



Public Health  
England

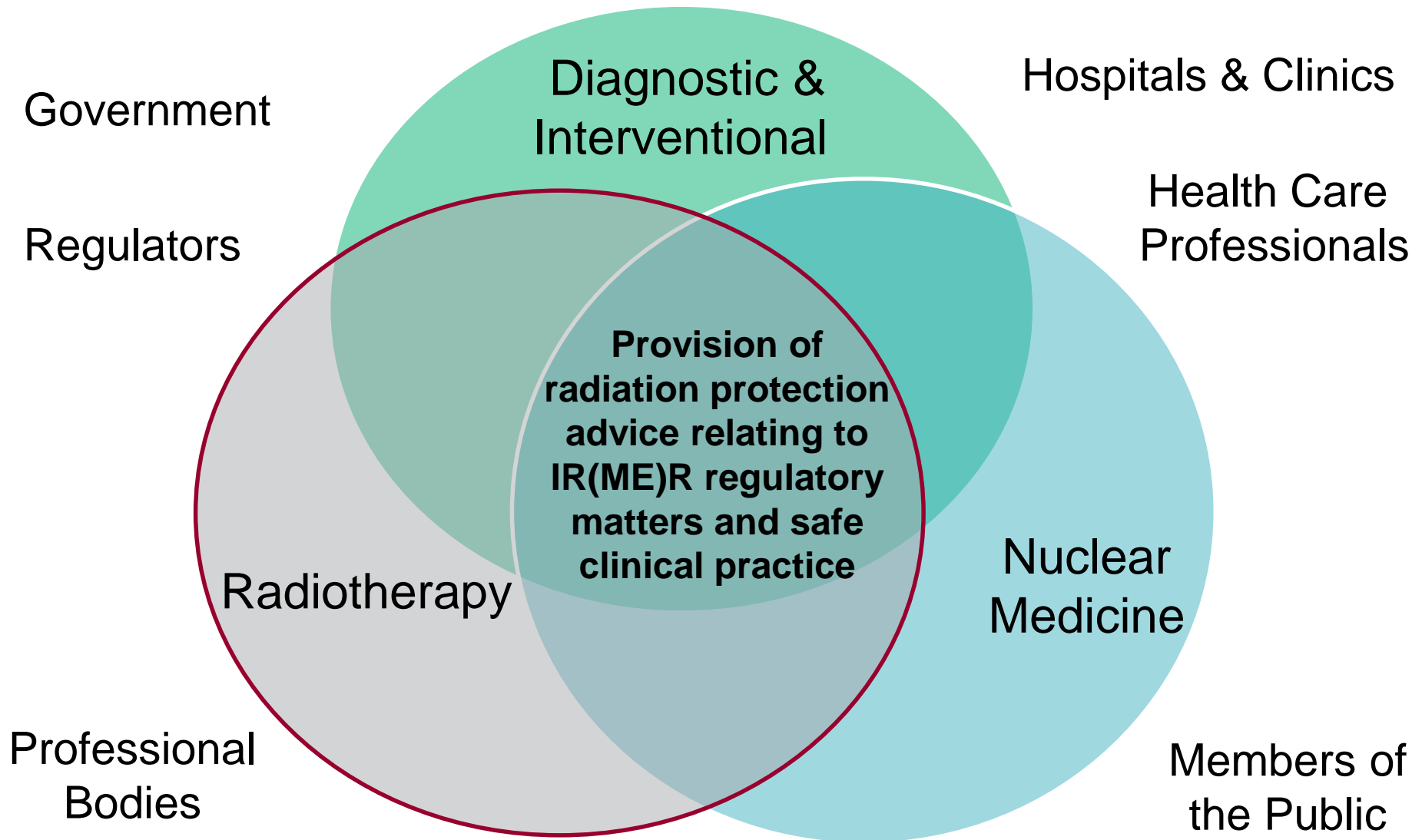
Protecting and improving the nation's health

