

IV INJECTION GUIDELINES FOR CT CONTRAST

Some IV contrast CT studies require hard and fast contrast injection, while others do not. Because of this, the type of IV access varies, dependent upon the specific study. For some types of studies, such as any type of CT angiogram (i.e. PE CT), a large bore peripheral IV will result in a CT of better diagnostic quality - other methods may render the study non-diagnostic. Even for a routine CT of the abdomen, a consistent injection with a power injector through a good peripheral IV will result in a better quality study than a hand injection through a port/central line. All lines used for contrast injection should be checked for patency: blood return and ease of flush.

Type of Line	Power vs. Hand Injection	Injection Rates	Line injected by:
<p>PIV: peripheral IV</p> <p>Endurance Extended Dwell Peripheral Catheter System-this catheter should be placed in forearm 2 fingers below AC.</p>	<p>Power or Hand injection</p> <p>Power Injection</p> <p>HAND INJECT ONLY>>>></p>	<p>18 g up to 6 cc/sec 20 g up to 5 cc/sec 22 g up to 2.5 cc/sec</p> <p>22g up to 4.0ml 20g up to 7.0 ml 18g up to 8.0ml</p> <p>24 g up to 1 cc/sec</p>	<p>CT tech, RN, MD, PA</p>
<p>POWER INJECTABLE CATHETERS:</p> <p>-Power Midline</p> <p>-Power PICC (a & b)</p> <p>-Power Port Appropriately Accessed with a power needle (a & b)</p> <p>-Dialysis catheter with Power injectable pigtail</p> <p>-Tunneled power lines, i.e.: Proline, Powerline (labeled CT compatible-clamps will have cc/sec capacity.)</p> <p>-Nontunneled power Central Venous Catheters(CVC) (labeled CT compatible-clamps will have cc/sec capacity.)</p> <p>Pressure Injectable Two-Lumen CVC Catheter- (may be placed in IJ or groin)</p> <p>Pressure Injectable Three-lumen CVC Catheter-.</p> <p>Bard- Power Trialysis Dialysis Catheter- (usually placed in the IJ)</p> <p>Bard-PowerFlow- implantable apheresis IV Port</p>	<p>a. Power injection (preferred method)</p> <p>b. Hand injection</p> <p>Power Picc and Power Ports can be hand injected by</p> <p>a. CT Tech and b. RN, MD, PA</p> <p>Please make sure it states Power injectable.</p> <p>Please make sure it states Power injectable</p>	<p>a. Up to 5 cc/sec</p> <p>b. Test flush for ease of flushing and proper flow to achieve bolus injection no more than 5cc/sec.</p> <p>**please see notes on page 3 in regards to Bard Provena Picc Lines</p> <p>Max. Flow up to 5ml/sec, up to 300 PSI</p>	<p>a. CT tech</p> <p>b. RN, MD, PA</p> <p>a. CT Tech</p> <p>a. CT Tech</p> <p>b. RN, MD, PA</p>
<p>NON-POWER INJECTABLE CATHETERS</p> <p>-PICC lines</p> <p>-Ports</p> <p>-Tunneled lines: i.e.:Broviac, Neostar, Vaxcel, Hickman, Tristar and others</p> <p>-Nontunneled lines: i.e.: Central venous Catheters to Subclavian, groin that DO not state Power Injectable.</p> <p>IJ/EJ, UVC*</p> <p>-Midlines/Dialysis catheter without Power injectable pigtail</p>	<p>Hand injection only</p> <p>PICC lines need to be 22G or greater for hand injection. PICCS smaller than 22G not used at all for contrast injection. PIV used instead.</p> <p>Ports not used for rapid bolus of contrast ie: CTA, angio or coronary studies. Follow 10cc syringe/ double stopcock method of injection. CT Tech is resource for this method of injection.</p> <p>*Hand injected only with Radiologist approval.</p> <p>NOT TO BE USED FOR CONTRAST INJECTION</p>	<p>Test flush for ease of flushing and proper flow to achieve at least 1 cc/sec bolus</p>	<p>RN, MD, PA</p>