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National Procedures for Clinical Audit of Medical Radiological Procedures

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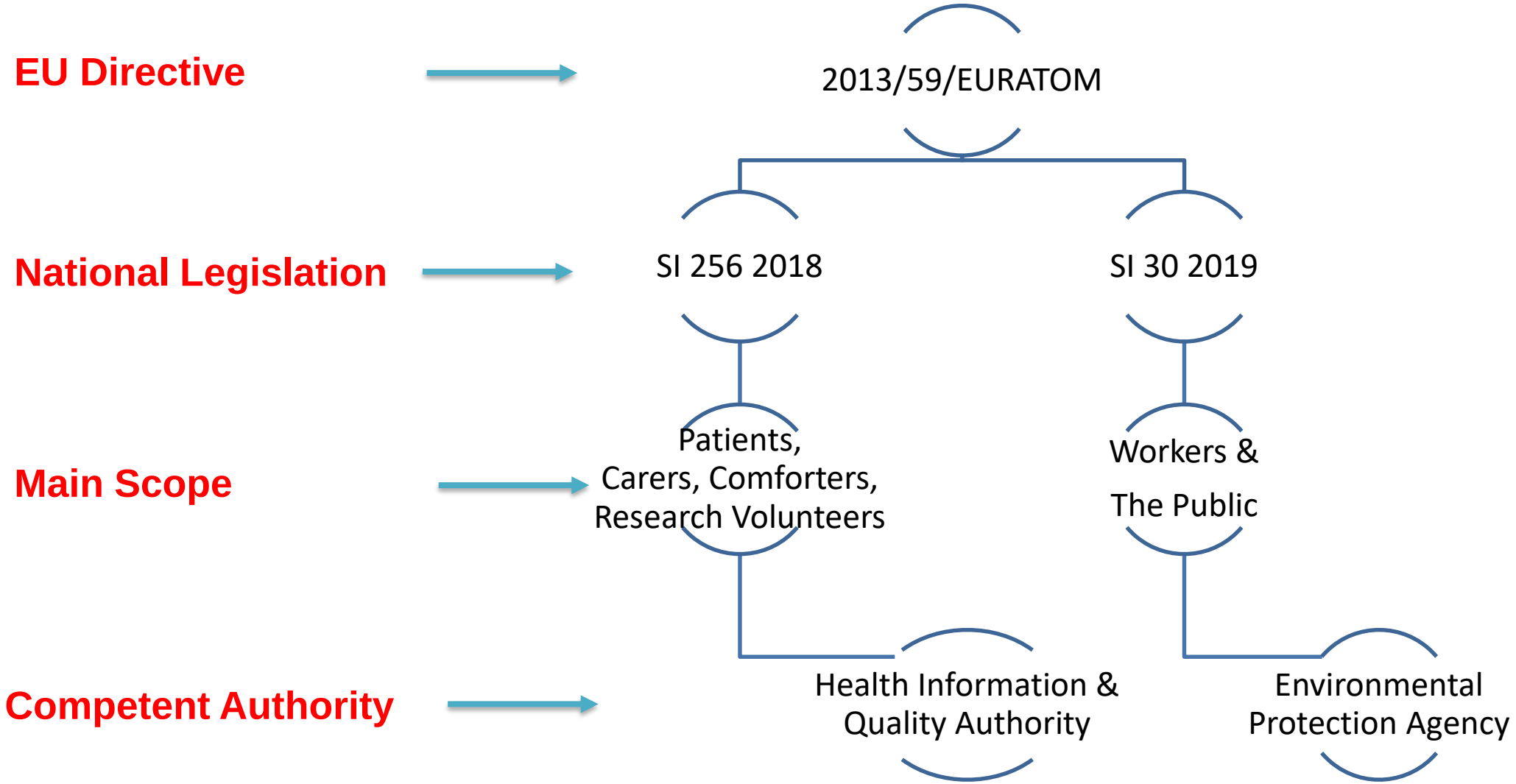
Regional Manager,
Medical Exposures to Ionising Radiation,
Healthcare Regulation Directorate
Health Information and Quality Authority

Danielle Bracken,
Inspector of Healthcare Services,
Healthcare Regulation Directorate
Health Information and Quality Authority

Presentation Outline

- Background
  - Legislation
  - HIQA’s function
- Developing national procedures
  - Scoping and literature review
  - Stakeholder engagement
- Overview of national procedures
- Assessing compliance

Legislative basis



Regulatory function

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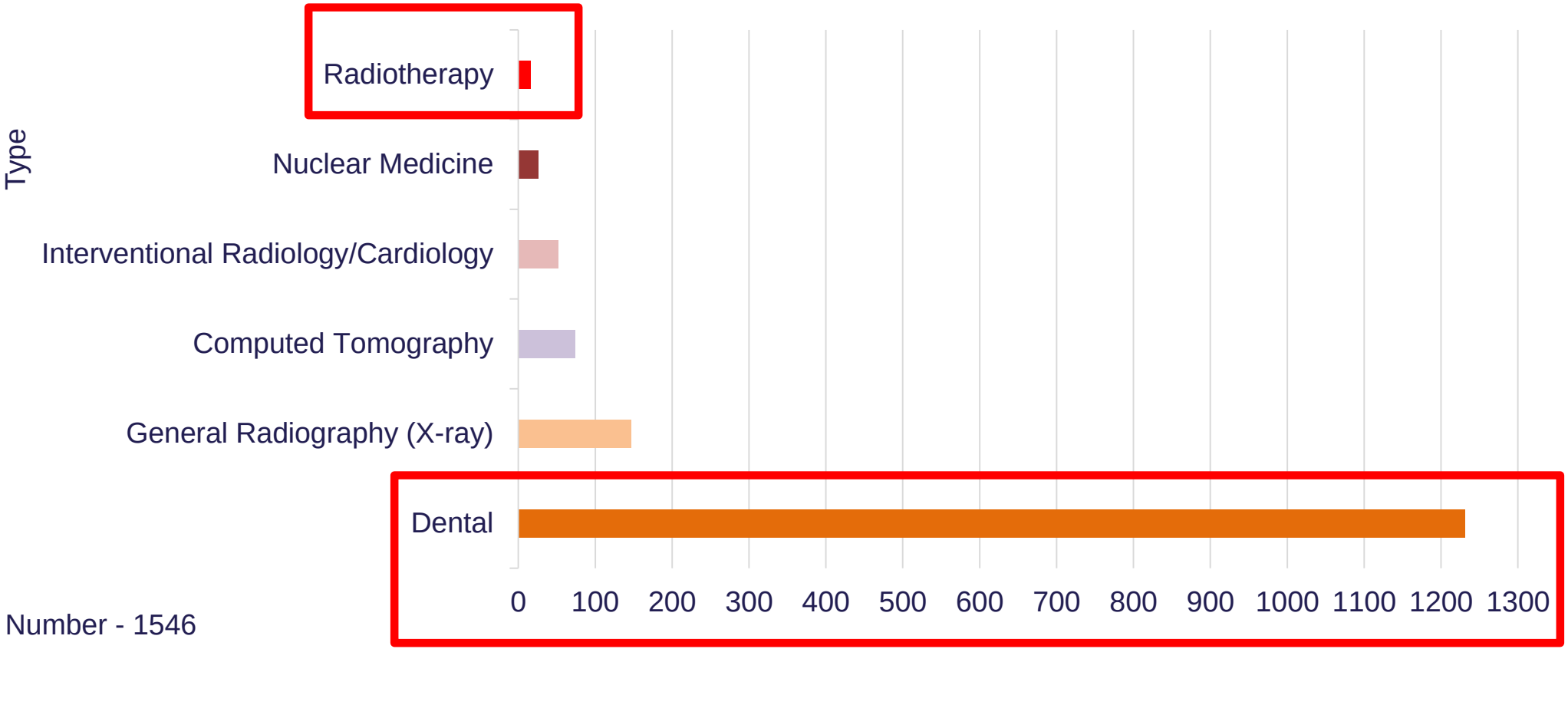

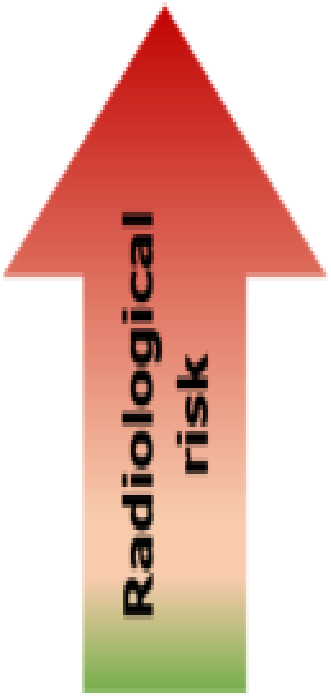

Service Type, complexity and type of radiological risk

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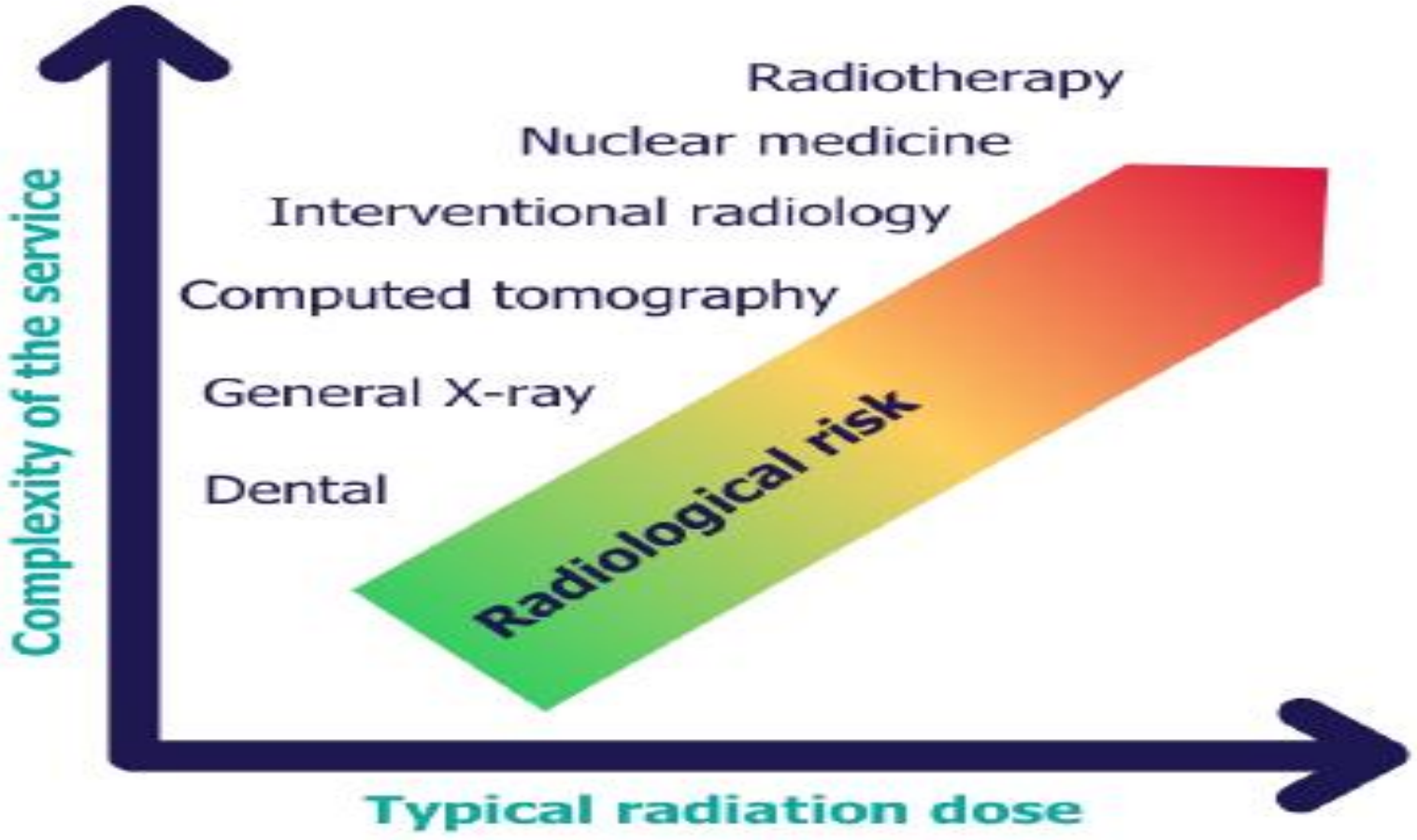
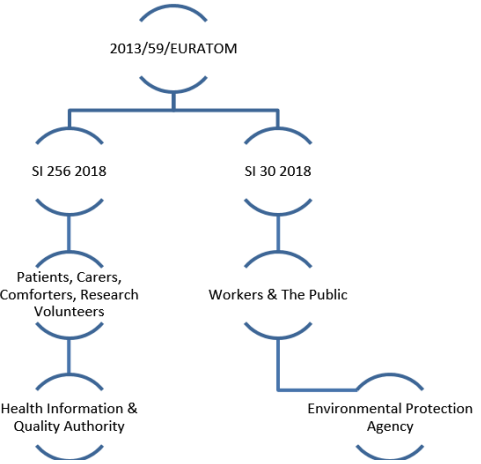


