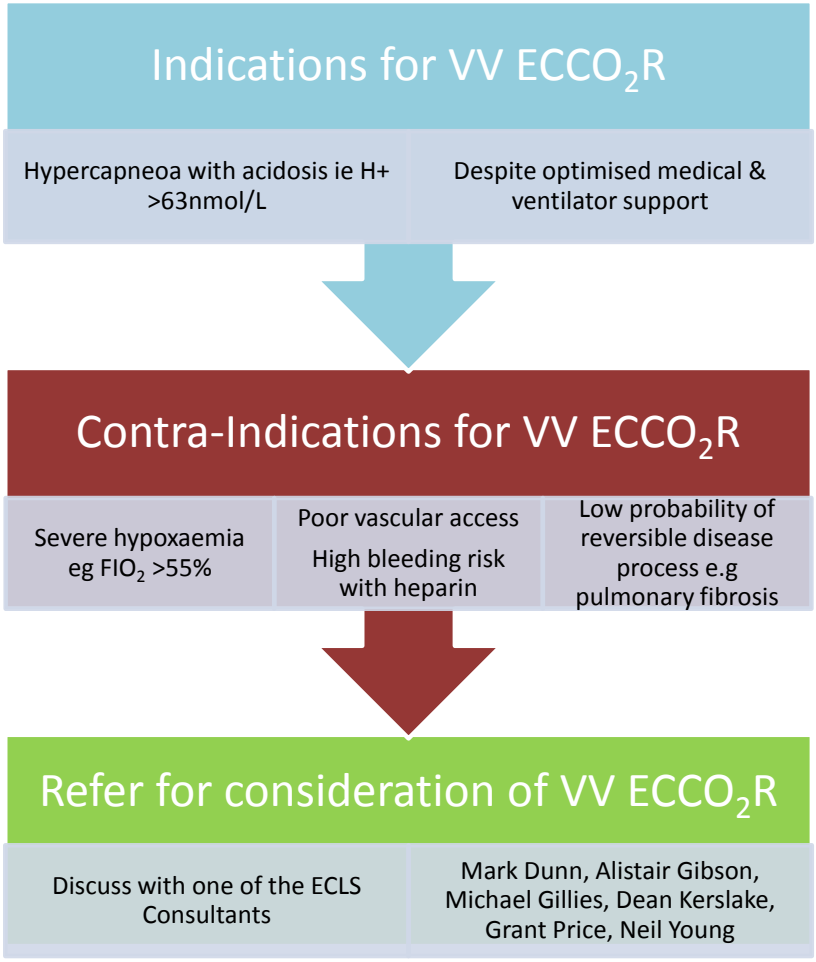
NHS Lothian

Extra Corporeal Carbon Dioxide Removal Guideline

Veno venous Extracorporeal Carbon dioxide referral



Dr Grant Price on behalf of ECLS Consultants
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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_2 clearance cannot be achieved.

- If a H+ ion concentration of < 64 nmol/L cannot be achieved with tidal volumes of </= 6ml/kg ideal body weight and plateau pressures < 30 cmH_2O 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 APPTR 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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