University Hospitals of Leicester NHS
NHS Trust

Policy and Procedure for the Administration of Intravenous CT and MRI Contrast Agents

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REVIEW DATES AND DETAILS OF CHANGES MADE DURING THE REVIEW

Udated February 2017 – to include single handed working and agreement for escort level.
Updated and into new format Jan 18 to include CT contrast for dialysis patients.

KEY WORDS

CT, MRI, contrast agent, out of hours.

1 INTRODUCTION AND OVERVIEW

1.1 This document sets out the University Hospitals of Leicester (UHL) NHS Trusts Policy and Procedure for the administration of intravenous (IV) CT and MRI contrast agent, including when a radiographer is working alone.

1.2 Please see associated Standard Operating Procedure (SOP) 'Guidelines for the Management of Acute Contrast Reactions in Adults' (SOP 208) for medical cover arrangements in the event of an allergic reaction to contrast administration.

1.3 For contrast to be administered, two registered staff must be available to check the contrast details. For out of hours patients, if contrast is required a registered nurse or doctor escort must be available to check the contrast details.

1.4 This policy aims to define the procedure for the safe administration of contrast agent for CT and MRI throughout a 24 hour period across the three hospital sites.

2 POLICY SCOPE

2.1 This policy applies to all registered radiographers that have completed a course for CT/MR contrast injection and have been locally signed off as competent. This includes agency radiographers that have completed the appropriate training to enable them to administer CT/MRI contrast within UHL.

2.2 This policy also applies to those radiographers that have completed the 'UHL Injecting Safely' course which allows these staff to connect an already inserted venflon to the contrast injector.

2.3 This policy applies to the administration of IV contrast to adults or children of 16 years and above.

2.4 This policy must be used in conjunction with the UHL approved Patient Group Directives and staff must have completed the UHL Patient Group Directive (PGD) on line training.

2.5 This policy applies only when contrast administration has been agreed by a Radiologist or as per a PGD and documented on the radiology information system (CRIS), when protocoled or as part of the agreed routine protocol for that particular CT or MRI examination.

3 DEFINITIONS AND ABBREVIATIONS

- Core hours – Monday to Friday 8.00am to 8.00pm Saturday and Sunday 9.00am to 5.00pm
- CRIS – Radiology Information systen
- On call – out side core hours
- Out of hours – Monday to Friday 8.00pm to 8.00am, Saturday and Sunday 5.00pm to 9.00am
- PGD – Patient Group Directions
- RDA – Radiology Department Assistant

4 ROLES

4.1 The **Executive Lead** for this Policy is the **Chief Nurse**

4.2 The **Head of Service** is responsible for ensuring the policy is communicated across the Clinical Management Groups and that this policy is followed

4.3 Line Managers / Superintendent Radiographers are responsible for:

- Identifying the roles where staff will undertake IV contrast administration
- ensuring that all radiographers undertaking IV contrast medium administration are trained and assessed as competent
- Ensuring staff follow this policy

4.4 **All staff** who undertake IV contrast administration in CT and MRI must:

a) Be supported by their line manager and carry out this activity as an integral part of the key responsibilities within their role

b) Have completed appropriate education and training as documented in the contrast PGDs

5. POLICY IMPLEMENTATION AND ASSOCIATED

The policy for consultation was sent to all clinical leads and heads of nursing for each clinical CMG with no negative comments or suggestions for amendments received.

This procedure covers the process that radiographic staff must undertake in the following situations throughout a 24 hour period.

5.1 A query as to whether contrast is required or not:

a) If contrast has been protocoled but may no longer be required due to the current scan images then the radiographer can contact a radiologist. If a radiologist is unavailable or unwilling to comment then contrast should be given as per the original protocol. This must be documented on CRIS.

b) If contrast has not been protocolled but is or may be required due to the current scan images but was not originally protocoled then the radiographer can contact a radiologist. If a radiologist is unavailable or unwilling to comment then contrast should not be given. The patient is to be informed that they may be recalled for further images after a radiologist has reviewed the scan. This must be documented on CRIS.

5.2 No IV access available

a) If IV access is unsuccessful then the patient should be rebooked in a slot during normal working hours. If clinically appropriate, the pre contrast scans should be completed. The request should be put back on the request accepted list with the appropriate comment with an urgency of 5. The situation must be explained to the patient.

