

## Health Information and Quality Authority

# Report of the assessment of compliance with medical exposure to ionising radiation regulations

Name of Medical Radiological Installation:	UPMC Sports Surgery Clinic
Undertaking Name:	UPMC Sports Surgery Clinic Ltd
Address of Ionising Radiation Installation:	Northwood Avenue, Northwood, Dublin 9
Type of inspection:	Announced
Date of inspection:	28 May 2025
Medical Radiological Installation Service ID:	OSV-0008885
Fieldwork ID:	MON-0044711

About the medical radiological installation (the following information was provided by the undertaking):

UPMC Sports Surgery Clinic is a JCI Accredited Private hospital specialising in Orthopaedics, spine and Sports Medicine. The Radiology department, located on the ground floor at SSC, is a multi-modality general Radiology department with a particular focus on musculoskeletal and spine imaging. Diagnostic imaging procedures available at SSC include: 64 slice CT, Two Digital Radiography rooms, Departmental Fluoroscopy, DEXA and Seven Theatres with 4 Mobile C-arms. The majority of our workload is Ambulant Out- patients. We are a multi-disciplinary diagnostic imaging team consisting of six Consultant Radiologists with subspeciality expertise in MSK, two Neuroradiologists, RSM, RSO, RPA/MPE, Radiographers, Clerical administration and an imaging assistant. SSC was acquired by UPMC in 2023 and is now part of the UPMC group.

## How we inspect

This inspection was carried out to assess compliance with the European Union (Basic Safety Standards for Protection against Dangers Arising from Medical Exposure to Ionising Radiation) Regulations 2018, as amended. The regulations set the minimum standards for the protection of service users exposed to ionising radiation for clinical or research purposes. These regulations must be met by each undertaking carrying out such practices. To prepare for this inspection, the inspector<sup>1</sup> reviewed all information about this medical radiological installation<sup>2</sup>. This includes any previous inspection findings, information submitted by the undertaking, undertaking representative or designated manager to HIQA<sup>3</sup> and any unsolicited information since the last inspection.

As part of our inspection, where possible, we:

- talk with staff and management to find out how they plan, deliver and monitor the services that are provided to service users
- speak with service users<sup>4</sup> to find out their experience of the service
- observe practice to see if it reflects what people tell us
- review documents to see if appropriate records are kept and that they reflect practice and what people tell us.

## About the inspection report

In order to summarise our inspection findings and to describe how well a service is complying with regulations, we group and report on the regulations under two dimensions:

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<sup>1</sup> Inspector refers to an Authorised Person appointed by HIQA under Regulation 24 of S.I. No. 256 of 2018 for the purpose of ensuring compliance with the regulations.

<sup>2</sup> A medical radiological installation means a facility where medical radiological procedures are performed.

<sup>3</sup> HIQA refers to the Health Information and Quality Authority as defined in Section 2 of S.I. No. 256 of 2018.

<sup>4</sup> Service users include patients, asymptomatic individuals, carers and comforters and volunteers in medical or biomedical research.

## **1. Governance and management arrangements for medical exposures:**

This section describes HIQA's findings on compliance with regulations relating to the oversight and management of the medical radiological installation and how effective it is in ensuring the quality and safe conduct of medical exposures. It outlines how the undertaking ensures that people who work in the medical radiological installation have appropriate education and training and carry out medical exposures safely and whether there are appropriate systems and processes in place to underpin the safe delivery and oversight of the service.

## **2. Safe delivery of medical exposures:**

This section describes the technical arrangements in place to ensure that medical exposures to ionising radiation are carried out safely. It examines how the undertaking provides the systems and processes so service users only undergo medical exposures to ionising radiation where the potential benefits outweigh any potential risks and such exposures are kept as low as reasonably possible in order to meet the objectives of the medical exposure. It includes information about the care and supports available to service users and the maintenance of equipment used when performing medical radiological procedures.

A full list of all regulations and the dimension they are reported under can be seen in Appendix 1.

