

PROFESSIONAL
STANDARDS
NURSING

Nurse Authority
to Refer for Radiological
Procedures
Standards and
Requirements for
Education Programmes



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

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 healthcare 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.

Acknowledgement

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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 healthcare reform to meet a person's needs and expectations. The 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.

Legislation (Statutory Instruments (SI) 478) (European Communities (Medical Ionising Radiation) Regulation 2002) was introduced in 2002 and amended in 2007 by SI 303. Statutory Instruments 303 of 2007 in part 2 (d) allowed:

“a person whose name is entered on the register of nurses as maintained by An Bord Altranais established by the Nurses Act 1985 and who meets the standards and requirements set down by An Bord Altranais from time to time to allow them to refer individuals for medical exposures to a practitioner”

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: Legislative framework for radiation protection).

Statutory Instruments SI 256 of 2018, (with amendments SI 332 and SI 413 of 2019) European Union (Basic Safety Standards for Protection Against Dangers Arising from Medical Exposure to Ionising Radiation) Regulations 2018, relates to the medical exposures to 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 prescribers changed to 'referrers'.

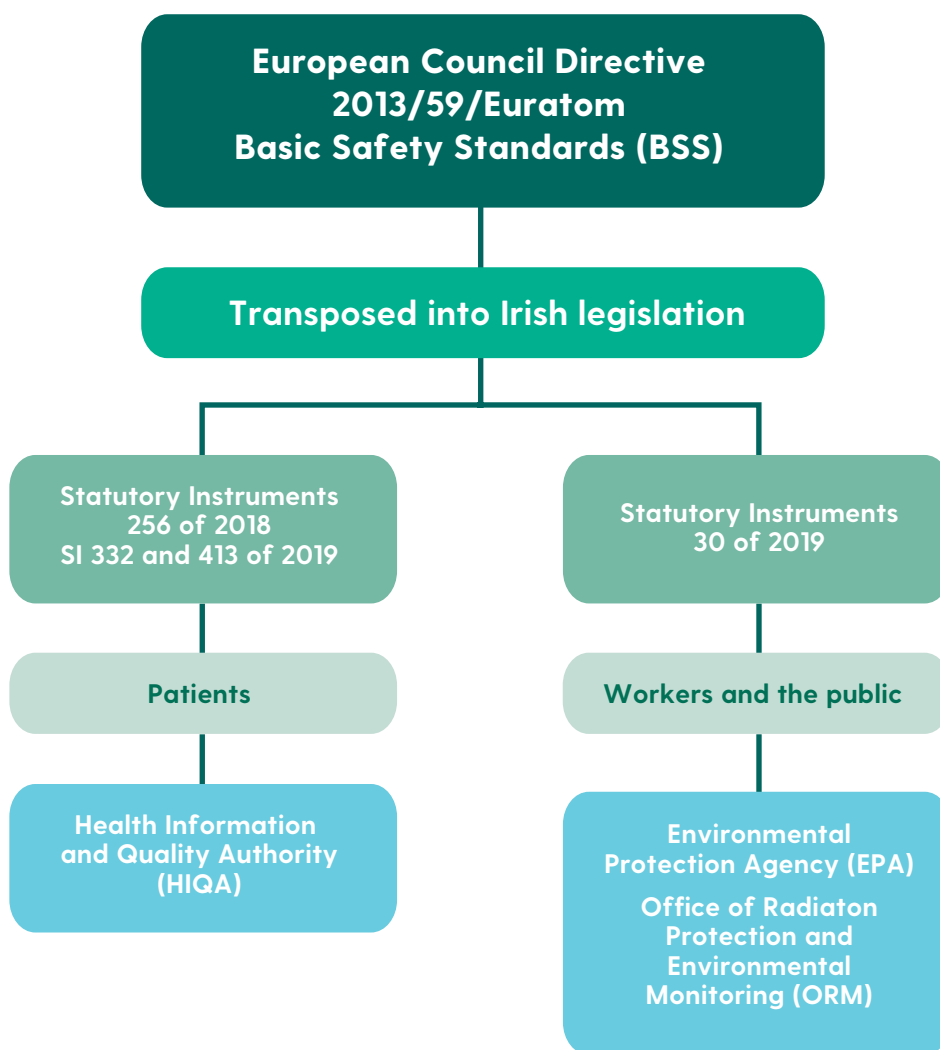
SI 256 of 2018 stipulates in Part 2 that:

“Referrers

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 ...”

Statutory Instruments 30 of 2019 replaces SI 125 laying down basic safety standards for the protection of workers and members of the public against the dangers arising from exposure to ionising radiation.

Figure 1: 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 procedures. The Office of Radiation Protection and Environmental Monitoring (ORM), an office of the Environmental Protection Agency (EPA), is responsible for workers and the general public. The Health Information and Quality Authority as the regulator is responsible for inspection and enforcement of the medical ionising radiation regulations.

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 radiological procedures. The nurse education programme must be in accordance with the National Framework of Qualifications (NFQ). On successful completion of the nurse referral education programme, it is expected that the nurse will independently and autonomously refer persons, following appropriate clinical assessment exercising clinical judgement and decision-making specific for the person.

