UK Health Security Agency

Safer Radiotherapy

E-bulletin #18
January 2026

Welcome to the Safer Radiotherapy E-bulletin, which provides key messages and learning from the national patient safety initiative to the entire radiotherapy community.

Your feedback helps us improve these publications, please don't hesitate to share your thoughts with the radiotherapy team **radiotherapy@ukhsa.gov.uk**

Further information on the national patient safety initiative can be found **here**, or accessed via the QR code located on this page.

UKHSA National Radiotherapy Event Workshop 2026

Save the date: The National Radiotherapy Event (RTE) Workshop, 16 June 2026

The Patient Safety in Radiotherapy Steering Group (PSRT), are delighted to announce a national workshop in June 2026 to support the application and analysis of the **National Patient Safety RTE Taxonomy**.

Planned as a single day event in June 2026, this workshop aims to facilitate shared learning and networking between radiotherapy professionals. Featuring a programme of several collaborative, highly interactive sessions the workshop to support providers in the adoption of the recently refined **National Patient Safety RTE Taxonomy** and assesses the practical implications of Advancing Safer Radiotherapy.

Registration will be free of charge for 1-2 delegates per radiotherapy department and booking is essential as spaces are limited. Please do not hesitate to contact the radiotherapy team at UKHSA via email: **radiotherapy@ukhsa.gov.uk** to share topics for consideration at the interactive workshop

Further information on the venue and programme will follow shortly and will be shared with every UK RT Provider as well as detailed on the **UKHSA radiotherapy Learning from radiotherapy events webpage**.

RTE Data Analysis – August to December 2025

Findings:

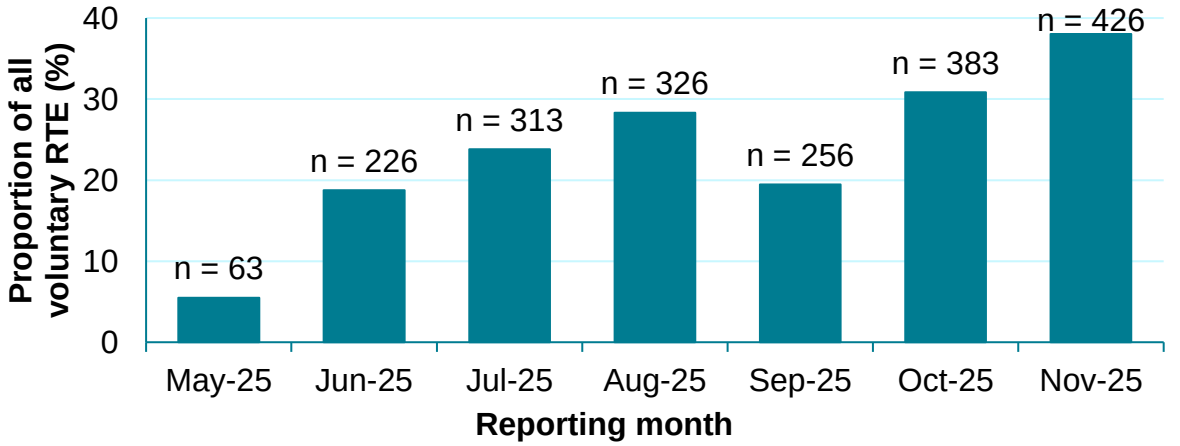
4,829 RTE reports	**97.3% classified level 3 – 5 with little or no impact on patient outcome**
2.9% more reports than the previous period	**56 providers submitted data**
19.2% of all reports related to equipment failure, down from 22.8% April – July 2025	**Proportion of Level 1 RTE reduced to 1.8%, from 2.0% April – July 2025**

The full **Triannual RTE analysis and learning report** is now available

Spotlight on: Modality codes

- The **National Patient Safety Radiotherapy Event Taxonomy,** published May 2025, introduced the new Modality coding. This allows local and national analysis to differentiate between treatment techniques and modalities. When applying the taxonomy, a D should prefix the Modality code, e.g. D02.
- Modality codes can be applied for pretreatment events if the intended technique is known or becomes known during RTE investigation. If the treatment modality cannot be established, then the code should be omitted.
- To date, 79% of providers have applied modality coding to at least one RTE.

