



## Health Information and Quality Authority

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

Name of Medical Radiological Installation:	Dublin Dentist Clinic (Dublin 1)
Undertaking Name:	Dublin Dentist LTD
Address of Ionising Radiation Installation:	43/44 Lower Dorset Street, Dublin 1
Type of inspection:	Announced
Date of inspection:	07 March 2023
Medical Radiological Installation Service ID:	OSV-0006115
Fieldwork ID:	MON-0039216

## About the medical radiological installation:

Dublin Dentist Clinic (Dublin 1) is a dental practice owned by Dublin Dentist LTD. A number of different dental radiological procedures are carried out at the practice. This includes intra-oral radiographs, orthopantomograms (OPG) and cone-beam computed tomography (CBCT).

## 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 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 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 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

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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.

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
Tuesday 7 March 2023	10:30hrs to 14:30hrs	Kirsten O'Brien	Lead
Tuesday 7 March 2023	10:30hrs to 14:30hrs	Agnella Craig	Support

## Summary of findings

An inspection of Dublin Dentist LTD at Dublin Dentist Clinic (Dublin 1) was conducted by inspectors on the 7 March 2023 to assess compliance against the regulations following a previous inspection carried out on the 10 January 2023. On the day of inspection, inspectors visited the X-ray room at the practice and assessed compliance with the regulations relating to the use of intra-oral radiography (X-ray), orthopantomogram (OPG) and cone-beam computed tomography (CBCT) procedures.

On the day of inspection, inspectors were not assured that the undertaking, Dublin Dentist LTD, had systems in place to ensure compliance with the regulations through the allocation of responsibilities relating to the radiation protection of patients and services users attending Dublin Dentist Clinic (Dublin 1). The undertaking had not ensured that responsibility for the protection of patients and service users was clearly allocated to, or carried out by, appropriate individuals. Additionally, inspectors found that Dublin Dentist LTD had not ensured that individuals involved in conducting CBCT procedures at Dublin Dentist Clinic (Dublin 1) had completed training as prescribed by the Dental Council.

The inspectors found that efforts had been made by Dublin Dentist LTD to ensure the continuity and involvement of a medical physics expert (MPE) at the practice. Quality assurance (QA) testing by an MPE had been completed in full since the last inspection and records relating to this testing were reviewed by the inspectors as part of the inspection. However, despite the contribution of an MPE to the service, inspectors did not find evidence that the undertaking had put measures in place to ensure that a number of non-compliances identified as part of the last inspection had been adequately resolved. For example, no evidence was available to assure inspectors that the undertaking had processes for optimising dental radiological procedures, including ensuring that practitioners were involved in the optimisation of dental radiological procedures at Dublin Dentist Clinic (Dublin 1). Inspectors also found that diagnostic reference levels (DRLs) were not used for the purposes of optimisation at the practice and a programme to assess and evaluate patient doses had not been implemented.

Inspectors were told that only an individual entitled to act as a practitioner took clinical responsibility for dental radiological procedures at the practice and that the referrer and the practitioner were the same individual for referrals within the practice (internal referrals). However, for a number of dental exposures, inspectors found no evidence was available to demonstrate that a practitioner took responsibility for every aspect of clinical responsibility for each individual exposure. In particular, evidence to show practitioners involvement in justification, optimisation and the clinical evaluation of the outcome was not available at the time of inspection. Additionally, for dental exposures internal to the practice, not all

referrals contained the reason for the request or sufficient medical data as required by the regulations.

Inspectors reviewed a sample of patient records and found that not all referrals for dental radiological procedures coming from outside the practice (external referrals) were in writing. Where a written request was available, these did not include the reason for the request or sufficient medical data for each individual exposure. Additionally, for external referrals, inspectors found that it was not always clear who had referred, or which individual had taken clinical responsibility, for the dental exposure to ionising radiation. In some cases a record of justification by a practitioner or referrer was not available. As a result, inspectors were not satisfied that the referrer or a practitioner was involved in justification of all dental exposures carried out at the practice.

