GUNDERSEN/LUTHERAN ULTRASOUND DEPARTMENT POLICY AND PROCEDURE MANUAL

SUBJECT: Lower Extremity Arterial Ultrasound Exam to Evaluate for Aneurysm
SECTION: Radiology Ultrasound
ORIGINATOR: Deborah L. Richert, BSVT, RDMS, RVT
DATE: May 21, 2014

APPROVED BY: _____
Jody Riherd MD

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Scheduling: One every half hour.

Prep: None.

Patient Position: Supine, with head elevated as comfortable for patient.

Equipment: Ultrasound unit with a 5 MHz. linear array transducer. It may be necessary to use a transducer with a lower or higher frequency depending on the patient's body habitus.

Purpose: To evaluate the lower extremity arteries for aneurysmal dilatation and patency.

Indications: Patients with abdominal aortic aneurysm may be at risk for popliteal artery aneurysm. Also, a widened popliteal pulse on physical exam is an indication for this exam.

Exam Protocol: With real-time ultrasound the lower extremity arteries are imaged and an AP diameter measurement obtained in longitudinal views from the common femoral artery to the distal popliteal artery. Any areas of aneurysmal dilatation seen should also be measured in the transverse view. With respect to the popliteal arteries, both longitudinal and transverse views should always be obtained. This exam will also include color and spectral Doppler evaluation of the CFA, proximal, mid, and distal SFA, and popliteal artery, and the documentation of any areas of stenosis that are seen. Evaluation of stenotic areas should be documented by measuring the PSV proximal to, at the area of, and distal to the stenosis, with the demonstration of post stenotic turbulence if present.

Imaging Protocol: The following images will represent the lower extremity arterial ultrasound exam. **Additional images may be needed for proper documentation.**

- Longitudinal CFA with AP diameter measurement and angle-corrected color and spectral Doppler with the PSV measured
- Longitudinal proximal PFA with AP diameter measurement

- Longitudinal proximal SFA with AP diameter measurement and angle-corrected color and spectral Doppler with the PSV measured
- Longitudinal mid SFA with AP diameter measurement and angle-corrected color and spectral Doppler with the PSV measured
- Longitudinal distal SFA with AP diameter measurement and angle-corrected color and spectral Doppler with the PSV measured
- Longitudinal proximal popliteal artery with AP diameter measurement
- Transverse proximal popliteal artery with transverse and AP diameter measurements
- Longitudinal mid popliteal artery with AP diameter measurement and angle-corrected color and spectral Doppler with the PSV measured
- Transverse mid popliteal artery with transverse and AP diameter measurements
- Longitudinal distal popliteal artery with AP diameter measurement
- Transverse distal popliteal artery with transverse and AP diameter measurements

Gundersen Health System Ultrasound Department

Lower Extremity Artery to Evaluate for Aneurysm

Patient Name: _____ Patient MRN: _____

Date: _____ Sonographer: _____

	Right	Left
CFA		
Profunda Art		
SFA Proximal		
SFA Mid		
SFA Distal		
Pop Art Proximal		
Pop Art Mid		
Pop Art Distal		

Vessel Diameters measured in cm