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

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

The NMBI supports and recognises that the delivery of nurse referral education programmes for nurse authority to refer persons for medical radiological procedures requires interprofessional input and collaboration. 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 referral education programmes for nurse authority to refer persons for medical radiological 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).

Practical aspects of a medical radiological procedure

In the legislative amendment SI 413 of 2019 to SI 256 of 2018 it states:

“(4) Practical aspects of a medical radiological procedure may be delegated by–

(a) the undertaking, or

(b) the practitioner,

as appropriate, to one or more individuals–

...

(iii) registered by the Nursing and Midwifery Board of Ireland,

...

as appropriate, provided that such person has completed training in radiation safety prescribed or approved pursuant to Regulation 22(3) by the appropriate body.”

The Health Information and Quality Authority (HIQA) as the regulator will require examples of documents pre-inspection and during on-site inspections, information and records relating to medical exposures that have been carried out to identify:

- the individual carrying out the practical aspects of the exposure are trained and competent
- training records for individuals who are delegated the practical aspects of a medical radiological procedure
- the undertaking's records of each delegation of the practical aspects of a medical radiological procedure as made by the undertaking or the practitioner
- records of registration or recognition by the appropriate body for individuals who are delegated the practical aspects of a medical radiological procedure
- rotas and rosters for practitioners, referrers, those delegated the practical aspects of a medical radiological procedure.

Therefore, the undertaking is responsible to have systems in place to ensure that the responsibilities for medical exposures along the service-user pathway for medical exposure are allocated to appropriate persons as required by this regulation. The service-user pathway when undergoing a medical exposure involves referral, justification, optimisation, the practical conduct of the exposure and communication of the outcome (HIQA 2019).



01

**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 healthcare 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 an 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, protocols and/or guidelines 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.

1.5 Entry requirements

Minimum entry requirements for admission to nurse education programmes for nurse authority to refer persons for medical radiological procedures.

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

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

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



02

**Standards and
Requirements for Nurse
Education Programmes
for Nurse Authority
to Refer Persons for
Medical Radiological
Procedures**

The nurse education programmes for nurse authority to refer persons for medical radiological 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 radiological procedures.

Nurse referrers must have successfully completed training, including theoretical knowledge and clinical experience, in medical radiological procedures 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 (RP) No. 175). In the RP 175, there are specific requirements for all referrers of persons for medical radiological procedures which include the necessary knowledge, skills and competences.

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 and be available for inspection by the regulator.

2.1 Learning outcomes

The purpose of the education programme is to ensure that upon successful completion the nurse has the knowledge, skills and competence to refer persons for medical radiological and other imaging procedures safely, within their scope of practice.

The education programme enables the nurse to:

- 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 radiological procedures,
- Apply clinical decision-making skills in relation to referring persons for medical radiological and other imaging procedures within their scope of practice,
- Demonstrate a systematic understanding of the legislative and regulatory framework associated with nurse authority to refer persons for medical radiological procedures, including professional guidelines, supporting safe practice,
- Know the justification process,
- Demonstrate an understanding of medical radiological procedures and other imaging procedures and their implication in a person's safety,
- Understand the principles of radiation protection of the person and staff,
- Demonstrate effective communication skills and knowledge of the role of the multidisciplinary team management involved for the safe and appropriate use of medical radiological procedures and other imaging procedures,
- Understand the role of the practitioner in the referral process,
- Demonstrate knowledge of the person and practitioner safety.

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

Competences, performance criteria and indicators for authority to refer for medical radiological and other imaging 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).

The 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 radiological 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 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 healthcare 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 radiological procedures. Each domain consists of performance criteria and relevant indicators.

A team and partnership approach must be applied when assessing the student. The assessor will be responsible for determining the student's competence. The education providers and the clinical practice sites collaborate 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 radiological procedures.

Domain 1: Professional values and conduct of the nurses 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 for referral practice relevant to their scope of practice and care setting,
- Adheres to European and national legislation and the regulatory framework and professional regulations,
- Adheres to the health service providers' policies, procedures and/or guidelines for authority to refer persons for medical radiological procedures.

Practises compassionately

- Supports the person during the referral process, practising in a manner 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 during the referral process.

Practises professionally, responsibly and accountably

- Accepts personal accountability for referring a person for radiological procedures, understanding the legal and regulatory implications of doing so,
- Ensures the justification of all referrals in line with evidence-based practice,
- Practises within the limits of own scope of referral practice and competence and takes measures to develop and maintain 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 healthcare needs

- Performs an assessment of the person for referral, encompassing history taking, physical examination and identification of health risk factors,
- Requests and justifies the relevant radiological procedure, to inform the safe referral of persons, within their scope of referral practice,
- Justifies a 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 radiation risk exposure may cause,
- Takes into account the efficacy, benefits and risks of available alternative diagnostic techniques having the same objectives but not involving exposure to medical radiological and other imaging procedures.

