home diagnostic sampling, the home sampling team should be provided with patient demographic and personal details, e.g. age, name, address, telephone contact number and relevant background detail such as current symptoms and those likely to be present at the home.

Care must be taken to ensure sharing of information is done in an approved way that protects patient identifiable information and is GDPR compliant.

The clinician or referring laboratory must email the patient identifiers (minimum name and date of birth) and contact phone number for results and queries to phe.virology@nhs.net.

Further details on how to arrange laboratory testing is available here:

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-guidance-for-clinical-diagnostic-laboratories/wuhan-novel-coronavirus-who-to-call-to-request-laboratory-testing>

Covid-19 acute respiratory disease testing is being rolled out to regional PHE Laboratories commencing 11th February 2020.

Safety is a key priority and a risk assessment should be made on arrival at the property on the suitability to continue to undertake sampling in terms of risk of harm from the patient or family, pets, the property and/or its surroundings.

If on arrival at the person's accommodation it becomes apparent that the individual's condition has deteriorated and/or requires immediate treatment or clinical assessment the sampling team should withdraw. They should then dial NHS111 or 999 for conveyance to the acute hospital informing them that the patient fits the case definition for possible Covid-19.

3 Equipment

Sampling teams should have a 'grab bag' or box with all necessary equipment which is checked and replenished after each use and before travelling to community test sites.

Sampling teams will need the following equipment in their 'grab bag' or box:

- Advised coronavirus PPE (see below)
- Alcohol hand rub
- Hand wipes
- Specimen collection equipment such as swabs, lab request forms, appropriate specimen packaging
- Chlorine-based disinfectant (minimum strength of 1,000ppm available chlorine)
- Appropriate waste collection equipment (category B, UN 3373 standard), either a rigid bin or sackholder
- Mobile phone.

4 Personal Protective Equipment (PPE)

The following PPE is to be worn by the sampling team entering the accommodation to home sample:

- long sleeved, fluid-repellent disposable gown
- gloves with long tight-fitting cuffs
- FFP3 respirator
- eye protection, such as single use goggles or full-face visors must be worn (prescription glasses do not provide adequate protection).

If a second person is supporting the sample-taker they do not need to wear PPE but should always remain a minimum of 2 metres away from the patient (unless assistance is needed in which case they should wear PPE).

4.1 Putting on PPE (Donning)

On arrival at the property, the sampling team should identify an area for donning and doffing PPE and packaging of samples. Ideally this should be an area away from the patient (at least 2 metres) and near the property entrance (i.e. a hallway, porch or garage).

Sampling teams could consider telephoning the person(s) to be sampled prior to arrival to identify a suitable area. Sampling teams should consider factors such as the weather if the only option is to don PPE outside but should be sensitive to the concerns of neighbours seeing healthcare workers in PPE. Other household members should be requested to remain outside the room until doffing and decontamination has been completed.

Before donning, the sampling team should ensure they are hydrated, ensure hair is tied back securely and off the neck and collar, remove jewellery or pens then perform hand hygiene. Staff should put on the PPE in the following order:

1. Gown
2. FFP3 respirator and fit check
3. eye protection
4. disposable gloves

During donning each item must be adjusted as required to ensure it fits correctly and interfaces well with other PPE items. Consider use of a mirror for a visual check if a buddy is not present.

They should explain to the patient the reason for PPE and gain informed consent from the person before proceeding with taking the sample.

4.2 Removal of PPE (Doffing)

PPE should be removed in an order that minimises the potential for cross-contamination and in with adequate space to remove their gown without touching walls or furniture.

Gloves, gown and eye protection should be removed (in that order) and disposed of as clinical waste, ideally into a rigid clinical waste bin. A rigid bin or sackholder with clinical waste bag within is safer as this reduces the risk of contamination of the tester. The bin needs to be at the donning/doffing area for final disposal. After leaving the immediate area, the respirator can be removed and disposed of as clinical waste.

The order of removal of PPE should be;

1. peel off gloves and dispose in clinical waste
2. remove gown by using a peeling motion, fold gown in on itself and place in clinical waste
3. remove goggles or visor only by the headband or sides and dispose in clinical waste
4. perform hand hygiene
5. remove respirator from behind and dispose in clinical waste
6. perform hand hygiene.

Full PHE guidance on PPE is available at:

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/wuhan-novel-coronavirus-wn-cov-infection-prevention-and-control-guidance#anchor>

5 Clinical Waste

All waste associated with possible or confirmed Covid-19, including PPE, is Category B infectious clinical waste and safe disposal is the responsibility of the sampling team and employing organisation.

