Gundersen Health System

PE and Venography with Legs

Siemens Go-All

Application Examples: stenosis or occlusion of deep veins in the pelvis and/or legs, pelvic congestion

Oral Contrast	None	
IV Contrast	**Omnipaque 350**	**Injection duration of 40 seconds**
Weight	**Volume**	**Injection Rate**
< 121 lbs.	100mL	4.4 mL/sec
122-143 lbs	120mL	4.8 mL/sec
144-165 lbs.	135mL	5.7 mL/sec
166-187 lbs.	150mL	5.7 mL/sec
188-209 lbs.	175mL	6.4 mL/sec
>209 lbs.	200mL	6.8 mL/sec

Technical Factors

Care Bolus ROI Location / HU	Right Ventricle / 130
Monitoring Delay	5 seconds
Cycle Time	1 second
Scan Delay	4 seconds
Breath Hold	Inspiration

Chest PE	
Detector Collimator	Acq 32 x 0.7mm
X-Care	Off
Care kV	On / 100 kV
Care Dose 4D	On / 110 mAs
Rotation Time (seconds)	0.5
Pitch	1.5
Typical CTDIvol	PE 6.22 mGy ± 50%

Venography legs	
Scan Type	Spiral
Detector Collimator	Acq 32 x 0.7mm
Care kV	Semi / 100kV
Care Dose 4D	On / 180 mAs
Rotation Time (seconds)	0.5
Pitch	0.8

Scan Delay for Legs	180 seconds
Breath Hold	Inspiration
Typical CTDIvol	10.21 mGy ± 50%

Topogram: Lateral 512 mm and AP, 1970 mm

Chest PE	Recon Type	Width / Increment	Algorithm	Safire	Window	Series Description	Networking	Post Processing
Recon 1	Axial	3 x 1.5	Bv36	2	Mediastinum	AXIAL	PACS	None
Recon2	3D:COR	5 x 3	Bv36	2	Angio	COR MIP	PACS	Coronal MIP
Recon 3	3D:SAG	3 x 3	Bv40	2	Mediastinum	SAG	PACS	Sagittal MPR
Recon4	Axial	1.0 x 0.8	Bv36	2	Mediastinum	AXIAL 1.0 x 0.8 STND	TR & PACS	None
Recon 5	Lung CAD	1.0 x 0.7	Br60	2	Lung	LUNG CAD	PACS	None

Venography Legs	Recon Type	Width/Increment	Algorithm	Safire	Window	Series Description	Networking	Post Processing
Recon 1	Axial	3 x 3	Br40	2	Abdomen	AXIAL	PACS	None
Recon 2	3D:COR	2 x 2	Br36	2	Abdomen	RUN OFFS COR	PACS	Coronal MPR
Recon 3	3D:SAG	2 x 2	Br36	2	Abdomen	RUN OFFS SAG	PACS	Sagittal MPR
Recon 4	Axial	0.6 x 0.6	Br36	2	Abdomen	AXIAL 0.6 STND	TR & PACS	None

Injector- Pick the Enterography protocol and adjust according to the above weight chart.

IV Placement: 18 gauge preferred and in antecubital (AC) fossa. Depending on patient weight, may use 20 gauge straight catheter if injection protocol calls for ≤ 5.0 mL /second. A 20 gauge diffusics supports an injection rate up to 10 mL/second.

Patient Position: Patient lying supine feet first with arms comfortably above head and legs extended flat on table (no cushions or wedges under legs or feet). Position legs as close together as possible in their neutral position.

Scan Instructions: Scan PE chest monitoring in right ventricle. Venography imaging **Must use 100 kV.** Increase mAs as needed to make CTDI the same as it would be for an abdominal CT at 120 kV. Adjust timing delays to acquire venography images at 180sec post contrast.

Scan Range: The Chest is scanned from diaphragms to apices (caudocranial). The legs are scanned just femoral heads to ankles.

Recons and Reformations: FoV to fit body contour. Make coronal MIP and sagittal MPR of chest, coronal and sagittal MPRs of legs.

Scan Requirements: If pulmonary arteries measure < 220 HU check images with the Radiologist.

3D: None