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 radiological procedures,
- Involves the person and carer/comforter or intervener as active participants in the referral decision-making process,

- Informs the person and carer/comforter or intervener of the benefits versus the risks of the medical radiological procedure,
- Initiates appropriate and timely consultation with 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 consent from and checks the understanding of the person prior to referring for the radiological procedure,
- Considers appropriate diagnostic and therapeutic interventions as part of the ongoing plan of care within the nurse's scope of referral practice,
- Provides guidance and advice regarding the agreed referral and care/ interventions for 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 all clinical decision-making including referrals.

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 the diagnostic modality or referral to a medical practitioner,
- Schedules appropriate follow-up care for the results of the procedure, to monitor the person and evaluate any treatment provided,
- The referral must be in writing and state the reason for requesting the particular procedure, accompanied by relevant clinical details as part of the justification process.

Utilises clinical judgement

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

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 healthcare practice.

Practises from a competent knowledge base

- Accepts personal responsibility for professional development and the maintenance of professional competence including referral practice,
- Is aware of and maintains knowledge of advances in the scope of referral practice,
- Applies current and relevant aspects of legislation, regulation, research, and national and international policies that influence the referral of persons for radiological procedures,
- Applies knowledge and understanding of current and relevant aspects of principles of health information technology.

Uses critical thinking and reflection to inform practice

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

Communicates in a person-centred manner

- Establishes and maintains caring therapeutic interpersonal relationships for safe and effective referral of persons,
- Communicates in an effective, compassionate, age-appropriate, respectful, culturally sensitive and non-discriminatory manner with the person for referral and their family as appropriate,
- Communicate effectively in a balance way the benefits and risk of a referral for a medical ionising procedure,
- Empowers the person for referral and their family as appropriate to express concerns about their experience of nursing, procedures and interventions.

Communicates effectively with the healthcare team

- Identifies the roles and responsibilities of other healthcare professionals in the referral process,
- Establishes relationships with other healthcare professionals involved in the referral process based on understanding and mutual respect,

- Participates in interdisciplinary team collaboration relating to the person's care plan,
- Negotiates with other healthcare professionals to ensure that the rights, beliefs and wishes of the person are not compromised,
- Develops professional links with other healthcare professionals practising in the same specialist area,
- Establishes mechanisms for referral pathways and consultation regarding practice decisions including follow-up,
- Maintains comprehensive documentation and plans care including the referral process within a legal and ethical framework.

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 healthcare team.

Practises collaboratively

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

Manages team, others and self safely

- Assesses priorities, manages time, caseload and resources safely and effectively including the referral process for radiological procedures,
- Participates in referral practice audits and quality improvement initiatives and processes for referrals within the health service setting,
- Shares the findings of the audit of referral practice with other healthcare disciplines and members of the nursing team as per the local health service provider's governance structures,
- Integrates the principles of clinical risk management and health and safety in the referral process,
- Complies with the requirements, policies, procedures and guidelines of the local health service providers for example:
 - » open disclosure,
 - » reporting referral errors/incidents and near misses,
 - » audit of referral patterns/practices,
 - » data protection.
- Demonstrates quality assurance and quality management in the referral process, through a structure of audit and report,

- Uses the outcomes of the audit of referral practices to improve service provision and practice development,
- Uses reflection and learning from incidents to support shared learning and to improve referral practice, service provision and practice development,
- Contributes to the learning experiences of other colleagues through the provision of support, supervision and facilitation of learning relating to referral 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 the professional role through constructive use of feedback, supervision, audit and service evaluation of referrals of persons for radiological procedures,
- Reflects on and applies insights derived from aspects of daily referral practice 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 healthcare professionals,
- Learns from experience to adapt clinical interventions and to update referral competence in response to dynamically altering health environments,
- Accepts personal responsibility for professional development and the maintenance of professional competence including referral practice,
- Maintains current knowledge of advances in practice associated with referral and the management of results,
- Demonstrates a commitment to lifelong learning including referral practice.

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 radiological procedures contain the essential elements that facilitate the development of the professional knowledge, skills, attitudes and competences necessary to meet the needs of a person within this area of practice expansion.

Medical imaging using ionising radiation is increasing nationally due to technological advances and service requirements. General X-ray (radiography) is the most common type of procedure requested by referrers. The radiation dose delivered during general X-ray procedures is generally low and not expected to cause radiation effects. However, increasingly persons are being referred more frequently for higher dose examinations including CT and other specialised imaging procedures which may deliver doses high enough to cause effects such as skin injuries. In paediatric imaging, the risks are of special concern as children are more vulnerable than adults to developing effects and have a longer life span to develop latent radiation induce health effects.

Nurses referring within their scope of practice, who will be referring persons for high dose procedures should have the appropriate knowledge and competences, including the risks and benefit to the person.

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. 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”.

Referrers should be skilled in the justification process which involves decisions relating to the benefits and risks of the procedure.

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

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 competences as set down in Radiation Protection No. 175 (Guidelines on Radiation Protection Education and Training of Medical Professionals in the European Union 2014).

