ECMO DAY _____ CIRCUIT DAY _____

VA ECMO WARD ROUND (VERSION 9)

This checklist can be used for the daily ward round for the ICU patient on VA ECMO. For further details see the Alfred ECMO guideline.

---

1. Is ECMO flow adequate?

◯ Yes (MAP, lactate, perfusion, UO)

◯ No

Surplus ECMO flow can lead to ↑ LV afterload & blood trauma.
Inadequate flow leads to persistent shock.

---

2. Is native circulation optimized?

◯ Inotropes weaned

◯ LV stasis reduced (pulsatility, AV opening on TTE)

◯ LV/RV load optimized

Too little native cardiac flow will lead to APO, LV stasis & thrombosis.
Too much flow can lead to differential hypoxia, inotrope toxicity.

---

3. Which patient complications have developed?

◯ Sepsis (bacteraemia, devices, VAP etc)

◯ Bleeding (cannulae, lines, retroperitoneal, intrathoracic)

◯ Pulmonary oedema (inadequate LV decompression, AR)

◯ Tamponade (rising CVP, reducing pulsatility, access insufficiency)

◯ Thrombus (LV, pulmonary, cannulae)

◯ Differential hypoxia

◯ Neurological (delerium, coma, CVA, ICH)

◯ Limb perfusion (hyperperfusion: two cannulae same limb, or hypoperfusion – check dopplers)

◯ No complications

Risk of complications increases +++ if

- E CPR
- ECMO >4 days
- MODS/Coagulopathy
- Comorbidities

---

4. Have ECMO circuit complications developed?

◯ Access insufficiency (kicking, dropping flows, haemolysis, hypovolaemia)

◯ Haemolysis

(aim quiet pump, TMP <40mmHg, plasma free Hb <0.1g/L, LDH stable, post oxygenator PO_2 >200)

◯ Circuit driven fibrinolysis (Rising D-dimers, fibrinogen <1.5 g/L, stable platelets)

◯ Anticoagulation (target bleeding vs thrombosis risk)

◯ Cannulae and tubing (position stable on skin/CXR, secured, no kinks)

◯ No complications

---

5. Can the patient be weaned?

◯ Has the underlying condition improved

◯ Weaning study if: flow <2.5L/min, improving clinical and on TTE

---

6. Can the patient be extubated?

◯ Yes (Alert, cooperative, minimal APO)

◯ No

---

7. Is the overall plan clear? (DW CAHF/CTSx/Home team)

◯ Bridge to recovery ◯ Bridge to transplant ◯ Palliation