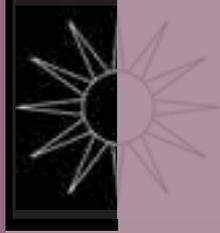


THE COLLEGE OF
RADIOGRAPHERS

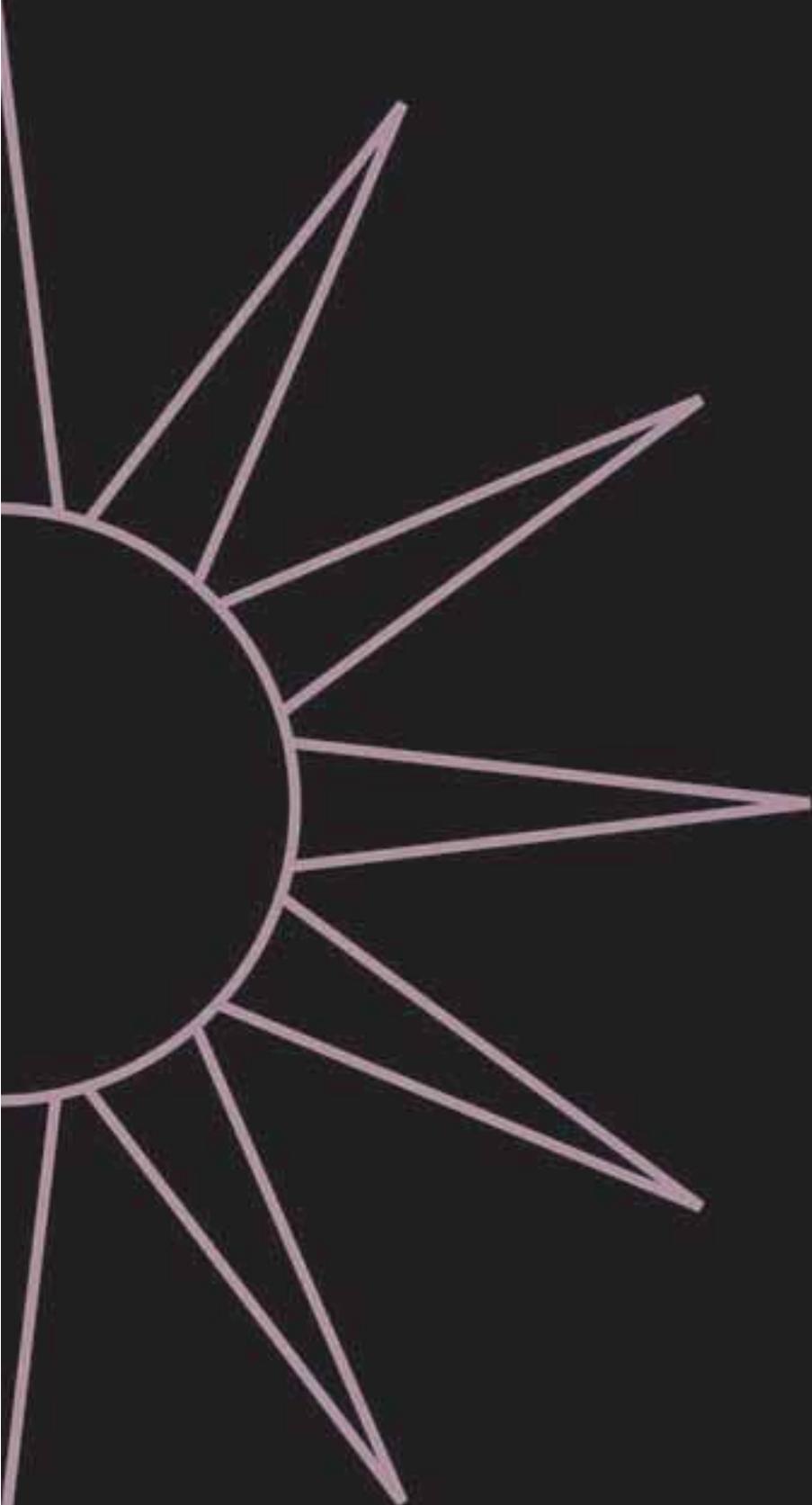


CLINICAL IMAGING
RADIOTHERAPY AND
ONCOLOGY

Education Strategy

THE SOCIETY OF
RADIOGRAPHERS





CLINICAL IMAGING
RADIOTHERAPY AND ONCOLOGY

Education Strategy

**Responsible Officer:
Mary Embleton**

**November 2005
First edition
ISBN 1 871101 28 X**

**£15 to SCoR members
£25 non-members**

The Society of Radiographers

207 Providence Square
Mill Street
London SE1 2EW

Telephone 020 7740 7200

Facsimile: 020 7740 7233

E-mail: info@sor.org

Website: www.sor.org

Contents

Foreword	5
Introduction	6
1. Rationale	7
2. Purpose	8
3. Principles underpinning the strategy	8
4. Nature of provision	9
5. Nature of participants/learners	12
6. The nature of education opportunities	14
7. Nature of providers	15
8. Expectations of funders/purchasers	16
9. Nature of learning environments	16
Appendix 1: Level descriptors	17
Appendix 2: Role of the approval & accreditation board	23
Acknowledgments	24
References	25
Bibliography	26

Foreword

The health environment and the educational community have seen major evolution and development in recent years and this change continues apace. A range of elements in healthcare and workforce development have been, or are being transformed: the shape of the healthcare workforce; arrangements for the regulation and ongoing proficiency of practitioners; requirements for the development and commissioning of educational programmes; the scope of practice of non-medical practitioners.