Arrangements must be made to carry and dispose of waste correctly according to existing local options that comply with Health Technical Memorandum 07-01: Safe management of healthcare waste ('Management of Category B infectious waste in the community' p119 and 'Transporting offensive or infectious waste from patients' homes' p125, at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/167976/HTM_07-01_Final.pdf).

Rigid waste bins are required to transport category B waste and are easier for the sampling team to remove and dispose of PPE reducing the risk of contamination.

6 Decontamination

The chlorine-based disinfectant should be used to decontaminate the following items before the sampling team leaves the home:

- the sample packaging before taking to transport
- the grab bag or box used to contain the items need carry testing equipment
- any other reusable item used during home sampling
- the outside of the waste bin. (Cloths used for decontamination should be placed in the waste bin prior to closure).

6.1 Hand Hygiene

This is essential before and after all patient contact, removal of PPE and decontamination of the environment.

If hands are visibly clean an alcohol hand rub is adequate, otherwise use soap and water or hand wipes to remove visible contamination, followed by an alcohol hand rub.

6.2 Equipment

Sampling teams should take only the minimum of equipment into the house. Ideally use single use equipment and dispose of as clinical waste.

If equipment is to be re-used, then it should be decontaminated after use with a chlorine-based disinfectant and according to the manufacturer's instructions before removal from the house.

7 Testing for Covid-19

If an individual is well enough to self-isolate at home, then local lab testing should only be undertaken for coronavirus.

In limited circumstances the tester may wish to test for additional viruses. This should only be undertaken if the tester would have performed these tests in a primary care setting when coronavirus was not suspected.

Most cases therefore will require a single nose and throat swab for the diagnosis of coronavirus which will be sent to PHE Colindale or identified regional laboratories for testing.

7.1 Samples required

Samples required are:

- Either a combined nose and throat swab in one collection tube containing universal transport medium;
- or a single swab used for throat then nose
- or individual nose and throat swabs in separate collection tubes.

Guidance may change as the incident progresses so please refer to the up to date guidance regularly, here:

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-guidance-for-clinical-diagnostic-laboratories>

7.2 How to collect the specimens

The sampling team should have undergone training in the collection of nasal and throat swabs to ensure false negative swabs are avoided.

7.3 Completing the laboratory request form

- Print off the specific request form for requesting Covid-19 acute respiratory disease testing (E28) direct from the weblink. One form for each sample. Samples without appropriate paperwork will not be tested
- Label each sample with ID, date of birth and type of sample
- It is essential that clinician contact phone number for queries and the sharing of urgent results is provided.
- Provide the name of the local HPT on the form
- Do not place paperwork (request forms) in the primary container for Category B transport.

The laboratory request form is available here:

<https://www.gov.uk/government/publications/testing-for-wuhan-novel-cov-2019-ncov>

7.4 Transporting the samples to the laboratory

Immediately after sampling the sampling team should package the samples for transporting to the local laboratory (for onward transfer to the PHE laboratory) in accordance with Category B transportation regulations and labelled 'Priority 10'.

UN 3373 packaging must be used for sample transport and this should be acquired from the local laboratory prior to attending the home for testing.

Further details are available here:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/863847/PHE_2019-nCoV_sampling_and_packaging_poster.pdf

8 Closing the visit

On completing the sampling and prior to removing PPE, the sampling team should ensure the resident(s) understands their responsibilities for self-isolation, including respiratory and cough hygiene and avoiding contact with others until the results are available.

Detail on advice for residents undergoing testing and home isolation is available here:

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-self-isolation-for-patients-undergoing-testing/advice-sheet-home-isolation>.

The resident(s) should be given the contact details of a designated medical contact. This may be NHS 111, or other local arrangements may be put in place.

The resident(s) should be asked to monitor their symptoms and seek prompt medical advice if their illness is worsening, or if anyone they are caring for has worsening symptoms. If it's not an emergency, they should call their designated medical contact point using the number that has been provided to them.

If it is an emergency and they need to call an ambulance, they should be asked to inform the call handler that they are being tested for Coronavirus (or are caring for someone being tested for Coronavirus, as appropriate).

The resident should be given information on when results will be available and how will results be notified to them.

Finally, the tester should remove PPE and dispose of in clinical waste as above.

The packaged samples and clinical waste (according to locally agreed waste disposal route) should be removed from the house.

Following handover of specimens to the laboratory, hand hygiene must be carried out.