Respiratory Support Withdrawal (NIV/CPAP/HFNO) When Proven/Suspected Covid-19

Respiratory support can be continued until death alongside symptom control, if it is felt to be helpful. Consult InSITE for guidance on symptom control measures for breathlessness (morphine) and distress (midazolam).

When to consider withdrawal of respiratory support:

- A patient deteriorating despite therapy, and burdens of treatment outweigh benefits.
- A patient with capacity who requests withdrawal.
- A patient with a valid advance care plan/ ADRT declining respiratory support.

Withdrawal of ineffective or unwanted medical treatment including respiratory support is good clinical practice. It is not assisted dying/ suicide or euthanasia.
This needs to be carefully communicated to patients, loved ones, and MDT colleagues.

Who to involve:

- Patients and Next of Kin.
- A senior clinical decision maker (registrar or consultant).
- A second senior decision maker (consultant) if requested/ any concerns with plan.
- Seek MDT opinion e.g. ward nurses, ventilation team, Specialist Palliative Care Team.
- A doctor with dedicated time to initiate/ run withdrawal.
- A dedicated nurse to be involved with withdrawal.
- A "runner" who can quickly bring medicines/ extra equipment.
- Chaplaincy: consider religious/ spiritual needs prior to withdrawal.

Preparation (away from bedside):

- Aim for all withdrawals to be in usual working hours with planned staff available.
- Doctor and nurse undertaking the withdrawal should "checklist" the personalised plan.
- Document mental capacity assessment and rationale for withdrawal.

The aim is to provide patients with an adequate level of sedation before the respiratory support is removed so that they are not distressed once that support is withdrawn.
This will require anticipatory medicines "PRN". These medication doses are specifically for the withdrawal process and higher than for management of symptoms in other contexts. Prescribe:

Morphine 5mg-20mg SC as needed. *For pain/ breathlessness.*
Midazolam 5mg-20mg SC as needed. *For sedation/ distress.*
Levomepromazine 12.5mg-50mg SC as needed, up to 200mg/ 24hr. *For sedation.*
Glycopyronnium 200-400 microgram SC, every 30 minutes, up to 1.2mg/ 24 hr. *For secretions.*

For patients established on opiates/ benzodiazepines, larger doses may be needed.
For patients known to have severe side effects from morphine, use oxycodone 2.5mg-10mg SC PRN.

- If secure IV access available, opiates and benzodiazepines may be given by this route. Stat doses 2.5mg - 10mg morphine and midazolam, with PRN doses 2mg - 5mg given every 2 minutes, titrated until patient comfortable.

An alternative to achieving sedation by repeated stat doses is to commence a continuous SC infusion, and then commence the withdrawal process with stat medicine doses after ~4 hours of infusion. If considering this method, please call the Specialist Palliative Care Team for advice.

Withdrawal process (by bedside):

Discussion points:

- Consider using virtual social contact to allow messages from NOK to be passed on prior to beginning.
- Medic and nurse confirm plan with patient / NOK before proceeding.
- Acknowledge that there is uncertainty about how long the patient will live for after the respiratory support has been stopped.

- Reassure patient and NOK that symptoms will be managed.
- If withdrawal is being done at patient's request, they may request that for NIV/ CPAP/ HFNO is not reinstated at any point during withdrawal process.

1. Give medicines in anticipation of symptoms when respiratory support is stopped.
Ensure two separate SC lines in situ: alternate site if giving repeated doses to help drug absorption.
Administer opioid and midazolam with aim for patient sedation.
Start with lower doses, repeat as needed at 10 minute intervals.

2. Assess the level of sedation before the respiratory support is stopped.
Observe for several minutes.

3. Test whether the level of sedation is adequate.
If patient sedated and peaceful, switch off the respiratory support but keep the mask/ HFNC in place. Observe for any signs of distress.
Administer further medication if required and temporarily restart the respiratory support if needed (at same setting to previous).

4. Repeat step 3 until the patient is adequately symptom controlled without respiratory support.
Consider SC levomepromazine in addition to opioid and midazolam.

IF NO EFFECT SEEN FROM REPEATED PRN DOSES, PAUSE PROCESS.
Is there another sourece for symptoms?
Call Specialist Pallaitive Care Team for advice.

5. Remove respiratory support.
If patient remains peaceful, remove mask/ HFNC. Observe for several minutes.
If patient symptomatic, administer further PRN medication and consider re-starting the respiratory support, repeating steps 3-4.

6. **Ongoing symptom control.**
Consider oxygen mask e.g. venturi 40% once withdrawal from NIV/ CPAP/ HFNO completed.
If patient is peaceful post-withdrawal, commence syringe driver to continue to deliver medicines for symptom relief.

Afterwards:

- If patient dies within minutes, complete UHL COVID-19 death procedures immediately.
- If patient has not died, ensure regular review. Administer further PRN doses as required.
- Review PRN dose administration after 4hrs and increase syringe driver infusion if required.
- Update Next of Kin.

Check in with colleagues involved in withdrawal- is everyone OK? Take a break, even if short, before continuing with clinical work wherever possible.

Anything that went well/ lessons to be learnt?
(Please feedback to SPCT M+M mailbox: PallCareMortality@uhl-tr.nhs.uk)

Chaplaincy can support. Check InSITE for other sources of support.
Formal debrief can be arranged.

- After patient's death, link NOK to bereavement services promptly.
- Ensure bereavement team aware of death (bereavementservices@uhl-tr.nhs.uk).
- After death of patients with COVID-19, offer NOK mementoes (e.g. lock of hair) **at the time**. These cannot be offered or undertaken at a later date. Any mementoes should be placed in a sealed bag which then must not be opened for 7 days.

The evidence base for withdrawal of NIV/ CPAP/ HFNO is lacking, and at the time of writing there is no existing guideline for withdrawal in the context of COVID-19.

Please document experiences clearly in medical records for future coding and potential analysis of care.
With your help, this document will evolve with our experience over time.

Specialist Palliative Care telephone Support is available 24/7 via switchboard.

The Specialist Palliative Care Team will try to support in person when requested.

LRI	0116 2585414
GH	0116 2583540
LGH	0116 2584680

Guidelines prepared with reference to:

COVID-19 and Palliative, End of Life and Bereavement Care in Secondary Care. Role of the specialty and guidance to aid care V1.0. Association of Palliative Medicine, Northern Care Alliance NHS Group. (https://apmonline.org/ - online version evolving with time)

Withdrawal of Assisted Ventilation at the request of a patient with MND. Association of Palliative Medicine, 2015.

CHECKLIST FOR PERSONALISED PLAN: WITHDRAWAL OF RESPIRATORY SUPPORT

- ☐ Decision for withdrawal from a senior clinical decision maker (registrar or consultant).
- ☐ Documented mental capacity assessment and rationale for withdrawal.
- ☐ MDT in agreement.
- ☐ Dedicated nurse/ medic to run withdrawal.
- ☐ "Runner" to be available to quickly bring medicines/ extra equipment.
- ☐ Anticipatory medicines for withdrawal process prescribed.

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Review PRN dose administration after 4hrs and increase syringe driver infusion if required.

☐ Update NOK.

☐ Check in with colleagues involved in withdrawal- is everyone OK?