



**BEAUMONT
HOSPITAL**



RCSI HOSPITALS
OSPIDÉIL RCSI

**RADIATION SAFETY E-LEARNING TRAINING FOR NON-RADIOLOGY DOCTORS AND OTHER STAFF:
EXPERIENCES IN A MAJOR ACADEMIC TEACHING HOSPITAL IN IRELAND**

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Beaumont Hospital, Dublin.



Click here for our Careers page including Medical & Nursing Roles

Patients

- Admissions
- Your Stay
- Services
- Find a Doctor
- Attending for your appointment or elective procedure

Visitors

- Visiting Hours
- Our Location
- Directions
- Parking
- Facilities

Welcome to Beaumont Hospital

Our aim is to deliver the highest quality of care to our patients, excellent training to our students and a friendly, stimulating and professional environment for staff.

The information on this site is organised to meet the needs of different types of users. All suggestions for improvement are gratefully received.

Read more about Beaumont Hospital

For information on the Patient Advisory Liaison Service (PALS) please click here

See [HERE](#) for phone numbers of Wards & Units

See [HERE](#) for enhanced visiting arrangements

Information for Patients on arrangements for attending Appointments in Beaumont Hospital, St Joseph's Hospital Raheny & OMNI Outpatient Centre

All elective services for patients that need to attend the hospital for scheduled appointments and procedures are running as normal with some exceptions.

Where appropriate, we are continuing to offer telephone and video virtual out-patient consultations to patients, especially for patients with long term conditions who require ongoing management and may not need to attend for their consultation in person.

It is very important that you do not attend for your appointment if you have a temperature or are feeling unwell. Please phone the number on your appointment letter to reschedule

News & Features

National Kidney Transplant Service Annual Report 2022

Beaumont Hospital now accredited for secondary prevention & cardiac rehabilitation by the European Association of Preventive Cardiology

Capsule Endoscopy Service (PillCam): NOT a hard pill to swallow

More news...

Visiting Arrangements (Updated 20/4/22)

Only one visitor per patient is allowed during our routine visiting hours and children under the age of 16 years are not permitted to visit except in exceptional circumstances.

End of life care and compassionate visiting is only permitted at the discretion of the Clinical Nurse Manager.

Visitors must adhere to hand hygiene practices.

Face masks are available to visitors or patients who wish to continue to wear one.

Visitors can also take an antigen test prior to attending the hospital as an additional protective measure.

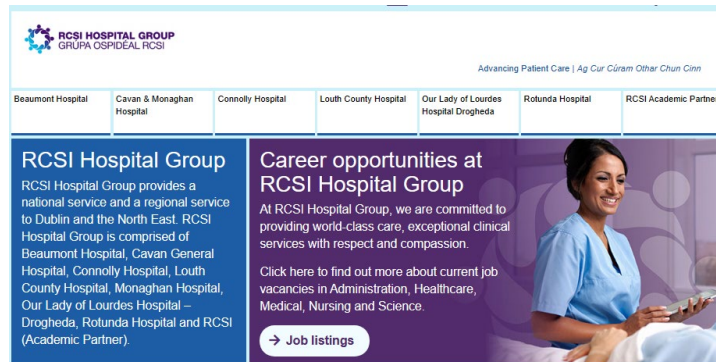
Routine Visiting

- Monday to Friday : 5.30 pm to 7.30 pm only
- Weekends and Public/Bank Holidays : 2.00 pm to 4.00 pm only

Visiting will not be permitted outside of these hours

Useful Information

- Clinic Search
- GP Blood Testing Service
- Beaumont Hospital OPD Referral Process
- How to access your Healthcare/Medical Record
- Medical Training
- Consultants Directory
- Neurosurgery Transfer Pack
- Neurosurgery On-Call Referral Form
- Phone numbers for Wards & Units
- Irish National CJD Surveillance Unit (INCJDSU) in Beaumont Hospital
- Beaumont RCSI Cancer Centre
- Beaumont Breast Centre
- Booking a Venesection or Haemochromatosis Appointment in St Joseph's Hospital
- National Poisons Information Centre at Beaumont Hospital
- My Health, My Language - Find information about the Irish public healthcare system and common health topics in your language



RCSI HOSPITAL GROUP
GRUPA OSPIDEAL RCSI

Advancing Patient Care | Ag Cur Cúram Othar Chun Cinn

Beaumont Hospital | Cavan & Monaghan Hospital | Connolly Hospital | Louth County Hospital | Our Lady of Lourdes Hospital Drogheda | Rotunda Hospital | RCSI Academic Partner

RCSI Hospital Group

RCSI Hospital Group provides a national service and a regional service to Dublin and the North East. RCSI Hospital Group is comprised of Beaumont Hospital, Cavan General Hospital, Connolly Hospital, Louth County Hospital, Monaghan Hospital, Our Lady of Lourdes Hospital – Drogheda, Rotunda Hospital and RCSI (Academic Partner).

