

# Notification codes, categories and criteria

Use these codes when you report an IR(ME)R incident.

Accidental exposure

| Notification code | Exposure category | Criteria for notification |
|-------------------|-------------------|---------------------------|
|-------------------|-------------------|---------------------------|

|  |                                  |  |
|--|----------------------------------|--|
| 1 (England only)                       | All modalities including therapy | <p>3 mSv effective dose or above (adult)</p> <p>1 mSv effective dose or above (child) (c)</p> <p>Note: In England, Wales and Northern Ireland, a child is someone who has not yet reached their 18th birthday. In Scotland, this is someone who has not yet reached their 16th birthday.</p> |
| 1 (Northern Ireland, Scotland & Wales) | All modalities including therapy | All, regardless of dose  |

These notification criteria apply to the total exposure from the incident, including any intended component plus over-exposure and/or necessary repeat exposures. Where a multiplication factor is specified, this is defined as **the total dose from the incident divided by the intended dose**.

Where the exposure is not easily estimated in mSv or the dose unit is not specified, you may apply an alternative recognised unit and specify this in the notification.

## Unintended exposure

All modalities including nuclear medicine and radiotherapy imaging

| Notification code | Exposure category                       | Criteria for notification   |
|-------------------|---|---|
| 2.1               | Intended dose less than 0.3mSv          | 3mSv or above (adult)<br>1mSv or above (child)  |
| 2.2               | Intended dose between 0.3mSv and 2.5mSv | 10 or more times than intended  |
| 2.3               | Intended dose between 2.5mSv and 10mSv  | 25mSv or above  |
| 2.4               | Intended dose more than 10mSv           | 2.5 or more times than intended.  |
| 3                 | Interventional/cardiology               | <p>Where there has been a procedural failure resulting in observable deterministic effects.</p> <p>Procedures that do not have a procedural error but result in unintended or unpredictable observable deterministic effects.</p> |
| 4.1               | Radiotherapy planning scans             | If a planning scan needs to be repeated twice to obtain an appropriate dataset (3 scans in total, including the intended scan).   |

| Notification code | Exposure category                          | Criteria for notification  |
|-------------------|--|--|
| 4.2a              | Radiotherapy treatment verification images | <p>Set-up error leads to 3 or more imaging exposures in a single fraction (including the intended image, 3 images in total).</p> <p><b>This applies to all radiotherapy treatment regimes, including radical short course fractionation (defined as 10 fractions or less).</b></p>                         |
| 4.2b              | Radiotherapy treatment verification images | <p>When the number of additional imaging exposures is 50% greater than intended over the course of treatment as a result of <b>protocol failure</b>.</p> <p><b>This applies to all radiotherapy treatment regimes, including radical short course fractionation (defined as 10 fractions or less).</b></p> |

| Notification code | Exposure category                              | Criteria for notification   |
|-------------------|--|---|
| 4.2c              | Radiotherapy treatment verification images     | <p>When the number of additional imaging exposures is 50% greater than intended over the course of treatment as a result of <b>thematic hardware or software failure</b>.</p> <p><b>This applies to all radiotherapy treatment regimes, including radical short course fractionation (defined as 10 fractions or less).</b></p> |
| 5                 | Foetal<br>All modalities                       | Where there is an unintended foetal exposure <b>AND</b> the resultant foetal dose is <b>10mGy</b> or more.  |
| 6                 | Breast feeding infant<br>Nuclear medicine only | Where there has been a failure in procedure <b>AND</b> the resultant infant effective dose is 1 mSv or more.  |
| 7                 | Incorrect radiopharmaceutical                  | Any administration of the incorrect radiopharmaceutical to a patient, regardless of dose.   |

Radiotherapy delivered dose (including brachytherapy)

| Notification code | Exposure category      | Criteria for notification   |
|-------------------|------------------------|---|
| 8.1               | Therapy over-exposure  | Delivered dose to the planned treatment volume or organs at risk is 1.1 or more times (whole course) or 1.2 or more times (any fraction) the intended dose.   |
| 8.2               | Therapy under-exposure | <p>Delivered dose to the planned treatment volume is 0.9 or less times the intended dose (whole course).</p> <p><b>This excludes where the under-exposure to the target volume is a result of a geographical miss, which is reportable under either 9.1 or 9.2.</b></p> |

### Radiotherapy geographical miss (including brachytherapy)

| Notification code | Exposure category | Criteria for notification  |
|-------------------|-------------------|--|
| 9.1               | Total             | All total geographical misses, even for a single fraction or significant part thereof. |

| Notification code | Exposure category | Criteria for notification  |
|-------------------|-------------------|--|
| 9.2               | Partial           | <p>Where the miss exceeds 2.5 times the locally defined error margin AND the guideline dose factors (codes 8.1 and 8.2) for the planning target volume or organs at risk are exceeded.</p> <p><b>A surrogate for the locally defined error margin might be a displacement of 2.5 times the local imaging action level for specific anatomical site and treatment intent.</b></p> |

## Nuclear medicine therapy

| Notification code | Exposure category                    | Criteria for notification   |
|-------------------|--------------------------------------|---|
| 10.1              | Selective internal radiation therapy | Delivered activity is outside +/- 20% of the prescribed activity. |
| 10.2              | All other nuclear medicine therapies | Delivered activity is outside +/- 10% of the prescribed activity. |

## Complementary notification codes

For these codes, you need to add the relevant suffix code 1 to 9. As well as notification codes 1 to 10. For example:

- M1 (accidental exposure of more than one individual within the same incident or theme)
- M2.1 (unintended exposure of more than one individual within the same incident or theme)

| Notification code | Exposure category   | Criteria for notification     |
|-------------------|---|-------------------------------|
| M                 | More than one individual exposed within the same incident or theme.<br>(plus relevant suffix code 1 to 9) | All cases regardless of dose. |

| Notification code | Exposure category   |
|-------------------|---|
| E                 | Equipment fault exposure (plus relevant suffix code 1 to 9)     |
| V                 | Voluntary notification (plus relevant suffix code 1 to 9)       |
| C                 | Clinically significant event (plus relevant suffix code 1 to 9) |