Guidelines for ECMO Cannulation and Candidacy for COVID-19+/PUI Pediatric and Neonatal Patients

General Procedural Considerations for PUI/COVID+ ECMO Cannulation:

- Cannulation and procedures for PUI/COVID+ ECMO patients should occur in the ICU (exceptions to be approved by ECMO and ICU leadership) to minimize transport of patients within the hospital.
- **MOST IMPORTANTLY,** proper PPE and limitation to ESSENTIAL PERSONNEL ONLY for any ECMO cannulation or event MUST BE OBSERVED.
  - Essential Personnel for ECMO cannulation: *denotes personnel INSIDE the room
    - ECMO Surgical Team*: Primary Surgeon (attending or advanced CT surgery fellow) and **ONE** Surgical Assist and **ONE** Scrub nurse
    - ICU Leader*: ICU attending and/or fellow
    - ICU Nurse* x 2
    - Respiratory Therapist* x 1
    - Perfusionist x 1 – to prepare circuit outside of the room until cannulas in and ready to connect to circuit.
    - OR Circulating Nurse: outside of the room to only pass supplies into the room through the **Relay RN ONLY**
    - Crowd Control: Charge nurse or ICU nurse outside of the room to monitor adherence to Essential Personnel ONLY inside and outside of the room.
    - Additional roles during an ECMO cannulation:
      - PPE Monitor RN*: (in the room, near the door) to monitor that ALL personnel entering and exiting the room are observing proper PPE precautions.
      - Relay RN (outside of the room, near the door) – the **ONLY** person to pass things in and out of the room.
    - **ONE** Front-line Provider (MD or NP): Should remain outside of the room, at a remote distance, but be readily available to make any phone calls or place any orders needed.
    - All carts should remain outside of the room. Supplies needed for cannulation should be prepared outside of the room and brought in. Additional supplies needed will be communicated to and handed into the room by the **Relay RN ONLY**.

ECMO Candidacy for COVID-19+/PUI Patients:
Standard guidelines for ECMO candidacy apply (refer to NYP Infonet Policy)
https://infonet.nyp.org/Nursing/Standards/PEDSExtraCorporealMembraneOxygenationECMOPediatrics.pdf

For PUI Patients:
- Standard ECMO candidacy guidelines applies for respiratory, cardiac and ECPR with special attention to proper PPE use and above procedural considerations.

For COVID+ Patients:
- For non-ECPR, controlled cardiac or respiratory cannulation:
  - Standard ECMO candidacy guidelines applies with special attention to proper PPE use and above procedural considerations.
- **ECPR in COVID+ Pediatric Patients:**
  - ECPR is discouraged for COVID+ patients, especially for those with other comorbidities, septic shock or evidence of multisystem organ dysfunction.