Career opportunities at RCSI Hospital Group

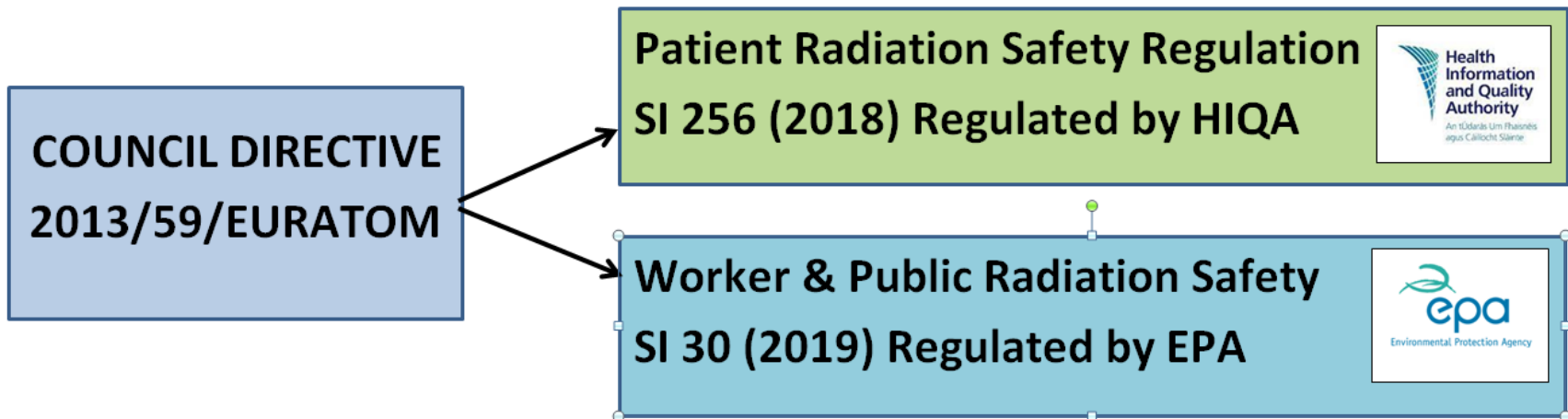
At RCSI Hospital Group, we are committed to providing world-class care, exceptional clinical services with respect and compassion.

Click here to find out more about current job vacancies in Administration, Healthcare, Medical, Nursing and Science.

