National Radiation Protection Office Update 2nd June 2022

Radiation safety incidents reported on the National Incident Management System (NIMS) Q1 2022

This report details all radiation safety incidents reported on the NIMS from January to March 2022. 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
Actual incidents	160	10
Near miss events	60	42
Total number of reports	**220**	**52**

2. Category of person affected by the radiation safety incident

Category of person	Radiology	Radiotherapy
Adult patient / service user	211	52
Staff member	8	
Member of the public	1	

3. Details of the process involved in the incidents.

Radiology incidents reported on the NIMS in Q1 2022						
Process	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Checking patient identification					32	**32**
Clinical details on referral					53	**53**
Documentation / records					44	**44**
Communication / consent issues				1	6	**7**
Equipment failure				1	30	**31**
Performing procedure			1		45	**46**
Pregnancy status					1	**1**
Not applicable					6	**6**

The 7 reports categorised as *not applicable* refer to inadvertent staff exposures such as staff entering a room mid-procedure and staff being exposed to radiopharmaceuticals.

Radiotherapy incidents reported on the NIMS in Q1 2022						
Process	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Checking patient identification					1	**1**
Documentation of referral					30	**30**
Equipment failure					5	**5**
Performing procedure					16	**16**

4. The problems recorded in the incidents.

Radiology incidents reported on the NIMS in Q1 2022						
Problem	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Diagnostic exposure greater than intended					13	**13**
General exposure related issue					30	**30**
Failure / malfunction of process				1	41	**42**
Wrong body part / side /site					47	**47**
Inadvertent dose to foetus (>1mSv)					2	**2**
Wrong patient (>1mSv)					6	**6**
Wrong patient (<1mSv)					20	**20**
Wrong process / treatment / procedure					24	**24**
Other / unknown			1	1	34	**36**

The 34 reports categorised as *other / unknown* refer mainly to incidents which involved failures in the referral process for example, poor documentation or inappropriate referrals; failures in identifying the correct patient for a procedure; and poor communication.

Radiotherapy incidents reported on the NIMS in Q1 2022						
Problem	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Failure / malfunction in equipment					4	**4**
Wrong treatment / process /procedure					43	**43**
Dose or volume variation in one fraction >10% wrt fraction dose					1	**1**
Other					4	**4**

The 4 reports categorised as *Other* refer to an issue with patient identification, two issues with incomplete documentation and one incident where there was a delay in treatment due to the appropriate equipment not being delivered to the hospital in time.