### **This inspection was carried out during the following times:**

Date	Times of Inspection	Inspector	Role
Wednesday 28 May 2025	10:00hrs to 14:00hrs	Lee O'Hora	Lead
Wednesday 28 May 2025	10:00hrs to 14:00hrs	Margaret Keaveney	Support

## Governance and management arrangements for medical exposures

As part of this inspection, the inspectors reviewed documentation and visited the general X-ray, computed tomography (CT) and fluoroscopy departments and spoke with staff and management. Inspectors also reviewed imaging records from DXA scanning, general radiography, CT, departmental fluoroscopy and theatre fluoroscopy.

Inspectors were satisfied that there were appropriate forums in place for the oversight of the radiation protection of service users, with effective pathways established to communicate any issues from the day-to-day operations in the clinic up to the undertaking.

A sample of radiological procedure records reviewed by inspectors showed that appropriate persons as per the regulations were involved in referring and justifying medical exposures. Similarly, only those entitled to act as practitioners, as defined in Regulation 5, were taking clinical responsibility for medical exposures in the service.

From the records viewed and discussions with staff, inspectors were satisfied that the undertaking had ensured contingency arrangements for the continuity of medical physics expertise in the clinic. Inspectors saw strong evidence of medical physics expert (MPE) involvement in all areas of MPE responsibilities as per the regulations and were therefore satisfied that the level of MPE involvement was proportionate to the level of radiological risk posed by the service.

The inspectors were satisfied that the undertaking had systems in place to ensure appropriate governance and oversight of the delivery of medical exposures at UPMC Sports Surgery Clinic and that responsibility for the radiation safety of service users had been clearly allocated.

### Regulation 4: Referrers

Following a review of referral documentation, a sample of referrals for medical radiological procedures and through staff communication, the inspectors were satisfied that UPMC Sports Surgery Clinic only accepted referrals from appropriately recognised referrers.

Judgment: Compliant

### Regulation 5: Practitioners

Similarly, following record review and staff communication, the inspectors were satisfied that systems were in place to ensure that only appropriately qualified individuals took clinical responsibility for all individual medical exposures.

Judgment: Compliant

## Regulation 6: Undertaking

Overall responsibility for the radiation protection of service users lay with UPMC Sports Surgery Clinic Ltd which operated as a discrete company undertaking operating in the wider UPMC Ireland structure but was an independent undertaking within this group. The clinic's General Manager (GM) was identified to inspectors as the individual with overall responsibility for the radiation protection of service users at UPMC Sports Surgery Clinic. The GM reported to the undertaking via the Chief Operating Officer (COO) via monthly meetings and the COO and the Managing Director for UPMC Ireland (and a company Director) met weekly.

Internally, UPMC Sports Surgery Clinic employed multiple pathways for the communication of relevant information. Staff at UPMC Sports Surgery Clinic used an RSC which was the main platform for the consideration of radiation safety related topics and ensured that work using ionising radiation was carried out in a manner consistent with good radiation protection practices. The RSC met every 6 months and RSC meeting minutes, reviewed as part of this inspection, verified that the GM attended all RSC meetings. Radiation safety was also a standing agenda point for the clinic's Health and Safety Committee meetings which took place quarterly. Inspectors were also informed that the Radiological Services Manager (RSM) and the GM had monthly meetings where any relevant issues could be considered or escalated as required.

The inspectors were satisfied that the undertaking had implemented an appropriate process to oversee and manage the justification of any new practices in the clinic, in line with regulatory requirements. Although no new practices had been introduced in the clinic since 2019 this proactive planning was seen as an example of good practice in the radiation protection of service users.

Judgment: Compliant

## Regulation 10: Responsibilities

The inspectors reviewed radiation safety procedure documentation, a sample of referrals for medical radiological procedures and spoke with staff and were satisfied that all medical exposures at UPMC Sports Surgery Clinic took place under the

clinical responsibility of a practitioner. The inspectors were also assured that the optimisation process involved the practitioner and the MPE and that the justification process for individual medical exposures involved the practitioner and the referrer.

