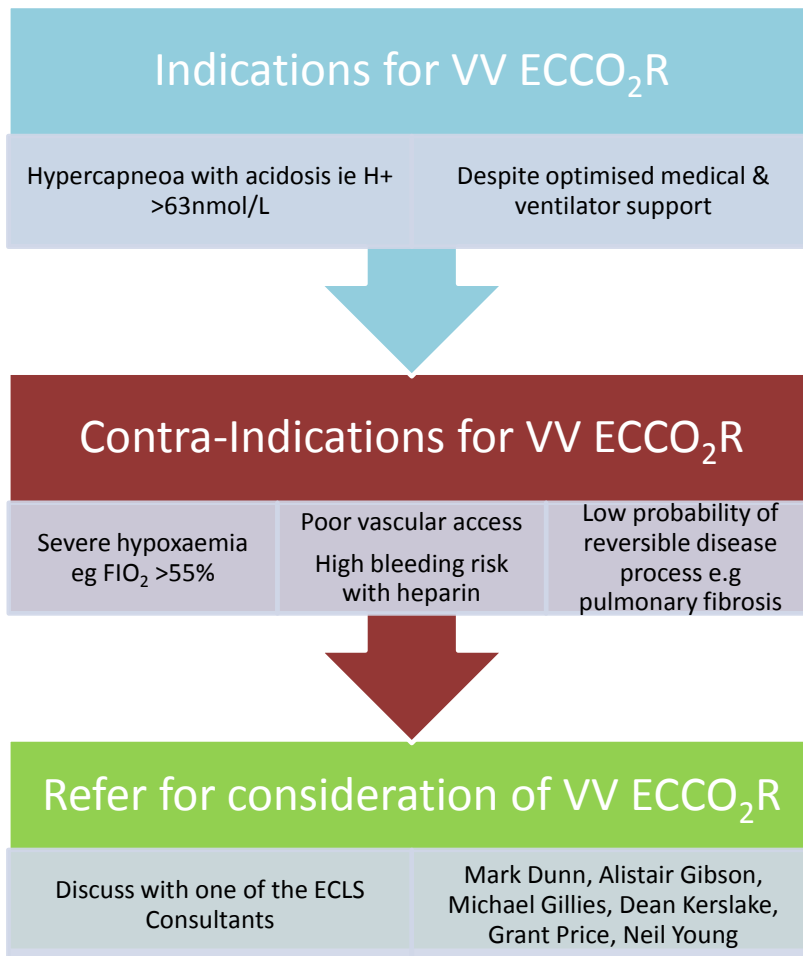


## Extra Corporeal Carbon Dioxide Removal Guideline

Veno venous Extracorporeal Carbon dioxide referral



Dr Grant Price on behalf of ECLS Consultants  
September 2015  
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.

<b>Title:</b> Extra Corporeal Carbon Dioxide Removal Guideline	
<b>ID:</b> ECCDRGv2.20151006	<b>Authors:</b> N Young, M Gillies, G Price M Dunn
<b>Category:</b>	<b>Document Version:</b> 1
<b>Status Draft/Final:</b> Final	<b>Review Date:</b> Oct 2017
<b>Authoriser:</b> QIT, ECLS Group	<b>Date Authorisation:</b> Oct 2015
<b>Date added to Intranet:</b> Oct 2015	
<b>Key words:</b> ECCO2R, ECLS, ECMO	

The use of this guideline is subject to professional judgement and accountability. It should not be interpreted as setting a standard of care. This guideline has been prepared carefully and in good faith for use within the Directorate of Critical Care at NHS Lothian. No liability can be accepted by NHS Lothian for any errors, costs or losses arising from the use of this guideline or the information contained herein.