properly. A visual inspection for leaks should also be made since a small leak can misrepresent the actual continuous flow through the catheter. The system should be checked periodically for proper fluid source pressure, flow rate and leaks.

## **VIII. INDICATIONS AND CONTRAINDICATIONS**

A. Indications

- Direct arterial pressure monitoring
- Left atrial monitoring with an air-eliminating filter between solution source and continuous flush device
- Pulmonary artery monitoring (PA distal)
- Venous pressure monitoring (RA proximal)
- Cardiac catheterization

#### B. Contraindications

- Left atrial monitoring without an air-eliminating filter between solution source and continuous flush device
- · Intracranial pressure monitoring
- Compartmental pressure monitoring
- · Intrauterine pressure monitoring

Do not reuse. Reuse negatively impacts performance / sterility potentially resulting in product failure / contamination.

# MONITORING KIT TRANSPAC™ IT

Disposable Transducer

Monitoring Kit

with Continuous Flush Device

and Drip Chamber

## Instructions for Use

Monitoring Kit connectors may have become loose during shipment. Make sure all fittings are secure before using, but avoid overtightening and stripping. If product is disassembled and used in any configuration other than the original, the clinician should verify proper fit of new connections.















Does Not Contain DEHP www.icumed.com/symbols-glossary

ICU Medical, Inc. 951 Calle Amanecer San Clemente, CA 92673 USA



# MONITORING KIT TRANSPAC™ IT

# Disposable Transducer Monitoring Kit with Continuous Flush Device and Drip Chamber

# **Instructions for Use**

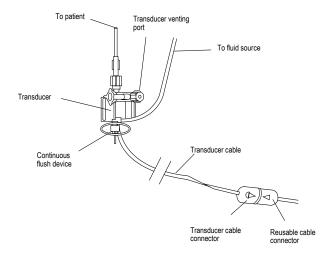
## I. INSTALLATION OF TRANSDUCER CABLE

Connect the transducer cable to the patient connection on monitor.

#### II. KIT SET UP

- A. Set up the disposable transducer monitoring system using aseptic technique.
  - 1. Open package containing the sterile disposable transducer monitoring kit.
  - Remove transducer monitoring kit assembly from package. Check all fittings to ensure tight connection.
  - Attach the cable to the transducer by connecting the cable extension to the reusable cable as shown in Figure 1.

Figure 1



Caution: Care must be taken to keep electrical connections on the cable extension dry or erratic readings may result.

Prepare a collapsible IV solution bag by extracting all air from the bag. If heparin is to be used, it should be added prior to air removal.

Caution: If an air-free solution source is not used (i.e., air is not extracted from the bag) air may be forced into the monitoring line when solution is exhausted.

Close the clamp on the administration set and remove the protective cap from the administration set spike. Insert the spike carefully into the IV solution bag.

Caution: To prevent inadvertent puncture of the IV solution bag, insert the spike carefully using a downward twisting motion.

- 6. Insert the IV solution bag into the pressure administration cuff.
- 7. Hang the pressure administration cuff from the IV pole.
- 8. With the clamp closed and the drip chamber at a 45° angle, squeeze the drip chamber slightly to draw solution into the drip chamber (fluid level should be approximately 1/2 cm from the bottom of the drip chamber as the level will increase when fluid source is pressurized).
- 9. Open clamp on administration set.

# III. PURGING AIR FROM THE LINES

- A. Pole Mount
  - 1. Attach transducer to reusable pole mount.
  - 2. Remove white vented cap from the venting stopcock.
  - Activate fast flush valve of the continuous flush device and fill transducer slowly (using gravity pressure only) until air-free. Flush fluid through transducer and side port of stopcock.

- Turn handle of venting stopcock "off" to its side port. Place a yellow nonvented cap from the spare parts bag onto the side port of the stopcock.
- 5. Remove white vented cap from the side port of distal stopcock.
- 6. Activate fast flush valve of the continuous flush device and fill line slowly (using gravity pressure only) through the side of stopcock until air is removed. Turn handle of stopcock "off" to its side port. Place a yellow non -vented cap onto the side port of the stopcock.
- 7. Remove white cover at patient connector and flush the rest of the patient line. Place a yellow non-vented cover onto the patient connector.

Note: Take special care to ensure no air is trapped in any components of the fluid pathway. The monitoring system must be totally air-free for maximum performance, i.e., optimal dynamic response.

Pressurize the IV solution source to 300 mmHg. Close cricket clamp on pressure cuff.

Caution: Make certain the drip chamber does not completely fill during pressurization. Air should remain in the drip chamber so that the continuous flush rate can be verified following a fast flush.

#### **B** Patient Mount

1. Remove white vented cap from the venting stopcock.

Note: Hold the transducer assembly so that the fluid flows upward, i.e., perpendicular to the floor.

- Activate the fast flush valve of the continuous flush device and fill transducer slowly (using gravity pressure only) until air-free. Flush fluid through transducer and side port of venting stopcock.
- Turn handle of venting stopcock "off" to its side port. Place a yellow nonvented cap from the spare parts bag onto the side port of the stopcock.
- Remove white cover at patient connector and flush the rest of the patient line. Place a yellow non-vented cover onto patient connector.

Note: Take special care to ensure no air is trapped in any components of the fluid pathway. The monitoring system must be totally air-free for maximum performance, i.e., optimal dynamic response.

Pressurize IV solution source to 300 mmHg. Close cricket clamp on pressure cuff.

Caution: Make certain the drip chamber does not completely fill during pressurization. Air should remain in the drip chamber so that the continuous flush rate can be verified following a fast flush.

- 6. Position the transducer onto the patient and secure strap.
- 7. Tape down components as desired.

# IV. BALANCING AND CALIBRATION

- A. After the system has been flushed and mounted, balance the transducer.
  - 1. Turn handle of venting stopcock "off" to the patient.
  - Remove yellow non-vented cap from the side port of the venting stopcock.
     Note: For best results the side port of the venting stopcock should be positioned at approximately the same level as the pressure site
  - 3. Balance transducer per monitor manufacturer's instructions.
  - Turn handle of venting stopcock "off" to its side port. Replace non-vented yellow cap.
- B. Calibrate the transducer to the monitor.

(usually the mid-axillary level).

1. Follow monitor manufacturer's printed calibration procedures.

Note: An accurate calibration can only be achieved by using a known pressure source, e.g., mercury manometer.

If the system will not calibrate, check all stopcock handle positions and electrical connectors.

Note: The above procedure should be used for periodic balancing and calibration checks.

# V. CONNECTING MONITORING SYSTEM TO PATIENT

- A. Remove yellow non-vented cover at patient connector. A continuous flush of approximately 3 mL per hour should be observed in the drip chamber. If using a MICRODRIP® chamber, drop rate should be approximately 3 drops per minute. If using a macrodrip chamber, drop rate should be approximately 1 drop per minute.
- B. For a systemic arterial blood pressure line, activate the fast flush valve of the continuous flush device, while allowing arterial cannula to backflow during attachment. For pulmonary artery catheters, the monitoring system should be attached to the catheter and the catheter filled with IV solution prior to insertion. Follow catheter manufacturer's insertion instructions.

#### VI. FAST FLUSHING

- A. Activate the fast flush valve of the continuous flush device and check drip chamber to confirm fast flush.
- B. FOLLOWING EACH FAST FLUSH, DRIP CHAMBER MUST BE OBSERVED TO VERIFY COMPLETE VALVE CLOSURE.

# VII. CHECKING FOR LEAKS

After approximately one minute has elapsed, the flow rate should be observed in the drip chamber to ensure that the continuous flush device is operating