Required knowledge, skills and competencies

Knowledge

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

- Know the legislative and regulatory framework governing the use of medical ionising radiation,
- Understand the justification principle,
- Explain the responsibilities of all personnel involved in the justification process,
- Know the joint responsibilities of the referrer and the practitioner in the justification process,
- Understand the principle of optimisation, as low as reasonably achievable (ALARA),
- Know the diagnostic procedures that utilise ionising and non-ionising radiation
- 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,
- Understand how the 10 day/28 day rule is applied,
- Know the potential risks of foetal exposure to ionising radiation,
- Understand the potential risks of exposure to ionising radiation during childhood,
- Know the approximate radiation doses for diagnostic investigations including high dose procedures,
- Be aware of national and local Diagnostic Reference Levels (DRLs),
- Explain why a person's clinical details and information from previous diagnostic procedures are important,
- Know of other imaging modalities that use non-ionising radiation i.e. magnetic resonance imaging (MRI) and ultrasound,
- Understand the hazards and safety issues associated with referring a person for MRI,
- Discuss clinical situations where a procedure using non-ionising radiation is more appropriate,
- Describe the referral criteria in the nurse referrer's areas of practice,
- Discuss how to give a person, information relating to benefits and risks of medical radiological procedures.

Skills

The skills must include the cognitive and clinical skills required for nurse referrers to:

- Apply the principle of justification risk versus benefit as it applies to persons, carers, comforters and interveners,
- Identifying situations in which the use of ionising radiation is justified in consultation with responsible members of the multidisciplinary team, in the case of a pregnant woman,
- Justifying the use of ionising radiation procedures for children,
- Explaining the benefits and risks of particular procedures to specific persons,
- Communicating the radiation risks to persons at an understandable level.

Competences

The competences must include the responsibilities and autonomy required for nurse referrers to:

- Take responsibility for justification of medical radiological procedures in accordance with European and national legislation and regulation including the standards and requirements of the NMBI,
- Provide necessary clinical information in the referral of persons for medical imaging procedures,
- Provide the necessary clinical information in the referral of a person for an imaging procedure to aid the optimisation process,
- Record and report any inadvertent radiation exposure of a person
- Act as a role model for colleagues to support the justification process.

The manner in which the content is interwoven and interlinked is individual to each programme. The indicative content outlined in this section should not be viewed as discrete, neither is the list of topics included in the syllabus exhaustive.

The list of indicative topics and elements of learning should include:

Professional accountability and responsibility

- Professional regulations and guidelines,
- Evidence-based practice and clinical governance in relation to referring for medical radiological procedures,
- Accountable referrals,
- Critical review and clinical audit,
- Risk management.

Legal and ethical aspects

- Understand the legal framework governing radiation protection legislation at an international European and national level,
- Know the Regulators functions for assessing compliance of undertakings providing medical exposure to ionising radiation,
- Legal liability and clinical indemnity for referring persons for medical radiological procedures and expansion of the nursing practice,
- Scope of Practice and the Code of Professional Conduct and Ethics,
- Informed consent of the person being referred for a medical radiological procedure,
- Sharing of records must comply with the General Data Protection Regulations.

Radiation protection topics

- Understand how X-rays are produced,
- Understand the process of ionisation,
- Know ionising radiation dose units, absorbed dose, equivalent dose and effective dose,
- Describe sources of X-rays and gamma rays,
- Discuss the different sources of ionising/non-ionising radiation in medical imaging,
- Understand the radiobiology/biological effects of radiation,
- Describe deterministic and stochastic effects of medical ionising radiation,
- Understand the diagnostic reference levels (DRLs) defined for typical examinations,
- Be able to list typical radiation dose from different diagnostic procedures in adults and children,
- Atomic structure, X-ray production and interaction of radiation,
- Radiological quantities and units,
- Physical characteristics of X-ray systems ,
- Fundamentals of radiation detection,
- Fundamentals of radiobiology, biological effects of radiation,
- Risks of cancer and hereditary disease and effective dose,
- Risks of deterministic effects,
- General principles of radiation protection,
- Particular person radiation protection aspects,
- Typical doses from diagnostic procedures,
- Risks from foetal exposure to ionising radiation,
- The process of justification of imaging examinations,
- Management of accidents/unintentional exposures.

Principles of the referral process for medical radiological procedures

- Assessment of the person – history and physical and clinical examination,
- Writing and processing a medical radiological procedure referral form,
- An awareness of referral guidelines i.e. iRefer Guidelines (Royal College of Radiologists UK),
- Understand and adhere to the written policies, procedures, protocols and/or guidelines that define who is entitled to refer a person for a medical exposure,
- Processes and procedures for the practitioner accepting referrals,
- Ensuring that the medical procedure has not previously been performed,
- Ensure relevant clinical information is provided in the referral,
- Consultation skills,
- National and local health service provider's policies, procedures, protocols and/or guidelines for referring persons for medical radiological procedures.