Competent authority functions

- Dose constraints for carers and comforters
- Criteria for acceptability of equipment
- Establishment and review of national DRLs
- Population dose estimation from medical exposures
- Receipt and risk rating of all accidental or unintended exposures
- Report on lessons learned from significant accidental or unintended exposures



Legislative basis

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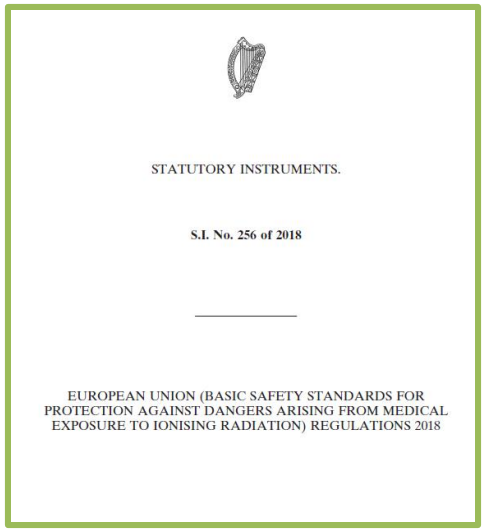
European Union (Basic Safety Standards for Protection Against Dangers Arising from Medical Exposure to Ionising Radiation)

Regulation 13(4) of the principal regulations

*An undertaking shall ensure that clinical audits are carried out in accordance with national procedures established by the **Minister.***


STATUTORY INSTRUMENTS.

S.I. No. 256 of 2018

EUROPEAN UNION (BASIC SAFETY STANDARDS FOR PROTECTION AGAINST DANGERS ARISING FROM MEDICAL EXPOSURE TO IONISING RADIATION) REGULATIONS 2018

S.I. No. 528 of 2022

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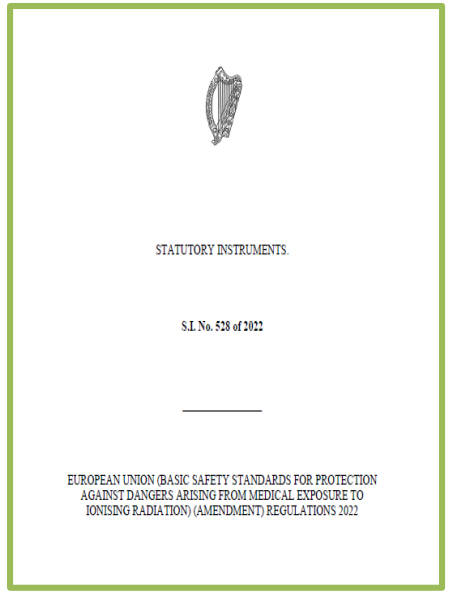
STATUTORY INSTRUMENTS.

S.I. No. 528 of 2022

EUROPEAN UNION (BASIC SAFETY STANDARDS FOR PROTECTION AGAINST DANGERS ARISING FROM MEDICAL EXPOSURE TO IONISING RADIATION) (AMENDMENT) REGULATIONS 2022

Clinical Audit
Developing national procedures

Clinical Audit

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Definition- EU Council Directive 2013/59/Euratom

"clinical audit" means
a systematic examination or review of medical radiological procedures
which seeks to improve the quality and outcome of patient care
through structured review, whereby
medical radiological practices, procedures and results
are examined against **agreed standards** for good medical radiological procedures,
with **modification of practices**, where appropriate,
and **the application of new standards** if necessary.

Project overview

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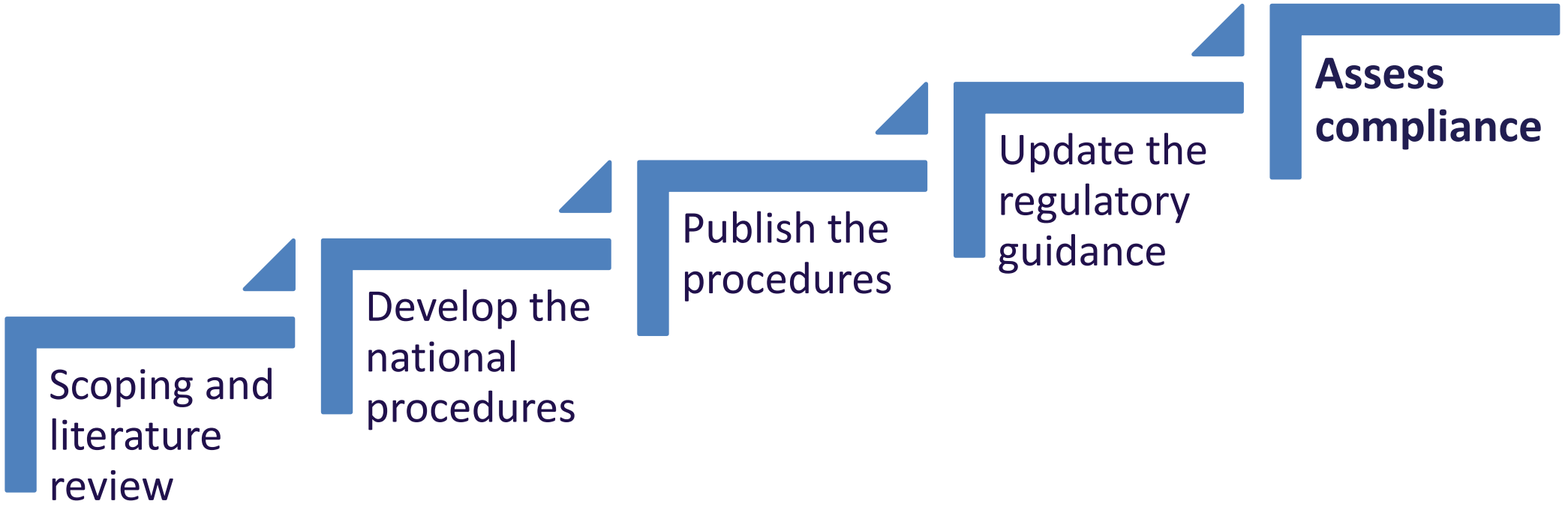

Scoping and Literature Review

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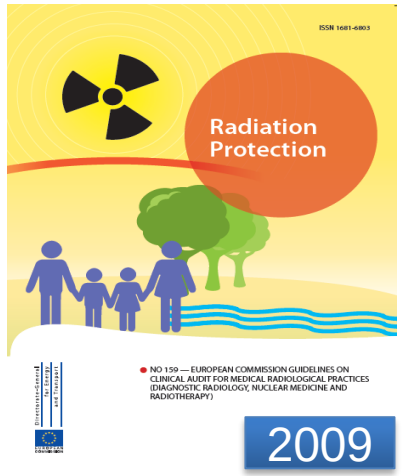
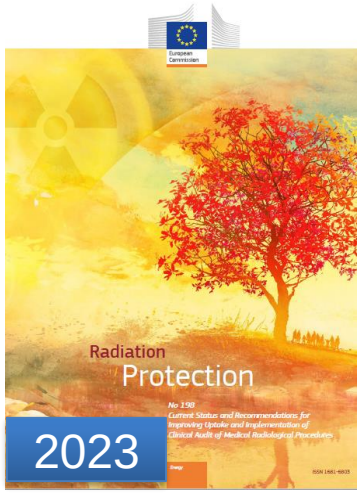
EU commission guidance No. 159

Guideline on Clinical Audit
for Medical Radiological Practices
Diagnostic radiology,
Nuclear medicine and
Radiotherapy



EU commission guidance No. 198

Current Status and
Recommendations for Improving
Uptake and Implementation of
Clinical Audit of Medical
Radiological Procedures



Scoping and Literature Review

Health Information and Quality Authority
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Recent Guidance

- **Dentistry**
- Radiology
- Nuclear Medicine
- Radiotherapy
- Nursing and Midwifery

Scoping and Literature Review

Health Information and Quality Authority
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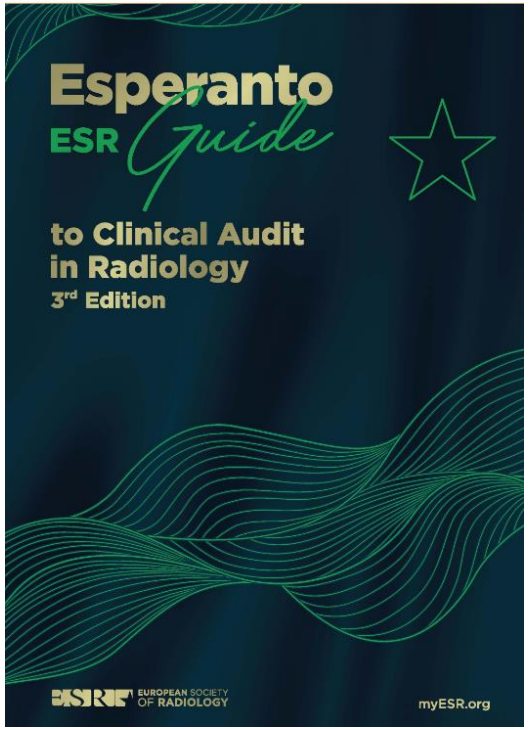

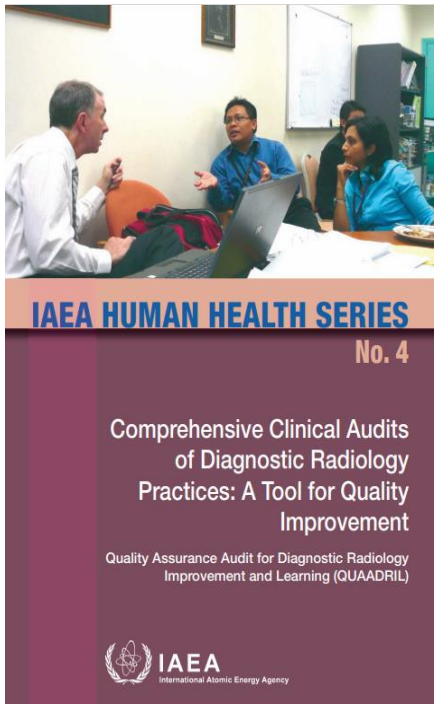

Scoping and Literature Review

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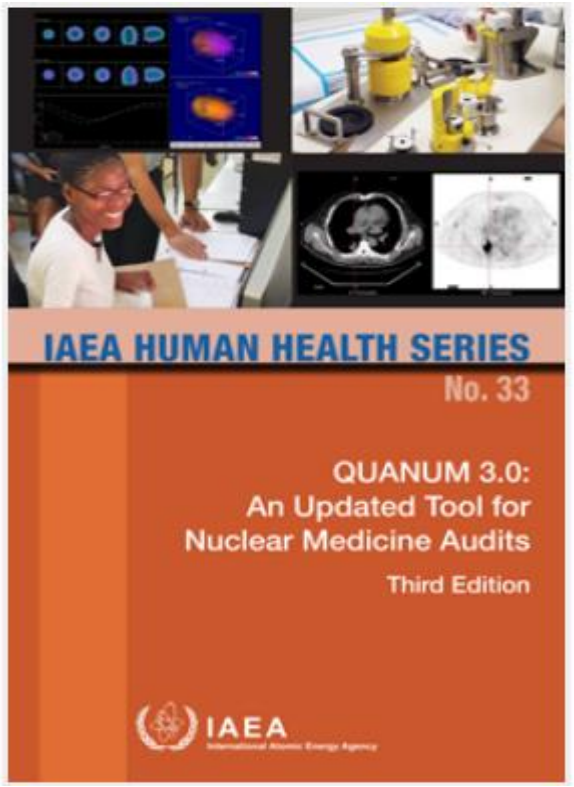

