

PROFESSIONAL
STANDARDS
NURSING

Draft Nurse Authority to Refer for Medical Ionising Radiation Procedures

Standards and Requirements

Second Edition (2019)



Bord Altranais agus
Cnáimhseachais na hÉireann
Nursing and Midwifery
Board of Ireland

Nurse Authority to Refer for Medical Ionising Radiation Procedures

Standards and Requirements

2019

Second Edition

These standards and requirements replace those originally published in February 2008 *Requirements and Standards for Nurse Education Programmes for Authority to Prescribe Ionising Radiation (X-Ray)* (First Edition).

About NMBI

The Nursing and Midwifery Board of Ireland (NMBI) is the independent, statutory body which regulates the nursing and midwifery professions in Ireland. For more information about our role and functions, visit www.NMBI.ie/What-We-Do.

Governance

This education programme is governed by the Nurses and Midwives Act 2011 and by the Nurses and Midwives (Education and Training) Rules 2018. For more information on the act, and on the Nurses and Midwives Rules, visit the 'What we do/Legislation' section of NMBI's website, www.NMBI.ie.

Approval of education providers (EPs)/higher education institutions (HEIs) and associated health care providers (AHCPs)

Details of approval of EPs/HEIs and AHCPs for provision of such education programmes are published on our website. For more information, visit www.NMBI.ie/Education/Higher-Education-Institutions.

Glossary

A full glossary of all the terms used in this and other NMBI publications are published on our website at www.nmbi.ie/Standards-Guidance/Glossary.

Contents

Preface	3
Introduction	5
Section 1 Extracts from the Nurses and Midwives (Education and Training) Rules 2018	7
1.1 Definition (Rule 3)	7
1.2 Applications for approval of programmes (Rule 9)	7
1.3 Annual reports (Rule 10).....	8
1.4 Review and monitoring of programmes (Rule 11)	8
1.5 Entry requirements	10
Section 2 Standards and Requirements for Nurse Education Programmes for Nurse Authority to Refer Persons for Medical Ionising Radiation Procedures.....	12
2.1 Learning outcomes.....	12
2.2 Competences, performance criteria and indicators (Domains of Competence).....	14
Domain 1: Professional values and conduct of the nurse competences	15
Domain 2: Nursing practice and clinical decision-making competences	16
Domain 3: Knowledge and cognitive competences	18
Domain 4: Communication and interpersonal competences.....	19
Domain 5: Management and team competences	20
Domain 6: Leadership potential and professional scholarship competences.....	21
2.3 Syllabus/indicative content	22
Required knowledge, skills and competencies	23
Professional accountability and responsibility	25
Legal and ethical aspects.....	25
Medical ionising radiation.....	25
Principles of the referral process for medical ionising radiation procedures	25
Collaboration/referral with other health care professionals	25
2.4 Theoretical and clinical instruction	27
Essential requirements	27
2.5 The scope of referral practice	29
Section 3 The Approval Process	32
3.1 The approval process	32
3.2 Approval of programmes/units of learning	32
3.3 General provisions regarding the process of approval	33
References	35

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Preface

The role of the Nursing and Midwifery Board of Ireland (NMBI) is to promote high standards of professional education, training and practice, and professional conduct among nurses as determined by the Nurses and Midwives Act 2011. The continuous change in societal needs requires professional development and health care reform to meet a person's needs and expectations. NMBI maintains that an expansion of practice by nurses and midwives should take place with the person's best interest foremost and in the interest of promoting and maintaining the best quality health services for the population.

The legislation was introduced in June 2007 which amended the definition of 'prescribers' of medical ionising radiation to include registered nurses. In 2018 the European Council Directive 2013/59/Euratom, laying down basic safety standards for protection against the dangers arising from exposure to medical ionising radiation, was transposed into Irish law by two separate statutory instruments (see Figure 1: The Legislative Framework for Radiation Protection).

The first statutory instrument (SI) is SI 256 of 2018, European Union (Basic Safety Standards for Protection Against Dangers Arising from Medical Exposure to Ionising Radiation) Regulations 2018 relating to medical exposures of ionising radiation. It replaces SI 478 and all its amendments including SI 303 and stipulates the definitions and conditions for medical ionising radiation, including the definition of prescriber now being changed to 'referrers'.

SI 256 of 2018 stipulates that:

4. (1) A person shall not refer an individual for medical radiological procedures to a practitioner unless the person referring ("the referrer") is—
 - (a) a registered nurse or registered midwife within the meaning of the Nurses and Midwives Act 2011 (No. 41 of 2011) who meets the standards and requirements set down from time to time by the Nursing and Midwifery Board of Ireland in relation to the prescribing of medical ionising radiation by nurses or midwives

The second statutory instrument is SI 30 of 2019. It replaces SI 125 and lays down basic safety standards for protection against the dangers arising from exposure to ionising radiation; it establishes a framework for the responsible and safe management of spent fuel and radioactive waste.

