



Children's Health Ireland  
at Crumlin

## **Management of possible/confirmed Covid-19 in paediatric LTV patients in CHI at Crumlin**

### **Adapted from RHSC Guideline 30/03/20**

- All children on long-term ventilation (LTV) under the care of the respiratory service use ventilators with a single limb circuit with intentional leak – i.e. children on non invasive ventilation (NIV) have vented masks and children with a tracheostomy and LTV patients have a leak port in the ventilator circuit.
- Exhaled air exits through the mask/leak port therefore a filter on the circuit does not stop the potential aerosolisation of a virus.
- **Positive pressure support (either CPAP or bi-level) delivered in this way is considered an aerosol generating procedure (AGP).**

#### In Emergency Department:

- If patient is receiving positive pressure support on their home ventilator, staff should wear full PPE as per HPSC guidance.

#### Transfer from ED to Critical Care/ TCU to Critical Care\*

##### **NIV patient:**

- **If respiratory support is required during transfer, this should be provided using an anaesthetic circuit and filter, with the face mask firmly applied to patient's face. A medical team should be present.**
- **Tracheostomy-ventilated patient:**  
**Ventilation should be provided using an anaesthetic circuit and filter, with a medical team present. Surgical mask should be placed over patient's face to minimise environmental contamination from coughing.**

\*Staff performing the transfer will need to wear PPE. Ideally, someone should ensure the route is clear of individuals not wearing PPE.

#### In Critical Care:

- Patient should be supported on the Servo U ventilator as it has a filtered expiratory port.
- For those using tracheostomy-ventilation this will necessitate changing to a cuffed tracheostomy tube because the Servo U will not cope with the leak round an uncuffed tube.
- For children using NIV, change to a non-vented mask (ideally oronasal mask or face shield rather than nasal mask).
- If/when the patient is found to be Covid-19 negative, they can be changed to whichever ventilator is clinically considered to be most appropriate in consultation with PICU/respiratory teams.

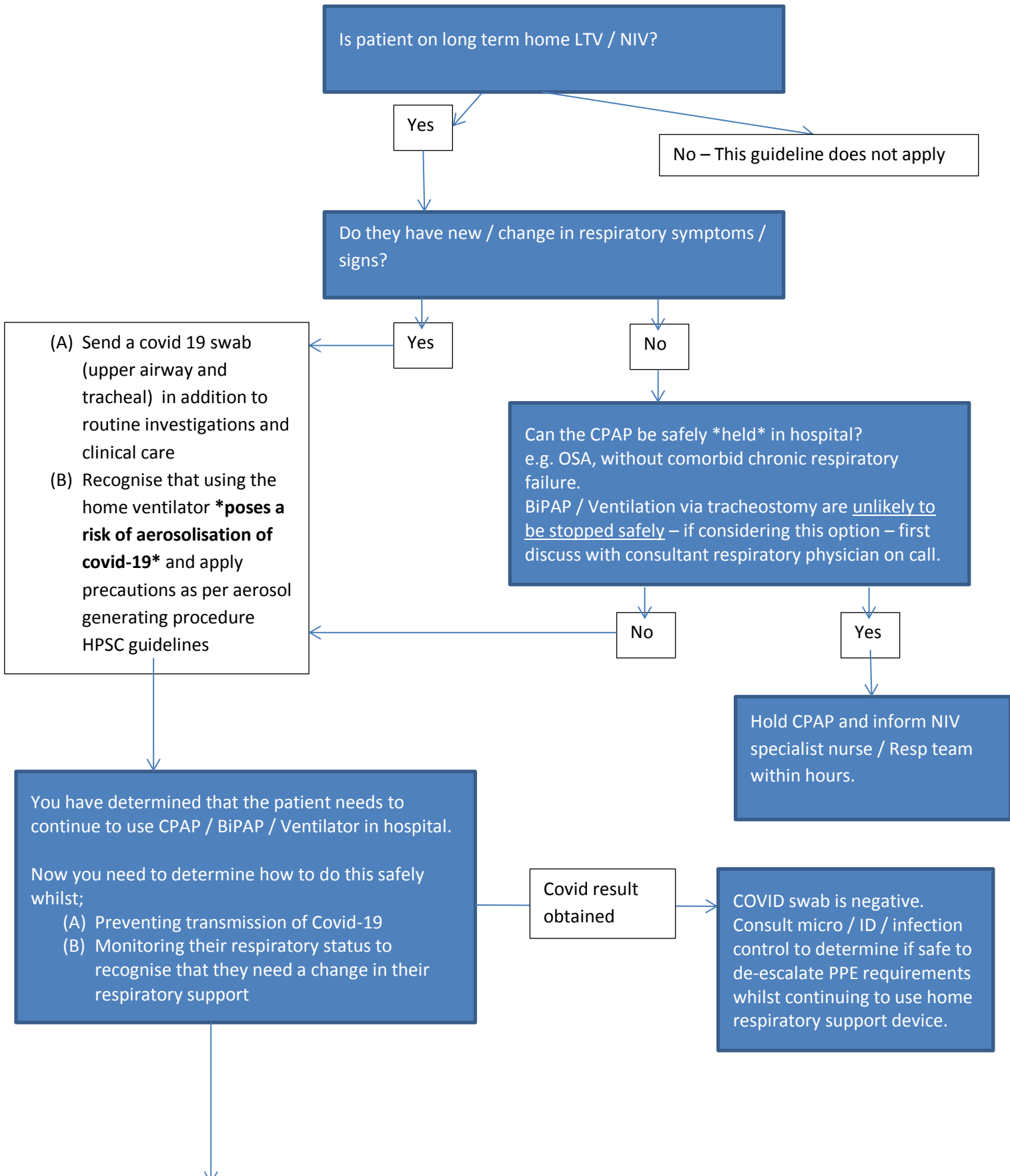
#### In Transitional Care Unit (TCU):

- If a patient needs admission but is well enough for ward level care, (i.e. non-respiratory reason for admission) they can be transferred to ward once off support as for any other self-ventilating possible case.
- For tracheostomy-ventilated patients they should be transferred as per transfer to ICU- with an anaesthetic circuit and filter with surgical mask on patients face.
- While on the ward, a patient admitted from ED is receiving positive pressure support on their home device, staff should wear full PPE as per HPSC guidance.



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- Current inpatients with invasive or non invasive LTV with new respiratory symptoms or a respiratory deterioration need to be presumed COVID positive until deemed negative and staff should follow current local guidance around testing and PPE.





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Covid result awaited /or  
positive

Respiratory status is same as  
at the patient's baseline e.g.  
patient is hospitalised for  
alternative reason (eg.  
Fractured leg)

Respiratory status is \*off  
baseline\*

Continuing with home device use  
and settings

- HCW Apply full PPE as for aerosol generating procedure
- Nurse in isolation
- This applies to within hospital transfers (see full document **for specifics of how to manage for children**
  - ventilated via tracheostomy
  - using CPAP or BiPAP

Strongly consider referral to PICU  
for stabilisation / on-going care

- Plan for a safe transfer within hospital including measures to prevent transmission of Covid-19 during transfer and protect HCW's
- Adjustments to the ventilator circuit to reduce transmission of aerosols may be considered in HDU/ICU environment to include;
  - Cuffed tube
  - Introducing a filter into the circuit
  - Non-vented mask ventilation