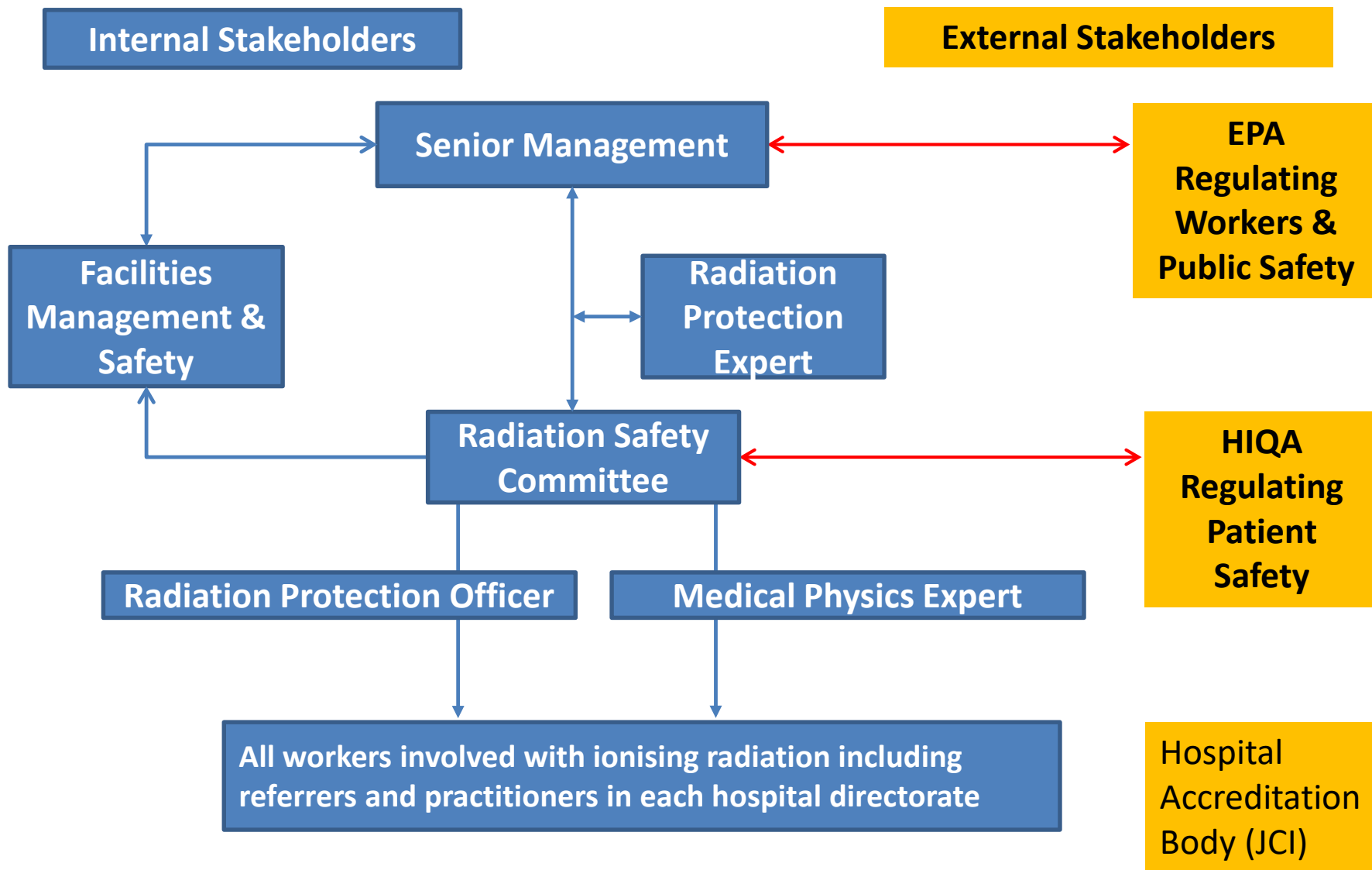
→ Job listings

- 820 beds, 4000 staff.
- Emergency and acute care services across 54 medical specialties to a local community ~250,000.
- National Referral Centre for Neurosurgery and Neurology, Renal Transplantation, and Cochlear Implantation.
- **Radiology including 3xIR and 2xIC**
- **Nuclear Medicine**
- **13 operating theatres with around 2000 procedures per annum using fluoroscopy/O-arm**
- Principal teaching hospital for the Royal College of Surgeons in Ireland (RCSI) and Dublin City University (DCU) School of Nursing.
- Largest of a group of six RCSI hospitals with a catchment of 1.2 million people

Irish Radiation Safety Regulatory Environment



Hospital Governance Structure for Radiation Protection

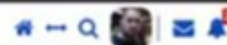


Irish Regulations refer to EU RP 175

Guidelines on radiation protection education and training of medical professionals in the European Union

Table 2.2: Core learning outcomes in radiation protection for the healthcare professions

| | Knowledge (facts, principles, theories, practices) | Skills (cognitive and practical) | Competence (responsibility and autonomy) |
|----------------------------------|--|--|---|
| Core radiation protection | K1. Describe and explain atomic structure K2. Describe the nuclear structure and explain the laws of radioactive decay K3. List and explain the fundamental radiological quantities and units K4. Describe the physical characteristics of X-ray systems K5. Explain the fundamentals of radiation detection K6. Explain the fundamentals of radiobiology and the biological effects of radiation K7. Explain the relation between effective dose and the risk of cancer and hereditary diseases K8. Explain the differences between deterministic and stochastic effects and their respective dose ranges K9. Describe the general principles of radiation protection K10. Explain the 'linear no-threshold' (LNT) hypothesis K11. List and explain radiation protection aspects with respect to patients K12. List and explain radiation protection aspects with respect to staff K13. List typical doses from diagnostic procedures K14. Explain the risks to the foetus from exposure to ionising radiation K15. Understand the principles of QC and QA with respect to radiation protection K16. List the regulations and international standards relevant to radiation protection in the healthcare setting K17. Understand the concepts of justification and optimisation K18. Explain accidental/unintended exposures | S1. Apply radiation protection measures in daily practice S2. Communicate the most important factors that influence staff doses S3. Compare reported doses from medical procedures to doses from natural sources S4. Interpret radiation risks in the context of other risks in daily life S5. Identify the legal radiation protection obligations in daily practice | C1. Implement the national radiation protection regulatory requirements in daily practice |