Note: See Appendix 1 Referral process flow chart

Collaboration referral with other healthcare professionals

- Interpersonal and communication skills to foster collaborative relationships with other members of the multidisciplinary team,
- Role and function of other health care professionals involved in the referral process, providing and/or interpreting medical radiological and other imaging procedures,
- Interdisciplinary sharing of a person's medical records – documentation,
- Scope of Practice,
- Multidisciplinary clinical audit.

2.4 Theoretical and clinical instruction

This section presents the requirements for the nurse education programmes for nurse authority to refer persons for medical radiological 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 applicable programmes of education. The programmes may be provided as stand-alone modules or assigned academic credits that the student may transfer to a larger programme of study.

Essential requirements

Theoretical instruction shall be a minimum of 30 hours.

Clinical instruction shall be no fewer than 10 episodes of referral for medical radiological procedures, documented and recorded as a demonstration of competence.

- For the Adults Programme
At least 10 episodes of supervised practice and referral of adults for medical radiological procedures and other imaging 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 radiological and other imaging 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 radiological and other imaging procedures should be undertaken as follows:
 - » Equal exposure of supervised practice and referral episodes for medical radiological and other imaging procedures should be undertaken – 50% with adults and 50% with children.
 - » Final competency assessment must be undertaken to include 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 EPs/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 as appropriate based upon the identified needs of the students, the competences 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 competences essential to refer persons for medical radiological and other imaging procedures.

Following any interruption in the education programme, the EPs/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 defines the Scope of Practice as the range of roles, functions, responsibilities and activities which a registered nurse 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).

Nursing practice is underpinned by values that guide the way in which nursing care is provided. In making decisions about their individual scope of practice, one of the core values states that nurses should keep to the fore the rights, needs and overall benefit to the person and the importance of promoting and maintaining the highest standards of quality in the health services (NMBI 2015). Nurses expand their scope of practice and see it as resulting in improved person care, and enhancement in overall quality of standards (Fealy *et al.* 2014).

The scope and context of practice should be determined with reference to the Scope of Nursing and Midwifery Practice Framework (NMBI 2015) and the standards and requirements for referral authority should be adhered to as part of their professional responsibilities. The scope of referral for medical radiological procedures is determined by European and national legislation, professional regulations, education information and training, and the individual referrers' levels of competence.

Competence is understood as the attainment of knowledge, intellectual capacities, practical skills, integrity and professional and ethical values required for safe, accountable and effective practice as a registered nurse (NMBI 2015). The NMBI through its requirements and standards for the education programme for nurse authority to refer persons for medical radiological and other imaging procedures indicates that nurse referrers are professionally and personally responsible to maintain competency to practice. There is an obligation for the nurse referrer to commit to, and engage in, continuing professional development relating to assurance of competency for referral practices.

These standards and requirements for education programmes for nurse authority to refer persons for medical radiological and other imaging ionising radiation procedures (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 radiological and other imaging procedures. When referring for a medical radiological or other imaging procedure, it is important that the nurse referrer must adhere to their scope of practice, the speciality within which they practice and the person's care pathway, relevant to their role. The current legislation (SI 256) requires appropriate continuing education and training after qualification including relevant radiation protection requirements.

The referring scope of practice can be expanded to include all medical radiological and other imaging procedures. The 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, must have supporting structures in place. These should include policies, procedures, protocols and/or guidelines for referrals for radiological and other imaging procedures. The nurse with referral authority can refer a person for medical radiological and other imaging procedures, once

appropriate local health service provider's governance arrangements are in place. The interests of no single professional group should dominate interprofessional service and education initiatives, and such initiatives should be planned in a collaborative manner.

The registered nurse with authority to refer a person for medical radiological and other imaging procedures, practising within their scope of practice, makes 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 radiological and other imaging procedures, it is the person's named consultant who holds ultimate responsibility for the person's care, 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 an imaging procedure that the nurse may have requested. Prior to making a decision to refer a person for a medical radiological or other imaging procedures, 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,
- Comply with national legislation, professional regulation for medical radiological and other imaging procedures,
- Refer to the Scope of Practice and remain within the parameters of the local health service providers policies, procedures, protocols and/or guidelines for referral of persons for medical radiological and other imaging procedures,
- Enter referral activity on the HSE National Database for Nurse and Midwife Referrers (for non-NIMIS sites),
- Engage in clinical audit of their referral practice,
- Participate in the evaluation of nurse referral practice,
- Undertake continuing professional development including radiation protection.

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 for 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.



03

**The Approval
Process**

The NMBI has a statutory responsibility to approve EPs/HEIs in respect of post registration nursing education programmes. The NMBI has developed processes and standards for the approval process for EPs/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 the NMBI, and
- Approval of the post registration nursing education programmes.

The respective EP/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 EP/HEI must establish a post registration educational committee or equivalent, representative of the educational and healthcare provider stakeholders to oversee the post registration educational provision.

In respect of post registration nursing education programmes, the NMBI will satisfy itself as to the suitability of the EPs'/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. The 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 EPs/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 the NMBI.

3.3 General provisions regarding the process of approval

- The EPs/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 the 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 the 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 NMBI's 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 EPs/HEIs and published on the NMBI's website.

