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Guidance

COVID-19: guidance for Ambulance Trusts

Updated 11 April 2020

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This publication is available at https://www.gov.uk/government/publications/covid-19-guidance-for-ambulance-trusts/covid-19-guidance-for-ambulance-trusts

This guidance including additional donning and doffing guidance is also available through the Joint Royal Colleges Ambulance Liaison Committee (JRCALC) plus app (if available in your Trust).

Latest updates to this page

10 April: updates to sections 1, 2.1, 3, 3.1, 3.2, 5, 8.1 and 8.2.

1. Identification of possible cases

There is currently sustained transmission of COVID-19 throughout the UK as defined by the four nations Public Health experts (https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/updates-to-the-infection-prevention-and-control-guidance-for-covid-19), therefore there is an increased likelihood of any patient having coronavirus infection. Therefore, whilst in this phase all patient contacts require level 2 PPE in accordance with Table 4. (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/879111/T4_poster_Recommended_PPE_additional_considerations_of_COVID-19.pdf)

This guidance is for possible and confirmed cases of COVID-19 where an ambulance response is required, including both emergency and non-emergency provision.

COVID-19 infection should be considered in all cases of respiratory infection. A travel history is no longer a requirement for determining a possible case. The following has been left in for information purposes, however due to the sustained community transmission currently occurring in the UK there is an increased likelihood of any patient having coronavirus infection.

If patients meet the below criteria they are to be classified as a possible case.

- Acute respiratory distress syndrome

Or

- High temperature (of 37.8°C or higher)

And at least one of the following which must be of acute onset:

- persistent cough (with or without sputum), hoarseness, nasal discharge or congestion, shortness of breath, sore throat, wheezing or sneezing

Where possible or confirmed cases are identified, this information must be passed to the responding resources (ambulance, PTS or response car) prior to arrival on scene.

2. On-scene clinician precautions

This guidance covers the use of personal protective equipment (PPE) (https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/covid-19-personal-protective-equipment-ppe) for the management and transfer of a patient with possible or confirmed COVID-19. Staff should perform a dynamic risk assessment which should include information provided prior to arrival at scene. Where the risk assessment indicates a requirement for PPE crews, they should don the appropriate level before being within 2 metres of the patient.

There is currently sustained transmission of COVID-19 throughout the UK, therefore there is an increased likelihood of any patient having coronavirus infection; Refer to the PPE section below.

The risk assessment should include information provided prior to arrival at scene as well as any additional information gained on arrival. See section 3 for the appropriate level of PPE to be worn.

The patient should be provided with a surgical face mask to wear for the duration of the care (if tolerated) unless oxygen therapy is indicated.

Where possible, only one crew member would need to don PPE if the patient can be managed by a single person, this leaves the driver free to perform the transfer and/or admission without having to remove PPE and decontaminate before driving.

2.1 Aerosol generating procedures (AGP)

- AGPs generate tiny particles, small enough to remain in the air for extended periods, travel long distances and may be inhaled.
- If an AGP is to be performed, all crew members must don level 3 PPE before being within 2 metres of the patient
- NERVTAG (https://www.gov.uk/government/groups/new-and-emerging-respiratory-virus-threats-advisory-group) is the body which defines aerosol generating procedures. Refer to the supporting evidence. (https://hpspubsrepo.blob.core.windows.net/hps-website/nss/2893/documents/1_tbp-lr-agp-v1.pdf)
- AGPs relevant to the ambulance service, which have been determined as an AGP by Public Health (England, Scotland, Wales and Ireland) and NERVTAG include:
    - procedures related to cardiopulmonary resuscitation, for example advanced airway procedures such as laryngoscopy, intubation, extubation and surgical airway
    - manual ventilation
    - suctioning
    - management of choking and foreign body airway obstruction removal
- ambulance clinicians may come across the following wider list of AGPs, particularly during inter-hospital transfers:
    - tracheotomy or tracheostomy procedures (insertion or open suctioning or removal)
    - non-invasive ventilation (NIV)
    - Bi-level Positive Airway Pressure Ventilation (BiPAP)
    - Continuous Positive Airway Pressure Ventilation (CPAP)
    - High Frequency Oscillatory Ventilation (HFOV)
    - High flow nasal oxygen (HFNO)

The following are not considered as an AGP:

- chest compressions
- defibrillation
- nebulisation

2.2 Main points

- PPE must be worn by all staff who have direct contact with a possible or confirmed COVID-19 patient and within 2 metres of the patient

- if the vehicle has a closed bulkhead between the patient compartment and cab then PPE must **not** be worn while driving or within the vehicle cab
- if there is no closed bulkhead between the patient compartment and cab then it may be necessary to wear a fluid repellent surgical mask if the patient will be within 2 metres of the driver while being conveyed
- unless absolutely essential, AGPs should be avoided during the transportation of patients with COVID-19

3. Personal protective equipment (PPE)

The appropriate level of PPE should be worn following a risk assessment of the presenting risks, and staff should not wear a higher level of PPE than is indicated by their risk assessment and reference to the national guidance (https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/covid-19-personal-protective-equipment-ppe) (dependent on the current status of transmission).