Judgment: Compliant

### Regulation 19: Recognition of medical physics experts

The mechanisms in place to provide continuity of medical physics expertise were described to the inspectors by staff and management. All evidence supplied satisfied the inspectors that the undertaking had the necessary arrangements in place to ensure continuity of MPE expertise at UPMC Sports Surgery Clinic.

Judgment: Compliant

### Regulation 20: Responsibilities of medical physics experts

MPE professional registration was reviewed by the inspectors and was up to date. From reviewing the documentation and after interaction with staff, the inspectors were assured that MPEs took responsibility for dosimetry, gave advice on radiological equipment and contributed to the application and use of diagnostic reference levels (DRLs), the definition of quality assurance (QA) programmes including acceptance testing, the analysis of accidental or unintended exposures and the training of practitioners.

Judgment: Compliant

### Regulation 21: Involvement of medical physics experts in medical radiological practices

From speaking with the relevant staff members and following radiation safety document review, inspectors established that the involvement of the MPE was both appropriate for the service and commensurate with the risk associated with the service provided at UPMC Sports Surgery Clinic.

Judgment: Compliant

## Safe Delivery of Medical Exposures

The inspectors reviewed the systems and processes in place to ensure the safety of service users undergoing medical exposures at this service and noted many areas of good practice which, in this case, ensured full compliance with the regulations reviewed on the day of inspection.

Following a review of a sample of referrals for a number of areas, the inspectors were satisfied that UPMC Sports Surgery Clinic had reliable and consistently applied processes in place to ensure that all medical procedure referrals were accompanied by the relevant information, justified in advance by a practitioner and that practitioner justification was recorded.

The inspectors were satisfied that DRLs were established, used and reviewed. Evidence reviewed assured the inspectors that DRL review and patient dose audit had delivered patient dose reductions, optimised the service provided and enhanced service user outcomes at UPMC Sports Surgery Clinic.

Records of acceptance and performance testing for radiological equipment at the clinic satisfied the inspectors that the undertaking had implemented and maintained an appropriate QA programme and kept all radiology equipment under strict surveillance. The undertaking had employed robust multidisciplinary incident reporting strategies which were consistently articulated by staff who spoke with inspectors and were used to actively improve service user outcomes.

The inspectors were assured that UPMC Sports Surgery Clinic had appropriate systems in place to support the safe delivery of medical exposures and staff demonstrated a commitment to the continual improvement of X-ray services provided.

## Regulation 8: Justification of medical exposures

The inspectors discussed the relevant processes with staff and reviewed a sample of referrals for all clinical areas on the day of inspection. Evidence reviewed demonstrated that processes were in place to ensure that all individual medical exposures were justified in advance and that all individual justification by a practitioner was recorded. In line with Regulation 8, all referrals reviewed by the inspectors were available in writing, stated the reason for the request and were accompanied by medical data which allowed the practitioner to consider the benefits and the risk of the medical exposure.

Staff communication consistently informed the inspectors that previous diagnostic information, where available, was routinely sought to avoid unnecessary exposure. The inspectors observed multiple posters which provided service users with information relating to the benefits and risks associated with the radiation dose from



a range of medical exposures. Pamphlet versions of these posters were also available to service users throughout the radiology department.

Judgment: Compliant

### Regulation 11: Diagnostic reference levels

Following a review of DRL documentation, the inspectors were satisfied that DRLs have been established, were compared to national levels, and were used in the optimisation of medical radiological procedures at this facility. UPMC Sports Surgery Clinic undertook extensive patient dose audits and compared year-on-year dose trends to identify areas where further dose optimisation could be considered. Quality Improvement Plans (QIPs) and associated reports developed in conjunction with the Quality and Safety department were reviewed by inspectors. One such report detailed a significant reduction in all portable doses over a number of years as a result of a number of optimisation strategies. This was seen as a positive use of information gained through DRL review to reduce patient dose, optimise the service provided and enhance service user outcomes.

Judgment: Compliant

### Regulation 13: Procedures

On the day of inspection, the inspectors found that written protocols were established for all adult and paediatric standard medical radiological procedures. A sample of these were reviewed for all clinical areas. Staff who met the inspectors in the clinical areas clearly articulated how these protocols were made available to them.