# Reporting and learning – How to share experience? The UK Radiotherapy Experience

## HERCA Multi-Stakeholder Workshop

Úna Findlay  
Medical Exposures Group  
27<sup>th</sup> October 2016

# Role of Medical Exposures Group



## Safety in Radiotherapy

Legislation

Professional Registration &  
Standards

Training & Continued  
Professional Development

Commissioning Requirements

Reporting & Learning Systems

Quality Management Systems

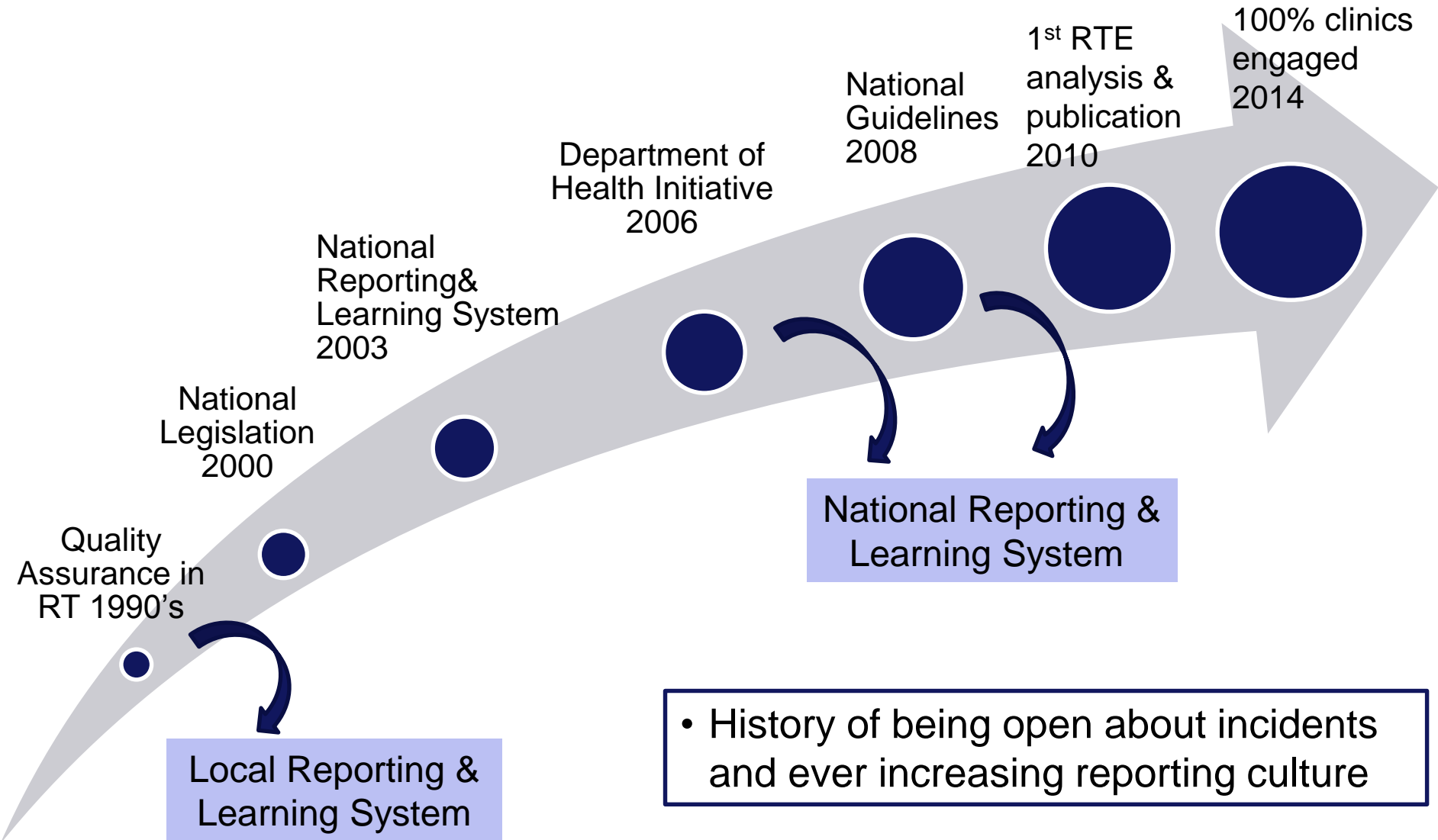
Dosimetry Audits

Professional Guidance

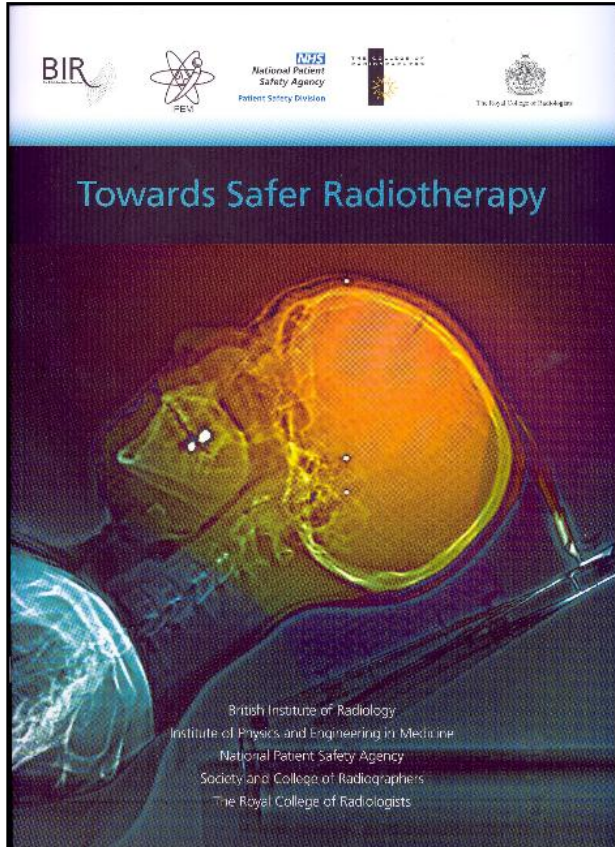
Multidisciplinary Team Working

Independent or Peer Review

# Background to reporting & learning



# Background to reporting & learning

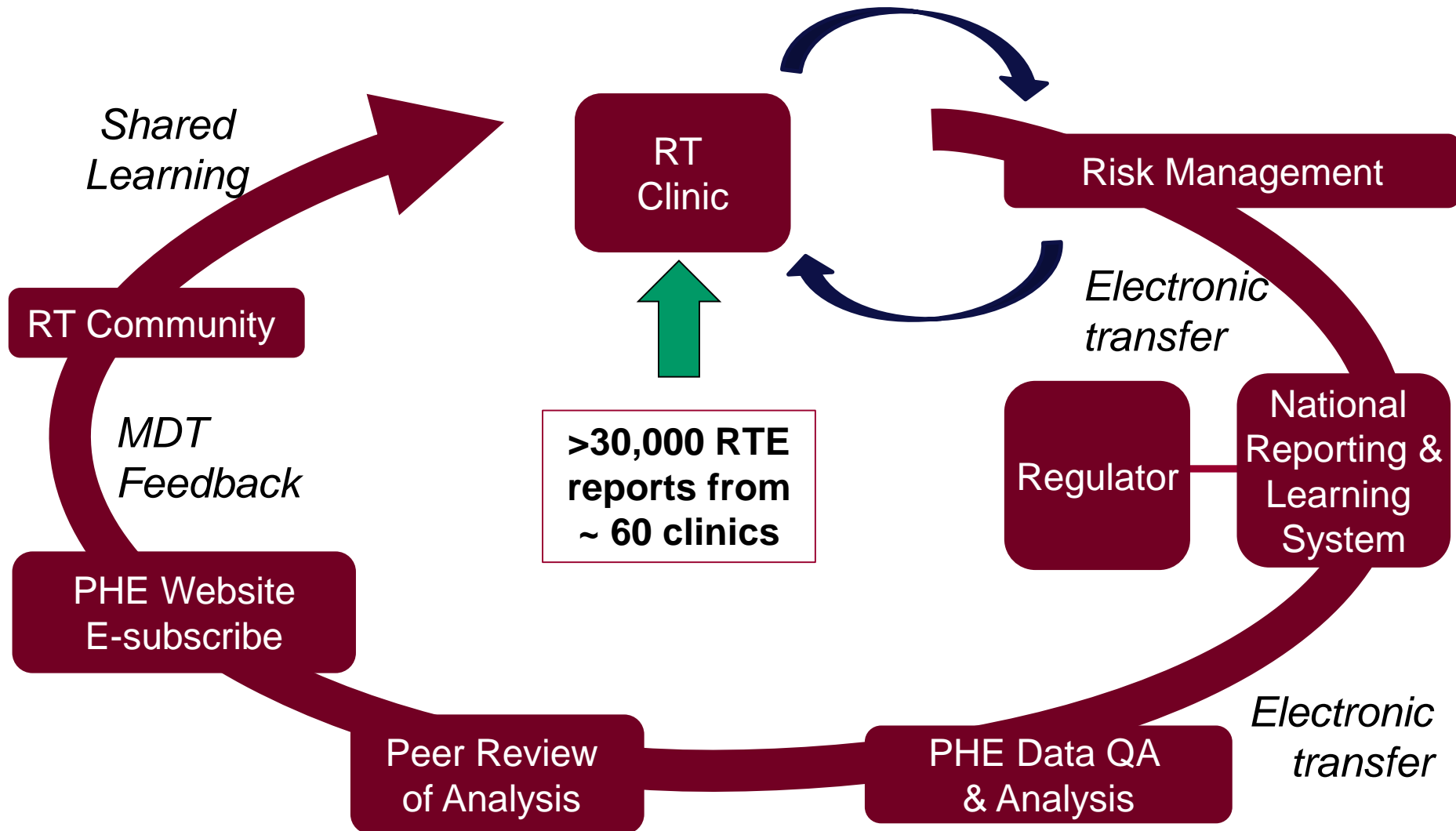


<https://www.rcr.ac.uk/towards-safer-radiotherapy>

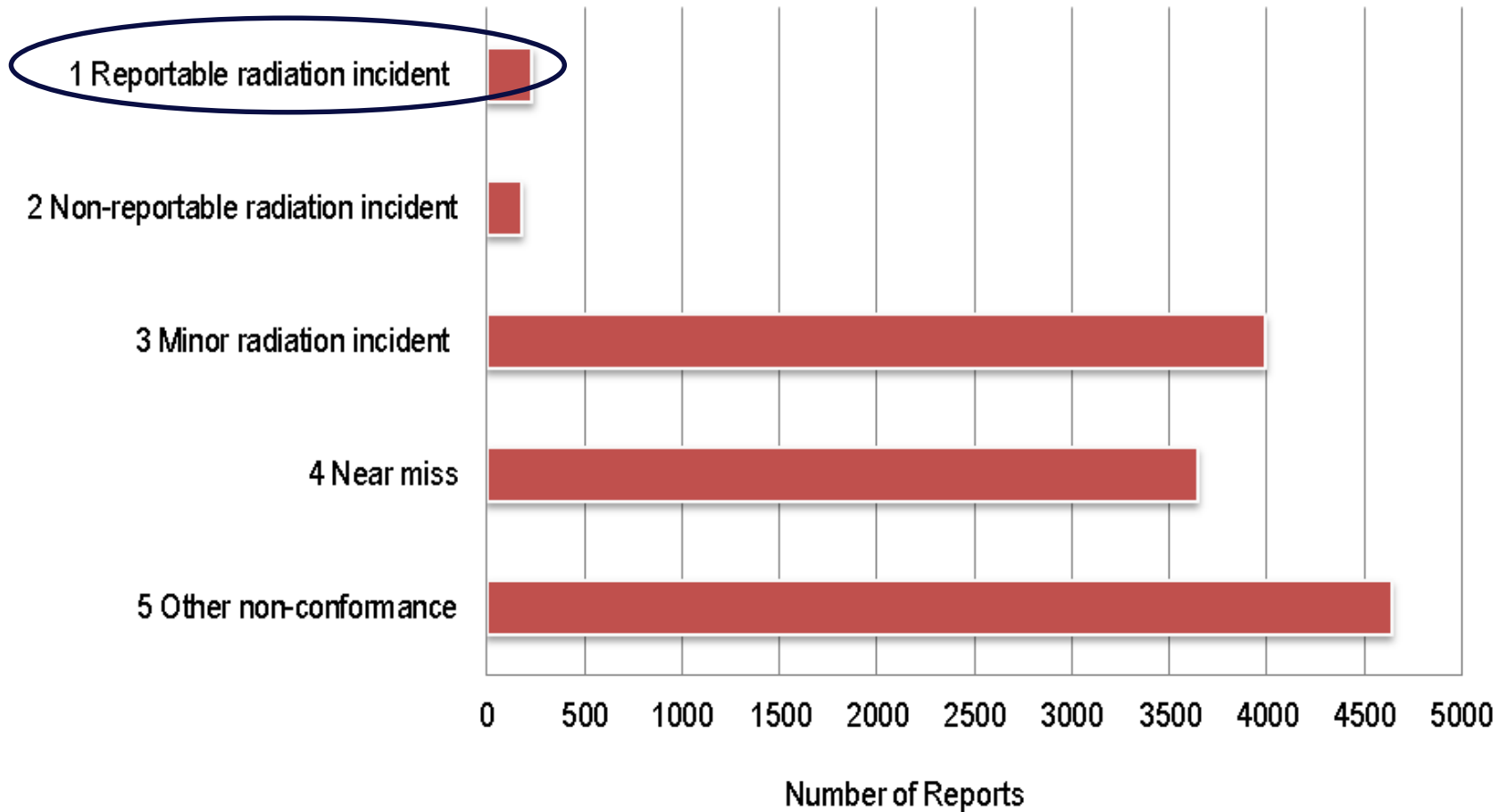
Provides:

1. Terminology for describing radiotherapy errors (RTE)
2. Radiotherapy pathway coding for describing where the RTE has occurred
3. Classification system for describing the severity of the RTE
4. 37 recommendations on improving patient safety in radiotherapy including the establishment of a NRLS

# Reporting & learning system - mechanism

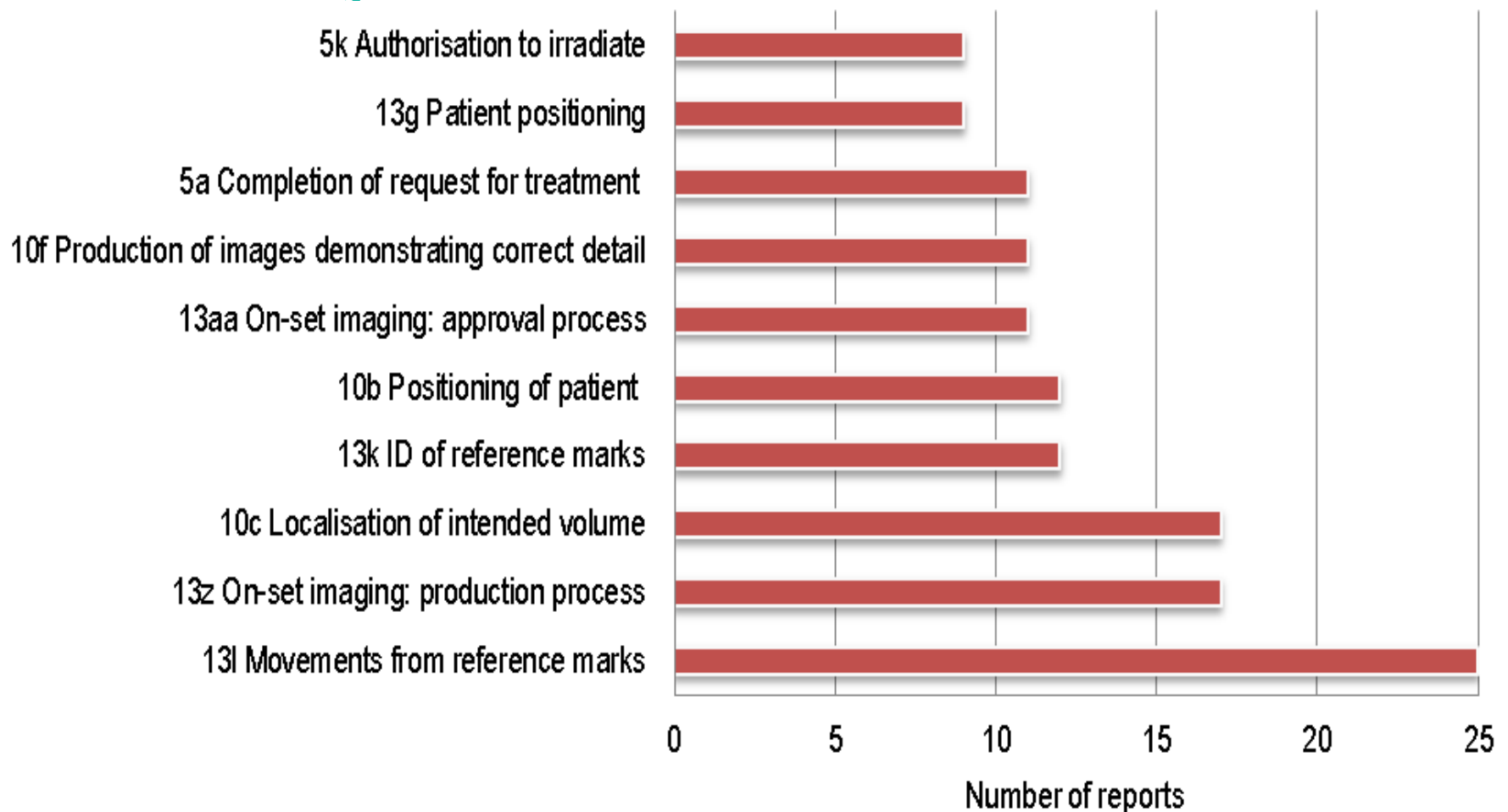


# RTE analysis



Classification of reports from December 2013 to November 2015 (n = 12691)

