

Document Control Report

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|---|--------------------|--|---|
| Title | | | |
| Exposure Optimisation - IR(ME)R 2017 Standard Operating Procedure | | | |
| Author | | Author's job title | |
| | | Superintendent Radiographer | |
| Directorate | | Sub-directorate | Department |
| Operations | | Diagnostics | Diagnostic Imaging |
| | | Team/Specialty | |
| | | Radiology | |
| Version | Date Issued | Status | Comment / Changes / Approval |
| 0.1 | Aug 2017 | Draft | Initial version for consultation |
| 0.2 | Sept 2017 | Draft | Checking details and amendments to text |
| 1.0 | Sept 2017 | Final | Approved and signed off by Lead Clinician in Radiology |
| 1.1 | Nov 2017 | Final | Main contact details amended |
| 2.0 | Sept 2020 | Final | Reviewed and amended to include updated regulations both in text and in references. |
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| Lead Director | | | |
| Lead Clinician in Clinical Radiology | | | |
| Document Class | | Target Audience | |
| Standard Operating Procedure | | Referrers, practitioners and operators | |
| Distribution List | | Distribution Method | |
| Practitioner Referrers Northern Devon Healthcare NHS Trust / Community Services | | Trust's internal website | |
| Superseded Documents | | | |
| Issue Date | | Next Review Date | Review Cycle |
| September 2020 | | September 2023 | Three years |
| Consulted with the following stakeholders: | | Contact responsible for implementation and monitoring compliance: | |
| <ul style="list-style-type: none"> • Clinical Audit Lead Radiology • Radiologists • Radiographers • Practitioner Referrers • Medical Physics | | Radiology Governance Lead | |
| | | Education/ training will be provided by: | |
| | | Radiology Governance Lead | |
| Approval and Review Process | | | |
| <ul style="list-style-type: none"> • Lead Clinician in Clinical Radiology | | | |

Local Archive Reference

G:\Radiology Public Drive

Local Path

Radiology Clinical Governance Folder /IR(ME)R

Filename

Standard Operating Procedure for the Exposure Optimisation – V1.2

Policy categories for Trust's internal website (Bob)

Diagnostic Imaging Trust's internal website

Tags for Trust's internal website (Bob)Referral, Referrer, Practitioner, Operator,
Medical Physics,

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1. Introduction

The Ionising Radiation (Medical Exposure) Regulations {IR(ME)R} 2017 were introduced to protect patients against the hazards associated with the use of ionising radiation in medical settings. It is a requirement of IR(ME)R that the exposures are optimised in order to ensure safe practice.

2. Purpose

The Standard Operating Procedure (SOP) has been written to:

- Clarify the role of the Practitioner and Operator.
- Clarify the role of the Hospital Trust in research exposures.
- Clarify Referrer responsibility in recording of clinical evaluation.

3. Scope

This Standard Operating Procedure (SOP) relates to the following staff groups who may be involved in ensuring optimisation of exposures:

- Radiographers (Operators)
- Radiologists (Practitioners)
- Referrers
- Medical Physics

4. Location

This Standard Operating Procedure applies to medical exposures being undertaken in the Radiology Departments at the North Devon District Hospital, Barnstaple; Bideford and District Hospital, Bideford; and Tyrell Hospital, Ilfracombe.

Staff undertaking ionising radiation exposures at these sites must be able to demonstrate competence as per the organisations policy on assessing and maintaining competence.

5. Equipment

All Radiology imaging equipment on the above sites including General and A+E x-ray units, AMX Mobile imaging machines, Dental imaging equipment, Mobile Image Intensifiers, Interventional fluoroscopy equipment, CT and DEXA.

6. Procedure

- 6.1.** The Practitioner and the Operator shall both ensure that the doses arising from an exposure are kept as low as reasonably practical consistent with the intended purpose. The Operator will take into account the equipment and methods employed and pay special attention to:
- a) Quality assurance
 - b) Assessment of patient dose
 - c) Adherence to diagnostic reference levels (DRL's)
 - d) Adherence to department procedures.
- 6.2.** For exposures requested for research purposes the Trust will ensure that:
- a) The patients concerned participate voluntarily
 - b) The patients concerned are informed of the risks of the exposure
 - c) Dose constraints set by an Ethics committee are adhered to in patients for whom no direct benefit is expected from the exposure
 - d) For patients undergoing experimental diagnostic or therapeutic exposures which are expected to give direct benefit to the patient, target doses set by the practitioner are adhered to.
- 6.3.** The Practitioner and Operator will pay special attention to:
- a) The need to keep doses arising from medico-legal exposures as low as reasonably practicable
 - b) Exposures of children; where the risks of causing future cancer or genetic injury is greatest.
 - c) Exposures as part of a health screening programme; these are not routinely undertaken at this Trust. If the need arises then all programmes would need to be set up with the agreement of the radiation safety group, radiology general management group and Trust approval.
 - d) Exposures involving high doses to the patient. All procedures being undertaken must adhere to IR(ME)R guidelines and exposures must be kept as low as is reasonable practicable (ALARP).
 - e) Females in whom the possibility of pregnancy cannot be excluded taking into account the exposure to the expectant mother and the unborn baby. See standard operating procedure for radiological examination of women of reproductive capacity.
- 6.4.** It is the responsibility of the referrer to ensure that a clinical evaluation of the outcome of each exposure is recorded in the patients case-notes.

- 6.5. In the case of fluoroscopy:
- a) The operator shall ensure that, except in exceptional circumstances, the AEC must be used.
 - b) No person shall carry out fluoroscopy without image intensification.

7. References

- Ionising Radiation (Medical Exposures) Regulations 2017. Statutory Instruments 2017 No 1322
http://www.legislation.gov.uk/uksi/2017/1322/pdfs/uksi_20171322_en.pdf
- Radiology authorisation and IRMER assessment working practice document.
- Ionising (Medical Exposures) Regulations 2000. Statutory Instruments 2000 No 1059 –
<http://www.opsi.gov.uk/si/si2000/20001059.htm>
- IRMER – Ionising Radiation (Medical Exposures) Amendment Regulations 2006
http://www.opsi.gov.uk/si/si2006/uksi_20062523_en.pdf

8. Associated Documentation

Northern Devon Healthcare NHS Trust Policies for:

- Northern Devon Healthcare NHS Trust Radiation Policy