

ARM VENOUS DVT US PROTOCOL

PURPOSE:

- To evaluate the venous system of the upper extremities for deep venous thrombosis (DVT).

INDICATIONS:

- Assessment for DVT or venous obstruction in symptomatic or high-risk asymptomatic individuals. Serial evaluation may be necessary in some high-risk individuals whose initial examination is negative for DVT.
- Follow-up for patients with known DVT at or near the anticipated end of anticoagulation to assess for residual thrombus.
- Assessment of venous insufficiency, reflux, and varicosities.
- Postprocedural assessment of venous ablation or other interventions.
- Evaluation of veins prior to venous access.
- Follow-up of patients with known DVT on therapy and who undergo a clinical change and where a change in the response will alter treatment.

CONTRAINDICATIONS:

- Patients with bandages, casts or other hardware that precludes adequate assessment of a vein or venous segment.

EQUIPMENT:

- 5-7 MHz linear probe

PATIENT PREPARATION & ASSESSMENT:

- Introduce yourself to the patient.
- Verify patient identity via two patient identifiers (name and date of birth) per hospital policy.
- Explain the examination, its purpose and how long it will take.
- Answer any questions the patient may have regarding the examination.
- Obtain patient history including symptoms, signs, risk factors and other relevant history.

GENERAL GUIDELINES:

- The extent and location of sites where the veins fail to compress completely should be clearly recorded and generally require additional images. Longitudinal views without compression may be helpful to characterize the abnormal vein.
- Symptomatic areas such as the forearm generally require additional evaluation and additional images if the cause of the symptoms is not readily elucidated by the standard protocol (i.e. documentation of thrombus in the ulnar and radial vein).
- For focal lesions (masses, lymph nodes, cysts) obtain split-screen images of the lesion without calipers, with calipers and with Color Doppler.

- Any deviations from the standard protocol and any limitations to the examination should be documented on the technologist worksheet for future reference and for repeatability in follow-up studies.
- Report preliminary critical findings to the referring clinician when appropriate (i.e. immediate medical attention may be warranted) and according to hospital policy.

DOCUMENTATION:

Compression

- Assess veins for compressibility every 2 cm of their length.
- Document transverse split-screen images without and with compression in the following segments:
 - Jugular
 - Subclavian
 - Axillary
 - Brachial
 - Basilic
 - Cephalic

Color & Spectral Doppler

- Document longitudinal images with color Doppler followed by spectral Doppler (with augmentation where appropriate) in the following segments:
 - Jugular
 - Subclavian
 - Axillary
 - Brachial
 - Basilic
 - Cephalic
- Do not perform augmentation if thrombus is noted.