Weaning regime from NIV in the ED

**DOES PATIENT FIT WEANING CRITERIA?** (all points satisfied):
- Stable clinically – RR<24/min, sats >90%, improved work of breathing, normal mentation
- No escalation of IPAP/EPAP or FiO2 for at least 1 hour
- Improving in VBG/ABG
- Senior ED Doctor has confirmed that weaning should take place

**COMMENCE WEANING**
- Start with the FiO2
  - Reduce by 0.2
  - Reduce by no more than 0.4 from a maximum 1.0
  - Maintain the change in setting for at least 30 minutes

**MAINTAIN CHANGE & MONITOR PATIENT RESPONSE**
Look for symptoms and signs of WEANING FAILURE*

**PATIENT TOLERATES CHANGE FOR 30 MINUTES?**

**CONTINUE WEANING**
- Further reduction of FiO2, **OR**
- Reduce IPAP and EPAP **(simultaneously)** by increments of 2cm H2O

**PATIENT TOLERATES EACH NEW CHANGE FOR 30 MINUTES?**

**WEAN TO THE FOLLOWING PRESSURE END POINTS**
PS < 8cm H2O (PS = IPAP-EPAP)
EPAP <8cm H2O
CPAP <5cm H2O (if on CPAP alone)

**PATIENT TOLERATES END POINT PRESSURES FOR 30 MINUTES?**

**TRANSITION TO LOW FLOW CIRCUIT**
Oxygen via Hudson mask then nasal prongs
Ongoing respiratory monitoring

**TRANSITION TO HIGH FLOW CIRCUIT**
Oxygen at 15L/min via a non-re breather

**WEANING FAILURE***:
- RR>24/min
- Sats <90%
- Worsening PaO2/PaCO2
- Diaphoresis
- Increased work of breathing
- Agitation
- Colour change – eg cyanosis

Early notification of Staff Specialist/Registrar and clinical review if failing to wean → consider HDU/ICU admission

**YES**
Consider treatment escalation (see Acute COPD NIV Guidelines)

**NO**
Return to previous NIV settings
Consider treatment escalation

ECI acknowledges the contribution of the Prince of Wales elective medical student, Jane Hart, to this work