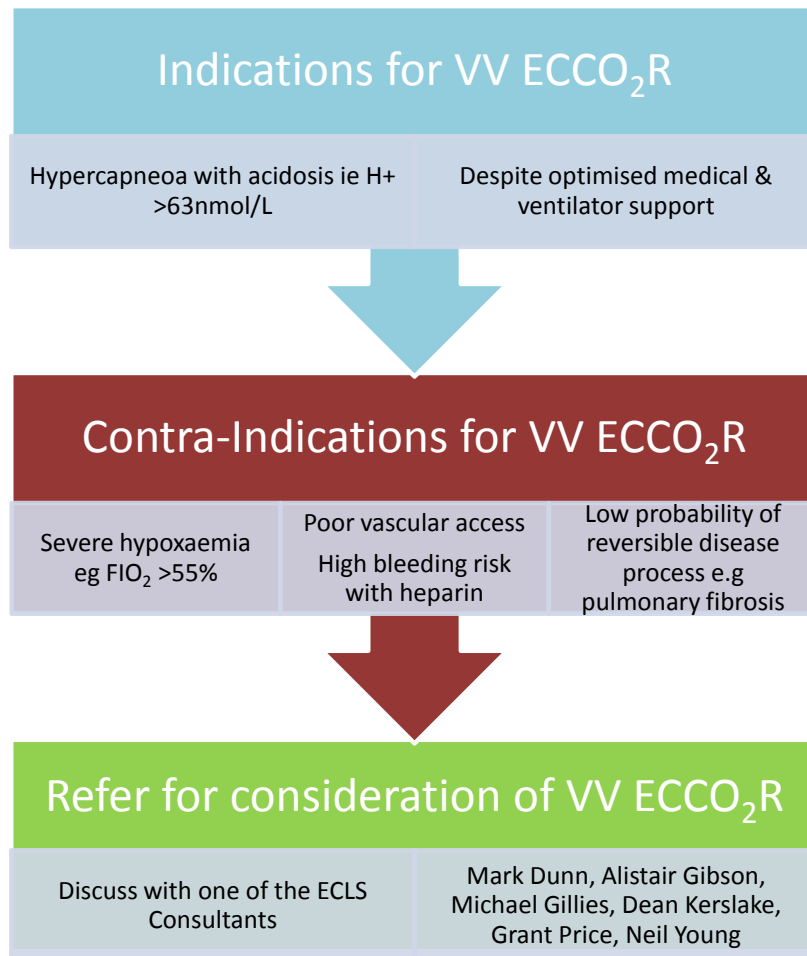


## Extra Corporeal Carbon Dioxide Removal Guideline

Veno venous Extracorporeal Carbon dioxide referral



Dr Grant Price on behalf of ECLS Consultants  
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Review September 2016

**Extra Corporeal Carbon Dioxide Removal (ECCO2R) may be considered in NHS Lothian in the following situations:**

- Ventilated patients with ARDS in whom it is not possible to provide adequate lung protective ventilation.
- Ventilated patients with acute severe asthma or COPD in whom safe CO<sub>2</sub> clearance cannot be achieved.
- If a H<sup>+</sup> ion concentration of < 64 nmol/L cannot be achieved with tidal volumes of ≤ 6ml/kg ideal body weight and plateau pressures < 30 cmH<sub>2</sub>O in patients with ARDS or acute severe asthma.
- In cases of severe hypoxaemia e.g. P/F ratio < 13.3kPa (100mmHg) consideration should be given to ECMO referral.

In view of the absence of robust data supporting a mortality benefit for ECCO2R and potential complications:

- **Two Consultant Intensivists** should be involved in the discussion to use ECCO2R.
- **Authorisation** should be obtained from the Clinical Director or Associate Medical Director.
- The use of ECCO2R should be discussed with the patient/ relative and written information offered as per NICE IPG 428.  
<http://www.nice.org.uk/nicemedia/live/11861/59696/59696.pdf>
- Following weaning of ECCO2R data **must** be entered in the ELSO registry.

Daily management:

- Patients should usually be anticoagulated to an APPT of 1.5 – 2.0 as per the ECMO anticoagulation guideline – if an absolute contra-indication to anticoagulation exists the use of ECCO2R without anticoagulation may be considered.
- Patients should be cared for by a nurse with experience in extra corporeal respiratory therapies.

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