Scoping and Literature Review

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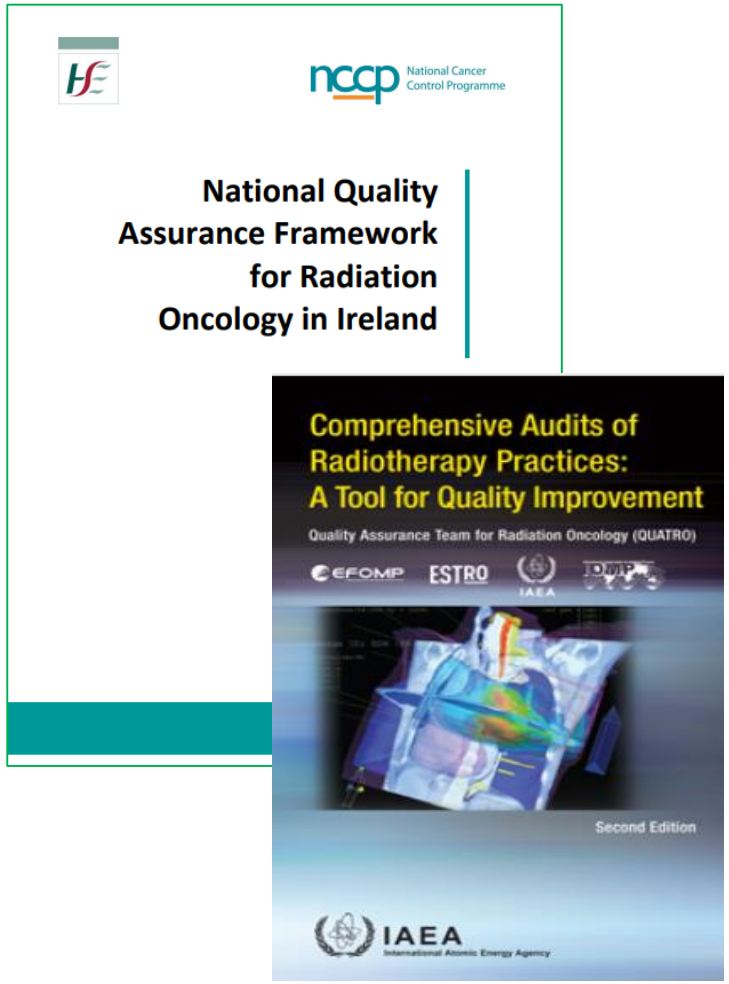

Scoping and Literature Review

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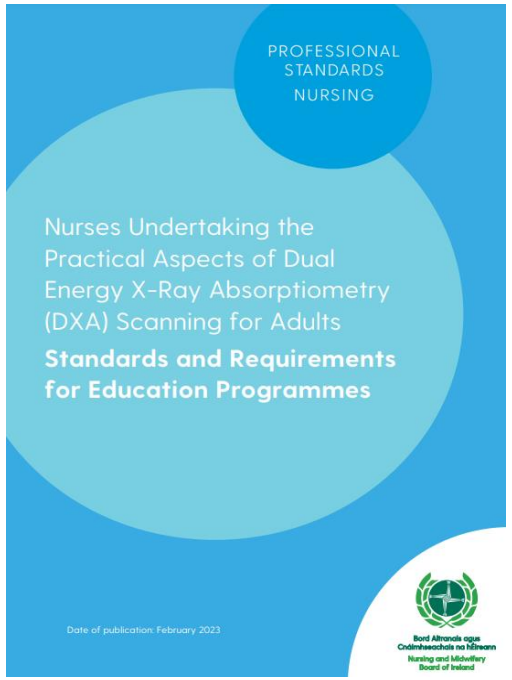

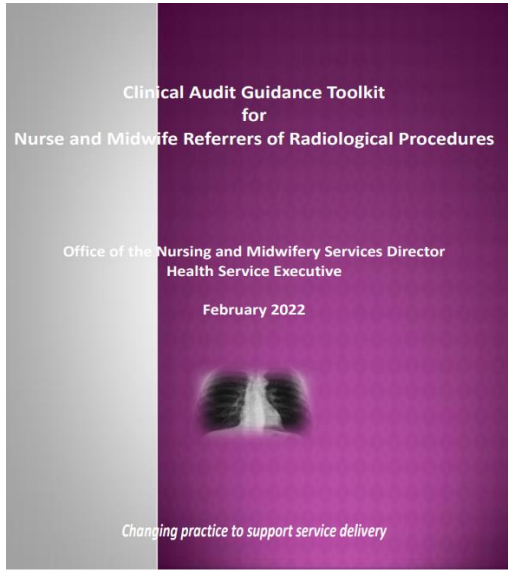

Scoping and Literature Review

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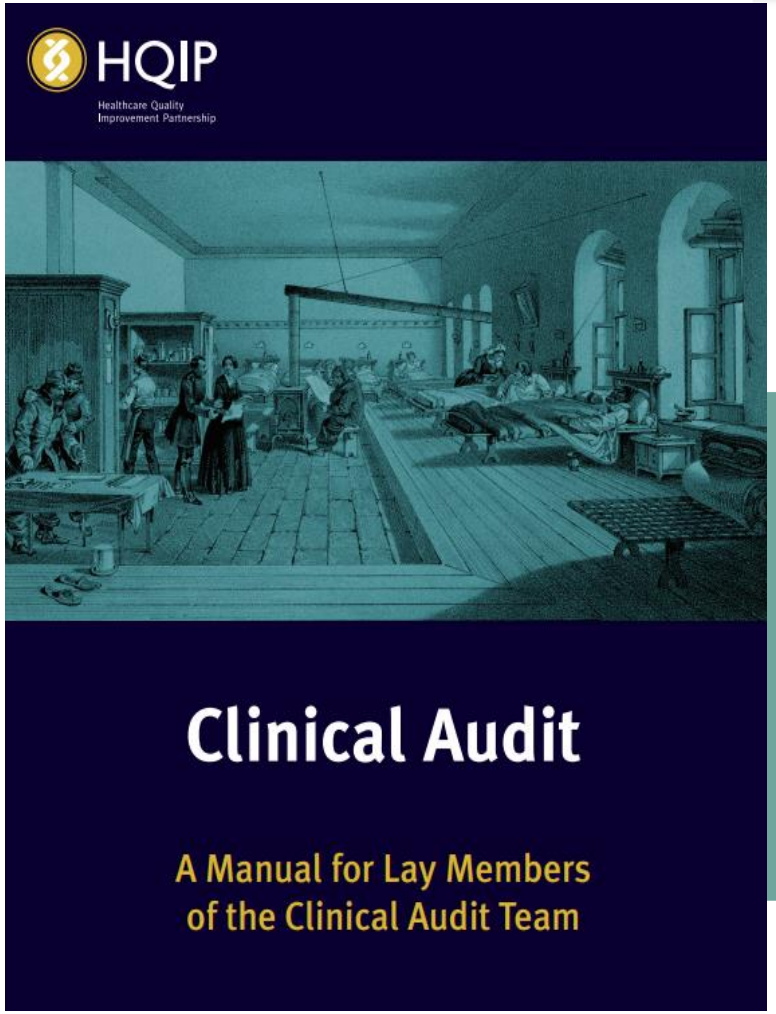

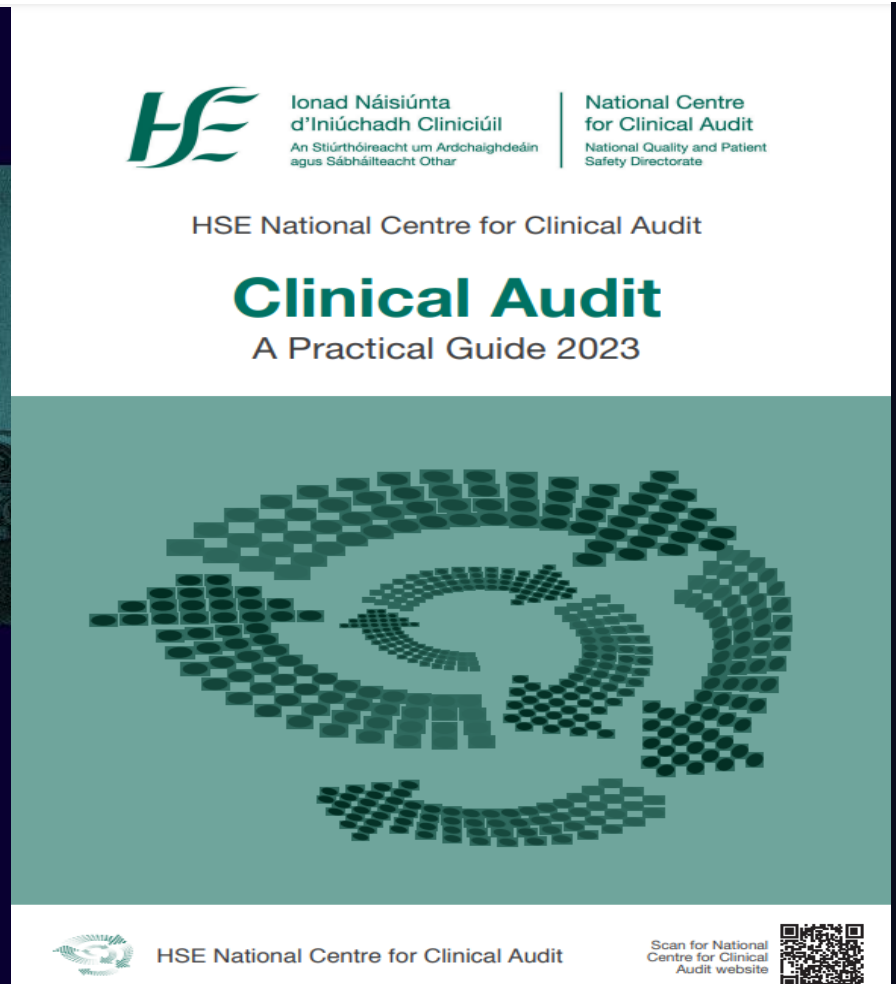

Stages of stakeholder engagement

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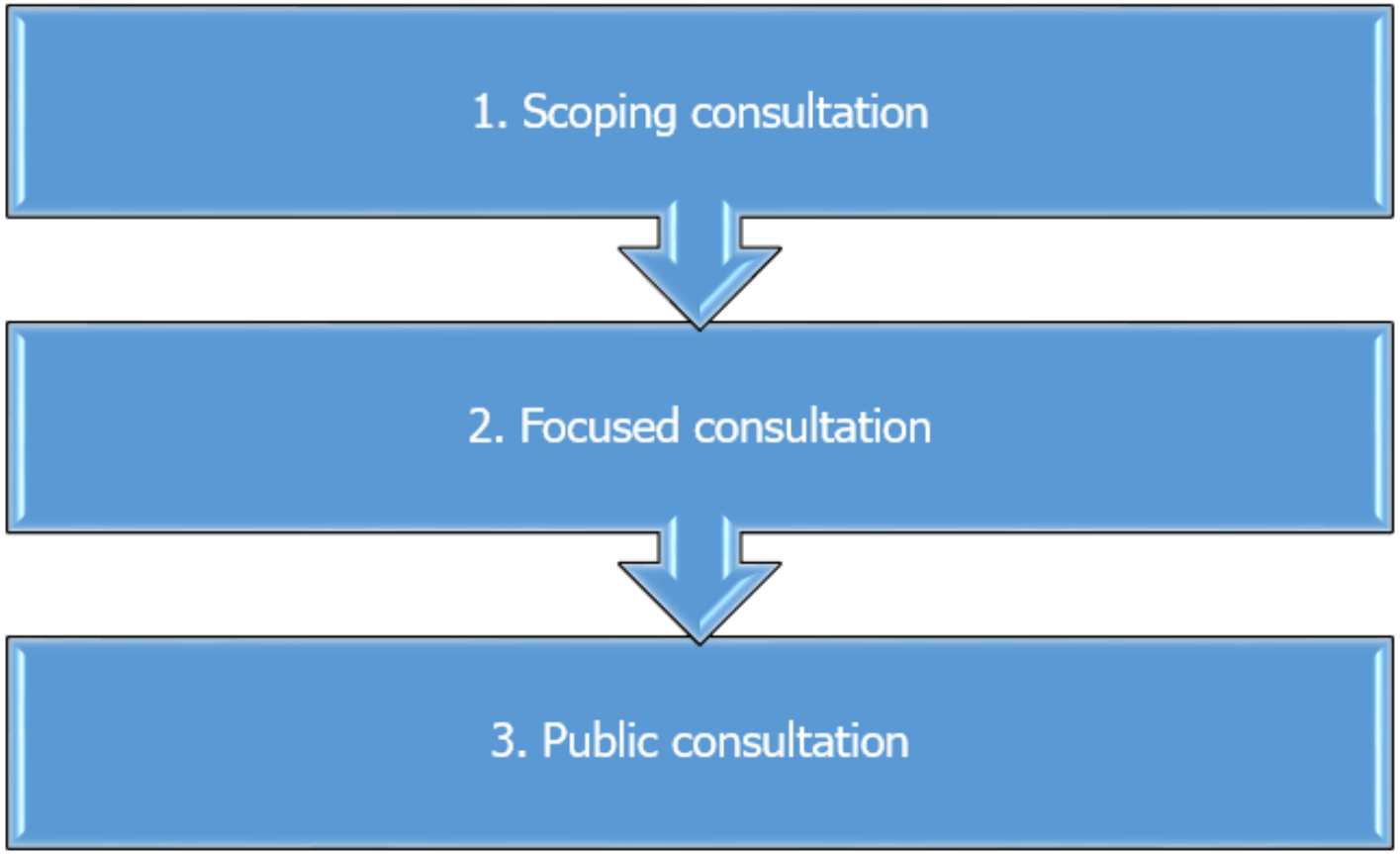

