



## PHECC COVID-19 Advisory v1

20<sup>th</sup> March 2020

**To: All PHECC Responders, Registered Practitioners, Recognised Institutions, Approved Training Instructions and Licensed CPG Providers.**

Dear Colleagues,

The global pandemic of SARS NCOV2 (COVID-19) has resulted in significant challenges and changes in how healthcare (including pre-hospital care) is being delivered in Ireland.

This innovation and flexibility is likely to be required even more in the weeks ahead.

The PHECC Medical Advisory Committee wishes to provide guidance to practitioners and responders of all levels at this time. We are conscious that many individual licensed CPG providers and others are already taking steps to deliver their services in this context and also to support the state in how we all manage this unprecedented situation.

The overarching national guidelines on precautions and clinical management of COVID-19 are issued by the Health Protection Surveillance Centre (HPSC) and updated regularly with input from a national Expert Advisory Group (EAG). This should be your main source of accurate information along with the HSE and Department of Health; there is a lot of information in circulation regarding COVID-19, not all of it accurate. There are some specific issues that are pertinent to pre-hospital care, which PHECC would like to highlight **in patients with confirmed or suspected COVID-19 infection**. This advisory guidance is intended to complement existing HPSC guidelines and your own training.

**The Medical Directors for licensed CPG providers may issue updated advice based on evolving national guidance - please be cognisant of any such advice.**

### **COVID-19**

The SARS NCOV2 virus which causes COVID-19, infects through contact with the mucous membranes. **It does not infect through the skin.**

The greatest element of risk for a healthcare worker (responders and practitioners) is transfer of the virus to the mucous membranes by contact of contaminated hands (including contaminated gloved hands) with the eyes, nose or mouth. The key interventions to manage this risk are to minimise hand contamination (keep your hands to yourself when possible), avoid touching your face and clean your hands frequently (with alcohol hand-rub or soap and water).

There is also a significant risk of direct transfer of the virus on to mucous membranes by droplet transmission, that is, by direct impact of larger infectious virus droplets generated from the patient's respiratory tract landing directly in your eyes, nose or mouth. This is most likely to happen if you are

within 1 meter of the patient. This risk is managed by use of appropriate PPE (surgical facemask and eye protection) and by encouraging the patient to wear a surgical facemask or cover their nose and mouth when coughing or sneezing (respiratory hygiene and cough etiquette).

There is evidence that airborne transmission can occur when certain procedures (Aerosol Generating Procedures (AGPs)) are performed. The biggest risk is related to a healthcare worker performing endotracheal intubation.

Keeping safe means focusing on the major identifiable risk. In almost all healthcare settings the greatest risks of infection of healthcare workers are likely to be related to anxiety, fatigue, distraction and multi-tasking in critical situations resulting in unintended contact of contaminated hands with the eyes, nose or mouth.

### **Infection Prevention & Control (IP&C), Personal Protective Equipment (PPE)**

The HPSC has provided detailed guidance on IP&C and PPE requirements for healthcare workers at [www.HPSC.ie](http://www.HPSC.ie). This guidance from the HPSC should be followed and appropriate PPE used for all potential COVID-19 patients. If AGPs are being performed a surgical facemask is not sufficient therefore a properly fitted respirator mask (FFP2) is required. All patients with respiratory symptoms should have a surgical facemask applied.

**Case Definition** – The current HPSC screening case definition for COVID-19 should be used at all times. As of today, this includes: all patients with fever/chills, signs & symptoms of respiratory tract infection (including cough) or exposure to a confirmed case of COVID-19.

**Please check HPSC for daily changes to case definition, as it is regularly updating.**

As COVID-19 becomes more prevalent in the community, the clinical index of suspicion for COVID-19 infection should increase also.

### **Training & Education**

Training at all levels remains important. The COVID-19 pandemic is likely to persist for some time, so we must give thought to how training continues in this new environment. Training and education (including assessment & examinations) should be conducted in such a way that infection risk is minimised. This may require delivery on-line or in smaller groups than normal to facilitate social distancing. HPSC advice for contacts and symptomatic cases should also be followed here.

PHECC recommends that mouth to mouth or mouth to mask ventilation should not be taught in the current situation. Such elements of training may be omitted and taught at a later date.

### **Public Awareness**

All PHECC responders and practitioners are in a position to take a lead in ensuring that important public health messages regarding hand washing, cough etiquette and social distancing are reinforced. This can be particularly effective when good behaviour is modelled to others.

### **Personal Well Being**

This will be a difficult time for everyone in the health services including PHECC responders and practitioners. Many of you will work long hours and may become ill yourselves. As with all calls, personal safety comes first. A sick responder or practitioner cannot help others. So please ensure

you use your PPE and take time to look after your own physical and mental well-being. PHECC will support you in any way we can and I know you will all support each other too.

## Clinical Matters

### Responders

Responders may encounter patients with suspected COVID-19 within their workplace or when tasked to normal everyday emergency incidents (Firefighters etc.). Responders may also come across an incident by chance where pre-hospital emergency care is required.

Standard infection control precautions should be applied when treating all patients. Patients should be treated according to CPGs, however if there is a presentation as outlined in the 'case definition' above then the patient should be treated as a suspected COVID-19 case. Such patients should have a surgical facemask applied during contact time to limit the spread through droplet dispersion.