Following this inspection a meeting was held with the undertaking, Dublin Dentist LTD, to discuss the continued findings of non-compliance with Regulations 6, 8, 9, 10, 11, 13, 14 and 22.

## Regulation 6: Undertaking

Inspectors reviewed documentation and records, and spoke with staff regarding the management and oversight structures in place at Dublin Dentist Clinic (Dublin 1), in particular, the allocation of responsibility for the radiation protection of service users attending the dental practice.

The person notified to HIQA as the designated manager was the person also identified in the Radiation Safety Procedures as the radiation protection officer and person in charge in the schedule of key personnel. Inspectors were informed by management that the allocation of responsibility and oversight for radiation protection at Dublin Dentist Clinic (Dublin 1) was currently being reviewed. The inspectors noted that the undertaking had taken steps to ensure continuity of medical physics expertise and a new clinic manager had been employed in recent weeks. However, inspectors found that, on the day of inspection, the undertaking had not taken adequate steps to ensure that clear lines of governance and oversight to ensure compliance with all regulations had been put in place since the last inspection.

Dublin Dentist LTD must ensure that the allocation of responsibility for the radiation protection of service users is clearly documented and made known to all staff working at the practice, for example, the role of the referrer and a practitioner in justification and other elements of clinical responsibility for dental radiological procedures. This is particularly important as the inspectors were informed that dental staff working at Dublin Dentist Clinic (Dublin 1) alternated between different dental practices.

The absence of clearly allocated responsibility for the radiation protection of patients and other service users also resulted in a number of non-compliances on the day of inspection as detailed in this report.

Judgment: Not Compliant

### Regulation 8: Justification of medical exposures

On the day of inspection, inspectors reviewed a sample of dental radiological procedures conducted at Dublin Dentist Clinic (Dublin 1). Inspectors found that records evidencing compliance with this regulation were not available to inspectors for review for all dental exposures carried out at the practice.

Inspectors were informed that a record of all dental exposures conducted should be made by dentists on the practice's electronic information system as part of the patients' notes. An additional record of each dental radiological procedure should also have been recorded on a logbook in the dedicated X-ray room. However, from examples seen on the day, this was not consistently adhered to by staff involved in the conduct of dental exposures and a number of discrepancies in the records were identified. For example, a number of procedures were not recorded in the logbook and in two examples seen, no record of the dental radiological procedures were available on the electronic information system.

Inspectors were informed that a dentist took clinical responsibility for justifying all internally referred dental radiological procedures. However, for external referrals, where the referrer and the practitioner are different individuals, the system for recording justification in advance of carrying out each individual exposure was not clear or consistent. Consequently, inspectors were not satisfied that a record of justification in advance by a practitioner was available for all dental radiological procedures.

Following a review of dental radiological procedures carried out at the dental practice, inspectors were not assured that a referral in writing was available for all dental exposures carried out, particularly with regard to external referrals. For example, a written referral was not available for all external exposures reviewed on the day of inspection. Only two external referrals were available in writing for review, however, these did not contain the reason for the request and were not accompanied by any medical data to allow a practitioner to justify a dental medical procedure. Additionally, a sample of internal referrals reviewed did not all have sufficient medical data and or the reason for requesting the dental exposure in the patients' notes.

This finding of not compliant with Regulation 8 had been identified as part of the previous inspection and inspectors were not satisfied that the undertaking had taken steps to improve compliance with this regulation since the last inspection. Overall, inspectors were not satisfied that Dublin Dentist LTD had implemented measures to

ensure that all dental exposures carried out at Dublin Dentist Clinic (Dublin 1) had a written referral. In addition, records showing that justification in advance of an exposure had been completed by a practitioner were not available for all exposures. Dublin Dentist LTD must put measures in place to ensure that records evidencing compliance with the requirements of this regulation are documented, maintained and available for review.

Judgment: Not Compliant

### Regulation 9: Optimisation

On the day of inspection, inspectors found no evidence that Dublin Dentist LTD had ensured that all doses due to dental exposures were kept as low as reasonably achievable as required by the regulations. Inspectors also did not find evidence that the undertaking had ensured that practitioners were involved in the optimisation of all dental radiological procedures, in particular OPG and CBCT examinations.

