## Quick Setup for Measurement of Cardiac Output with a Pulmonary Artery Catheter

## **Equipment:**

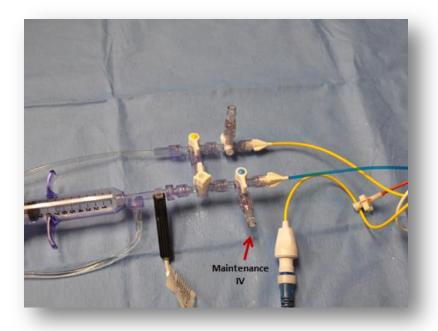
- Bag of D5W (any size bag can be used)
- Cardiac output CO-Set (injection syringe and tubing for room temperature solution)
- P4 module
- Cardiac output cable

## **Checklist for Cardiac Output Measurement (refer to procedure for detailed information)**

- Perform hand hygiene.
- Prime cardiac output CO-Set with D5W
- If Datex™ monitor is in the Swan Ganz mode, blood temperature (TBlood) should automatically display as a digit field in the lower left of the screen upon connection of the thermistor.
- Ensure that the patient's height and weight has been entered into the demographics section.
- Remove stopcock at end of syringe.

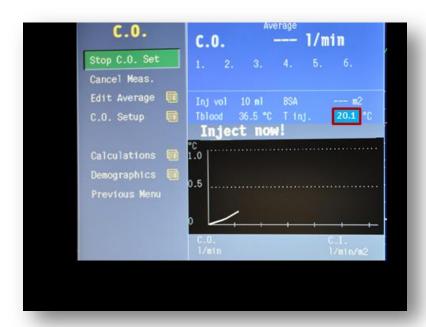


- Connect syringe to the blue (injectate port) side of the bridge.
- Connect cardiac output cable to pulmonary artery catheter thermistor (Note: the thermistor has 3 pins; this is the normal appearance).



- If the digit field for CI (cardiac index) is not available, turn it on as a digit field.
- Connect injectate temperature probe to syringe.
- Collect hemodynamic readings before measuring cardiac output. Print waveforms from snapshot function and determine CVP and wedge if appropriate. Post in chart.
- Confirm PA tracing on screen.
- Confirm that there are no vasoactive drugs infusing into the proximal injectate port (blue). The preferred port for vasoactive infusions is the introducer.
- Confirm that there are no cold blood products or infusions at rates > 100 ml/hr infusing into the introducer or VIP/Paceport lumens (these can change the blood temperature and alter the cardiac output measurement).
- Press "Wedge, CO,ScVO2" button on monitor.
- Select "CO".
- Open D5W line and slowly draw exactly 10 ml of D5W into syringe.
- Close stopcock to maintenance IV and open stopcock to syringe.
- Select "Start cardiac output".
- Observe the injectate temperature. It is important to watch this during the initial injection to ensure that it falls. Ensure that the injectate temperature is between 18-25 degrees.

• "Inject Now" will appear on the screen. Watch the patient's breathing and begin injection at the end of inspiration (this will time the injection to reach the heart at end expiration).



- Inject volume using a steady and continuous motion.
- Perform a minimum of 3 measurements and obtain the average from the edit screen.
  Review waveforms before averaging and remove any with irregular waveforms or extreme values that are > 10% apart.
- If the CI is extremely low (especially < 1.0), confirm that the injectate probe is properly connected.
- Remove non-sterile gloves and perform hand hygiene.
- Obtain mixed venous blood gases from the PA port of the pulmonary artery catheter.
- Print waveforms from snapshot function and determine CVP and wedge if appropriate. Post in chart.
- Record hemodynamic values and SVO2 in graphic record.