

PROCEDURE FOR: Blood Pressure Monitoring

- POLICY:**
1. For central blood pressure monitoring, the BP transducer must be at the level of the right atrium during transducer calibration and continuous measurement.
 2. Blood pressures will be documented hourly when central blood pressure monitoring is in effect.

- EQUIPMENT:**
- Cardiorespiratory Monitor
 - Blood Pressure Transducer Cable
 - Blood Pressure Transducer Tubing Set-up (prepackaged)
 - IV Solution as ordered by MD or advanced practitioner
 - Blood pressure cuffs
 - Noninvasive blood pressure monitor
 - Stopcock - Use B-D stopcock if available

PROCEDURE FOR: Central (Direct) Blood Monitoring:

ACTION

POINTS OF EMPHASIS

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| 1. Attach transducer tubing set up to prepared IV fluid and tubing. | |
| 2. Flush through transducer tubing. Pinch clear plastic flush port while flushing tubing. | 2. Check carefully for bubbles in system. They will give false reading for blood pressure. Hold tubing to facilitate air bubble floating up and out of system. |
| 3. Plug transducer wire into transducer cable. | |
| 4. Connect 3-way stopcock from the transducer pressure line to the umbilical artery catheter or T-connector on peripheral arterial line. | 4. Always connect fluid meniscus to prevent air from entering line. Be sure catheter is clamped before opening system.

a. Changing the transducer stopcock to the B-D stopcock will allow placement in the 45° angle for blood drawing.

b. Other stopcocks without a defined position for a 45° angle may not reliably stop all blood flow because all staff may not position the stopcock the same way. |
| 5. Place transducer at level of infant's right atrium with bed flat. Close the arterial line and open the transducer to air. Zero the transducer according to instructions in the individual Cardiorespiratory Monitor Operational Manual. | 5. A good wave pattern indicates that BP is being accurately monitored. If wave form is damped or questionable, a peripheral cuff pressure should be taken to check accuracy of transducer BP.

a. If BP wave is continuously damped |

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after troubleshooting efforts, notify MD or advanced practitioner and obtain cuff pressures according to relevant protocols. Under these circumstances, it is not necessary to document hourly blood pressures.

6. Transducer set up is changed with the IV tubing change.
7. Transducer should be zeroed every 8 hours.

PROCEDURE FOR: Indirect Blood Pressure Monitoring:

ACTION

POINTS OF EMPHASIS

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| 1. Measure the infant's extremity and select cuff of correct size. Refer to blood pressure cuffs for sizing. | 1. Properly fitting cuffs are essential for accurate measurements. |
| 2. Position cuff over artery. | 2. Upper arm or thigh measurements are recommended. Calf pressures have not been correlated with central arterial pressure readings. |
| 3. During measurement, keep extremity at heart level to maximize accuracy or readings. | |
| 4. Support infant as needed; allow infant time to quiet before obtaining blood pressure. | 4. Optimal measurements are obtained when the infant is at rest. |
| 5. Assess extremity for signs of circulatory impairment (discoloration, edema, poor perfusion, petechiae) especially when frequent measurements are being taken. | |

APPROVAL: Nursing Standards Committee

EFFECTIVE DATE: 1/84

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REVIEWED DATES: 11/07