Inspectors noted the completion of a QA assessment by an MPE since the last inspection. However, despite issues with optimisation of patient doses having been identified to Dublin Dentist LTD by an MPE in 2019 and again in 2023, no evidence was available to show that the undertaking had acted on the advice of an MPE to ensure that all dental exposures carried out at the practice were optimised. For example, inspectors spoke with management and found that no review or evaluation of patient doses had been carried out by the undertaking following the advice of an MPE as part of the most recent QA assessment in January 2023.

Additionally, despite the findings of the previous inspection, no evidence was available on the day of inspection to demonstrate that the undertaking had ensured that patient doses were assessed and evaluated. Similarly, no records or evidence was provided to demonstrate that the undertaking had ensured that a programme of performance testing for its equipment had been implemented or maintained as required by Regulation 14. Inspectors also found no evidence that the undertaking had reviewed the quality of the images produced to ensure they were appropriately and consistently optimised.

Judgment: Not Compliant

### Regulation 10: Responsibilities

Inspectors were informed that only registered dentists carried out the practical aspects of dental radiological procedures. However, inspectors found that evidence of who had carried out each individual dental exposure was not available for all



individual dental exposures that were reviewed as part of this inspection at Dublin Dentist Clinic (Dublin 1).

A sample of records of internal referrals for dental exposures were reviewed on inspection. From a review of records of dental exposures on the day of inspection, inspectors found that evidence was not always available to demonstrate that a person entitled to act as a referrer and or the practitioner were involved in the justification process for individual dental exposures. As a result, inspectors were not satisfied that the referrer or a practitioner were involved in the justification process for all dental exposures carried out at Dublin Dentist Clinic (Dublin 1). For example, inspectors found that a referral in writing from a referrer was not available for all dental radiological procedures. Similarly, information about the reason for the request or any other medical data was not available for all dental radiological procedures. In situations where a written referral was available, information about the external individual who had referred the patient for the dental radiological procedure was also not available for all dental exposures.

Since the last inspection, the undertaking had put measures in place to ensure the continuity of MPE involvement and contribution to the optimisation of dental exposures. However, inspectors found that while an MPE had put forward recommendations for the optimisation of exposures these had not yet been acted on by the undertaking. Additionally, inspectors were not assured that practitioners were involved in the optimisation process for all dental exposures carried out at Dublin Dentist Clinic (Dublin 1).

Judgment: Not Compliant

### Regulation 11: Diagnostic reference levels

Inspectors reviewed documentation and records and found that no evidence was available to demonstrate that DRLs were used by practitioners working at the practice. However, inspectors did find that the MPE had reviewed DRLs at the practice as part of the recent QA review of equipment.

While the local facility DRL established for the CBCT procedure had decreased since the last inspection and was now more aligned with the national DRL, it still exceeded the national DRL. The local facility DRL established for the OPG procedure had not changed since the last inspection and still exceeded the national DRL at the time of this inspection.

Despite this finding being identified to the undertaking as part of the inspection in January 2023, no review of patient doses to ensure that all dental radiological imaging was optimised, to ensure the protection and safety of patients, had been carried out as required by the regulations.

Judgment: Not Compliant

### Regulation 13: Procedures

On the day of inspection the manufacturer's manual had been printed off for use for the 3D OPG/CBCT equipment, however, no written protocols were available for intra-oral exposures. Therefore, inspectors found that written protocols for all dental exposures for each type of dental radiological procedure at Dublin Dentist Clinic (Dublin 1) had not been established. Written protocols are important as they can provide assurance that dental radiological procedures are carried out in a consistent and safe manner at the practice.

In addition, where a record of the clinical evaluation of the outcome by a dentist was available for a dental radiological procedure reviewed by inspectors, information relating to patient exposure was not included on this report as required by this regulation.

Judgment: Not Compliant

### Regulation 14: Equipment

Inspectors spoke with the MPE and management at Dublin Dentist Clinic (Dublin 1) on the day of inspection about the equipment. Inspectors also requested all documentation and records relating to the dental radiological equipment at the practice.

