PROCEDURE

TITLE: VASCULAR ASSESSMENT

PURPOSE: To assess and record the patient's peripheral arteries to determine adequacy of blood flow to extremities.

SUPPORTIVE DATA: Legend: Measure of force ejecting blood against an arterial wall, the scale is to measure strength. Useful in describing nature of pulse wave. Comparison of all sites allow nurse to determine any localized obstruction or disturbance in blood flow.
This document is to be utilized during downtime and/or related conditions.

EQUIPMENT LIST:
1. Doppler /ultrasonic stethoscope
2. Conductive gel
3. Vascular Flow Sheet

CONTENT:

PROCEDURE STEPS:	KEY POINTS:
1. Obtain vascular flow sheet.	
2. Determine color of extremity	Indicator of tissue perfusion
3. Determine temperature of extremity	Indicator of tissue perfusion
4. Determine degree of edema of extremity.	Moderate to severe edema can impede blood flow.
5. Determination of palpable pulses. a. Palpate dorsalis pedis (pedal).	Place fingertips between great toe and first toe and slowly move along groove between extensor tendons of great toe and first toe until pulse palpable.
b. Palpate posterior tibialis pulses (posterior tibial).	Place finger tips behind and below the medial malleolus (ankle).
c. Palpate popliteal pulses.	Palpate deeply into popliteal fossa with fingers placed just lateral to midline.
d. Palpate femoral pulses.	Palpate femoral pulse by placing first three fingers over inguinal area below inguinal ligament, midway between pubic symphysis and anterior superior iliac crest.
e. Palpate brachial pulse.	Palpate in groove between biceps and triceps muscle above the elbow.
f. Palpate radial pulse.	Palpate using the pads of your index and middle finger on the flexor surface of wrist laterally.
6. Assessment of non-palpable pulse.	Abnormal findings can be caused by examiner's error.
a. If pulses are not palpable, ask another	

healthcare provider to assess patient pulses.

b. If pulse still not palpable, obtain doppler with lubricant:

   1. Apply lubricant over pulse site.

   2. Turn on stethoscope volume.

   3. Place diaphragm gently over pulse site.

   4. Listen for "swooshing" or "blowing" sound.

   Specially designed stethoscope detects blood flow through arteries by producing amplified sound saves as vessel wall pulsates against stethoscope diaphragm.

c. Document in nursing note and on flow sheet (refer to Documentation).

7. Determine capillary refill of extremity. Indicator of blood flow to tissue

8. Determine sensation of extremity.

9. Determine motor function of extremity (strength & flexion/extension). Note any passive pain with flexion/extension movement.

DOCUMENTATION:

1. Document any changes from baseline data.

2. Record all findings from vascular assessment on vascular flow sheet and nurses notes, if necessary.

3. Report any irregularities and indication of impaired arterial blood flow immediately to physician.

References:

Clinical Nursing Skills and Techniques, 2nd Edition, by Anne G. Perry, Patricia A. Potter.
Bickley, L. (2003). *Bates' guide to physical examination and history taking*. (8th ed.) Philadelphia, PA: Lippincott, Williams & Wilkins.