UK Health Security Agency

Safer Radiotherapy

E-bulletin #19
May 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.

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

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

Patient Safety in Radiotherapy (PSRT) group update

The **PSRT** met face to face in Birmingham on 6th May, 2026.

The multi professional group collaborates to support the coordination of efforts to improve patient safety in radiotherapy across the UK.

The group met to develop a work programme for 2026/2027 and finalise details for the upcoming National Radiotherapy Event (RTE) Workshop.

The PSRT look forward to meeting registrants and participating in the national workshop on the 16th June 2026. The programme aims to support the application of the **National Patient Safety RTE Taxonomy** and implementation of **Advancing Safer Radiotherapy** recommendations. The single day event will also provide radiotherapy professionals with the opportunity to share learning and build networks.

New RTE learning resources available

A series of **presentations** have been developed to support the application of radiotherapy patient safety guidance, including **Advancing Safer Radiotherapy (ASR): Guidance for radiotherapy providers on improving patient safety** and the **National Patient Safety Radiotherapy Event (NPSRTE) taxonomy.**

The new learning resources include presentations on the following:

- Introduction to the national radiotherapy patient safety initiative
- Local patient safety radiotherapy event (RTE) data analysis: guidance for radiotherapy providers

RTE Data Analysis – December 2025 to March 2026

Findings:

4,277 RTE reports	**97.3% classified level 3 – 5 with little or no impact on patient outcome**
11.4% less reports than the previous period	**56 providers submitted data**
20.9% of all reports related to equipment failure, increase from 19.2% Aug – Nov 2025	**Modality coding including in 44.5% of all reports**

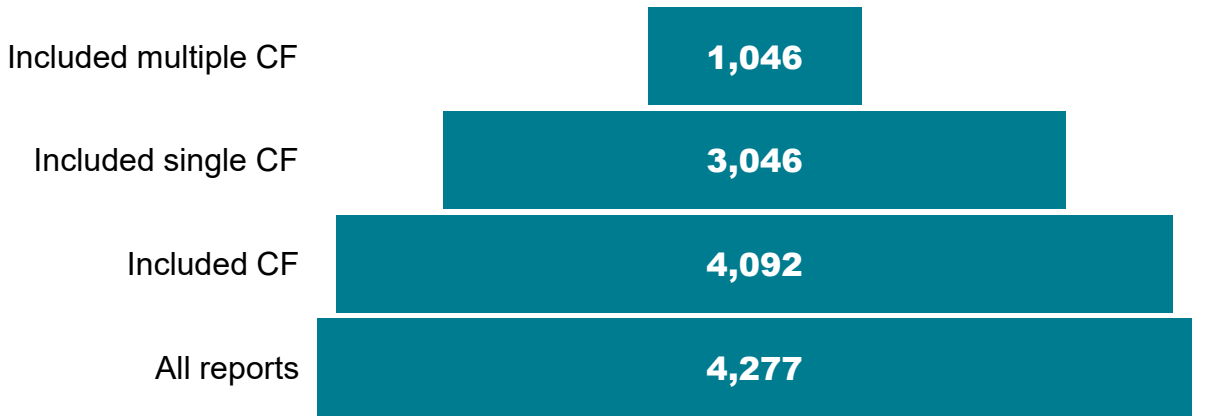
The full **Triannual RTE analysis and learning report** is now available

Spotlight on: Contributory factor (CF)

- There are often multiple factors that will contribute to any particular event. Therefore, there is potential for multiple CF per event.
- Between Dec 2025 and March 2026 4,277 RTE reports were received:
  - 95.7% included CF taxonomy (n = 4,092)
  - 74.4% contained only a single CF (n = 3,046).
  - 25.6% included multiple CF per report (n = 1,046)

Please ensure system wide CF are considered and shared
The letters 'CF' must prefix every CF, for example:
TSRT9/ Level 1/ 10j/ 10w/ 11r/ 11t/ 12f/ 12g/ MD13d/ CF1d/ CF2b/ CF6a.