Scoping consultation

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Regulatory bodies and professional bodies

- Interpretation of Clinical audit relating to medical radiological procedures
- Types of clinical audit activity currently in place
- How clinical audit affects the professions/members


Improve
Audit
Document
MDT
Guidance
Team
Better
Need
Assure
Tools
Oversight
Action
Communicate
Outcome
National
Patient
Clear
Good
Focussed
depth
Data
Develop
Different
Resources
Important
Help
Set
Approach
Practice
Include
Undertaking
Clinical
Procedure
Principle
Governance
Based
Look
Time
Doc
Part
Inform
Dental
Role
Hse
Key
Done
Same
Educated
Recommend
Drive
Measure
Process
Place
Difficult
Specific
Structure
Refer
Reg
Staff
Through
Trained
Profession
Service
Agree
Learn
Level
Result
Support
Example
Position
More
Comes
Private
Work
Quite
Board
Countries
Project
Info
Happy
Welcome
Cpd
Quality
Late
Value
Compliance
Best
Keep
Report
Minute
Stakeholder
Published
Aware
Doing
Radiotherapy
Review
Sector
Opportunity
Consultation
Find
Accreditation
Scenarios
Already
Each
Easier
Available
Ongoing
Many
Risk
New
Safety
Long
Dentists
Council
Influence
Terms
Create
Cycle
Physicist
Access
Radiation
Understand
Professional
Referral
Engage
Records
Electronic
Inspection
Guideline
External
Collected
Community
Start
Possibly
Ensure
Implemented
System
Probably
Ground
Test
Seen
Nurse
Issue
User
Size
Follow
Those
Tool
People
Barrier
Hospital
Local
Capacity
Provide
Internal
Initial
Culture
Peer
Front
Within
Job

Principles for clinical audit

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Focused consultation

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- Are the principles and essential criteria for clinical audit clear?
- Are the sample templates useful?
- Are appendices clear?
- Are there additional resources that would be useful to add?
- Is it clear what undertakings need to have in place to be in compliance?

Public consultation

Is it clear in this document what undertakings (providers) need to have in place to be compliant with the requirements for clinical audit in the regulations?

Is the framework (principles and essential criteria) understandable and clear?

Publication

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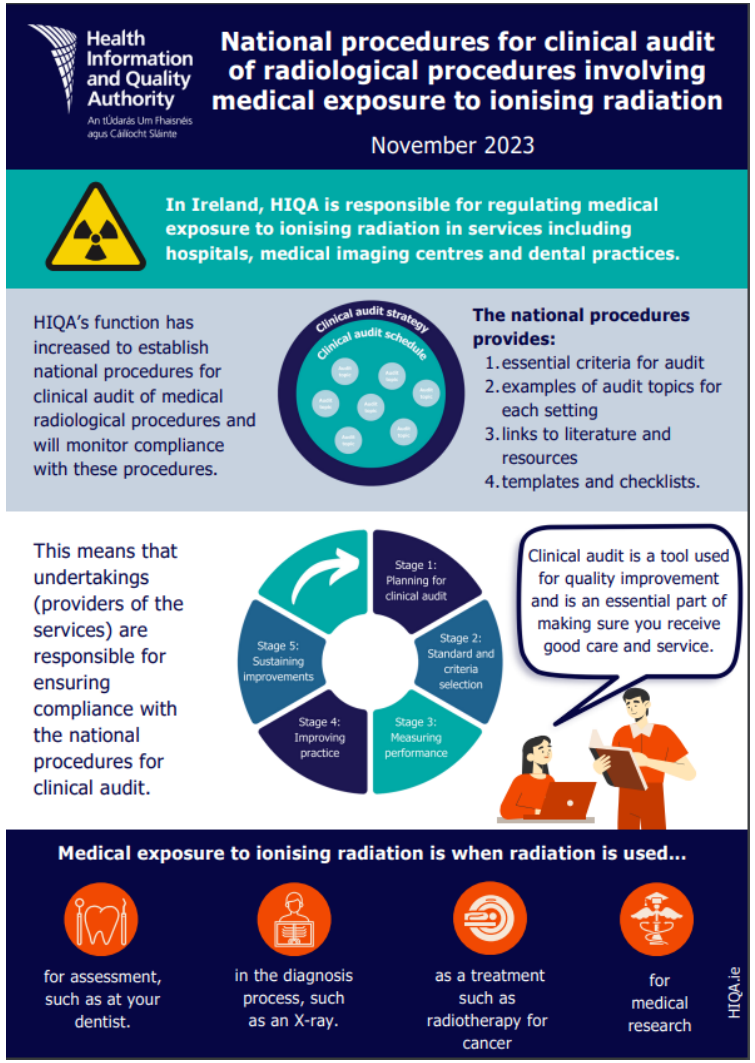

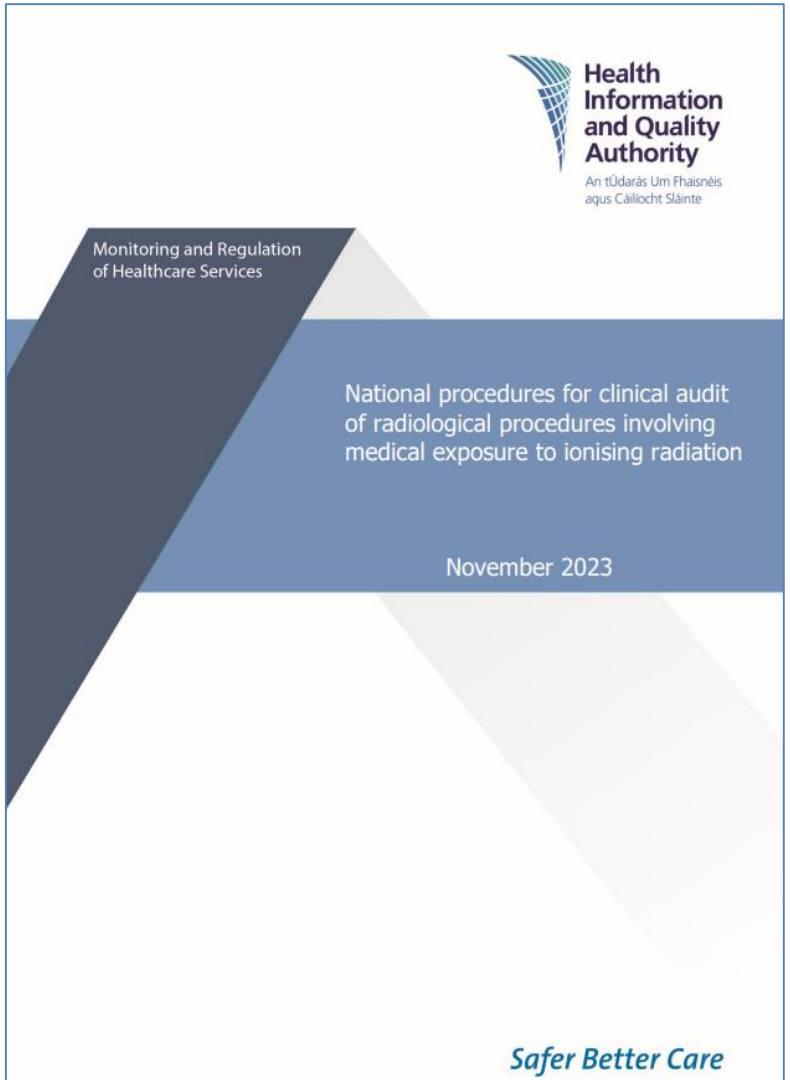

Overview

National procedures for clinical audit of radiological procedures involving medical exposure to ionising radiation

Benefits of clinical audit

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Principles of clinical audit

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Clinical audit – patients and people using the service

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What does clinical audit mean for patients and people who use the service?

Patients and people who use the service can expect a service that:

- is focused on continually improving its safety and quality
- ensures the most appropriate procedures and treatments involving medical exposures are delivered safely to each person using the service.

Clinical audit - staff

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What does clinical audit mean for staff?

Staff can expect that the service in which they work:

- helps them to understand the role of local clinical audit
- encourages them to actively participate in clinical audit and foster a culture of regular quality assurance and continual improvement
- encourages them to implement recommendations from clinical audit findings to improve quality and safety in the services they provide.

Clinical audit - undertakings

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What does clinical audit mean for undertakings?

Undertakings:

- should have a clinical audit strategy in place
- can use clinical audit to improve the quality and safety of patient care and services
- can use the findings of clinical audit to provide assurances of the quality and safety of patient care and services they provide
- can make this document available to all staff involved in medical radiological procedures so that they are aware of their role in relation to clinical audit.

Relationship between the clinical audit strategy, the schedule and the topics

Structure

Process

Outcome

Clinical audit Strategy

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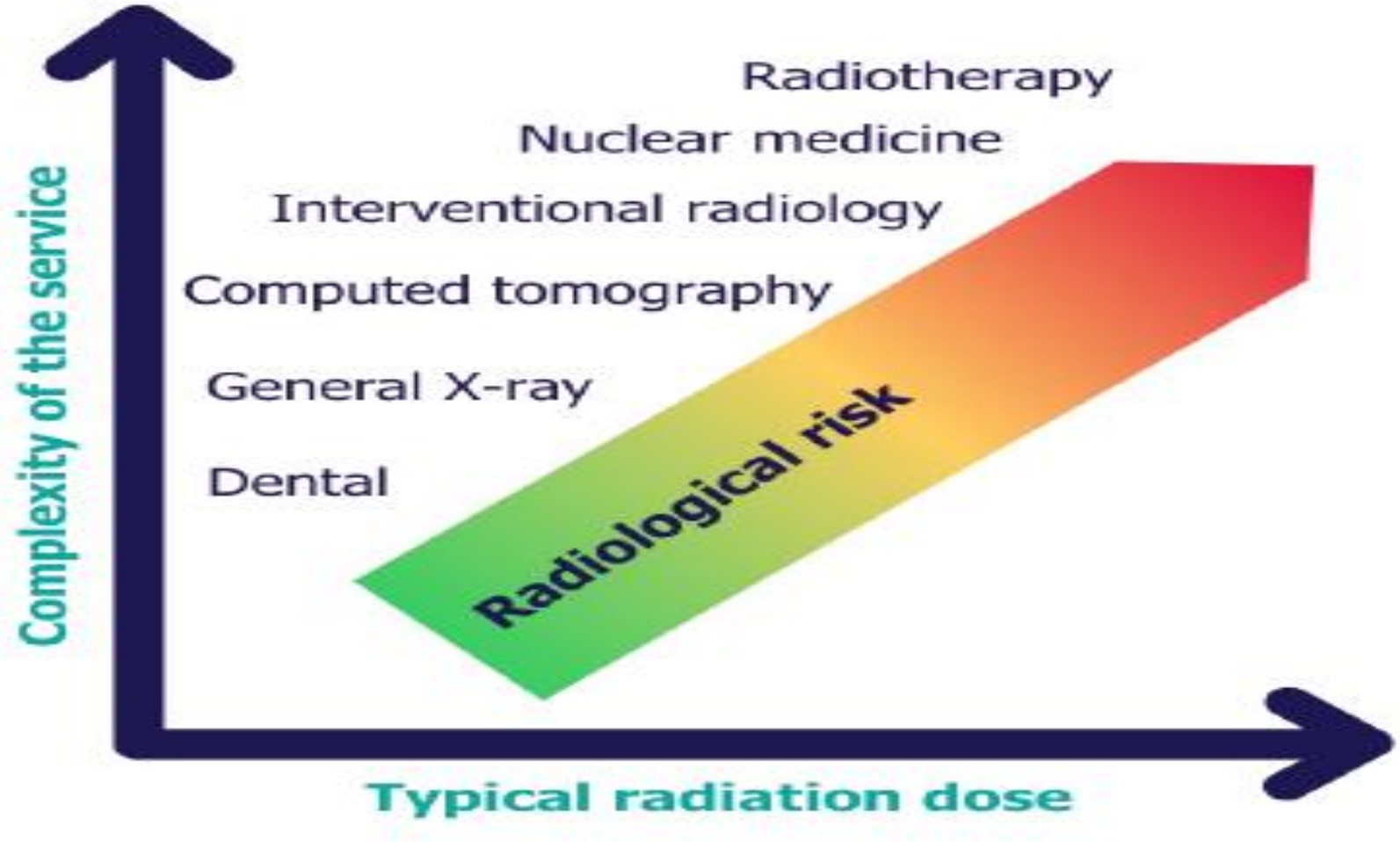
Principles	What does this mean?
Assurance, Oversight, Resources	**Who is responsible?**
Communication, Teamwork	**Who does it?**
Focus, coverage	**What should be done?** **When should it be done?**
Tools, action	**How will it be done?**

