UNIVERSITY of MARYLAND MEDICAL CENTER

DEPARTMENT OF DIAGNOSTIC RADIOLOGY & NUCLEAR MEDICINE

DI-COP-009 Guidelines For Use Of The Power Injector In CT And MRI

Revisions: July 2004, August 2010, February 2014

Purpose
To define the process of mechanically injecting IV contrast via a catheter to enhance images for improved CT and MRI studies.

Scope
This policy applies to all sections of the Diagnostic Imaging Department.

Responsibility
It is the responsibility of all Diagnostic Imaging physicians and technologists to adhere to this policy.

Procedure

1. Suggested injection sites are:
a. Antecubital vein
b. Femoral vein (primarily Shock Trauma patients)
c. Forearm (if large vein available)
2. Central lines and peripherally inserted lines shall be power injected only when the maximum pressure of the catheter is documented. The PSI must be known; these pressure limits cannot be assumed from documented or published flow rates. The injector being utilized must have pressure limiting capabilities. Refer to hospital policy COP-030 COP-030 Power Injectable CVC and COP-034 COP-034 Power Injectable Implanted Ports.
3. Lower extremities and hands should not be used as a power injection site.
4. A large (19,20, or 22 gauge) Angio catheter is inserted.
5. After the line has been established patency is verified.
6. Once patency has been verified the injection may be initiated.
7. If infiltration occurs stop injection immediately and:

a. Contact attending radiologist/resident.
b. Check IV site.
c. Remove catheter.
d. Measure area diameter.
e. Note color and pulses.
f. Document in patient's chart and/or start a progress note on outpatient.
g. Apply warm compresses for 15-20 minutes.
h. Attending radiologist/resident completes an on-line incident report.
i. If a nurse is not present contact the Radiology Recovery area at 8-1501.
j. For inpatients contact their nurse, give a detailed report and document notification in the chart.
k. The patient shall be observed for at least 1 hour.
l. Monitor extremity for color, pulse, motion, pain, numbness and/or tingling.
m. Document observations every 15 minutes.
n. Perform patient education.
o. Provide patient with a telephone number in case of questions and/or complications.
p. Radiology nursing will contact patient in 72 hours for follow-up and document outcome.
8. The patient's physician should be contacted directly if severe local reactions occur (neurological or vascular impairment) or above noted symptoms have not shown improvement within 30 minutes.
9. The attending radiologist/resident will decide if the study needs to be continued or rescheduled.