



Clinical Protocol

Lower Extremity DVT

1. Compression every 2 cm (or less) in (short axis) transverse plane with non-compression comparison in B-mode of following veins. Also include Spectral Doppler waveforms from the long axis for each of the following:
 - R/L common femoral vein (CFV)
 - R/L greater saphenous vein (GSV) at origin, approximately first 2 cm. If whole extremity occluded, document entire GSV
 - R/L proximal deep femoral vein (DFV)
 - R/L superficial femoral vein (FV) prox, mid, and dist
 - R/L popliteal vein (POP V)
 - R/L posterior tibial vein (PTV)
2. Interrogate all deep calf veins seen.
3. Spectral Doppler waveform with augmentation at CFV unless DVT seen. ***No augmentation if DVT seen.***
4. If DVT seen at CFV, image IVC and iliac veins.
5. On all studies, include spectral Doppler waveforms from long axis for bilateral CFVs or bilateral EIVs.
6. Document prominent lymph nodes.
7. Document/measure popliteal cysts in three dimensions.
8. Make note whether or not thrombus occlusive.

DVT is Critical Finding and must be reported STAT.

Interpretation Criteria

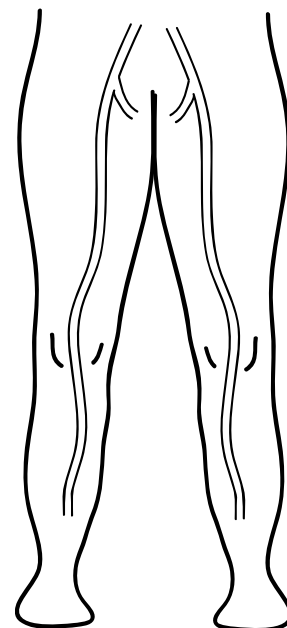
Venous compression and color Doppler imaging performed on CFV, FV, POP V, PTV, proximal DFV, and proximal GSV. Abnormal findings include incomplete compression of vessel or failure to document color Doppler signal in all or part of vessel lumen. Complete or incomplete occlusion should be documented. Additional findings including (but not limited to) soft tissue edema, masses, or collateral vessels also documented.



INDICATIONS	DATE/TIME	
	SONOGRAPHER	

RIGHT	Thrombus		Findings/Limitations
CFV	+	-	
GSV junction	+	-	
DFV	+	-	
Prox FV	+	-	
Mid FV	+	-	
Dist FV	+	-	
POP V	+	-	
PTV	+	-	

LEFT	Thrombus		Findings/Limitations
CFV	+	-	
GSV junction	+	-	
DFV	+	-	
Prox FV	+	-	
Mid FV	+	-	
Dist FV	+	-	
POP V	+	-	
PTV	+	-	



☐ Bilateral CFV or EIV Spectral Doppler waveforms from long axis

Comments

SONOGRAPHER CONFIRMATION: My signature confirms that instructions have been provided to the conscious patient regarding this exam, that US utilizes sound waves rather than ionizing radiation, and that coupling gel is used to improve the quality of the exam.

Sonographer's Signature

FMC KMC CMC TMC NHSC
KIC MIC PI TI
MFP SFP Other

Name / MR # / Label

US Lower Extremity DVT Worksheet



Clinical Protocol

Upper Extremity DVT

1. Grayscale with comparison compression in trans plane:
 - R/L internal jugular (IJ) vein,
 - Subclavian (SUBC) vein,
 - Innominate (INN) vein when seen,
 - Axillary (AXIL) vein,
 - Brachial (BRACH) vein,
 - Cephalic (CEPH) vein, and
 - Basilic (BAS) vein.
2. Color/spectral Doppler assessment:
 - R/L internal jugular (IJ) vein,
 - Subclavian (SUBC) vein,
 - Innominate (INN) vein when seen,
 - Axillary (AXIL) vein,
 - Brachial (BRACH) vein,
 - Cephalic (CEPH) vein, and
 - Basilic (BAS) vein.
3. Spectral Doppler waveform with augmentation at AXIL unless DVT seen. ***No augmentation if DVT seen.***
4. On all studies, include spectral Doppler waveforms from long axis of bilateral subclavian veins.

Symptomatic/abnormal areas (i.e., forearms) generally require additional evaluation.

Make note whether or not thrombus occlusive.

DVT is Critical Finding and must be reported STAT.