Welcome to BORIS



Latest Educational News

Organisational and Supervisory Skills Development Programme Presentations

Well done to all participants who presented their quality improvement project and poster

CNM/CMM Leadership Development Programme

Congratulations to all the CNM/CMM who successfully completed the programme

Wellbeing and Stress Management Programme - 28th June

Book your place now to learn to manage stress in your life and relax

Fire Marshall Training - 15th June

Book your place now and make sure your work area has a trained Fire Marshal



Congratulations to the
**CNM/CMM
Leadership
Development
Programme
2023**

Basic Radiation Safety Training for Referrers and Practitioners

This training is designed to give staff an introduction to radiation safety in practice in Beaumont Hospital

The purpose is to develop a basis in good practice and understanding of some key principles for reducing the personal dose when working in a controlled area or when caring for a radioactive patient post procedures and outlines practitioners' legal obligations on patient's radiation safety.

What is Radiation

Legislative
framework for
radiation
protection

Local Rules in
Radiation Safety

General
Procedures for
the Radiation
Safety of workers

Practical radiation
protection for
patients

Summary

Basic Radiation
Safety training
MCQ's

Mandatory Radiation Safety E-learning

Practical Radiological procedure optimisation

click or tap arrow for more information on optimisation



Tight x-ray beam collimation

Beam collimators are made of lead shutters which completely absorb the photon. Focusing the radiation to the area of interest and thus reduce the patient dose as well as staff dose.

[12], [14], [21], [26]



The online Knowledge component supplements the Competence and Skills components that are provided under clinical supervision

Practical in-room training is also provided

Other practical tips

click or tap arrow for more Practical tips

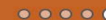


Radial access vs Femoral access

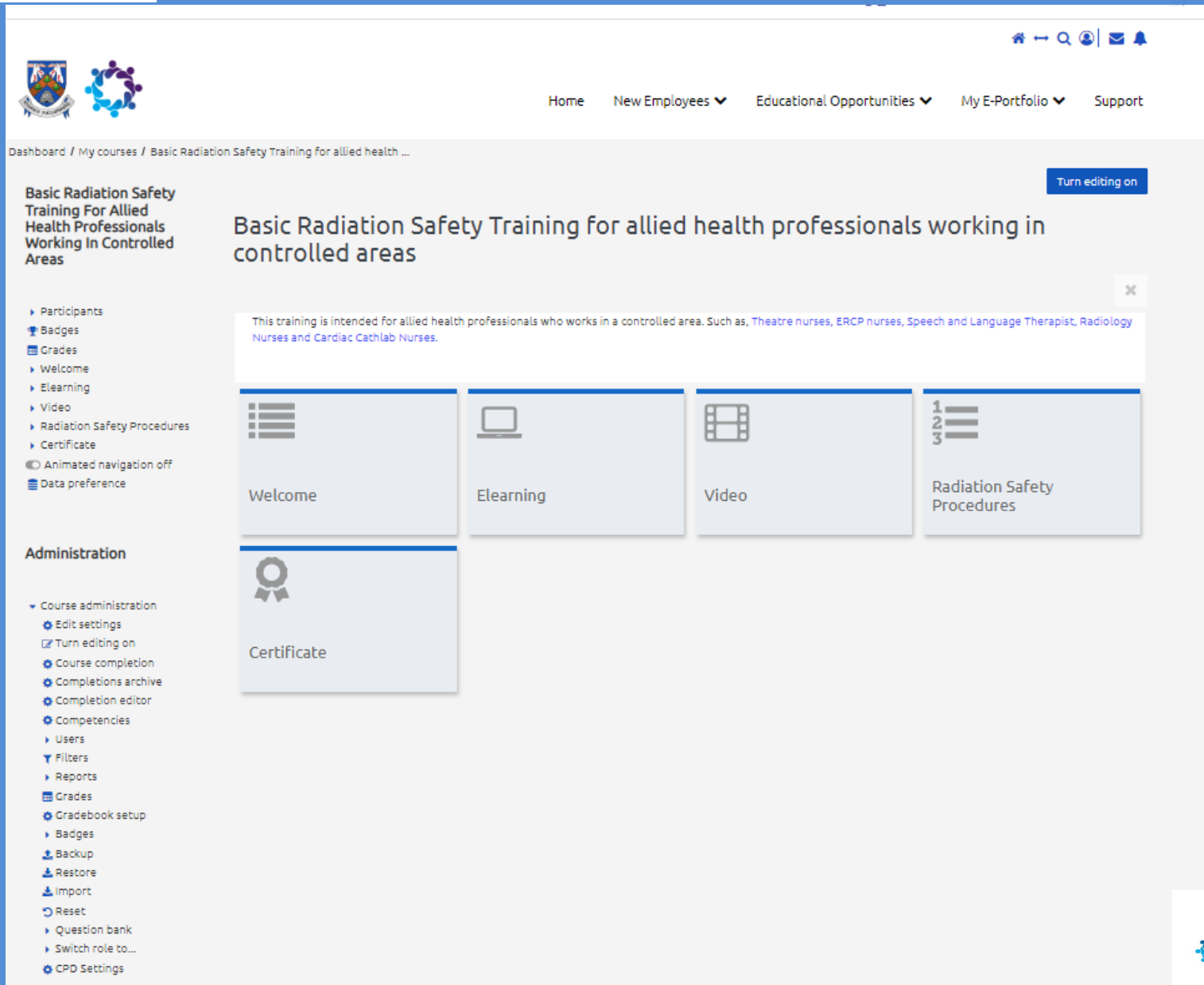
For interventional procedures, radial access is associated with greater operator and patient exposure in comparison to femoral access.