Clinical audit Strategy



Overview of the clinical audit cycle

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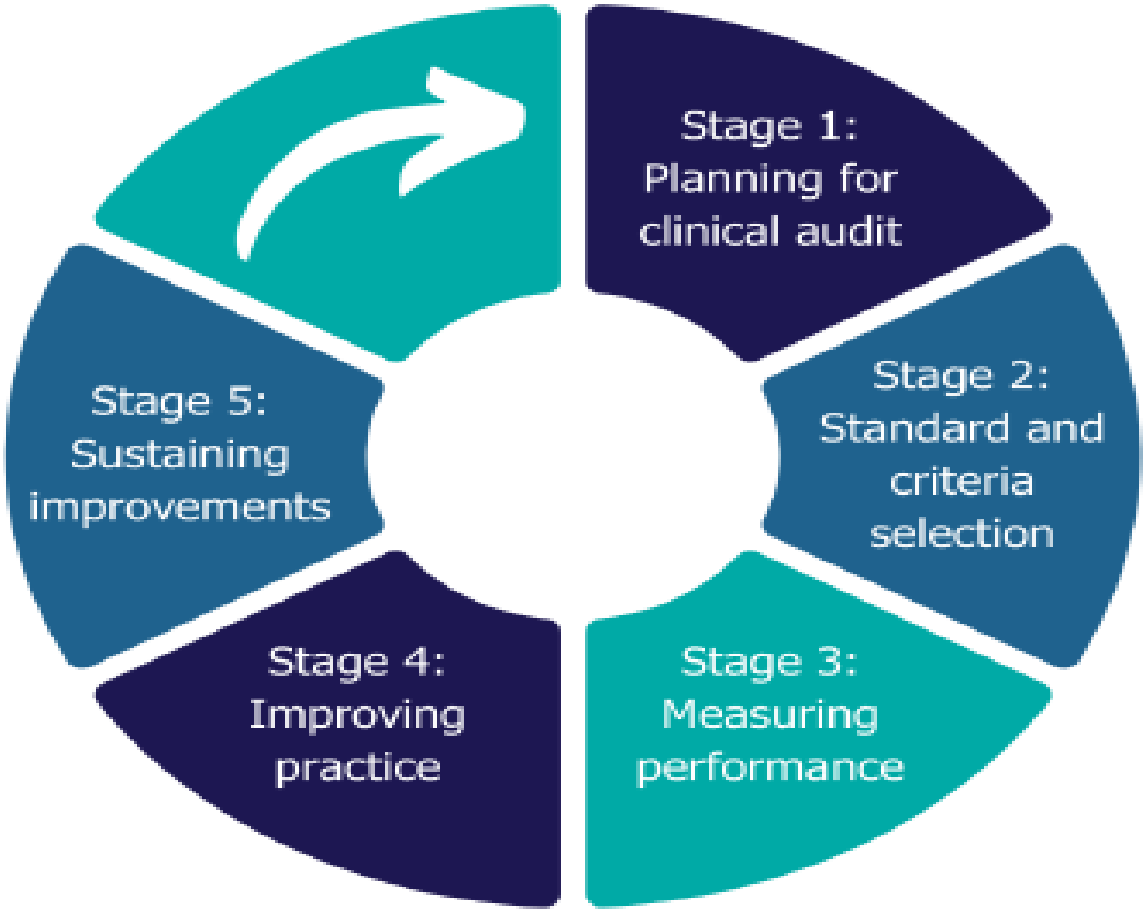

Clinical audit checklist

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Stage 1: Plan for audit	Complete?
Choose a topic	
Involve interested parties and stakeholders	
Audit template	
Stage 2: Select standard and criteria	**Complete?**
Identify standard	
Identify criteria	
Set targets	
Stage 3: Measure performance	**Complete?**
Collect data	
Analyse data	
Present data	
Stage 4: Make Improvements	**Complete?**
Agree actions	
Agree responsibilities for action	
Stage 5: Sustain Improvements	**Complete?**
Encourage learning	
Monitor progress (of recommendations and actions)	
Monitor improvement (for example, re-audit)	

Documenting the clinical audit cycle – audit report form

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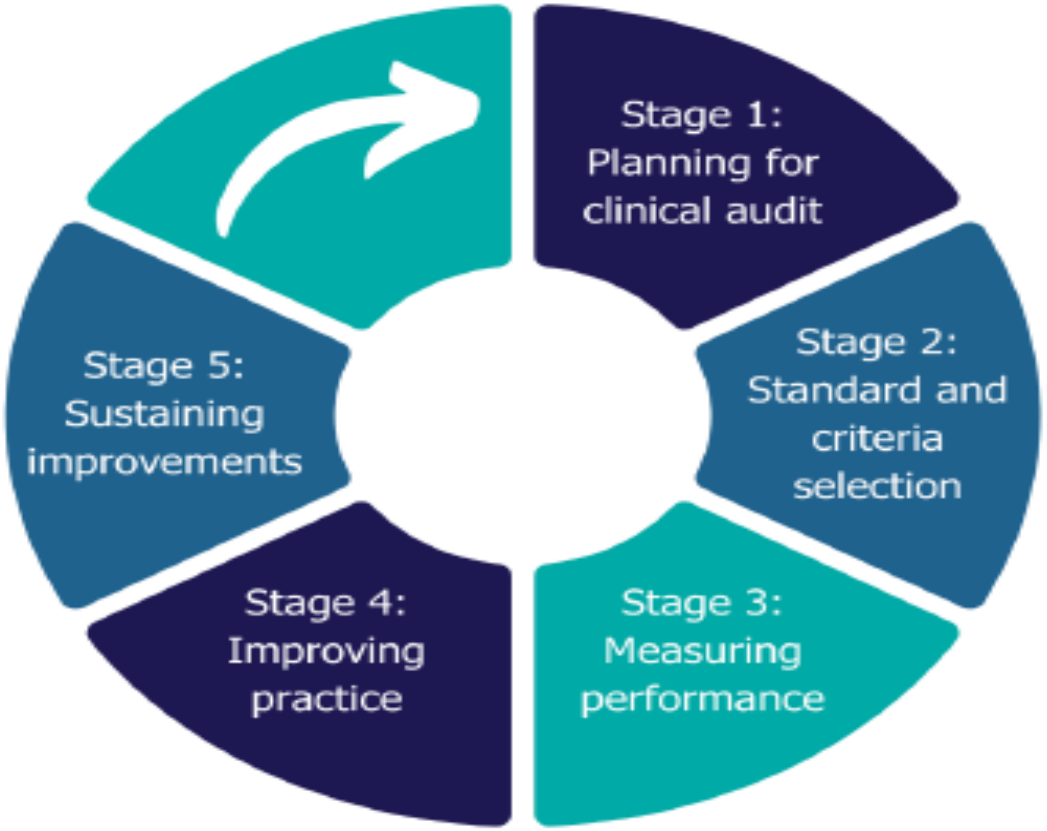

Audit topic and title:	
Department or speciality:	
Date of report:	**Date topic was last audited (if applicable):**
Audit lead (co-ordinator):	
Key interested parties and stakeholders:	
Aim and objectives: Reason for the audit.	
Standard and target: Standard for comparison, include reference document, target or compliance percentage to be achieved.	
Methodology: Data or information to be collected e.g. population, sample size, time period, tool used.	
Results: Measured data.	
Findings and conclusion: Was the target achieved? Services may wish to risk rate findings to help prioritise actions.	
Recommendation(s): Actions to be taken if target not met	**Timing for re-audit:**

Documenting the clinical audit cycle

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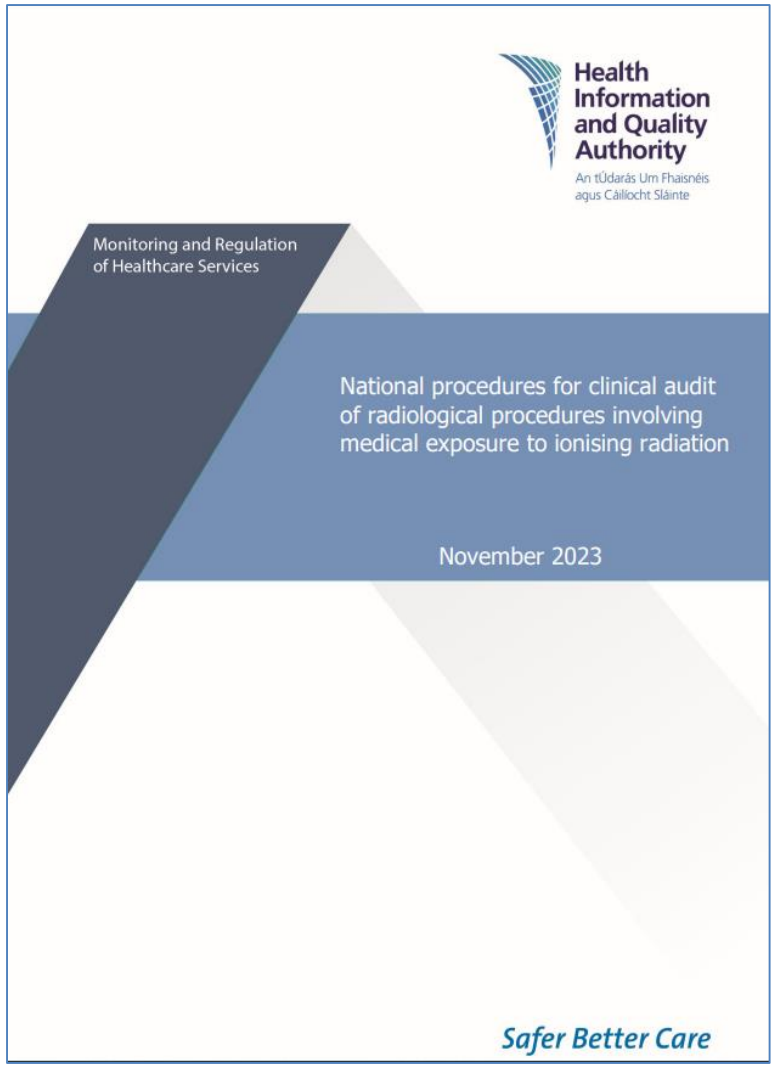
Resources - appendices



Appendix Number	Setting
Appendix 6	Dental
Appendix 7	Radiology (diagnostic and interventional)
Appendix 8	Nuclear Medicine (diagnostic and therapy)
Appendix 9	Radiotherapy

Assessing Compliance

How do inspectors assess compliance?