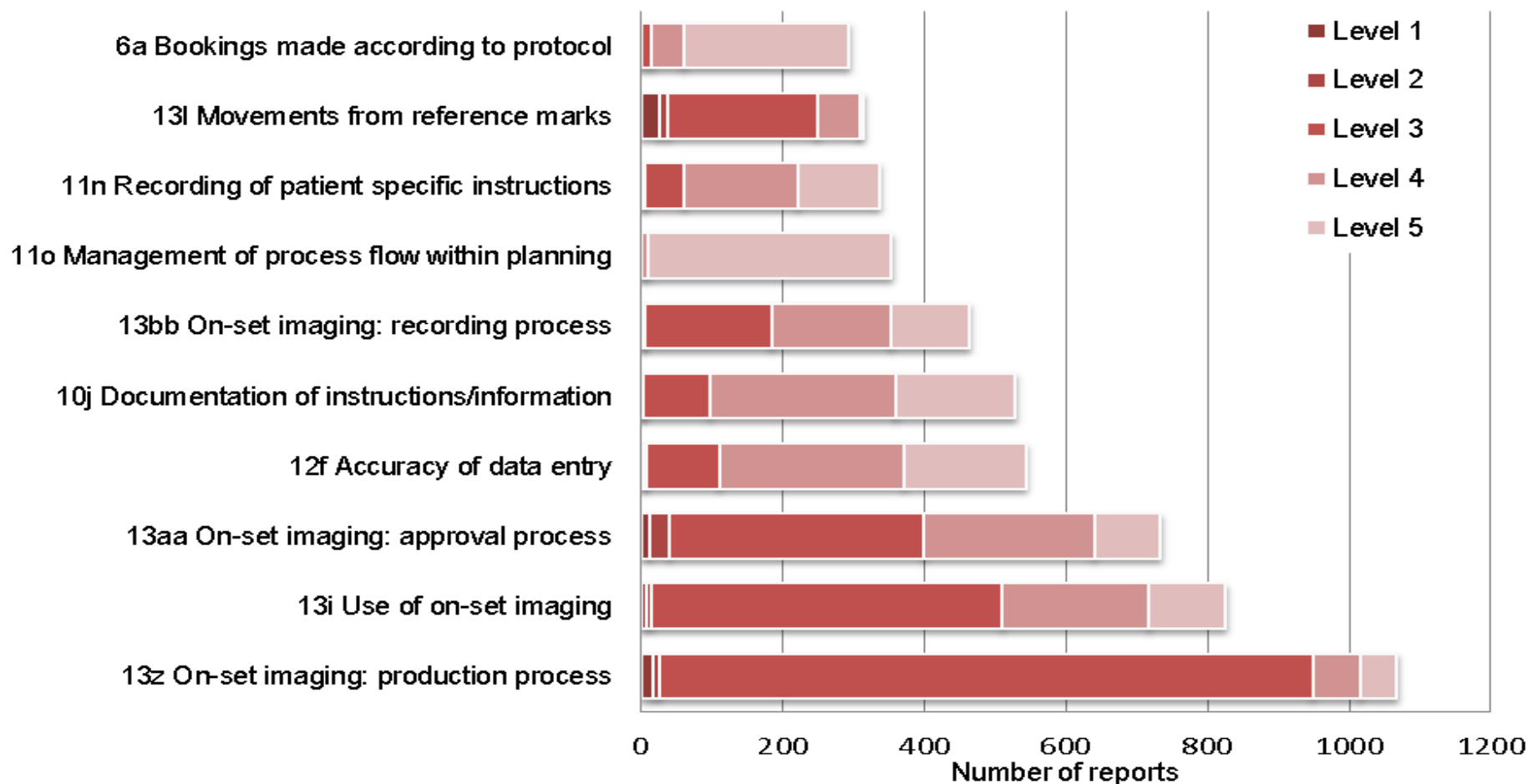
# RTE analysis



Breakdown of the most frequently occurring level 1 (reportable radiation incident) process subcodes, from December 2013 to November 2015 (n = 134/232 subset of reports)