Use of PPE as described below should not detract from the usual infection prevention and control (IPC) risk assessments that staff carry out routinely to underpin all clinical practice and decision making. Staff should also ensure the correct level of PPE is worn dependant on the patient presentation and the clinical skills that are required during patient care.

The ambulance sector PPE for COVID-19 is categorised by level:

Level 1: Standard infection control precautions

- Consider if any PPE is required based on risk of contact or splashing with blood or bodily fluids

Level 2:

- disposable gloves
- disposable apron
- fluid repellent surgical mask
- eye protection (if risk of splashing)

Level 3:

- disposable gloves
- fluid repellent coveralls/long sleeved apron/gown
- FFP3* or powered respirator hood
- eye protection

*Where an FFP3 mask with a non-shrouded valve is worn, it should be accompanied by a full-face visor. If a visor is not available, then a risk assessment should be carried out regarding the risk of splash to the valve. If a large splash (as opposed to droplets) does occur, then the FFP3 mask should be replaced immediately.

The required level of PPE that is recommended to be used as a minimum for the care of all possible or confirmed COVID-19 cases, can be found in Table 3 of the PPE guidance (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/879108/T3_poster_Recommended_PPE_for_ambulance_staff_paramedics_transport_pharmacy.pdf).

There is currently sustained community transmission of COVID-19 throughout the UK, which means that it is likely that any patient may have coronavirus infection and therefore level 2 PPE is recommended for all direct patient care (within 2m) as per Table 4 of the PHE PPE guidance (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/879111/T4_poster_Recommended_PPE_additional_considerations_of_COVID-19.pdf)

3.1 Correct use of PPE

- the appropriate level of PPE should be worn following the risk assessment of the presenting risks, and staff should not wear a higher level of PPE than is indicated by their risk assessment
- care should be taken to ensure that PPE is donned and doffed correctly to avoid inadvertent contamination
- all used PPE must be disposed of as category B clinical waste and any reusable items (for example eye protection or powered respirator hoods) must be decontaminated according to manufacturer or Trust instructions
- FFP3 face masks must only be used by staff who have been fit tested for the mask they are using, and staff must complete a fit check every time they are required to wear one
- powered respirator checks must be performed before each use, in accordance with the trust instructions, including a battery check
- although FFP3 masks are effective for longer periods, the general recommendation would be to wear the FFP3 face masks for up to 3 hours. However, the duration of wear is dependent on the outcome of a dynamic risk assessment conducted by the staff member taking into consideration a number of factors such as the environment, personal comfort/tolerance and the activity or task that is being undertaken
- where an FFP3 mask with a non-shrouded valve is worn, these are not fully protected from splash of bodily fluids (they still provide full protection for aerosols) and should be accompanied by a full face shield/ visor. Where this is not available a risk assessment of the risk of splashing should be undertaken; it is not advised to wear a fluid resistant surgical mask over the FFP3 facemask. If a large splash (as opposed to droplets) does occur, then the FFP3 mask should be **replaced immediately**
- fluid repellent surgical face masks can be worn for the entire patient care episode, the Health and Safety Executive (HSE) has confirmed that the masks can be worn until damaged or wet

3.2 Considerations for cardiac arrests

The majority of patients who get COVID-19 will have mild symptoms, and it is estimated about 4% to 5% may be critically ill.

If a patient experiences a witnessed cardiac arrest in front of ambulance responders, commence compression only resuscitation using level 2 PPE. If there is more than one responder on-scene, those trained in level 3 PPE should move to be at least 2m from the patient and don level 3 PPE before proving advanced life support assistance. The full procedure detailed here for any cardiac arrest applies.

In the event of a patient being in cardiac arrest it will not always be possible to determine the potential COVID-19 risk. Therefore, this guidance should be followed for **all** cardiac arrests until further notice.