INDICATIONS	DATE/TIME	
	SONOGRAPHER	

RIGHT	Thrombus		Findings/Limitations
IJ	+	-	
SUBC	+	-	
AXIL	+	-	
BRACH	+	-	
CEPH	+	-	
BAS	+	-	

LEFT	Thrombus		Findings/Limitations
IJ	+	-	
SUBC	+	-	
AXIL	+	-	
BRACH	+	-	
CEPH	+	-	
BAS	+	-	

☐ Bilateral SUBC spectral Doppler waveforms in long axis

Comments

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Sonographer's Signature

FMC KMC CMC TMC NHSC
KIC MIC PI TI
MFP SFP Other

Name / MR # / Label

US Upper Extremity DVT Worksheet



Clinical Protocol

Lower Extremity Venous Mapping

- Place proximal blood pressure cuff or tourniquet (whenever possible) prior to making venous diameter measurements.
 - Wait at least 2 minutes after blood pressure cuff placed before taking measurements.
 - Device can be removed for small rest and then replaced during case if patient becomes uncomfortable. (Remember to wait at least two minutes after placement before taking measurements.)
1. R/L greater saphenous vein (GSV) measured in transverse outer to outer diameter.
 2. Use very light pressure.
 3. Mark location and measurement with permanent marker for each of following areas:
 - Upper thigh,
 - Mid thigh,
 - Above knee,
 - Below knee,
 - Mid calf, and
 - Ankle.

GSV also measured at origin but not mapped.

Note location of any thrombus and whether or not occlusive.

DVT is Critical Finding and must be reported STAT.



Lower Extremity Venous Mapping Worksheet

SONOGRAPHER NOTES

INDICATIONS	DATE/TIME	
	SONOGRAPHER	

RIGHT		LEFT
_____ cm	Great Saphenous Vein (GSV)	_____ cm
_____ cm	Upper Thigh	_____ cm
_____ cm	Mid Thigh	_____ cm
_____ cm	Above Knee	_____ cm
_____ cm	Below Knee	_____ cm
_____ cm	Mid Calf	_____ cm
_____ cm	Ankle	_____ cm

Findings/Limitations/Comments

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Sonographer's Signature

FMC KMC CMC TMC NHSC
KIC MIC PI TI
MFP SFP Other

Name / MR # / Label

**US Lower Extremity
Venous Mapping Worksheet**



Clinical Protocol

Upper Extremity Venous Mapping

- Place proximal blood pressure cuff or tourniquet (whenever possible) prior to making venous diameter measurements.
 - Wait at least 2 minutes after blood pressure cuff placed before taking measurements.
 - Device can be removed for small rest and then replaced during case if patient becomes uncomfortable. (Remember to wait at least two minutes after placement before taking measurements.)
1. R/L cephalic (CEPH) vein and basilic (BAS) vein measured in transverse outer to outer diameter.
 2. Mark location and measurement with permanent marker for each of following areas:
 - CEPH/shoulder/BAS axilla,
 - CEPH/BAS mid upper,
 - CEPH/BAS antefossa,
 - CEPH/BAS mid forearm, and
 - CEPH/BAS wrist.

Image and mark vein as far down wrist as possible.

Note location of any thrombus and whether or not occlusive.

DVT is Critical Finding and must be reported STAT.



Upper Extremity Venous Mapping Worksheet

SONOGRAPHER NOTES

INDICATIONS	DATE/TIME	
	SONOGRAPHER	

RIGHT		LEFT	
CEPHALIC			CEPHALIC
	BASILIC		
SHOULDER _____ cm	AXILLA _____ cm	AXILLA _____ cm	SHOULDER _____ cm
MID UPPER _____ cm	MID UPPER _____ cm	MID UPPER _____ cm	MID UPPER _____ cm
ANTEFOSSA _____ cm	ANTEFOSSA _____ cm	ANTEFOSSA _____ cm	ANTEFOSSA _____ cm
MID FOREARM _____ cm	MID FOREARM _____ cm	MID FOREARM _____ cm	MID FOREARM _____ cm
WRIST _____ cm	WRIST _____ cm	WRIST _____ cm	WRIST _____ cm

Findings/Limitations/Comments

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Sonographer's Signature

FMC	KMC	CMC	TMC	NHSC
KIC	MIC	PI	TI	
MFP	SFP	Other		

Name / MR # / Label

US Upper Extremity Venous Mapping Worksheet