The inspectors conversed with staff and reviewed a sample of imaging reports from all clinical areas on the day of inspection. The inspectors were satisfied that UPMC Sports Surgery Clinic had employed a suitable system to ensure that information relating to patient exposure consistently formed part of the report.

Inspectors reviewed information relating to clinical audit via documents supplied and by speaking with staff and management. Inspectors were assured that UPMC Sports Surgery Clinic's approach to clinical audit was in accordance with national procedures established by HIQA.

Judgment: Compliant

## Regulation 14: Equipment

The inspectors were provided with an up-to-date inventory which was verified on site. From the evidence available, the inspectors were satisfied that all medical radiological equipment was kept under strict surveillance by the undertaking.

The process to ensure the strict surveillance of radiological equipment included the implementation and maintenance of a QA programme, including appropriate acceptance and regular performance testing, as well as manufacturer suggested equipment service and internal radiographer testing. Evidence was also available to show that any issues identified as part of radiology equipment service had been followed up in a timely manner.

UPMC Sports Surgery Clinic had a robust system for the consideration and monitoring of equipment which had passed suggested replacement dates and this was managed through the RSC. This process was well documented and multidisciplinary in nature and records reviewed satisfied the inspectors that all relevant stakeholders were involved in ensuring the close monitoring of such equipment.

Judgment: Compliant

## Regulation 16: Special protection during pregnancy and breastfeeding

Documentation reviewed satisfied the inspectors that UPMC Sports Surgery Clinic had processes in place to ensure that all appropriate service users were asked about pregnancy status by a practitioner and/or a referrer and the answer was recorded. Multilingual posters were observed throughout the department to increase awareness of individuals to whom Regulation 16 applies. Good practice in relation to theatre surgical list planning was observed ensuring that all relevant service users were questioned by the appropriate staff before the procedure and associated anaesthesia commenced.

Judgment: Compliant

## Regulation 17: Accidental and unintended exposures and significant events

Following document review, record review and staff communication the inspectors were assured that the undertaking had implemented measures to minimise the likelihood of incidents for patients undergoing medical exposures in this facility.

Evidence was available to show that incidents were discussed at the appropriate committee level within the facility and subsequently reported to the RSC, thus the undertaking had oversight of incidents in this facility. Inspectors were satisfied that a system of record-keeping and analysis of events involving or potentially involving accidental or unintended medical exposures had been implemented and maintained by UPMC Sports Surgery Clinic.

Inspectors also observed QIPs and associated reports developed in conjunction with the Quality and Safety department initiated by incident trending. One such example saw an increase in CT time outs and additional signage for staff which was demonstrated to reduce accidents relating to incorrect laterality (wrong-side errors) for a number of CT procedures. This was seen as another positive use of information gained through incident review to reduce patient dose, optimise the service provided and enhance service user outcomes.

Judgment: Compliant

## Appendix 1 – Summary table of regulations considered in this report

This inspection was carried out to assess compliance with the European Union (Basic Safety Standards for Protection against Dangers Arising from Medical Exposure to Ionising Radiation) Regulations 2018, as amended. The regulations considered on this inspection were:

Regulation Title	Judgment
<b>Governance and management arrangements for medical exposures</b>	
Regulation 4: Referrers	Compliant
Regulation 5: Practitioners	Compliant
Regulation 6: Undertaking	Compliant
Regulation 10: Responsibilities	Compliant
Regulation 19: Recognition of medical physics experts	Compliant
Regulation 20: Responsibilities of medical physics experts	Compliant
Regulation 21: Involvement of medical physics experts in medical radiological practices	Compliant
<b>Safe Delivery of Medical Exposures</b>	
Regulation 8: Justification of medical exposures	Compliant
Regulation 11: Diagnostic reference levels	Compliant
Regulation 13: Procedures	Compliant
Regulation 14: Equipment	Compliant
Regulation 16: Special protection during pregnancy and breastfeeding	Compliant
Regulation 17: Accidental and unintended exposures and significant events	Compliant