"Average increase in radiation exposure for patients undergoing radial instead of femoral access was relatively small, in the range of 10%. However, compared to femoral access, radial access was associated with an almost 2-fold increase in operator radiation exposure at the thorax level." Sciahbasi, A et al, 2017

[37]



Mandatory Radiation Safety E-learning



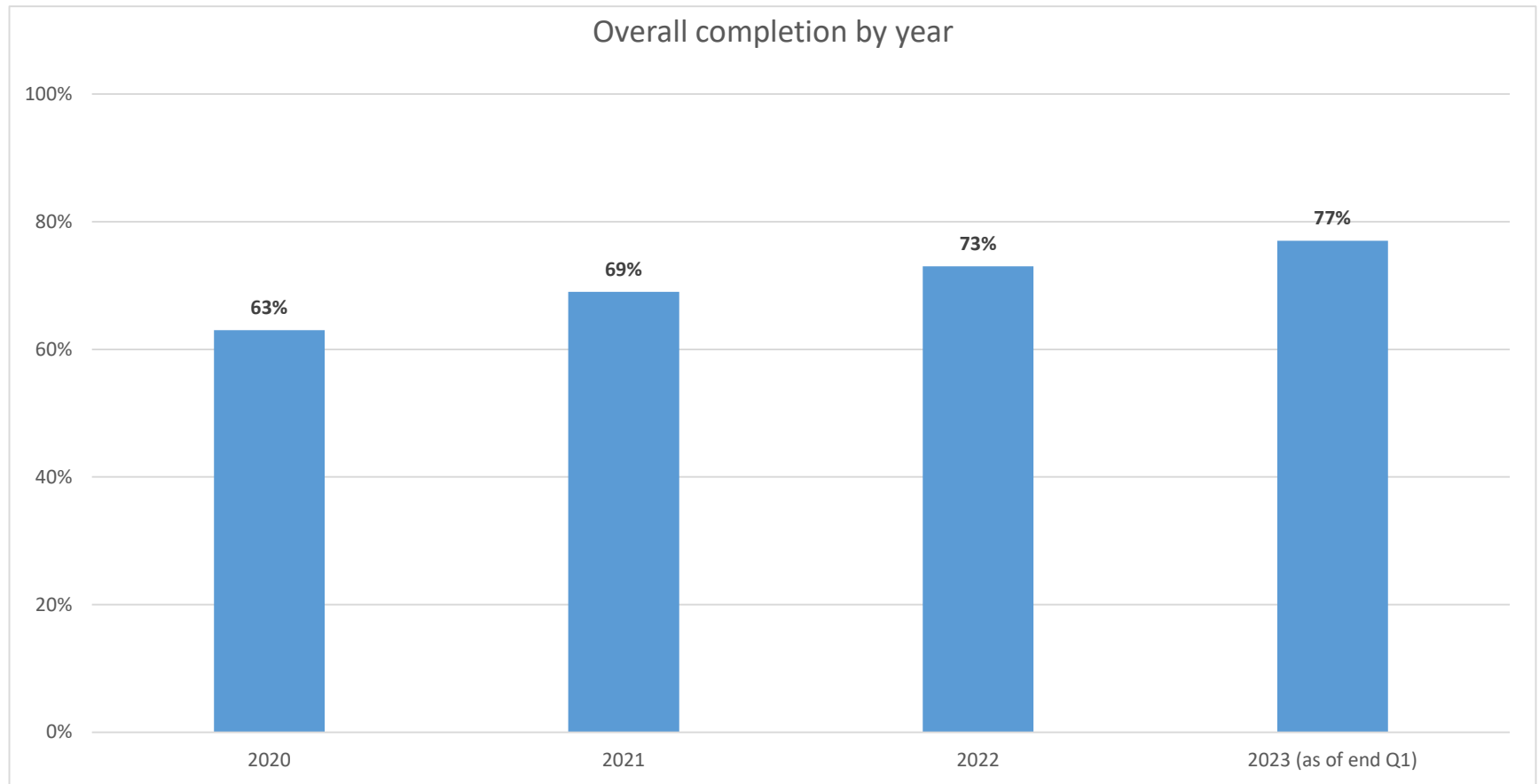
The screenshot shows a web-based e-learning interface. At the top, there is a navigation bar with icons for home, search, and notifications, and a menu with options: Home, New Employees, Educational Opportunities, My E-Portfolio, and Support. Below the navigation bar, the breadcrumb trail reads: Dashboard / My courses / Basic Radiation Safety Training for allied health ...