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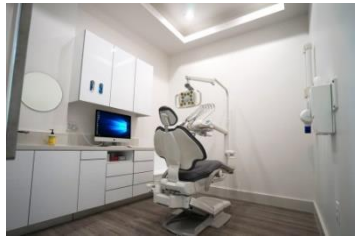
Observe



Read

Evidence

Hear

Judgment

Judgment descriptors

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Judgment

Compliant: a judgment of compliant means their is full compliance with the relevant regulation.

Substantially compliant: a judgment of substantially compliant means the requirements of the regulation have generally been met but some action is required to become fully compliant.

Not compliant: a judgment of not compliant means the undertaking or relevant person has not complied with a regulation and that considerable action is required to come into compliance.

Judgments

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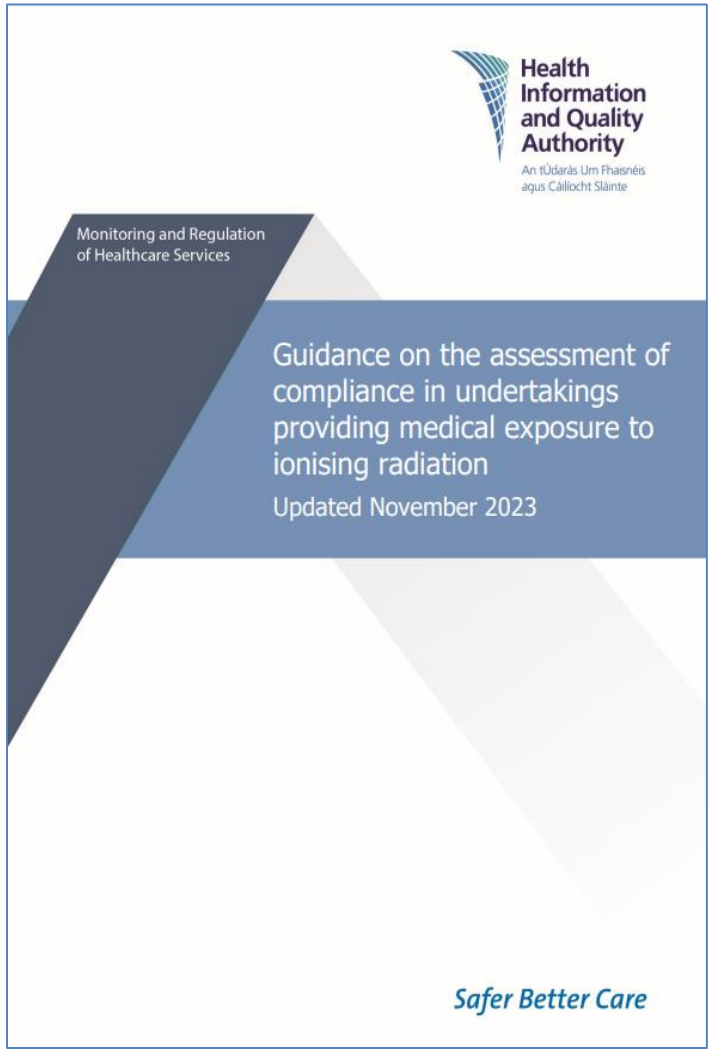

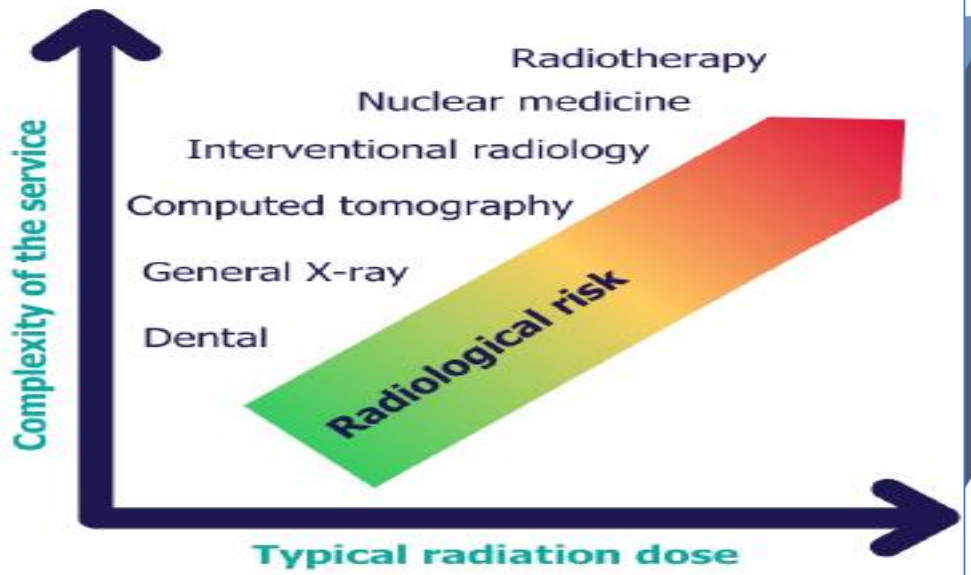

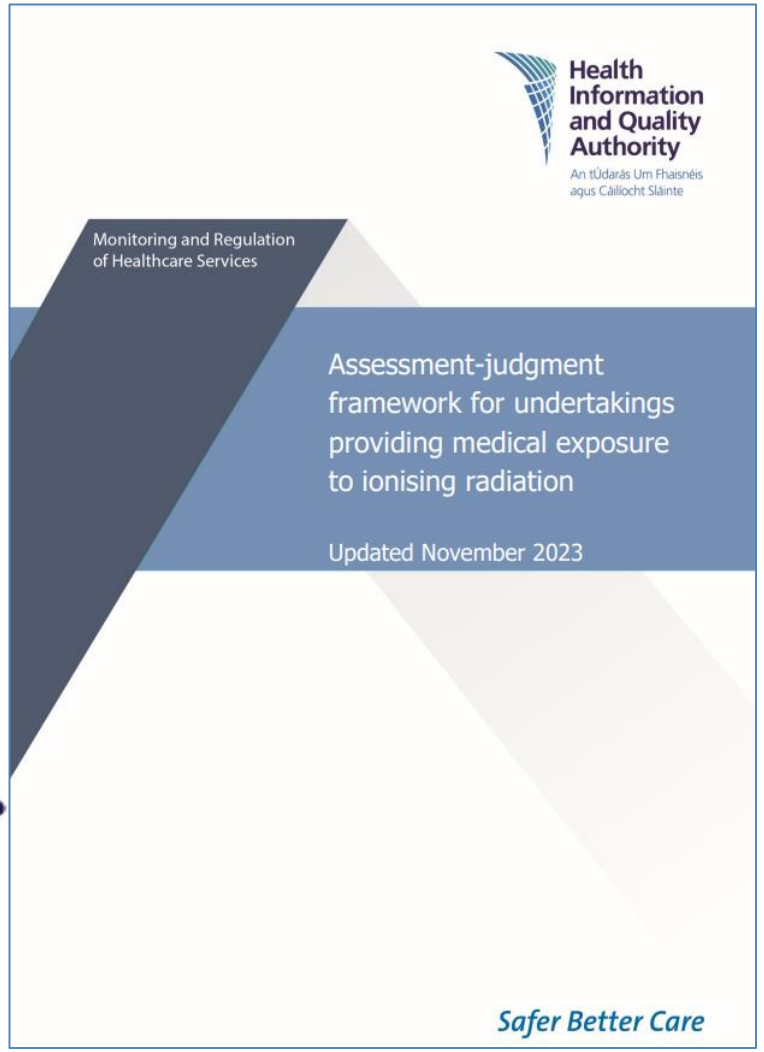

Assessing compliance

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Regulation 13 (4)

*An **undertaking** shall ensure that*
clinical audits
are carried out in accordance with
national procedures established by the Authority.

Assessing compliance

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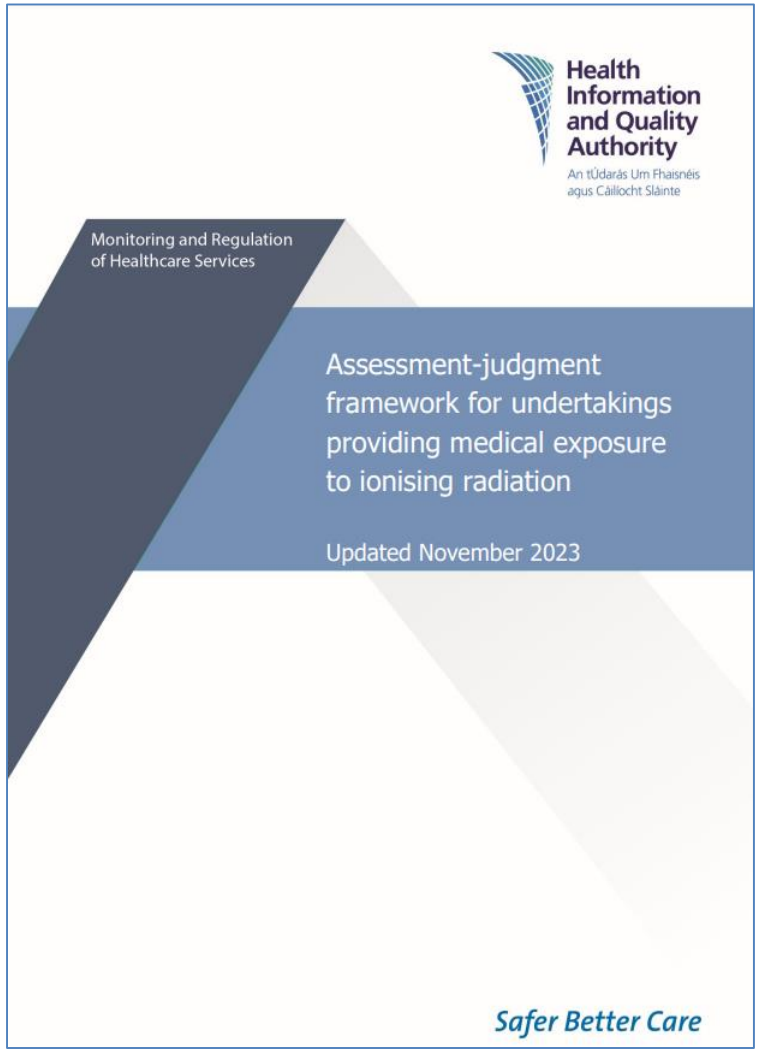
Assessment-judgment framework for undertakings providing medical exposure to ionising radiation
Health Information and Quality Authority

Dimension: Safe delivery of medical exposures	
Regulation 13	**Procedures**
Line of enquiry	1. Has the undertaking established written protocols for every type of standard medical radiological procedure for each type of equipment for relevant categories of patients? 2. Has the undertaking ensured that information relating to patient exposure forms part of the report of the medical radiological procedure? 3. Has the undertaking ensured that referral guidelines for medical imaging, taking into account the radiation doses, are available to referrers? 4. Has the undertaking ensured that clinical audits are carried out in line with national procedures established by HIQA?



Assessing compliance

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Examples of information and evidence for Regulation 13

Through review of documents pre-inspection or during on-site inspection activity

Inspectors may review:

- local policies, procedures and guidelines for carrying out clinical audits which are in line with national procedures
- results and reports of clinical audits relevant to medical exposures.

Through communication

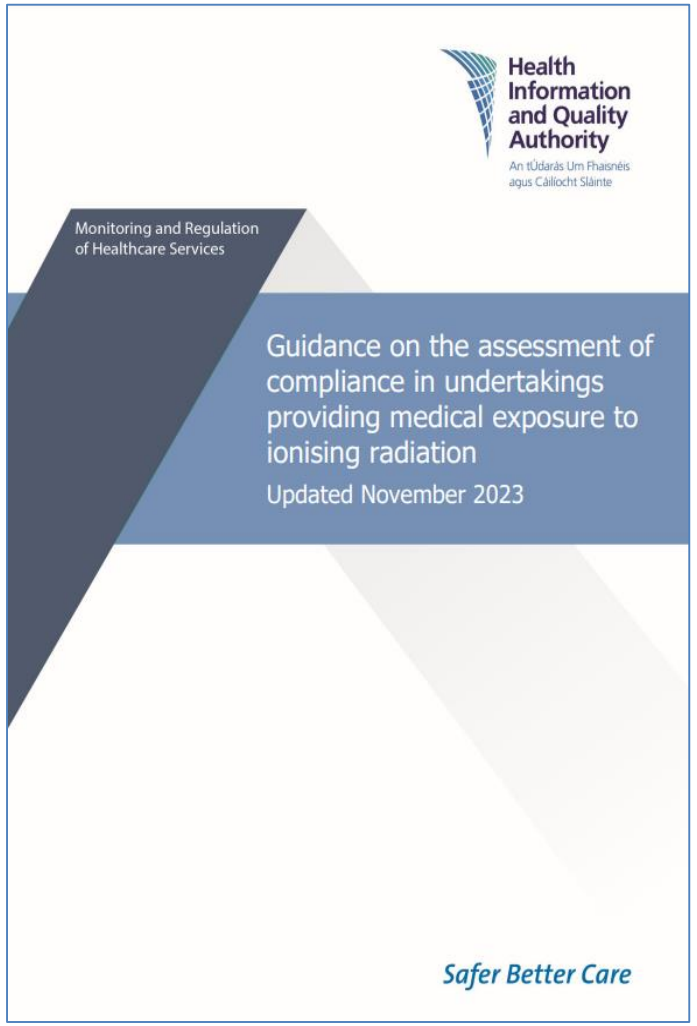
Inspectors may communicate with the undertaking and or staff in the facility:

- to establish the systems in place to complete clinical audits
- regarding the procedures used to carry out clinical audits.

