Guidance for community management of patients receiving Long-Term Ventilation (LTV) during COVID-19

Please note; this guidance is purely a consensus statement based on advice from NHS England (NHSE) and expertise within the long term ventilation clinical community. It does not substitute recommendations made by the local long term ventilation service. Please clarify any aspects of clinical management with the service who oversees the patient's LTV care.

The guidance may need to be updated as the knowledge base and expert experience develops.

Long Term Ventilation (LTV) services provide specialist care and support for patients who require long term ventilation (invasive or non-invasive) outside of the traditional inpatient setting. This is for a range of medical conditions characterised by chronic respiratory failure. All patients under the care of such teams are especially vulnerable to respiratory pathogens due to their limited breathing reserve. Some require complex care input to maintain independence in a community setting, and this is delivered by dedicated teams of private community care providers.

The points below are designed to give some brief guidance for the management of non-invasive ventilation in the context of the current COVID-19 pandemic, if the patient was suspected or confirmed as being COVID positive. They are not intended to be prescriptive, and close liaison with the hospital based LTV teams is still required.

In no particular order of priority, please see the points listed below:

Clinical recommendations:

- Non-vented masks and leak ports have been adopted for use in the acute hospital setting in patients who are confirmed as having Coronavirus. This is to allow appropriate placement of a bacterial / viral filter. Whilst an LTV patient will be changed to this configuration if they are admitted to hospital, we do not believe this is an appropriate change to make in the community. The rational for this recommendation is as follows:
    - There is an important training requirement with the introduction of any new equipment. Currently, the LTV teams are unable to support that level of instruction. This could lead to the incorrect circuit and mask configuration being applied, and result in potential harm to the patient.
    - This mask type would only be applicable if the patient is using an oro-nasal type of interface; many LTV patients prefer a nasal interface.
    - There are far fewer non-vented masks available, and often designed for short term use. In the patients who use non-invasive ventilation (NIV) for long periods, this could result in unnecessary pressure damage to the skin on the nasal bridge.
- All wet humidification should stop if possible (see note below relating to tracheostomy ventilation).
- Reduce frequency of routine mechanical in-exsufflation if clinically safe to do so.
- If a bacterial filter is in use on the ventilator outlet, although this should be replaced in line with local policy, if there are issues with provision it can be removed.

Ventilation via tracheostomy:

- Routine tracheostomy tube changes can be extended up to 3 monthly. If the routine change is usually conducted in hospital setting, extending the frequency of the tube change will reduce visits to hospital. If performed by the care team at home, this will reduce unnecessary exposure to care staff or issues regarding availability of replacement tubes.
- Frequency of routine ventilator circuit changes can be extended to avoid issues with provision of consumables.
- Whilst recommended, removing the respiratory humidification may cause the airway secretions to become problematic. Therefore an assessment of risk versus benefit is required before removing the respiratory humidifier. A Heat Moisture Exchange (HME) filter should be used as an alternative if heated humidification is removed.

General advice if suspected or confirmed Coronavirus, but hospital admission is not indicated:

- The patient should be cared for (where possible) in only one room in the property.
- The amount of time the carer needs to spend in the room should be limited as much as possible and safe to do.
    - Use mobile phones where possible rather than repeatedly entering the room.
- Where possible, care agencies to minimise the number of carers assigned to each package, to aim to keep the same people attending each property.
- Regularly wipe down hard surfaces in the room where the ventilator is being used with a disinfectant wipe.
- Limit visits to the property to only those absolutely essential.
- If at all possible, other household members to be in another room if external carers in the property.

Personal Protective Equipment (PPE)

The link below is the Public Health England guidance on use of PPE for clarity of national recommendations:

https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/covid-19-personal-protective-equipment-ppe

The following link is specifically related to recommendations in settings other than hospital:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877599/T2_Recommended_PPE_for_primary_outpatient_and_community_care_by_setting_poster.pdf

PPE recommendations:

Non-invasive ventilation (NIV), Cough Assist use, CPAP and tracheostomy care are all considered to be Aerosol Generating Procedures (AGP). Therefore, if a patient is suspected or confirmed to have Coronavirus, appropriate protection for those delivering any care to this patient group should be in place.

- PPE includes surgical masks, FFP3 masks, gloves, aprons and eye protection (please see the link above for specific recommendations from Public Health England).

- PPE should be made available for the carer to use when delivering any care to the patient whilst they are using NIV, Cough Assist or CPAP, or when tracheostomy care / tracheal suction is being performed

- Family members who share the same household as the patient should be regarded as one unit and as such, use same level of protection they would normally. However, careful consideration should be applied in terms of any contact with the patient if there are other members of the family who would be classed as vulnerable

PPE availability and provision

There have been concerns raised about the availability and supply of PPE equipment available to care teams in the community setting. If you are unable to access the appropriate PPE, please report this using the form in the link below. This link will take you to the Royal College of Physicians website. On completion of the form, the collected information will be passed on to the NHS and government.

https://www.rcplondon.ac.uk/news/cpr-personal-protective-equipment-and-covid-19

Also, if a care provider is unable to get PPE from their normal supplier, the supplier will be asked to report this to the National Supply Disruption Response team (see below), who can advise on alternative suppliers.

The National Supply Disruption line:

Tel: 0800 915 9964

Email: supplydisruptionservice@nhsbsa.nhs.uk

These recommendations are based on Public Health England (PHE) guidance and expert opinion. The document is not designed to replace local policies and infection control guidance, and variations may be required depending on the requirements of individual patients. The purpose of these recommendations is to support care providers working in the home / community setting, and they are not designed to cover secondary care or primary care settings.

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The guidance has also been endorsed by representatives from the Specialist in Long-term Ventilation at Home (SiLVaH) network and the Association of Chartered Physiotherapists in Respiratory Care (ACPRC)