Notification of approval of the education programmes will be in writing from the 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 the NMBI.

The education provider/HEI when developing education programmes for nurse authority to refer persons for medical radiological and other imaging procedures 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 Healthcare 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,
- Letter of programme approval from the EP's/HEI's Academic Council or equivalent,
- All programme learning outcomes are mapped to the Eight Standards for Nursing Post Registration and Education Programmes (See section 5.1),
- 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),
- Assessment Process,
- External Examiners.

04

**The NMBI Guide
Template for
Submission of
Nurse Education
Programmes for
Nurse Authority to
Refer Persons for
Medical Radiological
Procedures**

4.1 Programme summary template

1. **Title**
2. **Location and provider**
3. **Table of contents**
4. **Students**
 - I. Application procedures
 - II. Recognition of prior learning (RPL)
 - III. Admission criteria
 - » Entry requirements
 - IV. Interruption in programme delivery
5. **Structure**
6. **Attendance**
 - I. Minimum hours declared
7. **Student support**
 - I. Lecturers
 - II. Student unions, clubs, societies
 - III. Counselling
 - IV. Disability/access
 - V. Other supports available to the student
 - » Admin support
8. **Learning resources**
 - I. Library facilities
 - II. Computer/IT facilities
 - III. Online/virtual learning environments (e.g. Moodle/Blackboard)
 - IV. Other learning resources
9. **Administration**
 - I. Programme management
 - II. ECT framework
 - III. Awarding body
 - IV. Programme evaluation, oversight and quality
10. **Programme review process**

4.2 Curriculum design, development, content and organisation template

1. Curriculum design

- I. Background,
- II. Rationale.

2. Curriculum development

- I. Supported by current published evidence.

3. Curriculum philosophy

4. Curriculum content

- I. Aims and learning outcomes,
 - a. Programme learning outcomes mapped to standards and requirements at NFQ Level 8 (Section 5),
 - b. Module learning outcomes mapped to standards and requirements at NFQ Level 8 (Section 5),
- II. Structure, modes of study and duration.

5. Assignments and assessments

- I. Module assignments and assessments mapped to module learning outcomes,
- II. Submissions/late submissions,
- III. Scope of compensation between modules (compensation between a theoretical and clinical component of the assessment is prohibited),
- IV. Examinations,
- V. Plagiarism,
- VI. Repeat examinations,
 - The number of repeats allowed for failed assessments.

6. Module descriptors in table format

- I. Current references included.

4.3 Appendices template

1. Letter of accreditation from HEI's academic council,
2. Letter of accreditation from EPs/HEIs academic council,
3. CVs of academic staff (include NMBI PINs for nurses and midwives),
4. Abridged CV of external examiner,
5. Academic regulations,
6. Programme evaluation tools, e.g. student questionnaires, impact on service assessment, preceptor evaluation,
7. Clinical competency assessment tool,
8. Detailed examination grading scale,
9. Governance structure in diagrammatic format,
10. Oversight committee memberships,
11. Policies on marking/plagiarism/submission/exams/conduct/etc.,
12. Recognition of prior learning policies/forms,
13. Marking criteria,
14. Any other documents deemed relevant to the programme.



05

**National Framework
of Qualification
Learning Outcomes
for Nurse Education
Programmes for
Nurse Authority to
Refer Persons for
Medical Radiological
Procedures**

Learning outcomes at this level relate to the demonstration of knowledge and understanding that is the forefront of a field of learning (nurse referral authority). Outcomes relate to the application of knowledge, understanding and problem-solving abilities in new or unfamiliar contexts related to a field of study (nurse referral authority). The outcomes are associated with an ability to integrate knowledge, handle complexity and formulate judgements (National Qualifications Authority of Ireland 2003).

The higher education institution (HEI) and education providers (EPs) must outline the programme and learning outcomes of the education for nursing referral authority as indicated by the NFQ at a minimum Level 8 learning outcomes grid. The HEI must outline clearly the expected knowledge, competency and skills that the postgraduate student will have gained at the end of the programme.

5.1 National Framework of Qualifications Level 8 learning outcomes for Nurse Authority to Refer for Radiological Procedures

All cognate areas within the discipline of nursing (referral practice) must be at a minimum Level 8 standard of the National Framework of Qualifications.

Level 8 Standards	Description	Indicators
1. Knowledge – Breadth	<i>Understanding of the theory, concepts and methods pertaining to a field (Nurse Referral Practice) of learning</i>	The graduate should be able to: 1. Demonstrate an understanding of the theory, concepts and methods pertaining to relevant clinical practice skills, essential for safe and effective nurse referral practice.
2. Knowledge – Kind	<i>Detailed knowledge and understanding in one or more specialised areas, some of it at the current boundaries of the nurse referral practices</i>	The graduate should: 1. Know and demonstrate an understanding of relevant biological and related sciences as they apply to nursing referral practice, 2. Know and demonstrate an understanding of the sciences as they apply to nursing referral practice, 3. Critically analyse and evaluate relevant knowledge in nurse referral practice, 4. Critically analyse and evaluate relevant knowledge in health promotion and healthcare policy, 5. Demonstrate relevant knowledge to adopt systematic approaches to nursing referral practice based on the best available evidence.