While MPE QA testing had recently been completed, the undertaking had not taken steps to implement a QA programme as recommended by the MPE. Therefore, inspectors were not satisfied that Dublin Dentist LTD had ensured that dental radiological equipment at Dublin Dentist Clinic (Dublin 1) was kept under strict surveillance regarding radiation protection. For example, inspectors found that a programme of assessment of dose had not been established or implemented at the practice by Dublin Dentist LTD. Similarly, the inspectors also found that dental radiological equipment at the practice had not been serviced for preventative and maintenance purposes and that no schedule for such services was in place at the time of inspection. To ensure that all dental radiological equipment is maintained in good working condition, regular preventative maintenance and servicing should be carried out in line with best practice guidelines.

Judgment: Not Compliant

## Regulation 19: Recognition of medical physics experts

Inspectors spoke with management at Dublin Dentist Clinic (Dublin 1) and the MPE as part of this inspection. Documentation and other records were also reviewed. Inspectors were satisfied that, on the day of inspection, Dublin Dentist LTD had taken steps to ensure the continuity of medical physics expertise at the practice.

Judgment: Compliant

## Regulation 20: Responsibilities of medical physics experts

Inspectors spoke with management and the MPE and reviewed documentation and found that Dublin Dentist LTD had engaged an MPE to act and give specialist advice on matters relating to radiation physics. On the day of inspection, inspectors were satisfied that an MPE had taken responsibility for dosimetry and contributed to optimisation at the practice. Inspectors also found that the MPE had provided advice regarding dental radiological equipment to Dublin Dentist LTD, including contributing to the definition and performance of QA of the radiological equipment at Dublin Dentist Clinic (Dublin 1).

However, it is essential that where specialist advice is provided by an MPE, the undertaking should consider and act, as appropriate, to ensure the safe delivery of dental radiological procedures for service users attending the practice.

Judgment: Compliant

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

As detailed in regulation 19 and 20, inspectors found that Dublin Dentist LTD had now engaged an MPE to act and give specialist advice on matters relating to the radiation protection of patients and other service users.

Judgment: Compliant

## Regulation 22: Education, information and training in field of medical exposure

In order to be compliant with Regulation 22, Dublin Dentist LTD must ensure that practitioners who take clinical responsibility for CBCT have completed training, as

prescribed by the Dental Council, and successful completion of such training must be documented and recorded.

On the day of inspection, inspectors found that Dublin Dentist LTD had not ensured that staff involved in the conduct of CBCT procedures had successfully undertaken or completed training as prescribed by the Dental Council. Records of training in CBCT evidencing compliance with Regulation 22 for the dentists working at the practice were requested but none were provided to the inspectors for review. Inspectors were also informed that dentists working at the practice had not completed training as required.

Consequently, inspectors found that the undertaking had not ensured that individuals taking clinical responsibility for CBCT exposures at Dublin Dentist Clinic (Dublin 1) had successfully completed training as prescribed by the Dental Council.

Judgment: Not 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
<b>Summary of findings</b>	
Regulation 6: Undertaking	Not Compliant
Regulation 8: Justification of medical exposures	Not Compliant
Regulation 9: Optimisation	Not Compliant
Regulation 10: Responsibilities	Not Compliant
Regulation 11: Diagnostic reference levels	Not Compliant
Regulation 13: Procedures	Not Compliant
Regulation 14: Equipment	Not 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
Regulation 22: Education, information and training in field of medical exposure	Not Compliant

# Compliance Plan for Dublin Dentist Clinic (Dublin 1) OSV-0006115

Inspection ID: MON-0039216

Date of inspection: 07/03/2023

## Introduction and instruction

This document sets out the regulations where it has been assessed that the undertaking is not compliant with the European Union (Basic Safety Standards for Protection against Dangers Arising from Medical Exposure to Ionising Radiation) Regulations 2018 and 2019.

This document is divided into two sections:

Section 1 is the compliance plan. It outlines which regulations the undertaking must take action on to comply. In this section the undertaking must consider the overall regulation when responding and not just the individual non compliances as listed in section 2.

