Procedure Name: Lower Extremity Venous Doppler with Color Flow

Updated 8/5/2014

Indications:
May include but not limited to leg pain of questionable etiology, tightness, tenderness and discoloration of lower extremity, question of pulmonary emboli, chronic leg ulcers or color changes of legs, varicose and follow up chronic DVT.

General Description:
This is a complete survey to localize and characterize disease of the lower extremities unilateral or bilateral (evaluation of calf veins included).

Patient Preparation:
There is no preparation for this exam.

Equipment Selection and Settings:
Select PV Vein from preset menu
A linear 6.0MHz probe will be used for most patients. The sonographer should use the preprogrammed setting for the appropriate body part and adjust gain, depth and transmit zone settings to optimize images. Fill out worksheet upon completion of exam to include drawing in thrombus on diagram.

Imaging Sequence:

The order in which the vessels of the lower extremities should to be imaged is as follows:

- **Image patient data (demographics page)**
- **Common Femoral Vein (CFV)**
- **Greater Saphenous Vein (GSV) imaged through mid thigh. If thrombus present, need to measure distance of thrombus from CFV confluence**
- **Deep Femoral Vein (DFV) (aka profunda femoris or to that effect)**
- **Femoral Vein (FV) proximal, mid, and distal**
- **Popliteal Vein (PV)**
- **Gastrocnemius and trifurcation (if no pathology then obtain trans image, dual screen with and without compression only)**
- **Posterior Tibial Vein (PTV)**
- **(additional images of calf vessels required if pathology visualized)**

The following sequence should be imaged for each vessel listed above except where noted otherwise:

1. **trans, with and without compression (imaged in greyscale and dual screen)**
2. **long**
3. **long color flow (doppler)**
4. **spectral wave form for spontaneity and phasicity**
5. **spectral wave form competency**
6. **spectral wave form for augmentation**