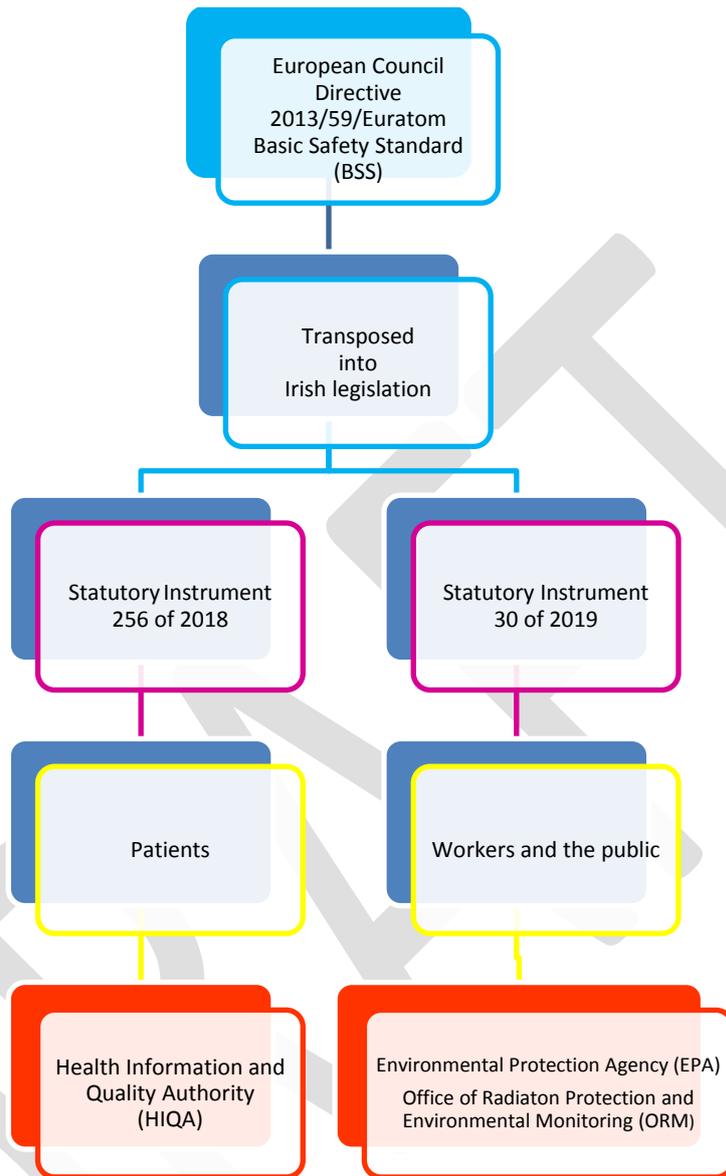


Figure 1 The Legislative Framework for Radiation Protection

Under SI 256 of 2018, the Health Information and Quality Authority (HIQA) is the competent and regulatory authority for medical ionising radiation. The Office of Radiation Protection and Environmental Monitoring (ORM), which is part of the Environmental Protection Agency (EPA), is responsible for workers and the general public. HIQA will inspect the manner in which persons are exposed to medical ionising radiation, for example, the appropriateness of the referral and any significant events involving accidental and unintended exposure to a person.

Introduction

The purpose of this document is to provide guidance for developing a flexible, innovative and practice-oriented nurse education programme for nurse authority to refer patients/service users, both adults and children (hereafter known as persons) for medical ionising radiation procedures. The nurse education programme must be at a minimum Level 8 in the National Framework of Qualifications (2003).

The standards and requirements outlined in this document apply to education providers (EPs) and higher education institutions (HEIs) and their associated health care providers (AHCPs) to inform the development, delivery and evaluation of nurse educational programmes for nurse authority to refer persons for medical ionising radiation procedures.

It is expected that all EPs, HEIs and AHCPs involved in the development and provision of the nurse education programmes ensure that nurses at the point of qualification are competent and confident in referring for medical ionising radiation procedures.

NMBI supports and recognises that the delivery of nurse education programmes for nurse authority to refer persons for medical ionising radiation procedures requires interprofessional input and collaboration. These standards and requirements also apply to midwives who undertake an education programme for nurse authority to refer persons for medical ionising radiation procedures, i.e. midwives working in neonatal and special care baby units. The interests of no single professional group should dominate interprofessional education initiatives, and such initiatives should be planned in a collaborative manner. Interprofessional education as part of the educational approach to deliver nurse education programmes for nurse authority to refer persons for medical ionising radiation procedures should occur in a way that supports the personal identity, development and unique perspective of the nurse in their scope of practice (NMBI 2015).

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Section 1 Extracts from the Nurses and Midwives (Education and Training) Rules 2018.

This section provides extracts from the relevant rules of the Nurses and Midwives (Education and Training) Rules 2018 for the guidance of the education and health care providers involved in the provision of post registration education programmes. These extracts guided and informed the development of this document.