Section 2 is the list of all regulations where it has been assessed the undertaking is not compliant. Each regulation is risk assessed as to the impact of the non-compliance on the safety, health and welfare of service users.

A finding of:

- **Substantially compliant** - A judgment of substantially compliant means that the undertaking or other person has generally met the requirements of the regulation but some action is required to be fully compliant. This finding will have a risk rating of yellow which is low risk.
- **Not compliant** - A judgment of not compliant means the undertaking or other person has not complied with a regulation and considerable action is required to come into compliance. Continued non-compliance or where the non-compliance poses a significant risk to the safety, health and welfare of service users will be risk rated red (high risk) and the inspector will identify the date by which the undertaking must comply. Where the non-compliance does not pose a risk to the safety, health and welfare of service users, it is risk rated orange (moderate risk) and the undertaking must take action *within a reasonable timeframe* to come into compliance.

## Section 1

The undertaking is required to set out what action they have taken or intend to take to comply with the regulation in order to bring the medical radiological installation back into compliance. The plan should be **SMART** in nature. **S**pecific to that regulation, **M**easurable so that they can monitor progress, **A**chievable and **R**ealistic, and **T**ime bound. The response must consider the details and risk rating of each regulation set out in section 2 when making the response. It is the undertaking's responsibility to ensure they implement the actions within the timeframe.

### Compliance plan undertaking response:

Regulation Heading	Judgment
Regulation 6: Undertaking	Not Compliant
<p>Outline how you are going to come into compliance with Regulation 6: Undertaking:            : I have created protocol document for all practitioners, this is displayed on the wall in the dedicated X Ray room. I have appointed a radiology officer in the clinic to oversee and ensure we are compliant at all times. All practitioners have been taken through the protocols in relation to referrals and the justification and other elements of clinical responsibilities for the radiological procedures. All practitioners attended training Dental Radiology; Patient and Staff Radiation safety. The master training document with all practitioner and staff signatures attached. This training was provided by MPE. A copy of the training is attached to this document.</p>	
Regulation 8: Justification of medical exposures	Not Compliant
<p>Outline how you are going to come into compliance with Regulation 8: Justification of medical exposures:            Practitioners only to carry out medical exposures given the procedure is justified. All referrals internal and external to be supported by patient medical data. All practitioners have been briefed on the protocols. This function will be overseen by our radiology inspector. All dosages to be both recorded on log book in the designated X ray room, clinical cards. All external referrals to be carried out by the radiology officer, these will also be investigated prior to the procedure take place. A hard copy of all written referrals internal and external with justification will be filed.</p>	

Regulation 9: Optimisation	Not Compliant
<p>Outline how you are going to come into compliance with Regulation 9: Optimisation:  I can assure you all doses are now recorded on the manual copy; also each patient dosage is recorded on clinical card. DRL levels tested by the MPE, the default values have been set by the practice. All patient doses assessed and evaluated by the practitioner and also overseen by the radiology officer.</p>	
Regulation 10: Responsibilities	Not Compliant
<p>Outline how you are going to come into compliance with Regulation 10: Responsibilities:  All external referrals to be supported by the relevant medical data to ensure justification of each procedure. The Practitioner to record both electronically and hard copy the dosage of each X Ray. All external referrals will be filed available upon request for inspection.</p>	
Regulation 11: Diagnostic reference levels	Not Compliant
<p>Outline how you are going to come into compliance with Regulation 11: Diagnostic reference levels:  DRL levels tested by the MPE are compliant with national levels. We also have training with the vendor whom supplied the equipment, we are awaiting the date for this to be scheduled. When installed the dosages were pre-set, this dosage was above the national levels therefore we have worked to get this down in line with the national level.</p>	
Regulation 13: Procedures	Not Compliant
<p>Outline how you are going to come into compliance with Regulation 13: Procedures:  Written protocols are now displayed in the dedicated X Ray room. All Practitioners have signed these protocols are now aware of the procedures.</p>	