Frequency of modality coding from May to Nov 2025



Guest editorial: Strengthening understanding of IR(ME)R notification criteria in radiotherapy

Farhana Harun, IR(ME)R Modality Lead: Radiotherapy

Care Quality Commission (CQC)

In England the Care Quality Commission (CQC) enforces IR(ME)R through a combination of inspections, statutory notifications and intelligence gathered from healthcare services. Headed up by the IR(ME)R Manager Tracy Bradshaw, our IR(ME)R team is composed of specialist inspectors with professional backgrounds in radiology, radiotherapy, nuclear medicine and medical physics. All are HCPC registered clinical scientists or radiographers.

The CQC IR(ME)R radiotherapy team work closely with radiotherapy providers across England to foster an open, transparent culture that encourages shared learning and continuous improvement. The quality of notification investigation reports reflects this commitment to professional accountability and safety. The purpose of the IR(ME)R notification requirement is as a mechanism to strengthen patient protection and to promote continuous improvement across radiotherapy services.

Recently, providers have asked for greater clarity around criteria for making a notification, particularly notification criteria 4.2a, 4.2b and 4.2c, when additional verification imaging may trigger a statutory notification and detailed investigation.

Understanding 4.2a – Radiotherapy treatment verification imaging: Set-up or equipment-related events

4.2a applies when two or more set-up and/or equipment events occur within a single fraction and result in 3 or more image exposures.

We recognise that additional imaging may be required for issues relating to patient preparation (for example bladder or bowel) or patient movement. Where local processes are followed, these events are not considered procedural errors and do not count toward notification thresholds.

Examples

a. A patient receiving radiotherapy to the pelvis requires imaging. After the first image, an equipment fault occurs, and the image is repeated. The patient subsequently cannot maintain bladder filling and a third image is required. Despite there being three images, only one procedural event occurred (equipment fault). The patient specific event does not trigger 4.2a. Therefore, this event is **not** notifiable.

b. A patient is set up with incorrect immobilisation, detected during image review and analysis. A second image is required to confirm correct positioning. An equipment fault then necessitates a third image. Two procedural events (set-up and equipment fault) resulting in 3 imaging exposures. This would be notifiable.

Understanding 4.2b and 4.2c – Radiotherapy treatment verification imaging: Protocol deviations or equipment failure leading to additional imaging

4.2b covers any deviation from protocol, in set-up, preparation or imaging, that increases imaging exposures by 50% or more over the course of treatment. Where local protocol is followed, issues relating to patient preparation or patient movement are not included.

4.2c includes equipment (hardware or software) failure that increases imaging exposures by 50% or more over the course of treatment.

Examples

a) During a single fraction treatment an incorrect tattoo is used for patient set-up. The verification image reveals the error, requiring repositioning and an additional image. This would be notifiable.

b) An equipment malfunction during the acquisition of imaging results in additional imaging for the same patient on 3 occasions, during a five-fraction treatment course. The cumulative increase in imaging exceeds the intended protocol by more than 50%. This would be notifiable.

Key takeaways for providers

- Distinguish between **patient-specific issues** and **procedural errors.**
- Be mindful of **cumulative imaging** in multi-fraction pathways.
- Maintain clear, accessible local imaging protocols.
- Encourage open reporting to support learning, not blame.

Latest Patient Safety News

National Dose Reference Levels for radiotherapy verification imaging are now available

UKHSA have established National Dose Reference Levels (NDRLs) for radiotherapy verification imaging with cone beam CT (CBCT) for adult patients, they sit alongside the pre-existing NDRLs for conventional CT **here**.

UKHSA would like to thank members of the working party for making this possible – Tim Wood, Anne Davis, Jame Early, Rebecca Lindsay, Rosaleen Plaistow and Matthew Williams. The IPEM topical report which this work is based upon is available **here**.

Dates for the diary	
BIR Annual radiotherapy and oncology meeting	12 - 13 Feb 2026, London
ESTRO 2026	15 - 19 May 2026, Stockholm
UK Imaging and Oncology Conference 2026	8 - 10 June 2026, Liverpool
2nd Annual Global AI conference 2026	29 - 30 June 2026, London
UKHSA national RTE workshop	16 June 2026, TBC