The main content area is titled "Basic Radiation Safety Training For Allied Health Professionals Working In Controlled Areas". A "Turn editing on" button is located in the top right corner of this section. Below the title, a text box states: "This training is intended for allied health professionals who works in a controlled area. Such as, Theatre nurses, ERCP nurses, Speech and Language Therapist, Radiology Nurses and Cardiac Cathlab Nurses."

The course content is organized into five main sections, each with an icon and a title: "Welcome" (list icon), "Elearning" (laptop icon), "Video" (film strip icon), "Radiation Safety Procedures" (numbered list icon), and "Certificate" (ribbon icon).

On the left side, there is a sidebar menu. The top section is "Basic Radiation Safety Training For Allied Health Professionals Working In Controlled Areas" with sub-items: Participants, Badges, Grades, Welcome, Elearning, Video, Radiation Safety Procedures, and Certificate. Below this is "Administration" with sub-items: Course administration (Edit settings, Turn editing on, Course completion, Completions archive, Completion editor, Competencies, Users, Filters, Reports), Grades (Gradebook setup, Badges), Backup, Restore, Import, Reset, Question bank, Switch role to..., and CPD Settings.

Overall E-training Completion Rates



Training Completion Rates By Directorate

| Directorates: | 2020 | 2021 | 2022 | Q1 2023 |
|--|------------|------------------------------|------------------------------|------------------------------|
| Clinical Services | 73% | 90% (of 21 staff) | 94% (of 22 staff) | 96% (of 25 staff) |
| Critical Care & Anaesthetics | 35% | 56% (57) | 44% (34) | 50% (38) |
| General Services | 0% | 0% (1) | 0% (1) | 0% (1) |
| Imaging & Interventional (excl. radiologists) | 92% | 98% (65) | 100% (74) | 100% (75) |
| Medicine | 59% | 65% (31) | 74% (35) | 73% (33) |
| NeuroCent | 25% | 20% (5) | 33% (6) | 43% (7) |
| Nursing | 57% | 69% (150) | 78% (156) | 80% (162) |
| Surgical | 48% | 35% (20) | 40% (25) | 40% (25) |
| TUN | 57% | 40% (10) | 64% (11) | 67% (12) |
| | 63% | 69% (of 360 staff) | 76% (of 364 staff) | 77% (of 378 staff) |

Benefits

- Allows all staff, including junior doctors, to
 - complete basic radiation safety training,
 - order a personal dosimeter
 - access relevant radiation safety procedures several weeks in advance of starting work in the hospital.
- Facilitates the identification of training needs for different groups e.g. cardiologists or orthopaedic surgeons
- Provides sight of the training compliance across all hospital directorates.
- Greatly improves the recording of RP training for internal audit and/or regulatory inspection.

Future Work

- Future work will look at increasing radiation safety training completion rates through sustained communication using the governance structure.
- Tailor the training for individual professions in line with what may be prescribed by the professional bodies.