1.1 Definition (Rule 3)

3. In these rules—

“Act” means the Nurses and Midwives Act 2011 (No. 41 of 2011);

“standards and requirements” means the standards and requirements set out in—

(a) the standards, set and published by the Board pursuant to section 85(1) of the Act, of nursing and midwifery education and training for first-time registration and post-registration specialist nursing and midwifery qualifications, and

(b) the guidelines, prepared by the Board pursuant to section 85(2)(b) of the Act, on curriculum issues and content to be included in education and training programmes approved by the Board

1.2 Applications for approval of programmes (Rule 9)

9. (1) An application by a body seeking approval from the Board under section 85(2)(a) of the Act to deliver education and training programme shall be in such form and manner as may be prescribed by the Board from time to time and shall—

(a) satisfy the Board that the programme will comply with the relevant standards and requirements,

(b) set out minimum governance requirements relating to the delivery of the programme, including long-term commitment, staffing, premises, facilities, funding, policies, procedures and organisational structures,

(c) incorporate an indicative syllabus that is responsive to current healthcare needs, and

(d) have regard to the National Framework of Qualifications kept and maintained in accordance with section 43 of the Qualifications and Quality Assurance (Education and Training) Act 2012 (No. 28 of 2012).

9. (2) In considering an application under paragraph (1), the Board shall confirm the accuracy of the information provided and may give notice in writing to the body requesting it to provide further information in support of its application.

9. (3) The Board may arrange a visit to a body which applies for approval under paragraph (1) and any associated healthcare provider for the purpose of ensuring compliance with the standards and requirements.

9. (4) Having considered an application under paragraph (1), and consulted with the Minister for Education and Skills, the Board shall—

(a) refuse approval,

(b) grant approval, or

(c) grant approval with such conditions as may be relevant and necessary.

9. (5) On approval, including approval with conditions, of a programme under this Rule, the Board shall publish a notice to that effect on its website.

1.3 Annual reports (Rule 10)

10. (1) A body granted approval under Rule 9 to deliver an education and training programme shall, on an annual basis, provide the Board with a report in such form and manner as may be prescribed by the Board, in relation to compliance of the programme with the standards and requirements, and any conditions that the Board may have imposed under Rule 9(4).

10. (2) A body granted approval under Rule 9 to deliver education and training programme shall notify the Board of any proposed material change to the programme.

1.4 Review and monitoring of programmes (Rule 11)

11. (1) Where the Board has granted approval for delivery of an education and training programme under Rule 9, it shall subsequently, and at intervals not exceeding five years, review whether the programme continues to conform with the standards and requirements, and any conditions that the Board may have imposed under Rule 9(4).

11. (2) Notwithstanding paragraph (1), the Board shall monitor adherence to the standards and requirements by education and training programmes granted approval under Rule 9, and any conditions that the Board may have imposed under Rule 9(4).

11. (3) Having carried out a review or monitoring of an education and training programme under this Rule, the Board may—

(a) continue to approve the programme,

(b) continue to approve the programme subject to compliance with specified conditions,

- (c) defer its decision on continued approval of the programme pending the resolution, to the satisfaction of the Board, of specified issues of concern arising, or
- (d) withdraw approval of the programme.

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1.5 Entry requirements

Minimum entry requirements for admission to nurse education programmes for nurse authority to refer persons for medical ionising radiation procedures

Students must be registered in a division of the NMBI Register.

- Students for the
Nurse Education Programme for Authority to Refer Adults and Children for Medical Ionising Radiation Procedures
must be registered as a nurse and/or a midwife in the NMBI Register.
- Students for the
Nurse Education Programme for Authority to Refer Adults for Medical Ionising Radiation Procedures
must be registered as a nurse and/or a midwife in the NMBI Register.
- Students for the
Nurse Education Programme for Authority to Refer Children for Medical Ionising Radiation Procedures
must be registered as a nurse and/or a children's nurse and/or midwife in the NMBI Register.

Students must have the equivalent of a minimum of one-year recent post-registration experience.

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Section 2 Standards and Requirements for Nurse Education Programmes for Nurse Authority to Refer Persons for Medical Ionising Radiation Procedures

The nurse education programmes for nurse authority to refer persons for medical ionising radiation procedures may not be delivered without prior approval by the NMBI.

These standards and requirements are intended to facilitate the development of nurse education programmes for nurse authority to refer persons for medical ionising radiation procedures.

Part 4 of SI 256 of 2018 stipulates that individuals, to whom the practical aspects of medical radiological procedures are delegated, have adequate education, information and theoretical and practical training for that purpose, as well as relevant competence in radiation protection.

Nurse referrers must have successfully completed training, including theoretical knowledge and practical experience, in medical radiological practices and radiation protection as prescribed by the NMBI having regard to the European Commission's Guidelines on Radiation Protection Education and Training of Medical Professionals in the European Union (EU) (Radiation Protection No. 175). In the Radiation Protection No. 175, there are specific requirements for all referrers of persons for medical ionising radiation which include the necessary knowledge, skills and competence.