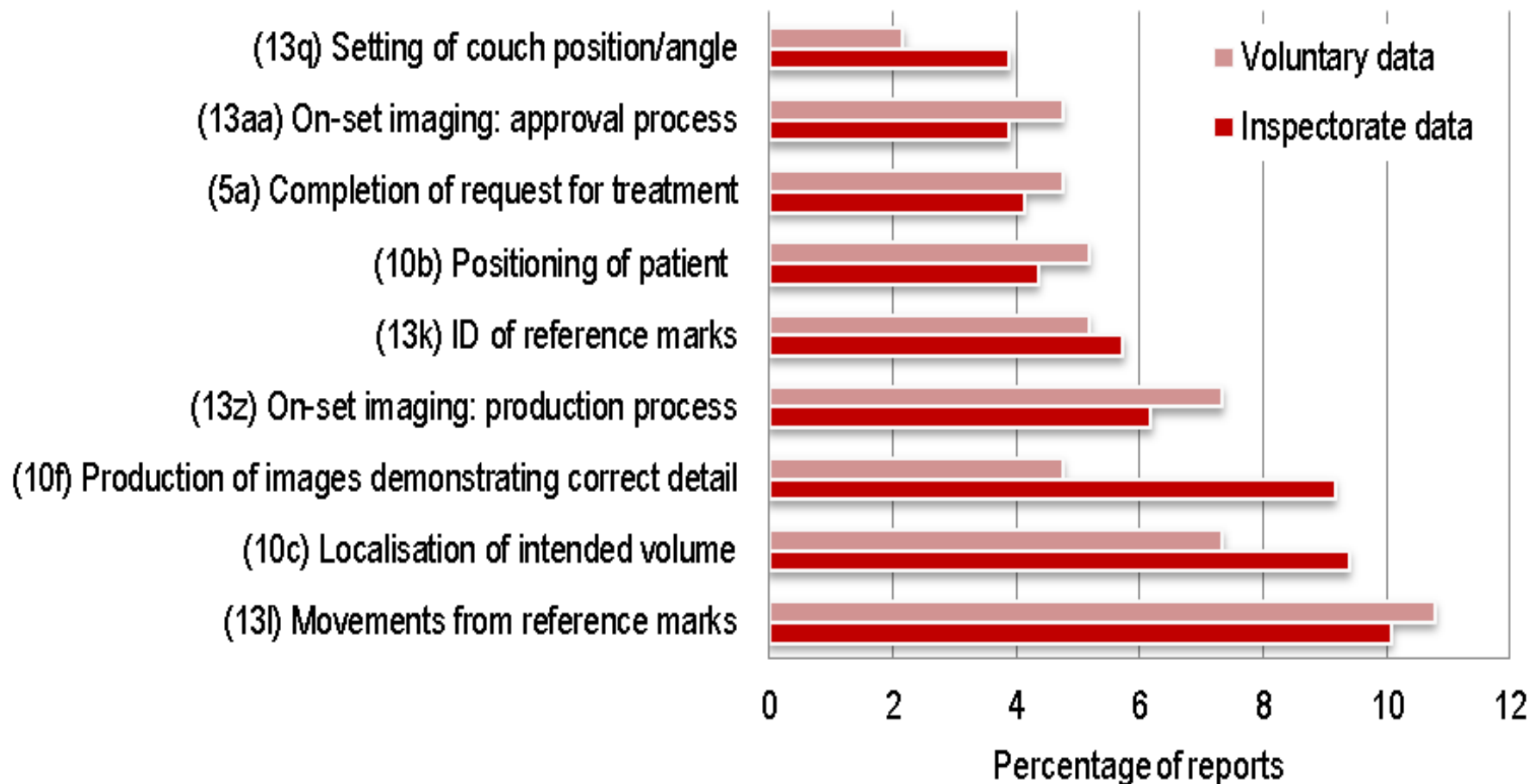


# RTE analysis



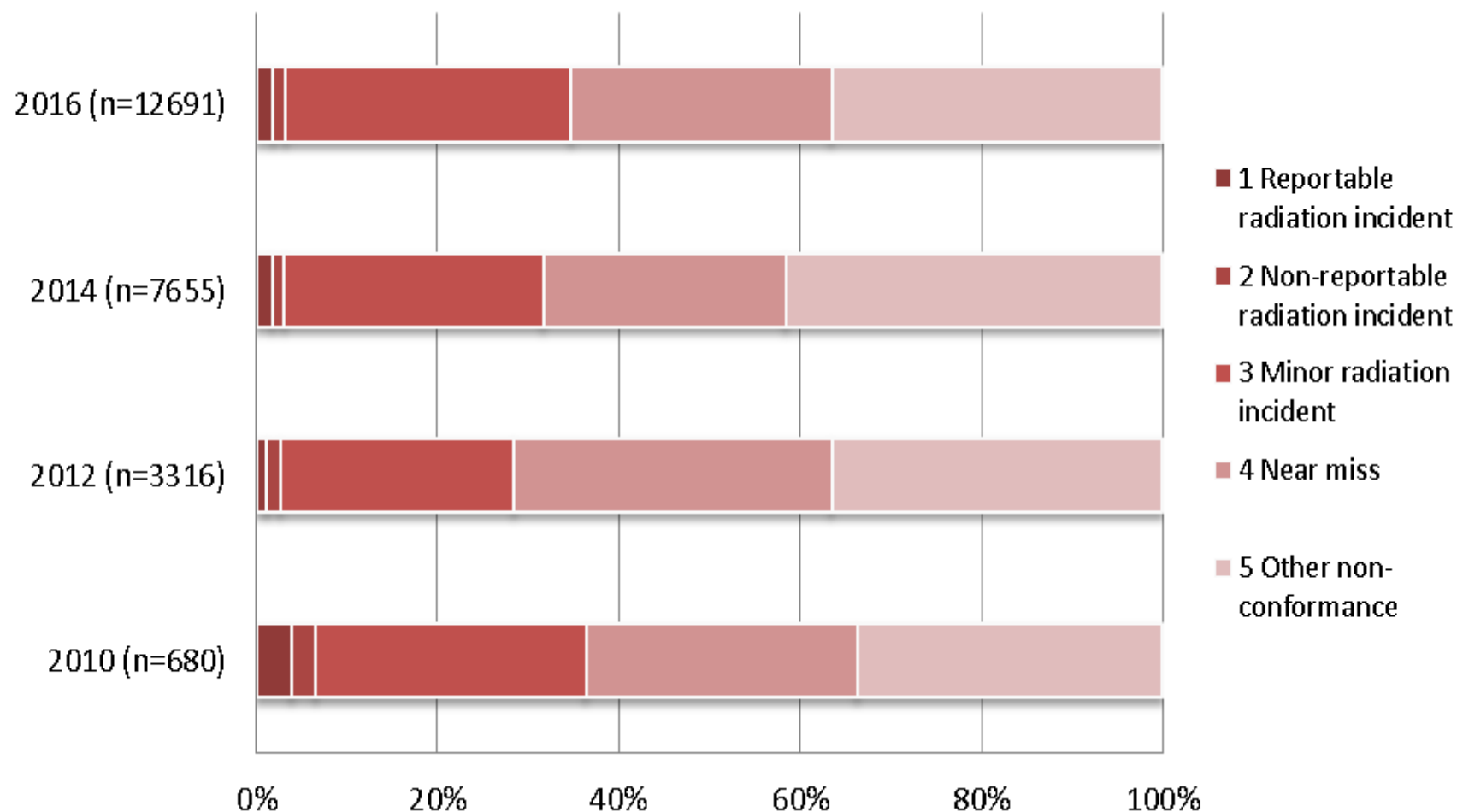
Breakdown of reports by most frequently occurring process subcode and classification level, from December 2013 to November 2015 (n = 5454/12691 subset of reports)

