

**RADIATION PROTECTION PROCEDURES
NUMBER : 13**

UNTOWARD INCIDENTS - THERAPEUTIC PROCEDURES

Any untoward occurrence which may potentially result in excess radiation to staff or patients must be referred to the radiation protection supervisor and the radiation protection adviser, who will estimate the dose and liaise with management, HSE, HCC, EA, DfT, etc. as appropriate.

Suspect equipment must be withdrawn from service and labelled according.

Equipment Malfunction

- i) Any problems with equipment should be reported through the Superintendent Radiographer or duty Physicist to appropriate maintenance personnel. A Physicist must be consulted after any procedure which may affect the radiation dose delivered.
- ii) Any malfunction or error resulting in patient under- or over-exposure must be reported in accordance with relevant procedures detailed in the appropriate local rules.
- iii) Malfunction or defects in radiation equipment must be notified to the Health & Safety Executive¹ through the Radiation Protection Adviser if they lead to a dose to a patient which is greater than intended by a factor of²
 - 1.1 times for a whole course, or 1.2 times for one fraction of beam therapy or brachytherapy,
 - 1.2 times for radionuclide therapy.
- iv) Staff must be familiar with emergency procedures when equipment fails, or unsealed sources are “spilt”.

Loss of, or Damage to, Radioactive Sources

- All radioactive material must be accounted for and any suspicion of loss, or damage which may result in contamination must be reported immediately

¹ Ionising Radiations Regulations 1999, Reg 32(6)

² HSE Guidance Note PM77(rev), Fitness of equipment used for medical exposure to ionising radiation,

to the radiation protection supervisor, radiation protection adviser, or other senior staff. Potential spread of contamination should be minimised.

- Radiation Protection Supervisors with a responsibility for radioactive sources should carry out an audit of sources, at least annually.
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