



Health Information and Quality Authority

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

Name of Medical Radiological Installation:	HSE Dental Clinic Cappoquin
Undertaking Name:	Health Service Executive
Address of Ionising Radiation Installation:	Barrack Street, Cappoquin, Waterford
Type of inspection:	Announced
Date of inspection:	31 January 2024
Medical Radiological Installation Service ID:	OSV-0008342
Fieldwork ID:	MON-0042271

About the medical radiological installation:

HSE Dental Clinic Cappoquin provides dental treatment to children and to adults and children with additional needs. There is an intra-oral dental X-ray unit in the facility. There is no OPG/Lateral Ceph unit in the facility.

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 and 2019. 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 inspector¹ reviewed all information about this medical radiological installation². This includes any previous inspection findings, information submitted by the undertaking, undertaking representative or designated manager to HIQA³ and any unsolicited information since the last inspection.

As part of our inspection, where possible, we:

- talk with staff to find out how they plan, deliver and monitor the services that are provided to service users
- speak with service users⁴ 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 doing, we describe the overall effectiveness of an undertaking in ensuring the quality and safe conduct of medical exposures. It examines how the undertaking provides the technical systems and processes so service users only undergo medical exposures to ionising radiation where the potential benefits outweigh any potential

¹ 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.

² A medical radiological installation means a facility where medical radiological procedures are performed.

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

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

risks and such exposures are kept as low as reasonably possible in order to meet the objectives of the medical exposure.

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 31 January 2024	11:50hrs to 13:20hrs	Noelle Neville	Lead

Summary of findings

An inspection was carried out at HSE Dental Clinic Cappoquin on 31 January 2024 by an inspector to assess compliance with the regulations at the facility. As part of this inspection, the inspector visited the clinical areas, spoke with staff and management and reviewed documentation. The inspector noted compliance with each regulation reviewed, namely Regulations 4, 5, 6, 8, 10, 11, 13, 14, 17, 19, 20 and 21.

The inspector found that the undertaking, the Health Service Executive, had good governance arrangements in place to ensure the safe delivery of medical exposures at HSE Dental Clinic Cappoquin. Only individuals entitled to act as referrer and practitioner referred and took clinical responsibility for medical radiological procedures at HSE Dental Clinic Cappoquin. The inspector was also satisfied that the undertaking had arrangements in place to ensure access to and continuity of medical physics expert (MPE) services at the facility.

The inspector was informed during the inspection that the undertaking had recently taken the intra-oral unit of equipment at HSE Dental Clinic Cappoquin out of use due to an issue with image quality. This issue was being followed up on with the vendor who had made several service visits to investigate the issue. The inspector noted that these actions demonstrated good oversight of radiation protection at HSE Dental Clinic Cappoquin.

Overall, the inspector was satisfied that a culture of radiation protection was embedded at HSE Dental Clinic Cappoquin and clear and effective management structures were in place to ensure the radiation protection of service users.

Regulation 4: Referrers

From a review of documentation and speaking with staff and management at HSE Dental Clinic Cappoquin, the inspector was satisfied that referrals were from staff working within this dental facility, where the referrer and practitioner was the same person and entitled to act as referrer and practitioner as per the regulations.

Judgment: Compliant

Regulation 5: Practitioners

The inspector was satisfied from a review of documentation and speaking with staff that only individuals entitled to act as practitioner as per Regulation 5 took clinical responsibility for medical exposures at HSE Dental Clinic Cappoquin.

Judgment: Compliant

Regulation 6: Undertaking

The inspector was satisfied that there was a clear allocation of responsibilities to ensure safe and effective care for those undergoing exposure to ionising radiation as required by Regulation 6(3) at HSE Dental Clinic Cappoquin. The inspector reviewed a document titled *Radiation Safety Procedures*, the most recent version of which was issued in May 2022. This document outlined the management structure of HSE Dental Clinic Cappoquin and noted that representatives of the facility formed part of the HSE's South East Community Healthcare radiation safety committee (RSC) which in turn reported to the quality and safety executive committee. The inspector reviewed minutes from previous RSC meetings and noted that a variety of topics were discussed including training, equipment, clinical audit and incidents.

Judgment: Compliant

Regulation 8: Justification of medical exposures

The inspector noted that information about the benefits and risks associated with the radiation dose from medical exposures was available to service users by means of posters in the facility. The inspector reviewed a sample of records of medical exposures and noted that they were in writing, included the reason for requesting the procedure and justification in advance as required by Regulation 8(8) was recorded as required by Regulation 8(15).

