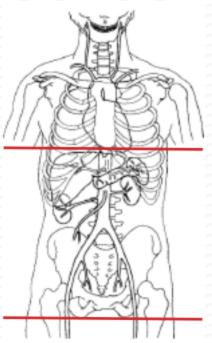


CTV Abdomen/Pelvis with Contrast - VENOGRAM



Indications	hemodialysis access planning, renal cell carcinoma, vascular variants, venous thrombosis.	
Patient Position	Supine	
Contrast	IV = 125 mL	
Injection rate	4.0 mL/sec minimum 18 g	
Contrast timing	Smart prep at distal inferior vena cava (inferior to renal veins) or Venous phase 100- 150 sec delay (variable). Preferred method is to use Smart prep as defined below.	
Respiration	Breath- hold	
Scan Parameters	dome of diaphragm through ischial tuberosity	
	Must be ordered / billed as CTA but have notes to indicate reason for CTV.	
	Required to have 3D renderings of venous system.	

PLANE	ALGORITHM	THICKNESS	DFOV	RECONS
Axial + C	Abdomen	5.0 mm	pt largest + 4 cm	100 - 150 sec delay *** see next line
				Prefer: smart prep at IVC inferior to renal veins. Use 60 sec delay with smart prep. Start scan at first blush in IVC.
Coronal & Sagittal + C	Abdomen	3.0 mm		MPR
Coronal & Sagittal + C	Abdomen	8 x 5 mm		MIPS
3D recons of venous system				3D renderings

Any deviation from protocol MUST be Radiologist approved. Rad Director will be notified if this occurs without prior approval.