CT IV Access Policy

To: AIG staff, all residents and fellows, Ms. K. Shane, Ms. Yolanda Dunmore

From: Dr. J. Fielding

Re: IV line access for power injection

Date: 6/3/2010 (revised)

As you know, line caliber and location are important determinants for the use of power injection of intravenous contrast medium. With our nursing supervisor’s help, I have developed the following list of lines suitable (and unsuitable) for power injection. This list will be posted throughout the department and in the technologist’s break room. All patients undergoing any type of angiographic procedure on the 16, 40 or 64 detector CT must have at minimum a 20g antecubital IV. This caliber is necessary for the high flow rates (3-5cc/s) and rapid, clear imaging required for angiographic work. In the absence of adequate antecubital access a purple power picc or power port line may be used. The 16g port of a triple lumen catheter may also be used for CT angiography (see reference). EJ lines are not to be used routinely for angiography, because of the risk of neck hematoma. When antecubital access is not available (3 failed attempts), an upper forearm vein may be used with a reduced rate of 2cc/s for abdominal studies such as dissection, stent graft and aneurysm studies. Hand veins are not to be used for angiographic procedures. For non-angiographic studies, antecubital and forearm veins are the preferred sites. If these are not available, then hand veins may be used at the discretion of the technologist and/or nurse with injection rates less than 2cc/s. For these studies, a 22g IV may be used if a 20g cannot be maintained. If deviation from the above protocol is thought necessary, the technologist should contact the supervising radiologist.

Lines that you can use for power injection:

- Hickman
- Triple lumen
- Power Picc, Port (purple, Bard)
- Single lumen cordis sheath in neck or groin
- 20g antecubital
- 16g port of arrow triple lumen

Lines that you cannot use for power injection:

- Dialysis catheters
- Portacaths (except Power Port)
- Arrow single lumen central line
- PICC and Mid-lines

Lines that can be used for CTA:

- 20g antecubital
- Single lumen cordis sheath neck/groin
- 16g port of arrow triple lumen

Reference: See Attached