Through observation

Inspectors will observe:

- if clinical audit results and learning are available to staff.



Assessing compliance

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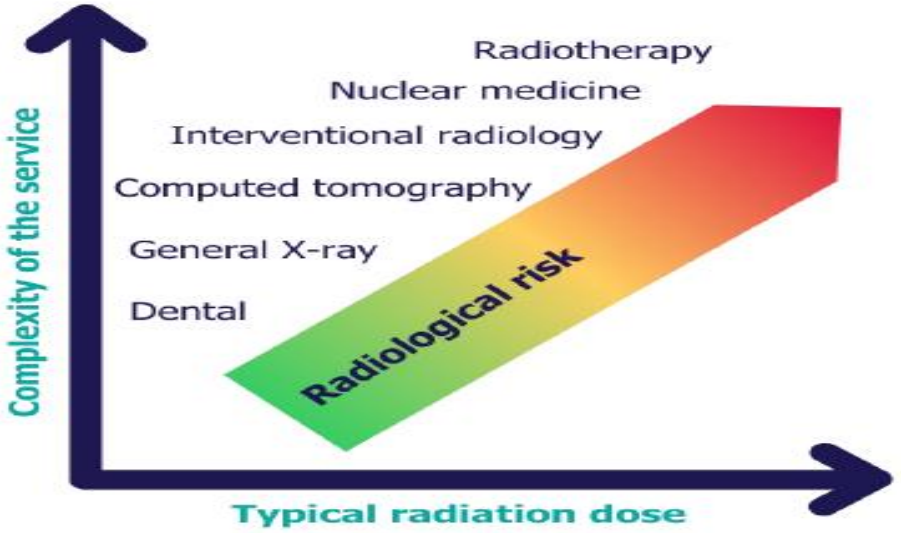
Is there a Clinical Audit Strategy?



In summary

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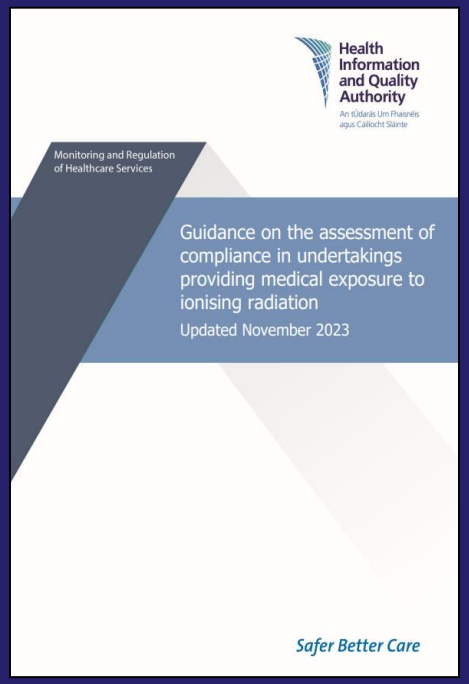
An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

- European Union (Basic safety standards for protection against dangers arising from medical exposure to ionising radiation) Regulations 2018 and associated ammendments
- HIQA's remit across a range of regulatory and competent authority functions
- Remit expanded in October 2022
- Responsibility for establishing national procedures in clinical audit
- Developed national procedures in consultation with key stakeholders
- Supporting guidance documentation
- Assess undertakings level of compliance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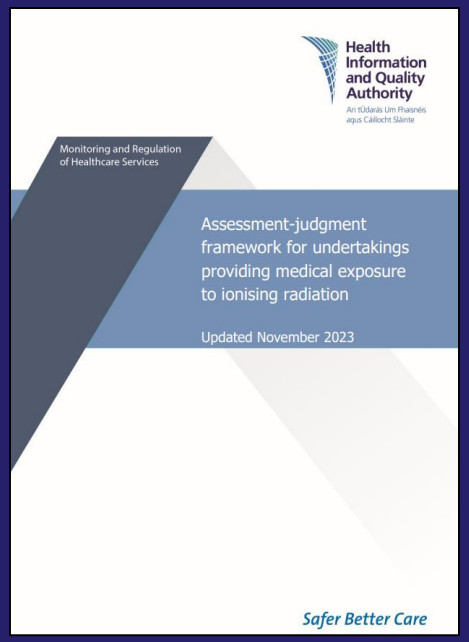
Monitoring and Regulation of Healthcare Services
Guidance on the assessment of compliance in undertakings providing medical exposure to ionising radiation
Updated November 2023
Safer Better Care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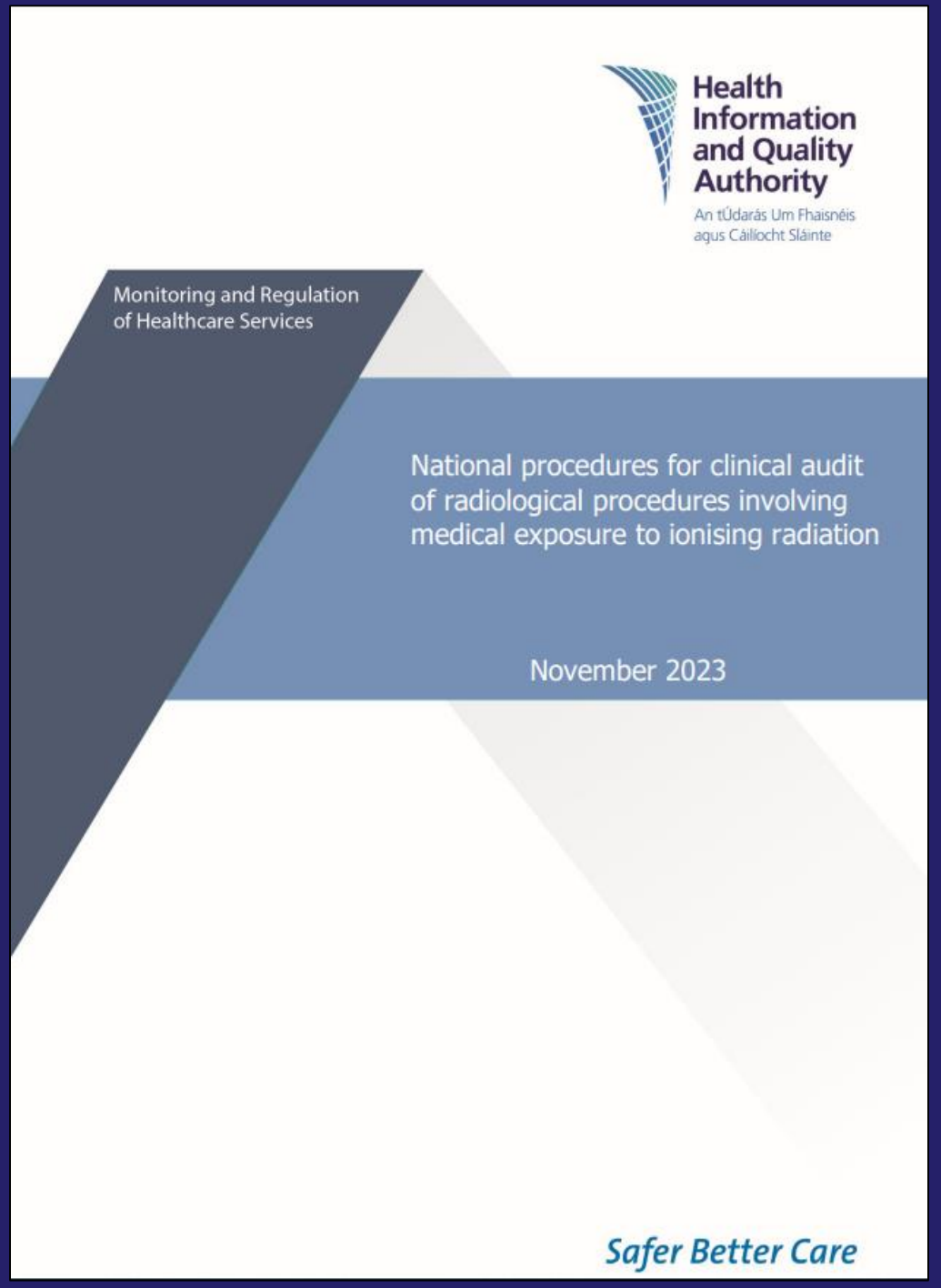
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National procedures for clinical audit of radiological procedures involving medical exposure to ionising radiation
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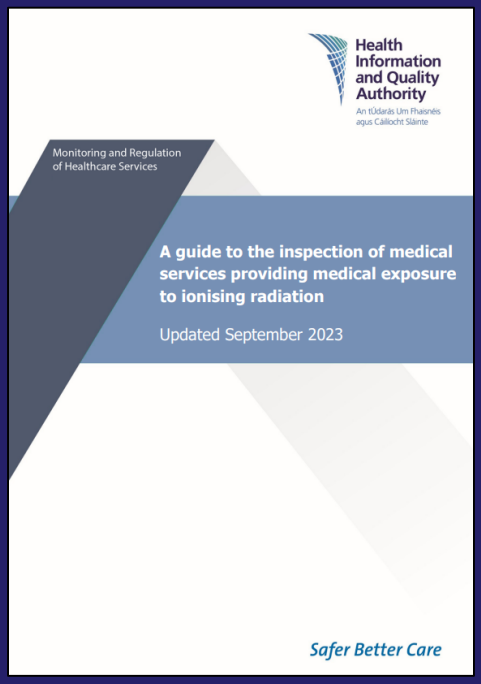
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A guide to the inspection of medical services providing medical exposure to ionising radiation
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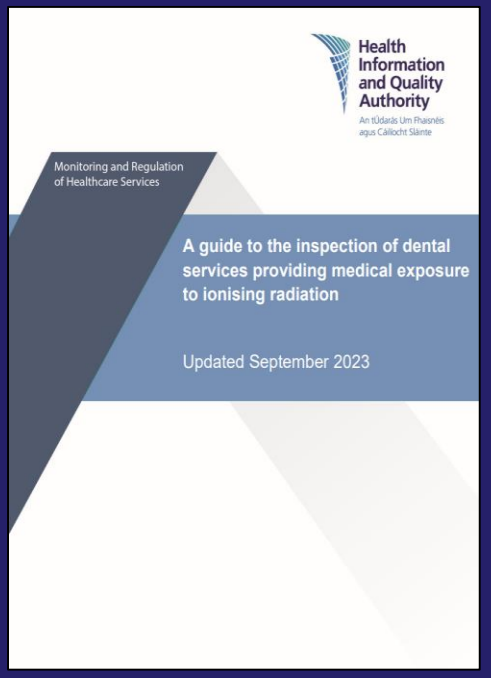
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A guide to the inspection of dental services providing medical exposure to ionising radiation
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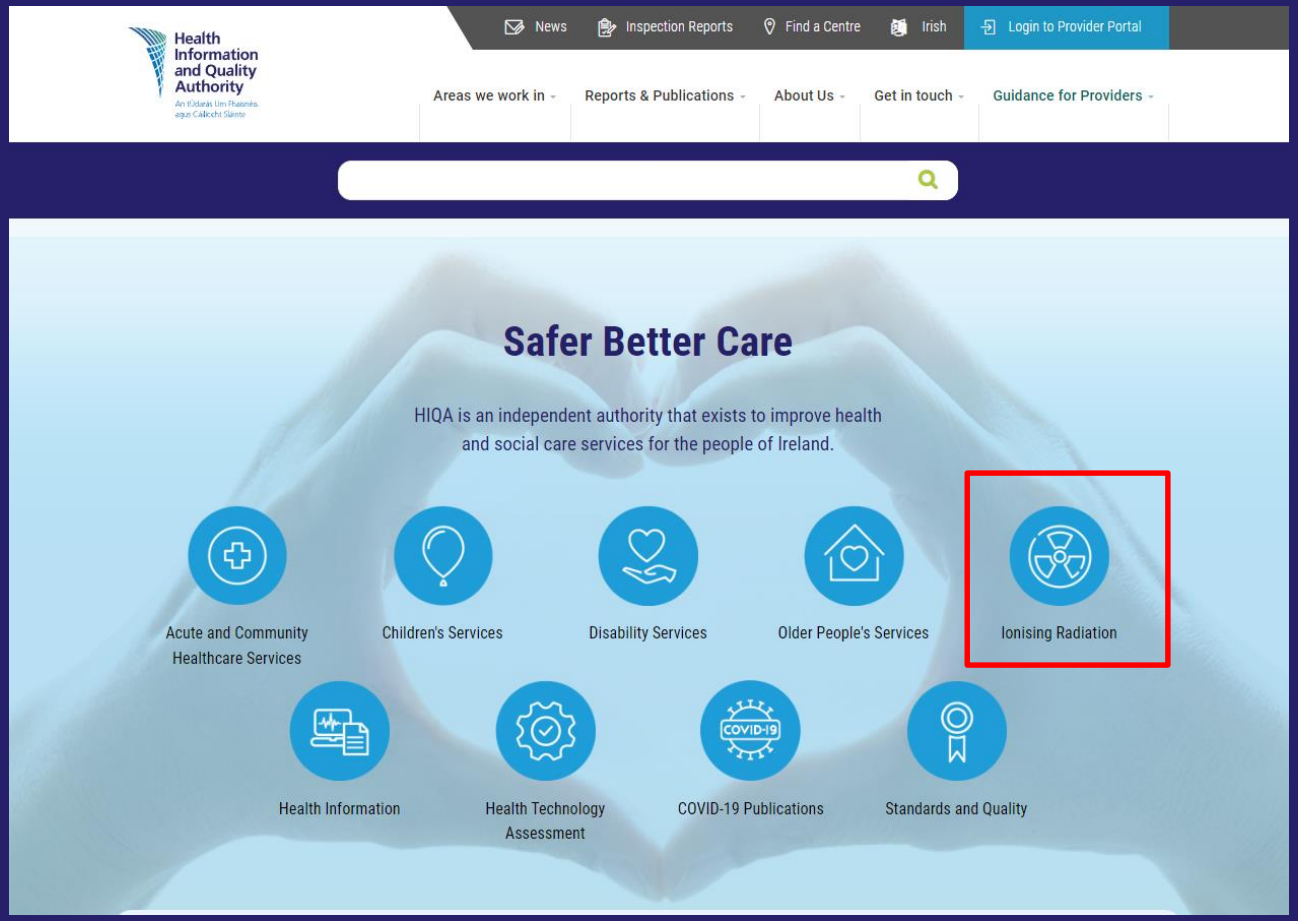
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HIQA is an independent authority that exists to improve health and social care services for the people of Ireland.
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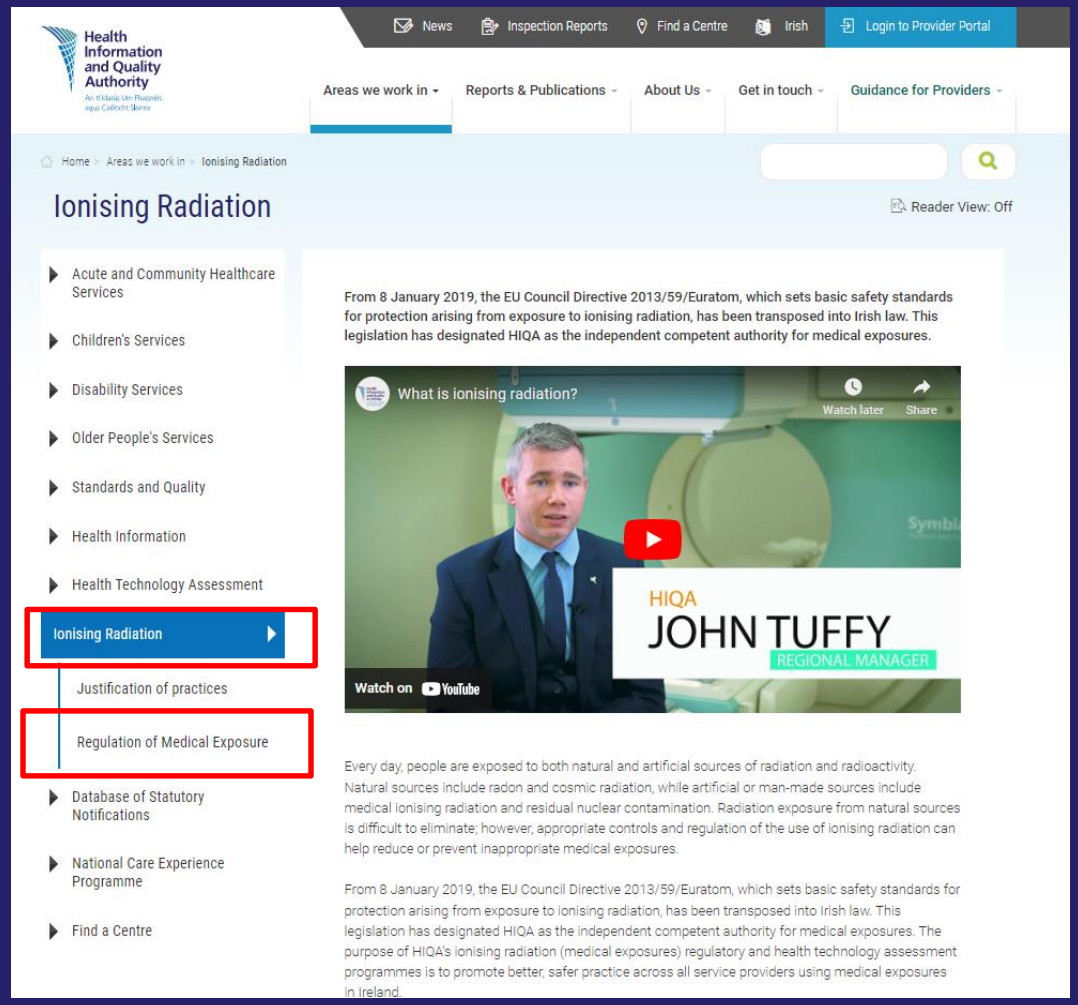
Children's Services
Disability Services
Older People's Services
Ionising Radiation
Health Information
Health Technology Assessment
COVID-19 Publications
Standards and Quality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Regulation of Medical Exposure
Database of Statutory Notifications
National Care Experience Programme
Find a Centre
From 8 January 2019, the EU Council Directive 2013/59/Euratom, which sets basic safety standards for protection arising from exposure to ionising radiation, has been transposed into Irish law. This legislation has designated HIQA as the independent competent authority for medical exposures.
What is ionising radiation?
Watch later
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HIQA
JOHN TUFFY
REGIONAL MANAGER
Watch on YouTube
Every day, people are exposed to both natural and artificial sources of radiation and radioactivity. Natural sources include radon and cosmic radiation, while artificial or man-made sources include medical ionising radiation and residual nuclear contamination. Radiation exposure from natural sources is difficult to eliminate; however, appropriate controls and regulation of the use of ionising radiation can help reduce or prevent inappropriate medical exposures.
From 8 January 2019, the EU Council Directive 2013/59/Euratom, which sets basic safety standards for protection arising from exposure to ionising radiation, has been transposed into Irish law. This legislation has designated HIQA as the independent competent authority for medical exposures. The purpose of HIQA's ionising radiation (medical exposures) regulatory and health technology assessment programmes is to promote better, safer practice across all service providers using medical exposures in Ireland.