Inclusion of CF taxonomy December 2025 to March 2026



Guest editorial:
Fatigue in radiotherapy, the recognised, yet under-reported risk to safe care

Neil Burley, Radiotherapy services quality manager,
University College London Hospitals NHS Foundation Trust

Why Fatigue Matters

The **Health and Safety Executive** defines fatigue as a 'decline in mental and/or physical performance' resulting from factors such as sleep loss, prolonged exertion, poorly designed shift patterns etc. While fatigue and burnout are widely discussed within healthcare, often as wellbeing concerns, their role as contributors to patient safety events is less visible, less reported, and may be under-recognised within local services. Health Services Safety Investigations Body (HSSIB) reported that, within healthcare, fatigue can contribute both directly and indirectly to patient harm. (1)

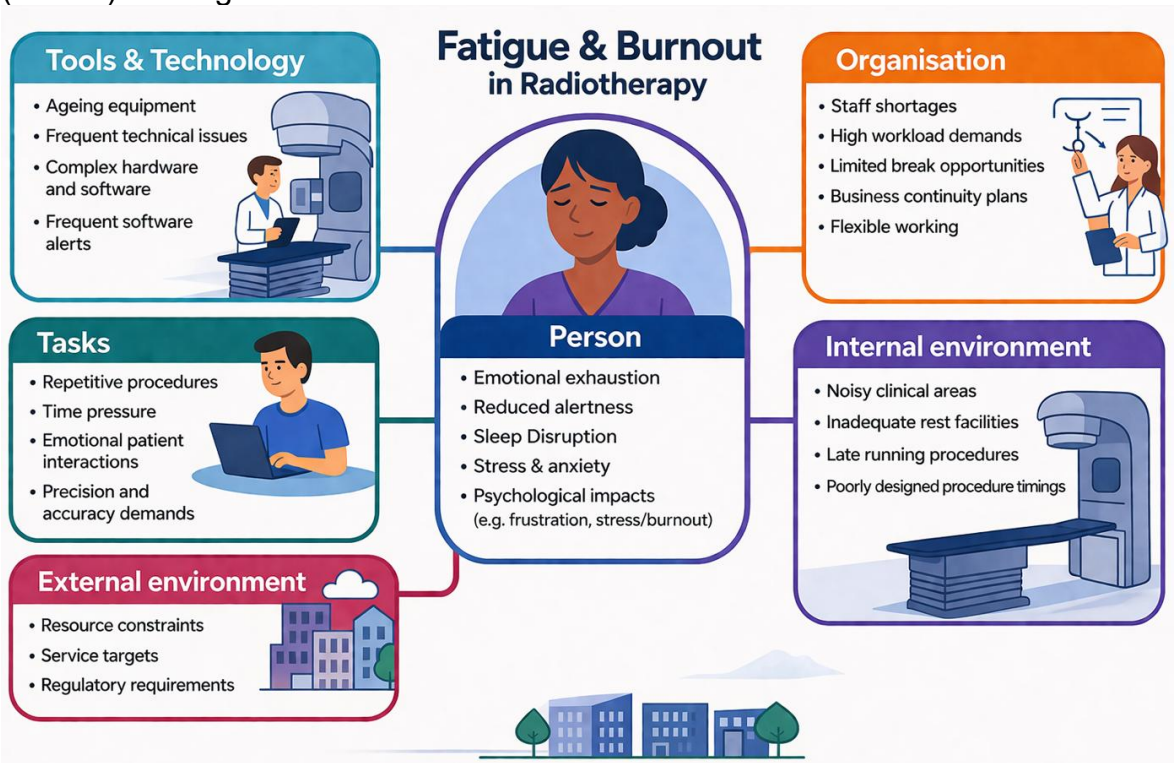
In healthcare, this presents a particular challenge, as there remains a cultural normalisation of an "endurance of fatigue". Staff will show flexibility, while some may feel reluctant to raise concerns stemming from not wanting to let their teams down or because tiredness has become an accepted part of working in healthcare. The HSSIB highlights that these act as barriers to recognising fatigue as a safety risk. (1)

What Evidence Exists to Demonstrate Fatigue may be a Safety Concern?