Judgment: Compliant

Regulation 10: Responsibilities

The inspector noted that all medical exposures were found to take place under the clinical responsibility of a practitioner, as defined in the regulations. The practical aspects of medical radiological procedures were only carried out at HSE Dental Clinic Cappoquin by individuals entitled to act as practitioners in the regulations. Practitioners and the MPE were found to be involved in the optimisation process for medical exposure to ionising radiation. In addition, the inspector was also satisfied

that referrers and practitioners, who were the same person, were involved in the justification process for individual medical exposures as required by Regulation 10.

Judgment: Compliant

Regulation 11: Diagnostic reference levels

The inspector was satisfied that diagnostic reference levels (DRLs) had been established, regularly reviewed and used, having regard to national DRLs, as required by Regulation 11(5) at HSE Dental Clinic Cappoquin.

Judgment: Compliant

Regulation 13: Procedures

Written protocols for standard dental radiological procedures were available at HSE Dental Clinic Cappoquin as required by Regulation 13(1). These protocols can provide assurance that medical radiological procedures are carried out in a safe and consistent manner. Information relating to the medical exposure as required by Regulation 13(2) was available in a sample of reports reviewed. In addition, referral guidelines which were available to staff and referrers were adopted at the facility as required by Regulation 13(3).

Judgment: Compliant

Regulation 14: Equipment

The inspector received an up-to-date inventory of medical radiological equipment in advance of the inspection and noted that appropriate quality assurance programmes were in place for equipment as required by Regulation 14(2). The inspector reviewed records of performance testing and was satisfied that testing was carried out on a regular basis as required by Regulation 14(3). In addition, the inspector was satisfied that acceptance testing was carried out on equipment before the first use for clinical purposes as required by Regulation 14(3).

The inspector was informed during the inspection that the undertaking had recently taken the intra-oral unit of equipment at HSE Dental Clinic Cappoquin out of use due to an issue with image quality. This issue was being followed up on with the vendor who had made several service visits to investigate the issue. The inspector noted

that these actions demonstrated strict surveillance of the equipment at HSE Dental Clinical Cappoquin as required by Regulation 14(1).

Judgment: Compliant

Regulation 17: Accidental and unintended exposures and significant events

The inspector reviewed documentation outlining the process for the management of accidental and unintended exposures and significant events and was satisfied from discussions with staff and management that an appropriate system for the recording and analysis of events involving or potentially involving accidental or unintended medical exposures had been implemented at HSE Dental Clinic Cappoquin. Although no incidents relating to accidental or unintended exposure had been identified or reported at HSE Dental Clinic Cappoquin, the inspector was satisfied that the systems and awareness of staff were adequate to manage an incident or near miss should one occur.

Judgment: Compliant

Regulation 19: Recognition of medical physics experts

The inspector was satisfied from discussions with staff and a review of documentation that the undertaking at HSE Dental Clinic Cappoquin had arrangements in place to ensure access to and continuity of MPE services as required by Regulation 19.

Judgment: Compliant

Regulation 20: Responsibilities of medical physics experts

The inspector was satisfied that the MPE at HSE Dental Clinic Cappoquin gave specialist advice, as appropriate, on matters relating to radiation physics as required by Regulation 20(1). The inspector noted that the MPE was involved across a range of responsibilities outlined in Regulation 20(2). The MPE gave advice on medical radiological equipment, contributed to the definition and performance of a quality assurance programme and acceptance testing of equipment. The MPE was involved in optimisation, including the application and use of diagnostic reference levels (DRLs). In addition, the MPE contributed to the training of staff in relation to radiation protection. The inspector noted that the MPE liaised with the facility's

radiation protection adviser (RPA), therefore satisfying the requirements of Regulation 20(3).

Judgment: Compliant

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

From documentation reviewed and discussion with staff, the inspector was satisfied that the level of MPE involvement at HSE Dental Care Cappoquin was commensurate with the radiological risk posed by the facility as required by Regulation 21.

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 and 2019. The regulations considered on this inspection were:

Regulation Title	Judgment
Summary of findings	
Regulation 4: Referrers	Compliant
Regulation 5: Practitioners	Compliant
Regulation 6: Undertaking	Compliant
Regulation 8: Justification of medical exposures	Compliant
Regulation 10: Responsibilities	Compliant
Regulation 11: Diagnostic reference levels	Compliant
Regulation 13: Procedures	Compliant
Regulation 14: Equipment	Compliant
Regulation 17: Accidental and unintended exposures and significant events	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