Regulation 14: Equipment	Not Compliant
<p>Outline how you are going to come into compliance with Regulation 14: Equipment: MPE performed testing on all radiology equipment, is satisfied that it was functioning safely and efficient. All practitioners record the dosages on both hard copy and clinical cards, these are been monitored by our radiology officer. We are waiting a date which we will have by 30/04/2023 for the XXX engineer, this is the vendor in which we purchased the equipment to visit the site. Once this visit has happened I will update you accordingly. We are going to purchase the cone-beam quart phantom to test the equipment regularly. Before each use we will check the exposure and image quality.</p>	
Regulation 22: Education, information and training in field of medical exposure	Not Compliant
<p>Outline how you are going to come into compliance with Regulation 22: Education, information and training in field of medical exposure:  A formal relationship has been re-established with the MPE, this will be maintained going forward. All practitioners attended training Dental Radiology; Patient and Staff Radiation safety. The master training document with all practitioner and staff signatures attached. This training was provided by MPE. We have nominated a practitioner to attend the CBCT master class training course level 1 &amp; 2 on the 13th April 2023, this date was rescheduled to the 20th May. We are also waiting on another date to send a 2nd practitioner on the same CBCT training. I can confirm only these 2 practitioners will be responsible for the CBCT procedures.</p>	

## Section 2:

### Regulations to be complied with

The undertaking and designated manager must consider the details and risk rating of the following regulations when completing the compliance plan in section 1. Where a regulation has been risk rated red (high risk) the inspector has set out the date by which the undertaking and designated manager must comply. Where a regulation has been risk rated yellow (low risk) or orange (moderate risk) the undertaking must include a date (DD Month YY) of when they will be compliant.

The undertaking has failed to comply with the following regulation(s).

Regulation	Regulatory requirement	Judgment	Risk rating	Date to be complied with
Regulation 6(3)	An undertaking shall provide for a clear allocation of responsibilities for the protection of patients, asymptomatic individuals, carers and comforters, and volunteers in medical or biomedical research from medical exposure to ionising radiation, and shall provide evidence of such allocation to the Authority on request, in such form and manner as may be prescribed by the Authority from time to time.	Not Compliant	Red	30/06/2023
Regulation 8(1)(a)	A person shall not carry out a medical exposure unless it shows a sufficient net benefit, weighing the total potential diagnostic or	Not Compliant	Red	30/04/2023

	therapeutic benefits it produces, including the direct benefits to health of an individual and the benefits to society, against the individual detriment that the exposure might cause, and			
Regulation 8(1)(b)	A person shall not carry out a medical exposure unless it takes into account the efficacy, benefits and risks of available alternative techniques having the same objective but involving no or less exposure to ionising radiation.	Not Compliant	Red	30/04/2023
Regulation 8(8)	An undertaking shall ensure that all individual medical exposures carried out on its behalf are justified in advance, taking into account the specific objectives of the exposure and the characteristics of the individual involved.	Not Compliant	Red	30/04/2023
Regulation 8(10)(a)	A referrer shall not refer an individual to a practitioner for a medical radiological procedure unless the referral is in writing,	Not Compliant	Red	30/04/2023
Regulation 8(10)(b)	A referrer shall not refer an individual	Not Compliant	Red	30/04/2023

	to a practitioner for a medical radiological procedure unless the referral states the reason for requesting the particular procedure, and			
Regulation 8(10)(c)	A referrer shall not refer an individual to a practitioner for a medical radiological procedure unless the referral is accompanied by sufficient medical data to enable the practitioner to carry out a justification assessment in accordance with paragraph (1).	Not Compliant	Red	30/04/2023
Regulation 8(11)	A practitioner carrying out a medical radiological procedure on foot of a referral shall, having taken into account any medical data provided by the referrer under paragraph (10)(c), satisfy himself or herself that the procedure as prescribed in the referral is justified.	Not Compliant	Red	30/04/2023
Regulation 8(15)	An undertaking shall retain records evidencing compliance with this Regulation for a period of five years from the	Not Compliant	Orange	30/04/2023

