



# CANNULATION WORKFLOW

## STAGE 1 – ELIGIBILITY

### CANNULATOR 1:

- Open major anesthetic pack onto trolley 1 and dons sterile PPE. This is all located in the stage 1 draw

### CANNULATOR 2:

- Positions and sets up ultrasound machine. Performs BELS.

### CANNULATION NURSE:

- Positions two procedure trolleys at the end of the bed.
- Positions ECMO trolley within reach and breaks tabs.
- Open basic dressing pack, purple shaver head and iodine from PPE draw. Remove clothing and shave femoral site.

## STAGE 2 – ECMO CONSIDERED

### STEP 1

#### CANNULATOR 1:

- Applies bifemoral drape and sterile probe cover (**do not put drape over procedure trolley**)
- Prepares Vascular Sono needle 18G 100mm and syringe

#### CANNULATOR 2:

- Hands probe to cannulator 1 for application of sterile cover

#### CANNULATION NURSE:

- Opens all equipment in ECMO considered stage 2 draw/box onto sterile field on procedure trolley 1 prioritizing the probe cover, VascularSono needle and 10ml syringe.

### STEP 2

#### CANNULATOR 1:

- Identifies femoral vessels, surveys for suitability and ideal point of entry

#### CANNULATOR 2:

- Open major anaesthetic pack onto trolley 2 and don sterile PPE. This is all located in the stage 1 draw/box

#### CANNULATION NURSE:

- Opens any remaining stage 2 equipment

### STEP 3:

- **CANNULATOR 1** – Needling of the vessels and insertion of angiosheaths. Artery first to draw blood for ABG. Insert both wires then proceed to angiosheath insertion.
- **CANNULATOR 2** – Sterile assistant
- **CANNULATION NURSE** – Non-sterile assistant. If decision has already been made to progress to stage 3 before angiosheaths are in use this time to open stage 3 equipment onto procedure trolley 2

## STAGE 3 – ECMO CONFIRMED

### STEP 1

#### **CANNULATOR 1:**

- Placement of either *amplatz* super stiff or ECMO wires
- Await confirmation of wire position by TOE prior to dilation and insertion of ECMO cannula. (If TOE not available for TTE to confirm wire in IVC/aorta with subcostal view)

#### **CANNULATOR 2:**

- Wire assistant to pin, rack and agitate wire during dilation phase
- Monitor insertion length and prevent contamination of the wire
- Withdraw the obturator 10cm when it is estimated the cannular is 10cm distal to the RA.

#### **CANNULATION NURSE:**

- Removes procedure trolley 1 from end of the bed and replaces it with procedure trolley 2
- Opens stage 3 equipment in the following order:
  - Maquet venous wire and dilator set (150cm)
  - Maquet arterial wire and dilator set (100cm)
  - Additional wire if requested from the 'at request' draw (*Amplatz* is the stiff wire, *lundquist* is the long exchange wire 250cm)
  - Scalpel
  - Venous ECMO cannula (cannulator 1 will confirm size)
  - Arterial ECMO cannula (cannulator 1 will confirm size)
  - Open all remaining items in stage 3 draw onto procedure trolley 2

### STEP 2

#### **CANNULATOR 1:**

- Secures ECMO cannula in position

#### **CANNULATOR 1 & 2:**

- Performs wet-to-wet connection to ECMO circuit under direction of the perfusionist as circuit will need cutting first.

#### **CANNULATION NURSE:**

- Make up heparin solution (10,000 units in 1 liter of 0.9% normal saline)

### STEP3

#### **CANNULATOR 1:**

- Apply CHG dressing to cannula site.

#### **CANNULATOR 2:**

- Use sterile shears to cut off femoral drape. Shave inner thigh if required and secure cannula with grip lock dressings.

#### **CANNULATION NURSE:**

- Remove and clear procedure trolleys to allow patient packing for transfer