(continued)

Level 8 Standards	Description	Indicators
<p>3. Know-how and Skill – Range</p>	<p><i>Demonstrate mastery of a complex and specialised area of nurse referral skills and tools. Use and modify these skills and tools to conduct research, and professional and advanced technical activity</i></p>	<p>The graduate should be able to:</p> <ol style="list-style-type: none"> 1. Assist individuals, families and groups to achieve optimum health, independence and recovery in a professional, caring manner, 2. Provide and manage direct practical nursing, whether healthcare is promotional, preventive, curative, rehabilitative or supportive, to individuals, families or groups, 3. Demonstrate evidence-based clinical practice skills essential for safe nursing referral practice 4. Identify and implement, optimisation priorities in the relevant area of referral practice, 5. Implement health strategies for persons groups in accordance with the public health agenda.
<p>4. Know-how and skill –Selectivity</p>	<p><i>Exercise appropriate judgement in a number of complex planning, design, technical and/ or management functions related to products, services, operations or processes, including resourcing</i></p>	<p>The graduate should be able to:</p> <ol style="list-style-type: none"> 1. Identify and meet the nursing referral needs of the individual, family and community in all healthcare settings, 2. Demonstrate the skills of: <ul style="list-style-type: none"> • analysis, • critical thinking, • problem-solving, • reflection in nursing, and referral practice, 3. Act as an effective member of the healthcare team, in an appropriate nurse referral setting and participate in the multidisciplinary team approach to the referral and care of the person, 4. Evaluate practice and use current research findings to underpin clinical referral practice 5. Communicate effectively, with persons and carers as appropriate to enable them to fully participate in decisions relating to the referral, 6. Implement changes in service provision in response to service demand.

(continued)

Level 8 Standards	Description	Indicators
<p>5. Competence – Context</p>	<p><i>Use advanced skills to conduct research, or advanced technical or professional activity, accepting accountability for all related decision-making; transfer and apply diagnostic and creative skills in a range of contexts</i></p>	<p>The graduate should be able to:</p> <ol style="list-style-type: none"> 1. Adopt a holistic approach to referral practice and the integration of knowledge. Conduct a systematic holistic assessment of the person's referral needs to be based on evidence-based practice, 2. Plan care in consultation with the person taking into consideration the therapeutic regimes of the multidisciplinary team, 3. Implement planned nursing care/ interventions to achieve the identified outcomes, 4. Evaluate a person's progress toward outcomes and review plans in accordance with the referral data and consultation with the person, 5. Establish and maintain caring therapeutic interpersonal relationships with persons, 6. Perform a nursing assessment; plan and initiate care and treatment modalities within agreed interdisciplinary protocols to achieve person-centred outcomes and evaluate their effectiveness, 7. Identify, critically analyse, disseminate and integrate nursing and other evidence into the area of referral practice, 8. Initiate and/or participate in and evaluate audit and use the outcome of an audit to improve referral practice, 9. Contribute to service planning and budgetary processes through the use of audit and specialist knowledge.
<p>6. Competence – Role</p>	<p><i>Act effectively under guidance in a peer relationship with practitioners including complex and heterogeneous groups</i></p>	<p>The graduate should be able to:</p> <ol style="list-style-type: none"> 1. Effectively manage the referral care of the person, 2. Contribute to the overall goal/ mission of the healthcare institution, 3. Demonstrate the ability to work as a team member, 4. Determine priorities for care based on need, acuity and optimal time for an intervention, 5. Select and utilise referral guidelines e.g. iRefer effectively and efficiently,

(continued)

Level 8 Standards	Description	Indicators
<p>6. Competence – Role (continued)</p>		<p>6. Utilise methods to demonstrate quality assurance and quality management,</p> <p>7. Delegate to other nurses activities commensurate with their competence and within their scope of professional practice, having due regard for the principles outlined in the Scope of Nursing and Midwifery Practice Framework when delegating a particular role or function,</p> <p>8. Facilitate the coordination of care. This is achieved through working with all team members to ensure that referral care is appropriate, effective and consistent,</p> <p>9. Provide leadership in clinical practice and act as a resource and role model for referral practice.</p>
<p>7. Competence – Learning to Learn</p>	<p><i>Learn to act in variable and unfamiliar contexts; learn to manage learning tasks independently, professionally and ethically</i></p>	<p>The graduate should be able to:</p> <ol style="list-style-type: none"> 1. Take responsibility for personal and professional development, 2. Act to enhance the personal and professional development of self and others, 3. Demonstrate a commitment to lifelong learning, 4. Contribute to the learning of referral practices of colleagues through support, supervision and teaching, 5. Educate the person to maintain and promote health, 6. Provide mentorship, preceptorship, teaching, facilitation and professional supervisory skills for nurses, midwives and other healthcare professionals.
<p>8. Competence – Insight</p>	<p><i>Express a comprehensive internalised, personal world view manifesting solidarity with others</i></p>	<p>The graduate should be able to:</p> <ol style="list-style-type: none"> 1. Provide and articulate professional and ethical nursing practice. Safe and effective referral practice requires a sound underpinning of theoretical knowledge that informs practice and is in turn informed by that practice.

