Quick Look Procedure Resource for NON–CRITICAL CARE staff

Care of and sampling from an arterial line

WHEN TO PERFORM
1. Insertion site, line & dressing check, report infection/extravasation to ICU nurse; ensure line secure; change dressing if soiled/loose: each shift
2. Arterial line is clearly identified (e.g. label, red cap) to prevent accidental drug administration ALWAYS
3. Transducer zeroing & levelling & pressure bag check: repositioning/acute BP changes, shift safety check

HOW TO PERFORM
1. RULES for arterial line care
   • NEVER inject anything into arterial line
   • Ensure connections are tight - risk of air embolus/bleeding, watch line during repositioning
   • Ensure pressure bag inflated to 300mmHg
   • Check distal circulation 2-4 hourly
2. Waveforms
   • If under or overdamped - results in an inaccurate blood pressure
   • Change in waveform/BP, reposition hand/line, check transducer level with phlebostatic axis, zero
   • Notify the ICU nurse if not fixed
3. Levelling & zeroing
   • Silence alarm
   • Turn 3-way tap to OFF to patient & OPEN to AIR
   • Remove cap, press zero, the monitor will indicate when complete
   • Return 3-way tap to OPEN to the transducer & OPEN to the patient
   • Replace cap
4. Blood samples
   • Under supervision of ICU nurse until considered safe to do independently

KEY SAFETY CONCERNS/WHEN TO CALL FOR HELP
1. Arterial line dislodgement/bleeding URGENT CALL FOR HELP & apply pressure
2. Poor waveform trace-flat line unresolved with trouble shooting
3. Poor perfusion/absent pulse in arm of arterial line placement
4. Always have arterial alarms switched on and where possible insertion site visible