Patients in cardiac arrest should have compression only CPR applied. Responders who are trained to use a BVM may do so but should ensure a viral filter (compliant with BS EN ISO23328-1:2008) is attached. To ensure a good seal on the facemask, to minimise droplet risk, the two-person operation of the BVM is recommended.

**Oxygen** – if responders are administering oxygen it should be administered at the lowest appropriate flow rate, with a surgical facemask over same if patient tolerates this.

**Suctioning** – should be avoided where possible. Portable suction units entrain and exhale room air, which although not directly from the patient, may contribute to droplet dispersion. This is particularly important in confined spaces (e.g. first aid room etc.).

### Practitioners

**Oxygen** – if required, should be administered at the lowest appropriate flow rate, with a surgical facemask over same if patient tolerates this.

**Aerosol Generating Procedures (AGPs)** – AGPs include tracheal intubation, extubation, positive pressure ventilation (PPV) via BVM and suctioning. AGPs should be avoided where possible, as outlined above. Where an AGP is necessary, this should take place in a well-ventilated area, with appropriate PPE as outlined above. If an AGP is necessary in the ambulance, the vehicle should be stopped temporarily to allow the procedure to be carried out safely and efficiently (doors may be opened unless inclement weather increases the risk of turbulent airflow in the patient compartment). Patients requiring PPV during transfer should, where possible, have a closed circuit; i.e. SGA/filter/catheter mount/BVM. This is to minimise the risk of exposure and minimise the number of practitioners required to manage the airway and ventilator support.

**Of note, nebulisation is not considered by the HPSC as an AGP.**

**Oropharyngeal Suctioning** – should be avoided where possible. Portable suction units entrain and exhale room air, which although not directly from the patient, may contribute to droplet dispersion. This is particularly important in confined spaces (e.g. ambulance with doors closed).

**Intubation** – should be avoided. Supraglottic airway device is recommended for advanced airway management.

**Tracheal Suctioning** – should be avoided (unless a closed suction system in which staff have been trained is used (this is not normal EMS equipment)).

**Tracheostomy Suctioning** – should be undertaken only when absolutely necessary, with great care and using a closed suction system wherever possible (again recognising that this is not normal EMS equipment).

**CPAP** – CPAP is an aerosolising procedure and should be avoided in a confined space (e.g. ambulance compartment).

**CPR** – As an AGP, FFP2 mask and other appropriate PPE is required. Compression only CPR should be commenced until an appropriately fitting BVM facemask is available for ventilations. A well-fitting supraglottic airway should be placed as soon as practical. PPV via SGA or BVM facemask should ensure a good seal to minimise droplet risk. The two person BVM facemask process should be utilised when manpower permits. A viral filter (compliant with BS EN ISO23328-1:2008) should be used with BVM via facemask and SGA at all times.

**Nebulisation** – As with oxygen delivery, nebulisers should be delivered with a surgical facemask over the nebuliser mask if the patient tolerates it.

**Treat & Refer** – the delivery of community testing for COVID-19 represents a significant component of the health service response to this situation. PHECC recognises the importance of the NAS developing pathways for this under their medical directorate. PHECC is supportive of this development in keeping with the philosophy of further developing Treat & Refer CPGs.

**Emergency Department Reception** – most EDs are implementing COVID-19 pathways for this patient cohort. Practitioners should clarify this with the receiving ED in advance of bringing a patient into the ED. Pre arrival notification of COVID-19 patients requiring resuscitation or early assessment is recommended.

**Critical Care Transfers** – The inter-hospital transfer of a critically ill COVID-19 patient represents a particular challenge. Wherever possible the NAS specialist retrieval services should be utilised for this purpose. The NAS Critical Care and Retrieval Services are contactable via NEOC.

### **Dispatch**

PHECC supports the decision of NAS to restrict CFR groups dispatch to choking and cardiac arrest calls (with compression only CPR) only for as long as COVID-19 remains a concern.

### **Ambulance Vehicle**

The patient compartment should be cleared of any unnecessary exposed equipment prior to transporting a patient with COVID-19.

Ambulance windows should be kept closed in transit to avoid turbulent airflow and potential distribution of droplets. The partition between the patient compartment and the driver compartment should be closed if present. If there is no partition, the driver must wear appropriate PPE, including surgical facemask, for the full journey

Decontamination of the ambulance and equipment should be performed according to HPSC guidelines. After removal of a COVID-19 patient from the ambulance, it should be left with doors open for at least 20 minutes before cleaning.

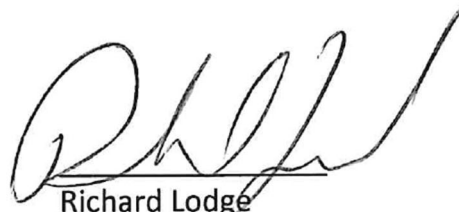
It is likely that there will be further updates to this advisory as the COVID-19 situation develops. PHECC is committed to working with all stakeholders to maximise the health service response to this unprecedented situation and to ensuring the safety of the patient, the public and responders/practitioners.

Yours Sincerely,



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Dr David Menzies  
Chair MAC



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Richard Lodge  
Director

**References**

HPSC  
ICSI  
NAS  
NASCCRS MICAS  
IHF  
DoH  
UK Resuscitation Council