**Staff Dosimetry [QSI Refs: XR-514, NM-803]**

**Descriptor:**

Wearing of film badges during fluoroscopic procedures.

**Background:**

The Ionising Radiation (Medical Exposures) Regulations [1] and Ionising Radiation Regulations [2] require every Department of Clinical Radiology to prepare local rules which define when staff should wear their dosimeters. In interventional radiology there is the potential to receive radiation doses approaching or exceeding the classification dose levels [3]. If personnel do not wear their dosimeters during all other (i.e. non-interventional) procedures then it can lead to an under-estimate of the dose received. In interventional radiology there is a need for routine monitoring which is additional to the standard single dosimeter worn under the apron [4]. If radiology personnel do not wear even a single dosimeter they are even less likely to wear two. Radiology personnel should not be complacent about the dose they receive.  Guidance and good practices are available [5].

## The Cycle

**The standard:**

A locally agreed standard

All radiology personnel present during fluoroscopy should be wearing a personal dosimeter at all times

**Target:**

100%

## Assess local practice

**Indicators:**

Percentage of personnel who are wearing a personal dosimeter during fluoroscopy.

**Data items to be collected:**

This is a blitz audit. At a specified time known only to the Radiation Protection Adviser (RPA), record the total number of staff present in the fluoroscopy rooms. Of these, record the number of members of staff who are wearing their dosimeters.

**Suggested number:**

All radiology staff in the fluoroscopy rooms.

**Suggestions for change if target not met:**

Present the results of this on-going audit at the department’s monthly audit meetings. Hold a refresher meeting on staff exposure and the effects of radiation.

**Resources:**

RPA to carry out blitz audit.

**References:**

1. The Ionising Radiation (Medical Exposure) Regulations 2017  <https://www.legislation.gov.uk/uksi/2017/1322/contents/made>
2. Ionising Radiations Regulations 2017 [https://www.legislation.gov.uk/uksi/2017/1075/contents](https://www.legislation.gov.uk/uksi/2017/1075/contents%C2%A0%C2%A0%C2%A0%C2%A0)
3. Miller DL, Vañó E, Bartal G, et al. Occupational radiation protection in interventional radiology: a joint guideline of the Cardiovascular and Interventional Radiology Society of Europe and the Society of Interventional Radiology. Cardiovasc Intervent Radiol. 2010;33(2):230-239.  doi: 10.1007/s00270-009-9756-7
4. IAEA. Radiation protection of medical staff in interventional fluoroscopy. <https://www.iaea.org/resources/rpop/health-professionals/interventional-procedures/radiation-protection-of-medical-staff-in-interventional-fluoroscopy>
5. RCR. IR(ME)R - Implications for clinical practice in diagnostic imaging, interventional radiology and diagnostic nuclear medicine. 2020. <https://www.rcr.ac.uk/system/files/publication/field_publication_files/irmer-implications-for-clinical-practice-in-diagnostic-imaging-interventional-radiology-and-nuclear-medicine.pdf>

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