

Pressure Monitoring Devices/Peripheral Arterial Catheters

General recommendations

- Wash hands thoroughly before inserting a pressure monitoring cannula or manipulating a pressure monitoring system, such as to draw blood specimens.
- Wear gloves and practice barrier precautions when drawing blood specimens.
- Disposable systems that are pre-assembled and sterile packaged will be used.
- Do not assemble or fill systems with flushing solution before the time of actual need.
- Keep all components of the pressure monitoring circuit sterile (including calibration devices and flush solution).

Insertion

- Use sterile barrier precautions during catheter insertion.
- The site chosen for cannula insertion must be scrubbed with an antiseptic prior to insertion. Cutaneous antisepsis at the time of catheter insertion is very important.
- The cannula must be secured to stabilize it at the insertion site.
- Cover the insertion site with a dry sterile dressing.

Monitoring

- Evaluate the insertion site at least every shift (Q 12 hours) for evidence of infection. This evaluation should include gentle palpation of the insertion site through the intact dressing. If the patient has unexplained fever or there is pain or tenderness at the insertion site, the dressing should be removed and the site inspected.

Replacement of catheter and pressure monitoring system

- Replace peripheral arterial catheters, and relocate catheter insertion sites no more frequently than every 4 days (96 hours) for Infection Control purposes.
- Replace tubing, dressing, and entire pressure monitoring system (i.e., disposable or reusable transducers, flush device/solution) at least every six (6) days, unless medically indicated sooner.
- Replace the arterial catheter and the entire monitoring system if the patient has development of a “high-grade” bacteremia while the catheter is in place, irrespective of the source of bacteremia.

- Intravascular pressure monitoring systems should be removed when they are no longer medically indicated and promptly discontinued or placed at another site if the initial site becomes infected.

Care of pressure monitoring systems

- General measures
- Minimize the number of manipulations and entries into the pressure monitoring system. Use a closed-flush system (i.e., continuous flush), rather than an open system (i.e., one that requires a syringe and stopcock), to maintain the patency of the pressure monitoring catheters. If stopcocks are used, treat them as a sterile field, and cover them with a cap or syringe when not in use.
- When the pressure monitoring system is accessed through a rubber diaphragm rather than a stopcock, wipe the diaphragm with an appropriate antiseptic before accessing the system.
- Do not administer dextrose-containing solutions or parenteral nutrition fluids through the pressure monitoring circuit.
- Keep sterile all components of the pressure monitoring circuit (including calibration devices and flush solutions).
- Do not routinely use pressure monitoring devices to obtain blood samples that do not require arterial blood.