Despite rising community recognition of fatigue, a recent analysis of national RTE data, suggests fatigue is explicitly identified in a relatively small proportion of reported RTE (0.9%), and most commonly associated with events coded with a lower severity (79.1% levels 4 - 5) (2). Profession-specific research indicates emotional exhaustion in approximately 28% of therapy radiographers (3), and links high workload and a feeling of under-appreciation with continued moderate levels of staff fatigue/burnout within the radiographic workforce (4). Although these studies do not prove a direct relationship between fatigue and safety events, they do show that workload, workforce strain and psychological pressure are continuing safety concerns in radiotherapy.

Thematic analysis of fatigue in radiotherapy

The following is an example of a Systems Engineering Initiative for Patient Safety (SEIPS) for fatigue and burnout.



A tired radiotherapy practitioner, while skilled and conscientious, may be less able to detect subtle inconsistencies, recover from unpredictable interruptions or variations, note assumption bias or remain attentive to numerous software alerts (5). With radiotherapy in increasing demand, services rely on measures of efficiency and productivity to ensure capacity remains within their current workforce levels. Thus fatigue can no longer be seen as an individual staff issue but must be better monitored and managed as a condition within the radiotherapy systems of work.

Potential safety actions

Local event-learning systems and regular recognition of fatigue as a safety risk can help services to relate fatigue to patient care and staff wellbeing within their risk assessments, governance discussions and safety initiatives.
The following safety actions may be considered to monitor and manage fatigue:

- Risk assess fatigue, consider aspects of the service that may contribute to fatigue
- Strengthened safety culture, improve staff knowledge on how fatigue affects safety supported by training or CPD sessions
- Utilise existing event learning system and embed fatigue into event analysis
- Ensure business continuity is equally aligned with safety
- Recognise fatigue related to shift patterns and flexible working
- Optimise systems and technology

References

1. HSSIB (2025) The impact of staff fatigue on patient safety: investigation report. Published 24 April 2025.
2. UKHSA. (2026) Interrogation of radiotherapy event (RTE) data in relation to fatigue / workforce shortages. Unpublished.
3. Probst, H., Griffiths, S., Adams, R. and Hill, C. (2012) Burnout in therapy radiographers in the UK, British Journal of Radiology, 85(1017), p e760–e765.
4. Kennedy, E., Ryan, M., England, A., Sarkodie, B., Khine, R. and McEntee, M.F. (2025) High workload and under-appreciation lead to burnout and low job satisfaction among radiographers', Radiography, 31(1), p 231–240.
5. Reijnders-Thijssen, P., Geerts, D., van Elmpt, W., Pawlicki, T., Wallis, A. and Coffey, M. (2020)'Prevalence of software alerts in radiotherapy, Technical Innovations & Patient Support in Radiation Oncology, 14, p 32–35.

Latest Patient Safety News

National aggregate RTE data 2025

The fourth full dataset (January to December 2025) for RTE reported across the UK is now available. This data is available to reporting RT providers upon request and may assist in comparing local trends to the national picture. If you would like to receive this dataset, please email **RTEdata@ukhsa.gov.uk** with:

- Your organisation name
- How you propose to use the national aggregate data

EFOMP-MARLIN study report published

Series No. 208 includes recommendations for reporting and learning from patient related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine, interventional and diagnostic radiology. This document can be found **here**.

SAFRON publication on patient communication available

SAFety in Radiation ONcology (SAFRON) have published a document on **making radiotherapy safer through effective communication**. This publication includes details on communication related incidents and near misses, and recommendations on how to strengthen communication.

Optimize-RT European survey

A European survey on current Cone Beam CT (CBCT) optimisation practices in radiotherapy is open. This is an opportunity for radiotherapy departments across Europe to share CBCT optimisation strategies and methodologies. The survey can be seen **here.**