NATIONAL RADIATION PROTECTION OFFICE UPDATE 13TH MARCH 2025

RADIATION SAFETY INCIDENTS REPORTED ON THE NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) Q4 2024

This report details the radiation safety incidents reported on the NIMS from October to December 2024. The figures listed below do not include incidents related to ultrasound, MRI or issues with extravasation of contrast from a peripheral vascular catheter.

1. Category of radiation safety incident

Category of incident	Radiology	Radiotherapy
Harm	22	
Near miss	222	76
No harm	140	8
Total number of reports	**384**	**84**

2. Category of person affected by the radiation safety incident

Category of person	Radiology	Radiotherapy
Adult patient / service user	369	84
Staff member	15	

3. Details of the process involved in the incidents.

Radiology incidents reported on the NIMS in Q4 2024						
Process	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Checking patient identification					60	**60**
Clinical details on referral					116	**116**
Documentation / records				1	40	**41**
Communication / consent issues					18	**18**
Equipment failure			1		24	**25**
Performing procedure			2	1	67	**70**
Not applicable / unknown			1		53	**54**

The 54 reports categorised as ‘not applicable’ or ‘unknown’ refer mainly to poor referral practices where the details listed on the order did not match patient demographics; inadvertent staff exposures; and failures in communication between different hospitals resulting in patients undergoing repeat procedures unnecessarily.

Radiotherapy incidents reported on the NIMS in Q4 2024						
Process	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Documentation / Records					14	**14**
Communication / Consent					3	**3**
Equipment Failure					6	**6**
Performing Procedure					58	**58**
Unknown					3	**3**

The 3 reports categorised as 'unknown' refer to a radiotherapy treatment that was delayed due to the unavailability of a hospital bed; a change to a treatment plan due to an error highlighted in the procedure; and a failure to complete an exposure due to patient related issues.

4. The problems recorded in the incidents.

Radiology incidents reported on the NIMS in Q4 2024						
Problem	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Diagnostic exposure greater than intended			1		42	**43**
General exposure related issue			1		40	**41**
Failure / malfunction			1	1	24	**26**
Wrong body part / side /site					95	**95**
Wrong patient (>1mSv)					11	**11**
Wrong patient (<1mSv)					51	**51**
Wrong process / treatment / procedure					43	**43**
Inadvertent dose to foetus (<1mSv)					1	**1**
Wrong radiopharmaceutical					1	**1**
Other / Unknown			1	1	70	**72**

The 72 reports categorised as 'other' or 'unknown' refer mainly to poor referral practices; equipment or software issues resulting in the loss of images and delayed diagnosis or treatment; administrative failures; and inadvertent staff exposures.

Staff exposures included for example, staff failing to wear the appropriate personal protective equipment; incidents where radioactive samples were sent to laboratories without the appropriate radioactive labelling; and failures to inform ward staff when patients were radioactive following a procedure.

Radiotherapy incidents reported on the NIMS in Q4 2024						
Problem	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Failure / malfunction					4	**4**
Wrong process / treatment / procedure					10	**10**
Other					70	**70**

The 70 reports categorised as ‘other’ refer mainly to issues with scheduling radiotherapy treatment and the additional imaging procedures that were required; treatment planning and delivery issues; and patient related matters.