	date of the medical exposure, and shall provide such records to the Authority on request.			
Regulation 9(1)	An undertaking shall ensure that all doses due to medical exposure for radiodiagnostic, interventional radiology, planning, guiding and verification purposes are kept as low as reasonably achievable consistent with obtaining the required medical information, taking into account economic and societal factors.	Not Compliant	Red	30/06/2023
Regulation 9(4)	An undertaking shall ensure that optimisation under this Regulation includes the selection of equipment, the consistent production of adequate diagnostic information or therapeutic outcomes, the practical aspects of medical radiological procedures, quality assurance, and the assessment and evaluation of patient doses or the verification of	Not Compliant	Red	30/06/2023

	administered activities taking into account economic and societal factors.			
Regulation 10(1)	An undertaking shall ensure that all medical exposures take place under the clinical responsibility of a practitioner.	Not Compliant	Red	30/06/2023
Regulation 10(2)(a)	An undertaking shall ensure that the optimisation process for all medical exposures involves the practitioner,	Not Compliant	Red	30/06/2023
Regulation 10(3)(a)	An undertaking shall ensure that the justification process of individual medical exposures involves the practitioner, and	Not Compliant	Red	30/06/2023
Regulation 10(3)(b)	An undertaking shall ensure that the justification process of individual medical exposures involves the referrer.	Not Compliant	Red	30/06/2023
Regulation 11(5)	An undertaking shall ensure that diagnostic reference levels for radiodiagnostic examinations, and where appropriate for interventional radiology procedures, are established, regularly reviewed and used, having regard to the	Not Compliant	Orange	30/04/2023

	national diagnostic reference levels established under paragraph (1) where available.			
Regulation 11(6)	An undertaking shall ensure that appropriate reviews are carried out to determine whether the optimisation of protection and safety for patients is adequate, where for a given examination or procedure typical doses or activities consistently exceed the relevant diagnostic reference level, and shall ensure that appropriate corrective action is taken without undue delay.	Not Compliant	Red	30/06/2023
Regulation 13(1)	An undertaking shall ensure that written protocols for every type of standard medical radiological procedure are established for each type of equipment for relevant categories of patients.	Not Compliant	Orange	25/03/2023
Regulation 13(2)	An undertaking shall ensure that information relating to patient exposure forms part of the report of the medical radiological procedure.	Not Compliant	Orange	30/04/2023

Regulation 14(1)	An undertaking shall ensure that all medical radiological equipment in use by it is kept under strict surveillance regarding radiation protection.	Not Compliant	Red	30/06/2023
Regulation 14(2)(a)	An undertaking shall implement and maintain appropriate quality assurance programmes, and	Not Compliant	Orange	30/06/2023
Regulation 14(2)(b)	An undertaking shall implement and maintain appropriate programmes of assessment of dose or verification of administered activity.	Not Compliant	Red	30/06/2023
Regulation 14(3)(b)	An undertaking shall carry out the following testing on its medical radiological equipment, performance testing on a regular basis and after any maintenance procedure liable to affect the equipment's performance.	Not Compliant	Orange	31/05/2023
Regulation 22(1)(a)	Subject to paragraph (2), an undertaking shall ensure that practitioners have adequate education, information and theoretical and practical training	Not Compliant	Red	30/06/2023



	for that purpose, as well as relevant competence in radiation protection, in accordance with the provisions of this Regulation.			
Regulation 22(3)	Subject to paragraph (4), the persons referred to in paragraph (1) must have successfully completed training, including theoretical knowledge and practical experience, in medical radiological practices and radiation protection— (a) prescribed by the Dental Council, (b) prescribed by the Irish College of Physicists in Medicine, (c) prescribed by the Nursing and Midwifery Board of Ireland, (d) prescribed by a training body approved by the Medical Council having the relevant expertise in medical ionising radiation to provide such course, or (e) approved by the Radiographers Registration Board under Part 5 of the	Not Compliant	Red	30/06/2023

	Health and Social Care Professionals Act 2005, as appropriate, having regard to the European Commission's Guidelines on Radiation Protection Education and Training of Medical Professionals in the European Union (Radiation Protection No. 175).			
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