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MGH ECMO Protocol During the COVID19 Pandemic

ECMO ELIGIBILITY COVID ASSOCIATED RESPIRATORY FAILURE:
- All intubated patients should be screened daily for ECMO needs and Eligibility.
- $\geq 1$: PF Ratio 60-80, respiratory instability with prolonged desaturations, or elevated airway pressures.
- Prone Failure or inability to Prone.
- Approval by ECMO and/or ICU Directors.

ABSOLUTE CONTRAINDICATIONS COVID19:
- Age $>60$ for COVID19 Patients.
- Multisystem Organ Failure.
- Chronic Cardiac, Pulmonary or Hepatic Disease.
  - With exception of Asthma.
- Unknown Neurological status.
- Active Malignancy.
- ANC $<1000$
- ECPR

RELATIVE CONTRAINDICATIONS All:
- Age $>65$ for NON-COVID19 Patients.
- Immune Suppression.
- Chronic Renal Dysfunction.
- Secondary infections with MDR organisms.
- ECPR
- BMI $>35$

CANNULATION STRATEGIES, PER COVID CANNULATION PROTOCOL:
- Cannulation to occur bedside in the ICU.
- Femoral/Jugular Cannulation to eliminate need for guided imaging.
- Sheaths should be placed early.

PANDEMIC RESOURCE UTILIZATION:
- Daily Assessment by ICU and ECMO teams regarding continued support.
- Resource Allocation will be guided by Hospital Incidence Command System (HICS)

Responding Authors: Yuval Raz, MD; Masaki Funamoto, MD; Kenneth Shelton, MD
References:

8. Massachusetts General Hospital Treatment Guidance for Critically Ill Patients with COVID-19