PRACTICE GUIDELINE

Effective Date: 3-12-04 Manual Reference: **Deaconess Trauma Services**

TITLE: ARTERIAL LINE PLACEMENT

PURPOSE: To define the indications for the placement of an arterial line and provide guidelines for the insertion of an arterial line in the trauma patient.

GUIDELINES:

1. Indications:

- a. Unstable patient with a need for continuous arterial pressure measurements.
- b. Monitoring for the use of vasoactive drugs.
- c. Monitoring for the unstable respiratory status (need for frequent ABG's)
- d. Head-injured patients with a GCS < 8.

2. Provides:

- a. Continuous arterial pressure monitoring.
- b. Access for frequent arterial blood samples.

3. Preparation:

- a. Flushed arterial pressure transducer.
- b. Arterial line insertion tray.
- c. Betadine and xylocaine.
- d. Arterial catheter of choice.

4. Procedure (use sterile gloves):

- a. Use radial artery whenever possible; perform Allen test prior to insertion.
- b. If radial artery is unusable, go to femoral artery; avoid brachial artery in order to prevent ischemia and compartment syndrome.
- c. Place wrist in extension; tape to arm board.
- d. Prep wrist with betadine, drape with towels, infiltrate with xylocaine.
- e. Palpate radial artery between index and middle fingers.
- f. Insert catheter at 30-degree angle into artery just proximal to flexor retinaculum.
- g. When arterial flow obtained, thread guide wire into artery and slide catheter over wire into the artery.
- h. Remove wire and attach transducer tubing.
- i. Carefully flush catheter, and suture skin with silk or nylon sutures.
- j. Use care in securing the catheter, since disconnection can result in major bleeding episodes.

REFERENCES:

❖ Deaconess Critical Care Department Policy and Procedure Manual, P&P: A-8 ARTERIAL/VENOUS SHEATH: INSERTION, CARE, REMOVAL, AND BLOOD WITHDRAW.

REVIEWED DATE	REVISED DATE
JAN 05	JAN 08
JAN 06	
JAN 07	