

IR(ME)R regulations 2017 Schedule 2 (1m) - Procedure for Non-medical Imaging Exposures

Contents

1. Introduction and purpose
2. Scope
3. Responsibility
4. Practice
5. DRLs
6. References

1. Introduction and Purpose

To identify considerations when carrying out 'non-medical' imaging exposures.

IR(ME)R 2017 defines 'non-medical' imaging exposures as: '*any deliberate exposure of humans for imaging purposes where the primary intention of the exposure is not to bring a health benefit to the individual being exposed*' where medical radiological equipment is used.

2. Scope

This procedure applies to all 'non-medical' imaging exposures" including

- a. Health Assessment for employment purposes
- b. Health Assessment for immigration purposes
- c. Health Assessment for insurance purposes
- d. Identification of concealed objects within human body where there is no health risk concern.
- e. Age assessment
- f. 'Suspected Inflicted Injury' –Not performed in PTHB
- g. Sport (to aid decisions on: selection, training, nutrition, i.e. not medical care)
- h. Physical development of children (with view to career in sport, dancing etc.)

3. Responsibility

It is the responsibility of the IR(ME)R Practitioner to make it clear on the request form that the exposure is required for "non-medical' imaging exposures by annotating the request form.

It is the responsibility of the Practitioner to justify all 'non-medical' imaging exposures. Assistance with items to be considered in the justification process for non-medical imaging can be found in IAEA General Safety Guide GSG-5 [IAEA 2014]

4. **Practice**

4.1 **General**

- 4.1.1 No 'non-medical' imaging exposures should be performed unless they can be justified. In such cases, the benefits maybe financial or social rather than for the health of the individual being exposed.
- 4.1.2 There should be sufficient information from the referrer to allow justification.
- 4.1.3 The procedure should only be justified if it is not readily possible to use alternative techniques involving no or less exposure to ionising radiation.
- 4.1.4 Checks should be made to determine if this medical exposure has already been performed during the routine clinical management of the patient, to avoid unnecessary repeat exposures.
- 4.1.5 The request card will be accepted as the standard radiology request form or a letter from the medical advisor or a solicitor on behalf of the medical advisor.
- 4.1.6 Once justified and authorised, 'non-medical' imaging exposures should be performed as for other standard medical exposures, i.e. taking care to keep doses as low as reasonably practicable, within the diagnostic reference level, noting the exposure settings or administered activity for the calculation of effective dose, and making a clinical evaluation of the outcome of the exposure.

Table 1: Current 'Non-Medical' Imaging Procedures Performed in Powys

Category	Referrer	Practitioner	Operator(s)
Pneumoconiosis Chest X-rays	Medical Referrer with Health Board entitlement	Radiologist	Radiographer, Radiographic Assistant Radiologist
Emigration Chest X-rays	Medical Referrer with Health Board entitlement	Radiologist	Radiographer Radiographic Assistant Radiologist
Identification of concealed objects within human body where there is no health risk concern.	Police Surgeon Medical Referrer with Health Board entitlement	Radiologist	Radiographer Radiographic Assistant Radiologist
Category	Referrer	Practitioner	Operator(s)
Category II	Medical Referrer with Health Board entitlement	Radiologist	Radiographer Radiographic Assistant Radiologist

Other Non Medical-Imaging exposures – Insurance, employment, immigration	Medical Referrer with Health Board entitlement or medical advisor following discussion with a consultant radiologist	Radiologist	Radiographer Radiographic Assistant Radiologist
Bone-Age Assessment	Entitled Paediatrician	Radiographer/Radiologist	Radiographer Radiologist

5. DRLs

IR(ME)R Guidance states ‘Diagnostic Reference Levels’ (DRLs) for ‘non-medical’ imaging must be established where such exposures are undertaken on a routine basis. None of the procedures listed in Table 1 are currently performed frequently enough to allow accurate derivation of a DRL.

6. References

SI 20017. The Ionising Radiation (Medical Exposure) Regulations 2017. Statutory Instrument 2017 No 1322. London: HMSO.

IAEA 2014. Justification of practices, including non-medical human imaging. International Atomic Energy Agency, Safety Standards Series, General Safety Guide GSG-5. Vienna: IAEA.

<https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1650web-23654722.pdf>