5.3 Allergic reaction

a) Anaphylactic or serious reaction should be dealt with immediately as a medical emergency and by the emergency on site medical team by ringing 2222.

b) For minor allergic reactions such as hives/rash, please refer to the Imaging SOP 208 'Guidelines for the Management of Acute Contrast Reactions in Adults'.

5.4 Lone Working

a) When a radiographer is working in the CT or MRI department by themselves, for example in an on-call situation or out of hours, a patient from the ward must always be escorted.

b) If the patient is for a non-contrast scan then the level of escort is determined by the ward as per the Adult Patient Transfer and Escort Policy and Guidelines (B30/2004)

c) If the patient is for a contrast examination then the minimum escort requirement is a qualified nurse due to the requirement that two qualified staff must check a drug for administration. If an IV trained radiographer is available in an adjacent area ie plain film, then they can check the contrast. The radiographer will inform the ward staff when they contact them to arrange transport if a qualified escort is required.

5.5 More than one radiographer in the control room

a) For examinations where there is more than one radiographer in the control room, usually during core working hours, an escort is only required for inpatients if the patient's condition requires one as per the Adult Patient Transfer and Escort Policy and Guidelines (B30/2004)

5.6 Unescorted patients after contrast administration

a) For any patient that does not have an escort, ie outpatients or inpatients that do not require an escort, a member of imaging staff must be available outside of the control room and be in view of the waiting area to ensure that patients are not left unattended after a contrast injection.

5.7 Non – medical support

a) There is non-medical support available out of hours via the radiology manager on-call or the site duty manager.

5.8 Patients on dialysis who require CT contrast

a) Haemodialysis patients undergoing routine, contrast scans Monday-Friday, do not need any additional dialysis but can wait until their next scheduled out-patient session (usually later the same or the following day).

b) When it is unclear from a request which days a patient attends for dialysis, scans should be avoided on Friday afternoons to ensure that they do not receive contrast immediately after treatment and before their long inter-dialytic break of 3 days.

6 EDUCATION AND TRAINING REQUIREMENTS

- All Radiographers that inject and must have a College of Radiographers recognised 'Certificate of Competence in Administering Intravenous Injections' or have undertaken the UHL 'IV cannulation course'.
- All Radiographers that connect an IV line to a pump injector must have Completion of the imaging 'UHL injecting safely' course (to allow connection to the pump injector).

- All Radiographers that inject must have completed the eUHL PGD course.
- All Radiographers that inject must have competency sign off by the site cross section superintendent.
- All Radiographers that inject and/or connect to a pump injector must be up to date with their core skills trianing

7 PROCESS FOR MONITORING COMPLIANCE

Element to be monitored	Lead	Tool	Frequency	Reporting arrangements Who or what committee will the completed report go to.
Hand hygiene	Infection Prevention	UHL Hand Hygiene audit	Monthly	Infection Prevention
Safe disposal of sharps	Cross section superintendents	Datix to be completed if not compliant	When required	Datix monitored by cross section superintendent radiographers
Management of sharps injury	Cross section superintendents	Datix to be completed	When required	Datix monitored by cross section superintendent radiographers
Datix incident reports	Cross section superintendents	Datix incident reporting	When required	Datix monitored by cross section superintendent radiographers
IV competency assessment	Cross section superintendents	IV competency self assessment	Annual at appraisal	Appraiser and kept in personal file

8 EQUALITY IMPACT ASSESSMENT

8.1 The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.

8.2 As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

9 SUPPORTING REFERENCES, EVIDENCE BASE AND RELATED POLICIES

- MRI Operational Policy SOP213
- Policy for the Supply and Administration of Medicines under PGD (Ref B43/2005)

- SOP Guidelines for the Management of Acute Contrast Reactions in Adults (SOP 208)
- CT Operational Policy SOP214
- Adult Patient Transfer and Escort Policy and Guidelines (B30/2004)
- Imaging risk assessment 'Medical Cover for Contrast Reactions'

10 PROCESS FOR VERSION CONTROL, DOCUMENT ARCHIVING AND REVIEW

The updated version of the policy will be available through INsite and on the Imaging 'I' drive.

The policy will be reviewed every three years or sooner in response to clinical or risk issues.

The updated version of the Policy will then be uploaded and available through INsite Documents and the Trust's externally-accessible Freedom of Information publication scheme. It will be archived through the Trusts PAGL system