# RTE analysis



Breakdown of inspectorate and voluntary data as a percentage of most frequently occurring process subcodes, from December 2013 to November 2015 (n = 248/437 and 121/232, respectively)

## RTE Analysis – Comparison of classification levels as % of RTE reports



# Error analysis - Comparison of most frequently reported process subcodes

	Process subcode		Number of reports	Percentage of reports
↑Increase	13z On-set imaging: production process	2012	109	3.30%
		2014	366	4.80%
		2016	1067	8.40%
	13i Use of on-set imaging	2012	65	2.00%
		2014	302	3.90%
		2016	825	6.50%
	10j Documentation of instructions/information	2012	120	3.60%
		2014	295	3.90%
		2016	528	4.20%
	13bb On-set imaging: recording process	2012	74	2.20%
		2014	222	2.90%
		2016	463	3.60%
↓Decrease	13l Movements from reference marks	2012	130	3.90%
		2014	226	3.00%
		2016	313	2.50%
	12f Accuracy of data entry	2012	188	5.70%
		2014	387	5.10%
		2016	543	4.30%
↔Neither	11n Recording of patient specific instructions	2012	80	2.40%
		2014	223	2.90%
		2016	336	2.60%
	13aa On-set imaging: approval process	2012	194	5.90%
		2014	343	4.50%
		2016	733	5.80%

# Shared learning from RTE

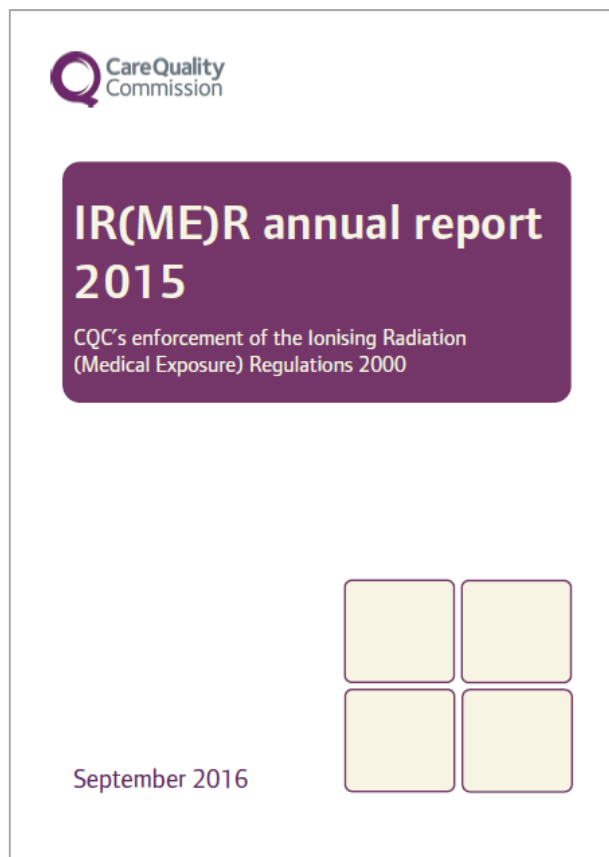
## Dissemination of learning:

- Publication of biennial reports (4 issues since 2010)
- Publication of tri-annual newsletter & full data analysis (20 issues since 2010)
- Targeted email alerts & e-subscribe available
- Contributions to national guidance
- Contributions to national meetings
- International liaison
- Learning shared as part of the PHE clinical site visits

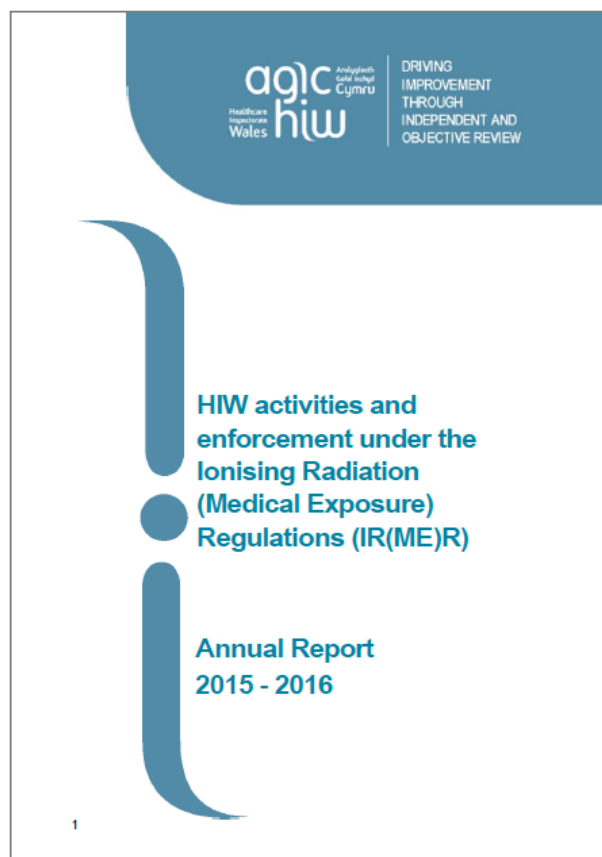
[www.gov.uk/government/collections/medical-radiation-uses-dose-measurements-and-safety-advice](http://www.gov.uk/government/collections/medical-radiation-uses-dose-measurements-and-safety-advice)



