ECMO Considerations

ECMO can be considered in trauma patients for full or partial support of potentially reversible post-traumatic cardiopulmonary failure

- ECMO mode based on patient disease process
    - VV ECMO for respiratory failure, ARDS or severe hypoxia
    - VA ECMO for refractory cardiac dysfunction/cardiogenic shock

Indications

- Severe chest trauma
- ARDS
- Respiratory failure
- Massive pulmonary emboli
- Cardiogenic shock

Contraindications

- Irreversible injury
- Patients with TBI can still be considered for ECMO and are no longer an automatic exclusion

Timing

- Early initiation (<7 days of mechanical ventilation) with more favorable outcomes
- Failed management with conventional methods (prone position paralytics, advanced ventilatory strategies)

Initiation and Management

- ECMO surgeon is notified via paging system if patient meets above criteria
    - ECMO surgeon/team will evaluate and make determination if patient is candidate for ECMO therapy
- All adult trauma patients on ECMO will transition to the CVICU under the ECMO team for ECMO and critical care management
    - The trauma team will continue to follow ***daily*** and provide guidance based on traumatic injuries
- Any surgical interventions on ECMO will be performed in the CVICU by the trauma surgeon or another consulting service
- Once decannulated, the patient will transition back to the SICU or other appropriate level of care under the trauma service

References:

Zonies D, Codner P, Park P for the American Association of the Surgery of Trauma Critical Care Committee*, et al*
AAST Critical Care Committee clinical consensus: ECMO, nutrition Extracorporeal membrane oxygenation (ECMO)Nutrition
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