Nurse referrers must undertake continuing education and training after qualification including the relevant radiation protection requirements. Documented evidence of this continuing professional development must be maintained for a period of five years by the nurse referrer and the health service provider.

2.1 Learning outcomes

The purpose of the education programme is to ensure that upon successful completion the nurse is equipped with the knowledge, skills and competence to refer persons for medical ionising radiation procedures safely and appropriately within their scope of practice.

The education programme enables the nurse to:

- demonstrate a systematic understanding of the regulatory framework associated with nurse authority to refer persons for medical ionising radiation procedures, including the legislation and professional guidelines, supporting safe practice
- critically utilise evidence-based knowledge and skill in conducting a person's assessment and consultation to achieve a holistic approach to a person's care when referring for medical ionising radiation procedures
- apply clinical decision-making skills in relation to referring persons for medical ionising radiation procedures within their scope of practice
- demonstrate an understanding of radiological sciences in relation to medical ionising radiation procedures and their implication on a person's safety

- demonstrate effective communication skills and knowledge of the role of the multidisciplinary team management involved in the safe and appropriate use of medical ionising radiation procedures
- demonstrate knowledge of sufficient levels of patient and practitioner safety.

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2.2 Competences, performance criteria and indicators (Domains of Competence)

Competences, performance criteria and indicators for authority to refer for medical ionising radiation procedures

Competence is a complex multidimensional phenomenon. It is defined as the ability of the registered nurse to practise safely and effectively, fulfilling their professional responsibility within their scope of practice (NMBI 2015).

All Domains of Competence represent the level that the nurse must achieve on completion of the education programme for nurse authority to refer persons for medical ionising radiation procedures.

The aim of the competency framework is to ensure that nurses acquire the skills of critical analysis, problem-solving, decision-making and reflective skills and abilities essential to the art and science of nursing in this expanded role. Safe and effective practice requires a sound underpinning of theoretical knowledge that informs practice and is, in turn, informed by that practice. Within complex and changing health care environments, it is essential that practice is based on the best available evidence. This is reflected in the different performance criteria and indicators.

The Domains of Competence represent a broad enabling framework to facilitate the assessment of the nurse referring persons for medical ionising radiation procedures. Each domain consists of performance criteria and relevant indicators. For each indicator, critical elements should be developed at the local level by the partner institutions to reflect person and service need.

A team and partnership approach should be applied when assessing the student. The assessor will consult with professional colleagues in determining the student's competence. The education providers and the clinical practice sites will agree in relation to the assessment process. Students are deemed to be either competent or not competent. There are no ratings in the verification of competence. The achievement of competence is required for a nurse to refer a person for medical ionising radiation procedures.

Domain 1: Professional values and conduct of the nurse competences

Knowledge and appreciation of the virtues of caring, compassion, integrity, honesty, respect and empathy as a basis for upholding the professional values of nursing and identity as a nurse.

Practises safely

- Practises within the legislation and professional regulation and guidelines relevant to their scope of practice and care setting.
- Adheres to legislation, professional regulations and guidelines, and employing health care providers' policies, procedures and guidelines for authority to refer persons for medical ionising radiation procedures.

Practises compassionately

- Consistently supports the person across the life continuum through practice that is caring, kind, sensitive, holistic, impartial and non-judgemental.
- Demonstrates respect for the diversity, dignity, integrity and uniqueness of the person through a collaborative partnership that recognises their autonomy.

Practises professionally, responsibly and accountably

- Accepts personal accountability for referring a person for medical ionising radiation procedures, understanding the legal implications of doing so.
- Practises within the limits of own competence and takes measures to develop and maintain own competence.

Domain 2: Nursing practice and clinical decision-making competences

Knowledge and understanding of the principles of delivering safe and effective nursing care through the adoption of a systematic and problem-solving approach to developing and delivering a person-centred plan of care based on an explicit partnership with the person and family.

Assesses the person's nursing and health care needs

- Performs an assessment of the person encompassing history taking, physical examination and identification of health risk factors.
- Requests and evaluates relevant diagnostic tests and procedures to inform appropriate and safe referral of persons for medical ionising radiation procedures within their scope of practice.
- Analyses a sufficient net benefit, weighing the total potential diagnostic or therapeutic benefits the proposed procedure produces, including the direct benefits to the health of an individual and the benefits against the individual risk that the exposure might cause.
- Takes into account the efficacy, benefits and risks of available alternative diagnostic techniques having the same objectives but involving no or less exposure to medical ionising radiation.

Plans and prioritises person-centred nursing care (including selecting interventions based on best evidence and identification of desired goals with the person)

- Critically utilises assessment data with expert clinical decision-making skills to formulate a plan of care based on scientific rationale, evidence-based care and practice guidelines supporting the referral of persons for medical ionising radiation procedures.
- Involves person or carer as active participants in the decision-making process.
- Initiates appropriate and timely consultation and/or referral of persons when the problem exceeds the nurse's scope of practice and expertise.