First person attending scene

- in order to minimise any delay attending a time critical cardiac arrest, it is acceptable for the first person to enter the scene wearing level 2 PPE (fluid repellent surgical mask, apron, gloves and eye protection). Where trained and equipped to use level 3 PPE, this may be used where it will not cause a delay

- commence resuscitation where this is indicated by local clinical guidance. If resuscitation is not commenced, or is terminated before the arrival of other resources, provide an early sitrep to reduce the number of responders who need to enter the scene
- do not place your face near the patient to assess breathing
- where available, place a surgical mask or oxygen mask on the patients face
- commence chest compressions, attach the defibrillator and defibrillate if indicated. None of these tasks are considered aerosol generating procedures (AGPs)
- do not progress to airway management or ventilation
- if not already available on-scene, request back up from a level 3 PPE trained response

Subsequent attendance at scene of responder(s) trained and equipped to use level 3 PPE

- don level 3 PPE
- enter scene and determine whether the resuscitation should be continued according to local clinical guidance.
- if resuscitation is to be continued, take over patient management from any responder wearing level 2 PPE
- all responders wearing level 2 PPE are to leave the scene (more than 2m away from the patient) prior to the commencement of any airway management, ventilation or other AGPs. Responders may later re-enter if trained and equipped to wear level 3 PPE
- level 3 PPE responders to continue the resuscitation, including airway management and ventilation

Anyone who is not trained or does not have access to level 3 PPE must then withdraw from the scene.

3.3 Donning PPE

PPE is required for all possible or confirmed COVID-19 patients and should be donned in the following order:

Level 2 PPE

1. Disposable apron.
2. Fluid repellent surgical mask.
3. Eye protection if risk of splashing to the face and eyes.
4. Disposable gloves.

Level 3 PPE (FFP3 and eye protection)

1. Fluid repellent coverall.
2. FFP3 face mask.
3. Eye protection.
4. Disposable gloves - double glove if wearing a coverall (this reduces risk of contamination when removing the coverall).

Level 3 PPE (powered respirator hood)

1. Fluid repellent coverall.
2. Powered respirator hood.
3. Disposable gloves - double glove if wearing a coverall (this reduces risk of contamination when removing the coverall).

3.4 Doffing PPE

It is important that the PPE is removed in an order that minimises the potential for cross-contamination.

When doffing PPE, follow the order below with the support and observation of your crew mate to ensure the risk of cross-contamination is minimised.

Hand decontamination helps to prevent the spread of infection. Use alcohol hand rub between removing items of PPE and wash your hands, wrists and forearms once all PPE is removed.

Level 2 PPE

1. Disposable gloves
2. Hand decontamination
3. Disposable apron
4. Eye protection (if worn)
5. Hand decontamination
6. Fluid repellent surgical mask
7. Hand decontamination

Level 3 PPE (FFP3 face mask and eye protection)

1. Outer pair of gloves
2. Coveralls
3. Inner pair of gloves
4. Hand decontamination
5. Eye protection
6. Hand decontamination
7. FFP3 face masks
8. Hand decontamination

Level 3 PPE (powered respirator hood)

1. Outer pair of gloves.
2. Respirator hood.
3. Coveralls.
4. Inner pair of gloves.
5. Hand decontamination.

4. Patient assessment

The recommended advice for possible COVID-19 patients with mild symptoms is for them to stay at home until they are well. Refer to stay at home advice (https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance) for more information.

4.1 Care of the deceased

Those handling bodies should be aware that there is likely to be a continuing risk of infection from the body fluids and tissues of cases where COVID-19 is identified. The usual principles of standard infection control precautions (SICPs) and transmission-based precautions (TBPs) apply for bodies that are possible or confirmed COVID-19.

As a minimum, the PPE required for handling a deceased possible or confirmed COVID-19 patient is Level 2 PPE. Refer to the guidance for care of the deceased (https://www.gov.uk/government/publications/covid-19-guidance-for-care-of-the-deceased).

5. Conveyance and patient handover

- If the patient requires conveyance it is important to contact the receiving unit to have a discussion regarding where to take the patient as this may not be the usual area within the hospital
- If possible COVID-19 patients require conveyance, they must be conveyed in isolation and are not permitted to be cohorted, unless they are members of the same household
- If required, confirmed COVID-19 patients may be cohorted with other confirmed patients (numbers dependant on vehicle size and limitations)
- If community screening is available within the area, then follow the local protocol
- If the patient requires conveyance they will require conveying to, and assessment at, an infectious disease unit (IDU) or emergency department (ED), as per local agreements, and with an appropriate pre-alert and discussion before leaving the scene
- if conveyance of a cardiac arrest patient is indicated by local clinical guidance, once AGPs are being conducted, only staff wearing level 3 PPE must be within 2 metres of the patient. In practice, this means that all responders in the patient compartment of the ambulance must be in level 3 PPE. The ambulance may be driven by someone who is not trained/equipped to use level 3 PPE, but they must remain in the cab whilst the patient is unloaded

5.1 Utilising the most appropriate conveying resource

Possible cases must not be conveyed by:

- car
- air ambulance

For vehicles where there is no closed bulkhead:

- if the patient is over 2 metres away from the driver there is no requirement for the driver to wear PPE during conveyance
- the patient must, wherever possible, wear a surgical mask during transportation

The following guidance applies whenever a patient is conveyed:

1. Consider the removal of non-essential equipment from the vehicle or moving non-essential equipment to a closed compartment prior to loading the patient in the vehicle.
2. Avoid opening cupboards and compartments unless essential, if equipment is likely to be required then remove from the cupboard prior to loading patient.
3. Consider if alternative transport options are available in liaison with Ambulance Control Room (ACR).
4. Air conditioning or ventilation on vehicles must be set to extract and not recirculate the air within the vehicle (where possible).