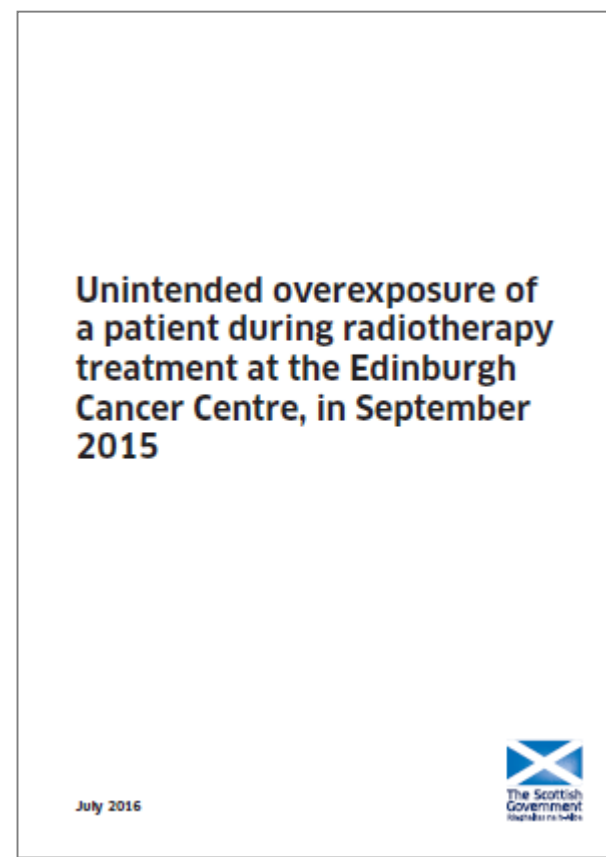
# Regulator reports



<http://www.cqc.org.uk/IRMER>



<http://hiw.org.uk/IRMER>

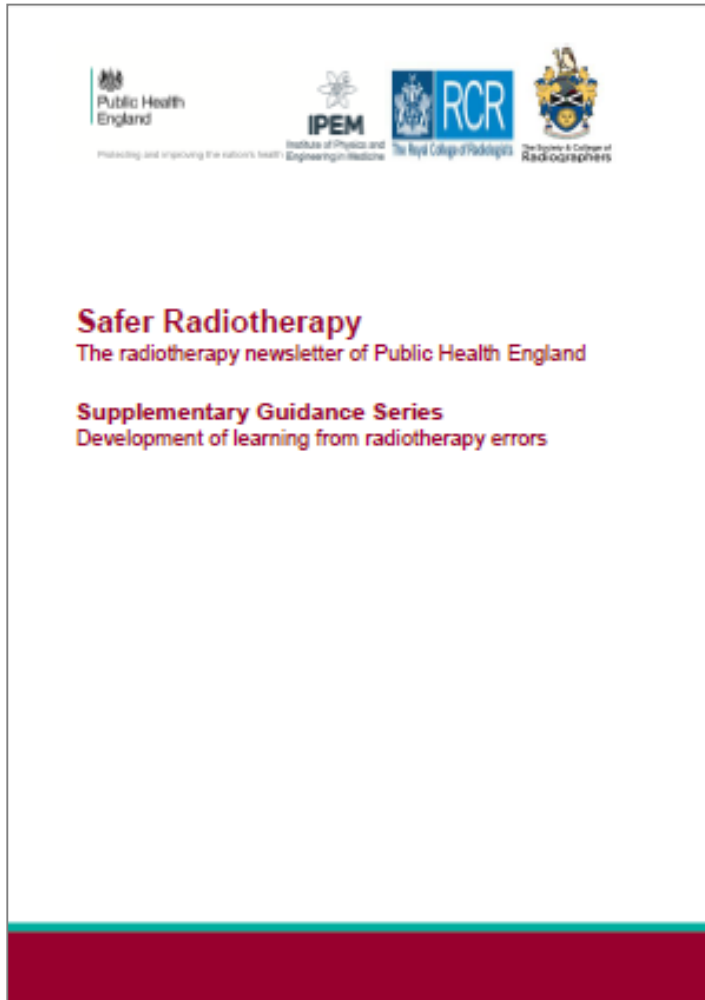


<http://www.gov.scot/Publications/2016/07/8854>

# Conclusion

- Radiotherapy is generally accepted as being safe.....
- 70-80% of medical errors are based in human factors
- Radiotherapy is complex & evolving
- Need to maintain service provision in a changing landscape - increasing demands and challenging financial expectations
- Need to optimise learning from events through the introduction of a safety barrier and causative factor taxonomy
- Building on the existing voluntary healthcare-wide National Reporting and Learning System
- Facilities comparison of local and national RTE trend analysis
- Supports a risk-based approach to improving safety
- Submitting data to a national reporting and learning system contribute to safer services

# Future work



1. Review corrective /preventative or learning actions in terms of strategies and tracking
2. Review use and content of 'end of process checks' or 'minimum criteria for checking'
3. Review the use of proactive risk assessment in radiotherapy
4. National group established to develop similar work in radiology & nuclear medicine



# Thank you

“to err is human;  
to cover up is unforgivable;  
and to fail to learn is  
inexcusable.”

(Sir Liam Donaldson 2004)

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***Subscribe to the newsletter ‘Safer RT’***

<https://public.govdelivery.com/accounts/UKHPA/subscribers/new?preferences=true>

***RTE Publications***

<https://www.gov.uk/government/collections/medical-radiation-uses-dose-measurements-and-safety-advice>

# Acknowledgements - Partners in RTE work



**IPEM**

Institute of Physics and  
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**The Scottish  
Government**  
Riaghaltas na h-Alba



Radiotherapy  
Clinics



The Society & College of  
Radiographers



Public Health  
England

Patient Safety  
in  
Radiotherapy  
Steering  
Group

**NHS**  
*Improvement*