Delivers person-centred nursing and clinical interventions, including health activities

- Obtains permission from and checks the understanding of the person prior to referring for medical ionising radiation procedures.
- Considers appropriate diagnostic and therapeutic interventions as part of the ongoing plan of care within the nurse's scope of practice.
- Provides guidance and advice regarding the agreed care/interventions to the person.
- Adheres to best principles for risk assessment and hazard minimisation and takes relevant actions to manage risks safely.
- Utilises information management technology safely to record personal data for clinical decision-making.

Evaluates nursing care and undertakes a comprehensive re-assessment

- Evaluates and provides an evidence-based rationale for the clinical decision and nursing intervention with regard to medical ionising radiation diagnostic modality choice or referral to a medical practitioner if applicable.
- Schedules appropriate follow-up care to monitor the person and evaluate the treatment.
- The referral must be in writing and state the reason for requesting the particular procedure and accompanied by sufficient medical data to enable the practitioner to carry out a justification assessment.

Utilises clinical judgement

- Recognises and responds to early warning signs of critical changes in a person's health status.
- Initiates life-preserving measures in response to critical changes in a person's health status or in emergency situations.
- Identifies when medical ionising radiation procedures may be contra-indicated and plans care accordingly.
- Identifies and integrates appropriate monitoring systems for medical ionising radiation procedures safety and efficacy.
- Applies the principles of evidence-based practice and cost-effectiveness when referring a person for medical ionising radiation procedures.

Domain 3: Knowledge and cognitive competences

Knowledge and understanding of the health continuum, life and behavioural sciences and their applied principles that underpin a competent knowledge base for nursing and health care practice.

Practises from a competent knowledge base

- Accepts personal responsibility for professional development and the maintenance of professional competence.
- Maintains current knowledge of advances in the scope of practice associated with the referral of persons for medical ionising radiation procedures.
- Applies current and relevant aspects of emerging legislation, research, national and international policies that influence the referral of persons for medical ionising radiation procedures.
- Applies knowledge and understanding of current and relevant aspects of principles of health information technology relevant to medical ionising radiation.

Uses critical thinking and reflection to inform practice

- Develops analytical skills for problem-solving, critical thinking, reasoning, evaluation, synthesis for application to practice situations and interventions.
- Develops personally and professionally through reflection to enhance resilience and clinical practice.

Domain 4: Communication and interpersonal competences

Knowledge, appreciation and development of empathic communication skills and techniques for effective interpersonal relationships with people and other professionals in health care settings.

Communicates in a person-centred manner

- Establishes and maintains caring therapeutic interpersonal relationships with the person for safe and effective referral of persons for medical ionising radiation procedures.
- Communicates in an effective, compassionate, age-appropriate, respectful, culturally sensitive and non-discriminatory manner with the person and their family.
- Empowers the person and their family to follow appropriate policies to express concerns about their experience of nursing and health procedures/interventions.

Communicates effectively with the health care team

- Identifies the roles and responsibilities of other health care professionals in the referral process of persons for medical ionising radiation procedures.
- Establishes relationships with other health care professionals based on understanding and mutual respect.
- Maintains comprehensive documentation and care plan within a legal and ethical framework.
- Participates in interdisciplinary team collaboration relating to the person's care plan.
- Establishes mechanisms for referral pathways and consultation regarding practice decisions including follow-up.
- Negotiates with other health care professionals to ensure that the rights, beliefs and wishes of the person are not compromised.
- Develops professional links with other health care professionals practising in the same specialist area.

Domain 5: Management and team competences

Using management and team competences in working for the person's wellbeing, recovery, independence and safety through the recognition of the collaborative partnership between the person, their family and their multidisciplinary health care team.

Practises collaboratively

- Works towards the person's wellbeing, recovery, independence and safety through a collaborative partnership between the person, their family and their multidisciplinary health care and social care team.
- Collaborates effectively with other health care disciplines and members of the nursing team and person's family in decision-making and for continuity of care.

Manages team, others and self safely

- Assesses priorities: manages time, caseload and resources safely and effectively.
- Participates in audit and quality improvement initiatives and processes within the health service setting.
- Contributes to the learning experiences of other colleagues through the provision of support, supervision and facilitation of learning.
- Complies with the requirements, policies, procedures and guidelines of the local health care providers for:
 - reporting referral errors/incidents and near misses
 - audit of referral patterns/practices.
- Demonstrates quality assurance and quality management in referring persons for medical ionising radiation procedures through a structure of audit and report.
- Integrates the principles of clinical risk management and health and safety in referring persons for medical ionising radiation procedures.
- Uses the outcomes of an audit of referral practices to improve service provision and develop own practice.

Domain 6: Leadership potential and professional scholarship competences

Developing professional scholarship through self-directed learning skills, critical questioning/reasoning skills and decision-making skills in nursing as the foundation for lifelong professional education, maintaining competency and career development.

Develops leadership potential

- Enhances the personal performance of professional role through constructive use of feedback, supervision and appraisal of referrals of persons for medical ionising radiation procedures.
- Reflects on and applies insights derived from aspects of daily clinical practise and critical incidents to enhance self-awareness and personal competence.