5. Non-essential persons (such as observers, family members) are not to travel within the patient compartment with a possible or confirmed case, unless the patient is a child who requires conveyance, in this case it is acceptable for a parent or guardian to accompany the child.
6. Family members and relatives of these patients must be asked to remain at home and not attend the hospital. They should be left with contact details for the hospital you are conveying the patient to and asked to phone later for an update before visiting.
7. Observers should, where possible, be taken to the nearest ambulance station. If this is not possible, they should remain in the cab of the vehicle for the duration of the incident and the ACR should be notified.

Pre-alert

Crews are required to notify the receiving unit to the fact that they are conveying a possible or confirmed COVID-19 patient and provide an expected time of arrival (ETA) to ensure the receiving unit can prepare for arrival and patient isolation. The receiving unit will advise the crew where the patient should be brought, as it may not be the ED.

On arrival

- the driver is to inform the receiving unit of their arrival prior to off-loading the patient
- the receiving unit is required to support the offloading of the patient into the department, ensuring the route is clear
- there is no requirement for ambulance clinicians to change or upgrade their PPE for the purposes of entering the ED, or the receiving unit, to conduct patient handover

6. Post conveyance

- all linen should be managed as per local policy for the management of infectious linen at the receiving unit.
- all waste should be disposed of as category B clinical waste, as per local policy, at the receiving unit.
- the crew are to remove PPE in the designated area identified within the receiving unit.
- all disposable PPE is to be disposed of as category B clinical waste, as per local policy, at the receiving unit.

7. Decontamination

As coronaviruses have a lipid envelope, a wide range of disinfectants are effective. PPE and good infection prevention and control precautions are effective at minimising risk but can never eliminate it.

If an alternative disinfectant is used within the organisation, the local Infection Prevention and Control Team (IPCT) should be consulted on this to ensure that this is effective against enveloped viruses.

It is possible that these viruses can survive in the environment with the amount of virus contamination on surfaces likely to have decreased significantly by 72 hours, so thorough environmental decontamination is vital.

Where equipment is used on-scene for assessing/ treating patients, which are not conveyed the equipment can be decontaminated using universal sanitising wipes or equivalent approved disinfectant.

7.1 Any vehicle when no AGP procedures have been performed

The vehicle will require an enhanced between patient clean, ensuring thorough decontamination of all exposed surfaces, equipment and contact areas before it is returned to normal operational duties, with universal sanitising wipes or a chlorine-based product.

- appropriate PPE must be worn to decontaminate the vehicle - as a minimum, this should include apron and gloves
- any exposed equipment (that is not within closed compartments) including stretcher on the vehicle will require decontamination with universal sanitising wipes or equivalent, as per the standard between patient clean
- all contact surfaces (cupboards, walls, ledges), working from top to bottom in a systematic process, will require decontamination
- pay special attention to all touch points
- the vehicle floor should be decontaminated with a detergent solution, this should be at a minimum of the end of every shift, more frequently where facilities exist
- where possible, hospitals should support this practice by working with ambulance colleagues to identify access to appropriate sluice facilities and designated mop and bucket storage for ambulance use

7.2 Any vehicle when AGP procedures have been performed (such as intubation, suctioning, or full ALS cardiopulmonary resuscitation)

The vehicle will require an enhanced decontamination of all exposed surfaces, equipment and contact areas before it is returned to normal operational duties, with a chlorine-based product (or approved equivalent).

- appropriate PPE must be worn to decontaminate the vehicle - as a minimum, this should include apron and gloves (follow COSHH guidance for protective equipment when using chlorine).
- any exposed equipment (that is not within closed compartments) left on the vehicle will require decontamination with a universal detergent followed by chlorine-based solution at 1,000 parts per million (or approved equivalent disinfectant).
- working from top to bottom in a systematic process, all exposed surfaces will require decontamination with a universal detergent followed by a chlorine-based solution at 1,000 parts per million (or approved equivalent).
- pay special attention to all touch points.
- ensure that the stretcher is fully decontaminated, including the underneath and the base.
- the vehicle floor should be decontaminated with a detergent solution followed by a chlorine-based solution at 1,000 parts per million (or approved equivalent), this should be facilitated by the receiving department.
- where possible hospitals should support this practice by working with ambulance colleagues to identify access to appropriate sluice facilities and designated mop and bucket storage for ambulance use.