(continued)

Level 8 Standards	Description	Indicators
<p>8. Competence – Insight (continued)</p>		<ul style="list-style-type: none"> 2. Practice in accordance with legislation relevant to nurse referral practice, 3. Practice within the limits of own referral competence and take measures to develop further competences, 4. Demonstrate an understanding and consciousness of nursing referral practice issues through the process of reflection on experience, 5. Generate and contribute to the development of clinical standards and guidelines relevant to referral practice, 6. Use relevant knowledge to support and enhance nursing referral knowledge and practice.



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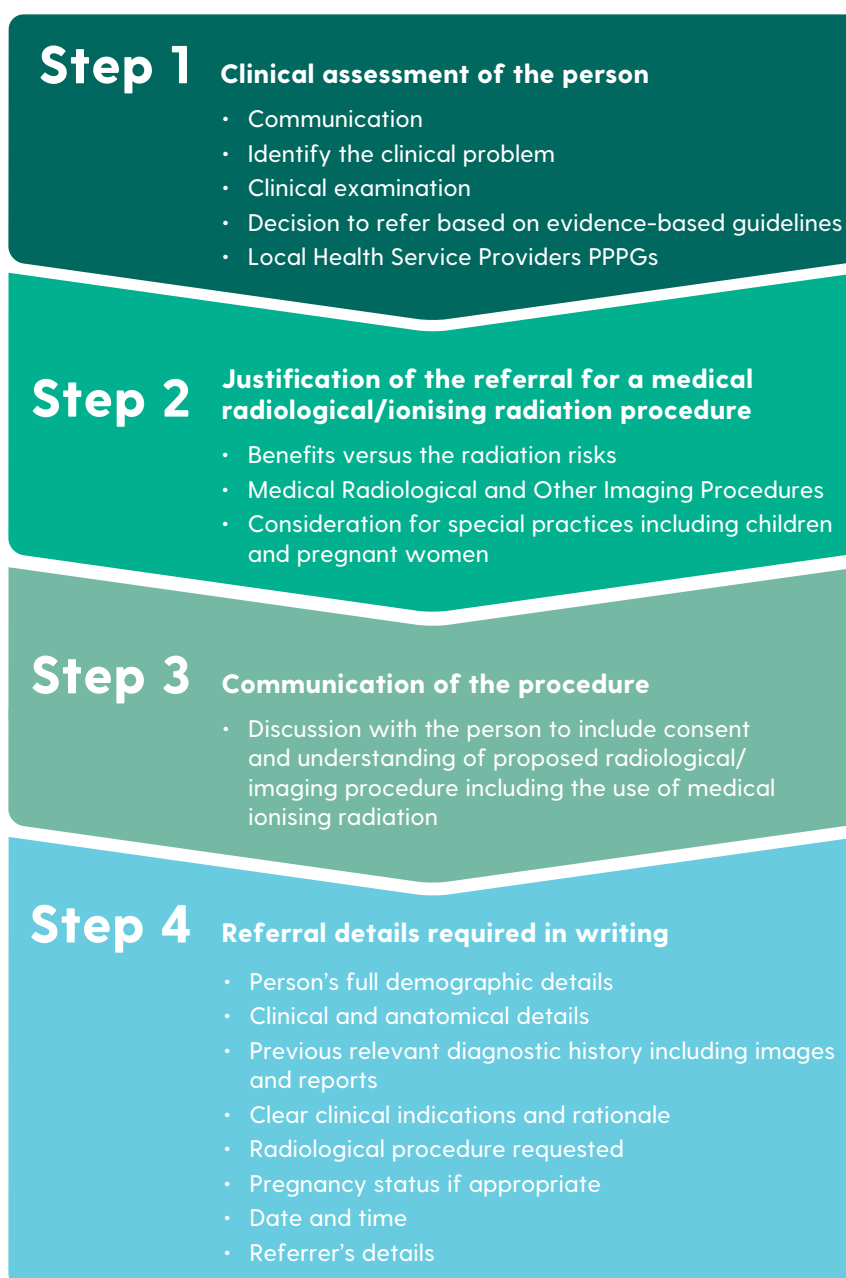
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Appendices

Appendix 1: Referral process flow chart

A referral for an imaging procedure is a request for a clinical opinion from a specialist practitioner usually a radiologist. A useful investigation is one in which the result will assist in the clinical management of the person. The aim of all procedures is to obtain the maximum information with the minimum radiation dose.



The person should be informed of the results of the procedure and the appropriate follow-up care will be arranged.

Nursing and Midwifery Board of Ireland
18/20 Carysfort Avenue, Blackrock,
County Dublin,
A94 R299.
Tel: (01) 639 8500
Email: education@nmbi.ie
Web: www.nmbi.ie



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