Develops professional scholarship

- Recognises and responds to situations that require referral to experienced colleagues, senior managers and other health care professionals.
- Learns from experience to adapt clinical interventions and to update competence in response to dynamically altering health environments.

2.3 Syllabus/indicative content

Nursing is an interpersonal caring process that acknowledges the uniqueness of the person. Students may enter this programme with a wide range of previous professional and educational experiences; these should be acknowledged and developed. The education programmes for nurse authority to refer persons for medical ionising radiation procedures contain the essential elements that facilitate the development of the professional knowledge, skills, attitudes and competencies necessary to meet the needs of a person within this area of practice expansion.

The list of topics included provides an indication of the content of the education programmes for nurse authority to refer persons for medical ionising radiation procedures. Curriculum planners will be required to demonstrate that the programmes are relevant and responsive to the most recent evidence, policy and legislative changes.

Requirements

Medical imaging using ionising radiation is increasing nationally due to technological advances and service requirements, specifically in computed tomography (CT) and positron emission tomography (PET/CT). Up to the end of the 1970s general X-ray (radiography) was the most common type of procedure requested by referrers. Now CT is the preferred imaging modality and delivers an increasingly large radiation dose from medical ionising radiation procedures.

Justification, which is the responsibility of the referrer and the practitioner, requires that the benefit for the person, from the medical ionising radiation procedure, must outweigh the radiation risk.

Referrers are generally skilled at deciding the benefits of the procedure but may not always consider sufficiently the radiation risks involved.

To meet the learning requirements for nurse referrers, it is expected that education programmes will include the following elements and develop these into a detailed curriculum. These elements will include the required knowledge, skills and competencies as set down in Radiation Protection 175 (Guidelines on Radiation Protection Education and Training of Medical Professionals in the European Union 2014).

Under SI 256 of 2018, an undertaking shall ensure that:

- all medical exposures take place under the clinical responsibility of a practitioner (10.1),
- the justification process of individual medical exposures involves(10.3)—
 - (a) the practitioner, and
 - (b) the referrer.

Required knowledge, skills and competencies

Knowledge

The knowledge must include the principles and facts required for nurse referrers:

- Explain the principle of justification and its application to person radiation safety.
- Explain how the justification process involves all personnel.
- Explain the joint responsibilities of the referrer and the practitioner in the justification process.
- List the diagnostic practices that are approved through national legislation.
- Explain why certain individuals are more susceptible to the harmful effects of ionising radiation, i.e. children or pregnant females.
- Discuss the principles governing the use of ionising radiation in females of childbearing age.
- List the approximate radiation doses for common diagnostic procedures.
- Explain why a person's clinical details and information from previous diagnostic procedures are important.
- Discuss the clinical situations where a procedure using non-ionising radiation is appropriate.
- Describe the referral criteria in nurse referrer's areas of practice.
- Discuss how to give a person information relating to benefits and risks in nurse referrers own area of practice.

Skills

The cognitive and practical skills required for nurse referrers:

- Apply the principle of justification to include carers.
- Explain the benefits and risks of particular procedures to specific persons.
- Communicate the radiation risks to persons at an understandable level.

Competencies

The competencies including the responsibilities and autonomy required for nurse referrers:

- Be able to take responsibility for justification of medical radiological procedures in accordance with National and European legislation including the standards and requirements of the NMBI.
- Provide necessary clinical information in the referral of persons for medical imaging.

- Advise in cases of inadvertent radiation exposure of a pregnant person.
- Act as a role model for colleagues to support the justification process.

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The sections into which the indicative content is organised should not be viewed as discrete; neither is the list of topics included in the syllabus exhaustive. The manner in which the content is interwoven and interlinked is individual to each programme. Access to interprofessional learning should be encouraged. Additional content should include:

Professional accountability and responsibility

- Critical review and self-audit
- Risk management

Legal and ethical aspects

- Legal liability and clinical indemnity for referring persons for medical ionising radiation procedures and expansion of the nursing practice
- Scope of Practice and the Code of Professional Conduct and Ethics
- Informed consent of the person for treatment

Medical ionising radiation

- Radiation physics
- Radiation biology
- Imaging modalities

Principles of the referral process for medical ionising radiation procedures

- Assessment of person – history and physical examination
- Consultation skills
- Writing and processing a medical ionising radiation procedure request form
- National and local health care provider's policies, procedures and guidelines for referring persons for medical ionising radiation procedures

Collaboration/referral with other health care professionals

Interpersonal and communication skills are necessary to foster collaborative relationships with allied health professionals to include:

- Role and function of other health care professionals involved in the process of referring persons, providing and/or interpreting medical ionising radiation procedures
- Interdisciplinary sharing of a person's medical records – documentation
- Scope of Practice

- Multidisciplinary clinical audit

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2.4 Theoretical and clinical instruction

This section presents the requirements for the nurse education programmes for nurse authority to refer persons for medical ionising radiation procedures. The education programmes are developed on the assumption that nurses are pursuing an expansion of practice beyond the point of initial registration.