Thank you!

Dr. Agnella Craig,
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Medical Exposures to Ionising Radiation,
Healthcare Regulation Directorate
Health Information and Quality Authority

Danielle Bracken,
Inspector of Healthcare Services,
Healthcare Regulation Directorate
Health Information and Quality Authority

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An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

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References

Health Information and Quality Authority
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1. Esperanto ESR Guide to Clinical Audit in Radiology, 3rd edition. European Society of Radiology. https://www.myesr.org/media/4136
2. Council Directive 2013/59/Euratom on basic safety standards for protection against the dangers arising from exposure to ionising radiation and repealing directives 89/618/Euratom, 90/641/Euratom, 96/29/ Euratom, 97/43 Euratom and 2003/122/Euratom. OJ of the EU. L13;57:1-73(2014). https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2014:013:0001:0073:EN:PDF#:~:text=This%20Directive%20establishes%20uniform%20basic,dangers%20arising%20from%20ionising%20radiation
3. European Union (Basic Safety Standards for Protection Against Dangers Arising from Medical Exposure to Ionising Radiation) Regulations 2018 (S.I. No. 256 of 2018) https://www.irishstatutebook.ie/eli/2018/si/256/
4. European Union (Basic Safety Standards for Protection Against Dangers Arising from Medical Exposure to Ionising Radiation) Regulations 2022 as amended (S.I. No. 528 of 2022) https://www.irishstatutebook.ie/eli/2022/si/528/made/en/print
5. Patient Safety (Notifiable Incidents and Open Disclosure) Bill 2019 https://www.oireachtas.ie/en/bills/bill/2019/100/
6. European Commission's Radiation Protection series no. 159 – Guidelines on Clinical Audit for Medical radiological procedures (Diagnostic Radiology, Nuclear Medicine and Radiotherapy) https://op.europa.eu/en/publication-detail/-/publication/75688cc6-c9d3-4c43-9bfd-ce5cea0d8bcb
7. A Practical Guide to Clinical Audit, Pre-Hospital Emergency Care Council 2013 https://www.phecit.ie/Images/PHECC/Clinical%20Practice%20Guidelines/CPG%20Approved%20Orgs/STN019%20Practical%20Guide%20to%20Clinical%20Audit.pdf
8. Healthcare Quality Improvement Partnership HQIP, Clinical audit a manual for lay members of the clinical audit team 2012. https://www.hqip.org.uk/wp-content/uploads/2018/02/developing-clinical-audit-patient-panels.pdf
9. HIQA – A guide to the inspection of medical services providing medical exposure to ionising radiation https://www.hiqa.ie/sites/default/files/2019-11/A_guide_to_inspection_of_services_providing_medical_exposure_to_ionising_radiation.pdf
10. HIQA – A guide to the inspection of dental services providing medical exposure to ionising radiation https://www.hiqa.ie/reports-and-publications/guide/guide-inspection-dental-services-providing-medical-exposure-ionising
11. Assessment-judgment framework for undertakings providing medical exposure to ionising radiation, HIQA, 2019. https://www.hiqa.ie/sites/default/files/2019-10/Assessment-judgment-framework-for-ionising-radiation.pdf
12. Healthcare Quality Improvement Partnership (HQIP). Best Practice in Clinical Audit UK 2020. https://www.hqip.org.uk/resource/best-practice-in-clinical-audit/

References

14. European Commission's Radiation Protection series no. 198 – Current Status and Recommendations for Improving Uptake and Implementation of Clinical Audit of Medical Radiological Procedures https://op.europa.eu/o/opportal-service/download-handler?identifier=94c09d1b-9230-11ed-b508-01aa75ed71a1&format=PDF&language=en&productionSystem=cellar

15. Health Service Executive, Ireland (2019) National Review of Clinical Audit: November 2019 https://www.hse.ie/eng/services/publications/national-review-of-clinical-audit-report-2019.pdf

16. National Institute for Clinical Excellence (NICE). UK. (2002) Principles for Best Practice in Clinical Audit. https://www.nice.org.uk/media/default/About/what-we-do/Into-practice/principles-for-best-practice-in-clinical-audit.pdf

17. Quality and Patient Safety Directorate, Health Service Executive, Ireland. 2017, A Practical Guide to Clinical Audit, https://www.lenus.ie/handle/10147/304908

18. The NCCA (National Centre for Clinical Audit) Fundamentals of Clinical audit e-learning module HSELAND www.hseland.ie