National Radiation Protection Office Update 21st September 2020

Radiation safety incidents reported on the National Incident Management System (NIMS) Q2 2020

This report details all radiation safety incidents reported by hospitals on the NIMS from April to June 2020. The figures listed below do not include incidents related to ultrasound, MRI or issues with peripheral vascular catheters.

The emergency pandemic measures had a considerable impact on service provision throughout this period and this must be considered when comparing data from previous reports. In addition, for the first time, incidents were reported on the NIMS from both public and private hospitals.

1. Category of radiation safety incident

Category of incident	Radiology	Radiotherapy
Actual incidents	98	6
Near miss events	72	95
Total number of reports	**170**	**101**

2. Category of person affected by the radiation safety incident

Category of person	Radiology	Radiotherapy
Adult / service user	162	101
Member of the public	1	0
Staff member inadvertently exposed to radiation	7	0

3. Details of the process involved in the incidents.

Radiology incidents reported on the NIMS in Q2 2020						
Process	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Checking patient identification					15	**15**
Clinical details on referral					56	**56**
Documentation / records					21	**21**
Communication / consent issues					6	**6**
Equipment failure				1	17	**18**
Performing procedure		1	2	2	34	**39**
Pregnancy status					3	**3**
Not applicable				1	10	**11**

Comments:

The report categorised as *major* relates to the clinical management of a patient.

The 11 reports categorised as *Not applicable* refer to:

- 4 staff overexposure notifications
- 3 Inadvertent staff irradiation
- 1 inadvertent exposure of a member of the public
- 3 incorrect investigations ordered

Radiotherapy incidents reported on the NIMS in Q2 2020						
Process	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Checking patient identification					1	**1**
Clinical details on referral					1	**1**
Communication / consent					5	**5**
Documentation / records					10	**10**
Performing procedure					84	**84**

4. Causes of the radiation safety incidents reported in Q2 2020

Radiology incidents reported on the NIMS in Q2 2020						
Cause	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Diagnostic exposure greater than intended					8	**8**
General exposure related issue				1	9	**10**
Failure / malfunction of process		1	1	3	31	**36**
Wrong body part / side /site					53	**53**
Wrong dose (NM 10-20% greater than intended)					1	**1**
Wrong dose (NM therapeutic dose given instead of diagnostic)					1	**1**
Wrong patient (>1mSv)					1	**1**
Wrong patient (<1mSv)					22	**22**
Wrong treatment / process / procedure					12	**12**
Not applicable / unknown			1		25	**26**

Comment:

The 26 reports categorised as *Not applicable / unknown* refer to

- 6 Incorrect or incomplete referrals
- 3 Patient care issues unrelated to the radiation exposure
- 12 Incidents related to staff actions
- 5 Issues that arose in relation to not following local protocols.

Radiotherapy incidents reported on the NIMS in Q2 2020						
Cause	**Severity Rating**					**Total**
	Extreme	**Major**	**Moderate**	**Minor**	**Negligible**	
Dose or volume variation in one fraction >10% wrt fraction dose					1	**1**
Failure / malfunction of process					1	**1**
Wrong treatment / process /procedure					94	**94**
Wrong body part / side / site					1	**1**
Other					4	**4**

Comment:

The 4 reports categorised as *Other* relate to

- 1 consent related issue
- 1 issue related to the reception check-in process
- 2 incidents related to treatment protocols.