The theoretical and clinical instructions are intended to be broad statements of principles that the education providers can apply in a dynamic and flexible manner to permit meaningful and appropriate programmes of education. The programmes may be provided as stand-alone units of learning or assigned academic credits that the student may transfer to a larger programme of study.

Essential requirements

Theoretical instruction shall be no less than 30 hours.

Clinical instruction shall be no fewer than 10 episodes of referral for medical ionising radiation procedures and a demonstration of competence.

- For the Adults Programme

At least 10 episodes of supervised practice and referral of adults for medical ionising radiation procedures should be undertaken. Final competency assessment must be undertaken with 100% with adults.

- For the Children Programme

At least 10 episodes of supervised practice and referral of children for medical ionising radiation procedures should be undertaken. Final competency assessment must be undertaken with 100% with children.

- For the Combined Adults and Children Programme

The episodes of supervised practice and referrals of adult and children for medical ionising radiation should be undertaken as follows:

- Equal exposure of supervised practice and referral episodes for medical ionising radiation 50% with adults and 50% with children.
- Final competency assessment must be undertaken with 50% with adults and 50% with children.

The nurse must be working in an area where the clinical practicum will occur. Clinical instruction must be delivered while undertaking the education programme. There must be confirmation from a medical practitioner for medical supervision of the nurse and an agreement to provide the required term of supervised practice. The methodology of the education providers/HEIs in partnership with AHCPs to support the nurse in the clinical practicum must be identified in the curriculum. Learning

outcomes/objectives to be achieved by the nurse in the clinical area must also be made explicit. This education programme should be completed within a six month period.

Practice placements should be of sufficient length of time to enable students to achieve the professional competence required. The curriculum should indicate how this will be facilitated within a minimum of six months.

Discretionary practice placement experiences may be selected based upon the identified needs of the students, the competencies to be achieved and current health care policy initiatives and developments.

The discretionary placements will be selected to enable the students to achieve the programme learning outcomes and develop the competencies essential to refer persons for medical ionising radiation procedures.

Following any interruption in the education programme, the education providers/HEIs in partnership with AHCPs must ensure that the students meet the theoretical and the clinical practice requirements.

2.5 The scope of referral practice

The NMBI Scope of Practice is the range of roles, functions, responsibilities and activities which a registered nurse or midwife is educated, trained and competent in and has authority to perform. The individual practitioner's scope of practice is determined by a range of factors that gives them the authority to perform a particular role or task (NMBI 2015; SI 256 of 2018).

The scope of referral for medical ionising radiation practice is determined by national legislation, national and local guidelines, education information and training, and the individual referrers' levels of competence.

These standards and requirements for education programmes for nurse authority to refer persons for medical ionising radiation (NMBI 2019) recognise that a registered nurse who has successfully completed an approved education programme and the necessary training in radiation protection can refer for medical ionising radiation procedures. When referring for a medical ionising radiation procedure, it is important that the nurse referrer considers their scope of practice, the person's care pathway and any local policies, procedures, protocols and/or guidelines relating to their role (HSE 2009).

The local clinical governance arrangements, to which local health care teams are accountable for the quality, safety and satisfaction of a person in the care they deliver, should have supporting structures in place for the nurse referrer with nurse authority to refer persons for medical ionising radiation procedures. The referring modalities are expanded in the legislation beyond digital radiography (plain film X-ray) to include other medical ionising radiation procedures (e.g. CT scan and mammography), non-medical ionising radiation procedures (e.g. MRI and Ultrasound), interventional radiology and nuclear medicine. The nurse can refer a person for non-ionising radiation modalities for diagnostic procedures once local policies, procedures, protocols and/or guidelines relating to their role for such referrals are in place.

The registered nurse with authority to refer a person for medical ionising radiation procedures, practising within their scope of practice, can make an independent decision and is professionally accountable for their own decision. It is understood that while the nurse is operating within their scope of practice to refer a person for medical ionising radiation procedures, it is the person's named consultant who holds ultimate responsibility for the person's care in a particular area of the hospital where the nurse functions as part of the multidisciplinary team (HSE 2009).

The person's named consultant assumes responsibility for treatment actions that may be necessary as a result of findings on radiographic procedures that the nurse may have requested. Prior to making a decision to refer a person for a medical ionising radiation procedure, the registered nurse with authority to refer *must be* satisfied that they are working within their scope of practice.

Therefore the nurse must:

- ensure they have successfully completed an NMBI-approved education programme
- ensure they are entered on the HSE National Database for Nurse and Midwife Referrers of Medical Ionising Radiation
- be familiar and comply with national legislation, regulation and HSE/local policies, procedures, protocols and/or guidelines for medical ionising radiation procedures

- refer to the Scope of Practice and remain within the parameters of the local policies, procedures, protocols and/or guidelines for nurse referral of persons for medical ionising radiation
- enter referral activity on the HSE National Database for Nurse and Midwife Referrers of Persons for Medical Ionising Radiation
- engage in the clinical audit of their referral practice
- participate in the evaluation of nurse referral practice
- undertake continuing professional development on an ongoing basis.

When considering their scope of practice, the nurse must also consider the *Code of Professional Conduct and Ethics for Registered Nurse and Registered Midwives (NMBI 2014)* which is part of the framework of professional guidance to registered nurses. Professional accountability, competency and the quality of professional practice are based on this framework supported by other guidelines and standards.

The purpose of the Code is to guide nurses and midwives in their day-to-day practice and help them to understand their professional responsibilities in caring for a person in a safe, ethical and effective way. All registered nurses in each area of practice should adhere to the Code's principles, values and standards of conduct. Every nurse has a responsibility to uphold the values of the profession to ensure their practice reflects high standards of professional practice and protects the public (NMBI 2016). Every nurse is responsible for their practice, actions and omissions.

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Section 3 The Approval Process

NMBI has a statutory responsibility to approve education providers/HEIs in respect of post registration nursing education programmes/units of learning. NMBI has developed processes and standards for the approval process for education providers/HEIs for the provision of post registration nursing education programmes.

3.1 The approval process

The approval process consists of two separate parts:

- Approval of the education provider/HEI – utilising appropriate internal and external quality assurance criteria as determined by the relevant awarding bodies and the standards and requirements of NMBI
- Approval of the post registration nursing education programmes.

The respective education provider/HEI must declare through a self-declaration audit of compliance that their programmes comply with the Post Registration Nursing and Midwifery Programmes Standards and Requirements (NMBI 2010).

Each education provider/HEI must establish a post registration educational committee or equivalent representative of the educational and health care provider stakeholders to oversee the post registration educational provision.

In respect of post registration nursing education programmes, NMBI will satisfy itself as to the suitability of the education providers'/HEIs' internal and external quality assurance mechanisms. Such mechanisms should reflect national and international best practice in terms of internal and external quality assurance structures and processes. NMBI reserves the right to conduct an audit in respect of education programmes submitted to it for approval.

3.2 Approval of programmes

All education programmes will be accredited by the relevant academic councils and the relevant awarding bodies. The education providers/HEIs will make a written submission to NMBI in the form of detailed programmes including evidence of its self-audit and compliance with the Post Registration Nursing and Midwifery Programmes Standards and Requirements (NMBI 2010).

The NMBI's Education, Training and Standards Committee will consider the approval of programmes. This committee includes representatives of the education providers (elected and nominated to the Board). Once approval has been granted, for a period of up to five years, it will be maintained through annual monitoring and review. An annual report which will include statistics on attrition, success rate and evaluation data incorporating the views of stakeholders including students is to be forwarded annually to NMBI.

3.3 General provisions regarding the process of approval

- The education providers/HEIs will submit programme curriculum and other documents to support their application six weeks prior to the committee meeting.
- Review by Professional Officer(s) and/or representatives of NMBI.
- Review by Education, Training and Standards Committee.
- A decision is made by the Education, Training and Standards Committee and the decision is reported to the Board of NMBI.
- Education provider/HEI is informed of the decision of the Education, Training and Standards Committee by the Director of Professional Standards (Nursing) or a designated Professional Officer of the Board.
- Approved programmes are placed on the Nursing Careers Website, <https://www.nmbi.ie/Careers-in-Nursing-Midwifery>.

The timescale for course submission and approval process will take cognisance of the meeting schedule of the NMBI's Education, Training and Standards Committee. The dates of the committee meeting will be made available to all education providers/HEIs and published on the NMBI website.

Notification of approval of the education programmes will be in writing from NMBI. Conditions and recommendations may be attached to the approval of programmes. These conditions and recommendations will include a timescale for response. After approval has been given, any subsequent changes within the education provider/HEI or in the education programmes that affect any aspect of the programmes must be notified in writing to NMBI.

The education provider/HEI when developing education programmes for nurse authority to refer persons for medical ionising radiation must comply with the standards and requirements outlined in this document and the stipulations of the Post Registration Nursing and Midwifery Programmes Standards and Requirements (NMBI 2010). This includes complying with the indicators and standards for the Approval of Educational Providers and Health Care Providers:

- The Approval of Education Providers and Health Care Providers
- The Programme's Design and Development (all indicators and including the following):
 - Award type and NFQ level of the programme
 - Awarding body accrediting the programme (e.g. QQI, NUI)
 - Letter of programme approval from the education provider's/HEI's Academic Council or equivalent
 - All programme learning outcomes are mapped to the Eight Standards for Nursing Post Registration and Education Programmes
 - All module learning outcomes are mapped to the Eight Standards for Nursing Post Registration and Education Programmes

- All assessments (theory and clinical) are mapped to the module learning outcomes
- Clinical Practice Experience (if appropriate to programmes/units of learning)
- Assessment Process
- External Examiners

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