Whilst it is incumbent on all stakeholders in the health economy to respond to these developments, the role of professional bodies is to ensure that standards and currency in relation to education and professional practice are not only articulated, but overseen in a context that provides a coherent framework for evolution. This strategy outlines such a framework in a fashion that brings together existing and prospective requirements for effective development of the profession and the service. It is a strategy, for the profession and by the profession, that seeks to ensure proper and effective education and developmental provision for radiographers, now and in the future.

This strategy is constructed to direct institutions developing educational and professional development initiatives for radiographers and they will be expected to conform to the principles herein. Institutions implementing this guidance will be able to ensure that the developments they oversee align with current thinking and can evidence the basis on which their own strategies are founded. They will know that they meet current and evolving service needs, enabling them to keep the patient at the centre of consideration.



Ian Henderson

Chair of Approvals and Accreditation Committee.

Introduction

The Society and College of Radiographers is the United Kingdom professional body for radiography and the wider radiographic workforce. Radiography encompasses the spectrum of clinical imaging and intervention, and radiotherapy and oncology including the associated dosimetry and quality assurance. Within these broad fields, the primary career pathway is in clinical practice and spans from the support worker and assistant level practice to consultant radiographer level. There are also clear career pathways into service leadership and management; education whether in clinical or academic settings, or encompassing both, and research in both clinical and educational fields.

Radiography is becoming ever more diverse. In the diagnostic field, this is across x-ray imaging and computed tomography, ultrasound, nuclear medicine and magnetic resonance imaging. The acquisition, manipulation and analysis of both anatomical and physiological data using ionising and non-ionising radiation is now the primary role of radiographers and the radiography workforce. Increasingly, too, modalities are being combined to produce complementary data and information, for example, positron emission tomography and computed tomography. In the radiotherapy and oncology field, the radiography workforce now contributes to the whole of the cancer care pathway, from the primary care setting, through radical and acute palliative treatment, to continuing care in the community. There is also increasing convergence of the diagnostic and therapeutic fields, with therapeutic radiography encompassing sophisticated digital imaging techniques and modalities to secure ever more effective and targeted treatment, and diagnostic radiography encompassing a range of interventional and combined diagnostic and treatment procedures.

The pace of technological change and the need for new technologies to be integrated into many different patient care pathways is making ever growing demands on the radiography workforce, and requires a clear education strategy to ensure that all members of the team are able to meet these. This document sets out clearly the overall education strategy for the profession and the wider radiography workforce. It draws on existing policy and guidance documents, notably the *Curriculum Framework* and the *Education and Professional Development: Moving Ahead* documents, both published in 2003.

This education strategy informs and acknowledges the College of Radiographers' *Approval and Accreditation Policy and Procedures* (2004) which advises on, acknowledges and accredits best educational and professional development practice, through a rigorous system of external professional peer review. Together, the education strategy and the College's work on approval and accreditation assist education funders to make informed choices regarding the education and professional development programmes they commission, ensuring these meet the current and emerging needs of patients and health care services. Additionally, education providers may be assured that their education innovations and developments are judged to meet the development needs of the radiography workforce, and will enhance patient care and service delivery.

1. Rationale

- 1.1 The College of Radiographers believes that it is now important to make explicit its education strategy, which has been implicit through a number of documents related to various aspects of education and professional development^{1,2,3}. Drawing together these strands into an integrated whole provides clarity for those within and without the profession. It also provides the opportunity for the College to restate its vision that education will play the central role in the profession's future development, being all encompassing and adopting an integrated approach to the provision of opportunities for all within the radiography workforce.
- 1.2 The education strategy described in this document is based on several important considerations. These are:
- The expectation that education provision anticipates and is sensitive to emerging and changing health care services' and patients' requirements, recognising that provision established today must meet future needs effectively.
 - The need for education to underpin career development and pathways, being cognisant of the professional body's and the National Health Service's career frameworks^{4,5}, and providing opportunities for career progression at all levels and in all fields of practice of the radiography workforce. As such, it should be possible for an individual to begin his or her career as a support worker and advance to become a consultant practitioner, or to advance into management or education. Education provision should also support development of breadth of individuals' practice, for example a therapeutic radiographer moving into dosimetry, or a diagnostic radiographer in urology undertaking transurethral and transrectal ultrasound examinations.
 - Flexible entry into the appropriate level of education, so that the sum of education provision available in the UK provides for full-time, part-time and in-service pre and post-registration programmes.
 - The need to facilitate 'stepping off' education programmes with recognition and credit for achievement to date; and with the opportunity to use the education acquired to that point to contribute to radiography service provision at the appropriate level. Additionally, it expects that individuals will be enabled to 'step back' into relevant education programmes as their circumstances permit.
 - Inter-professional education is rapidly becoming an important feature of all education provision, supporting effective team-working and providing an integrated, effective service to patients.
 - Support for the increasing diversity of radiographic practice so that entry to the profession may be through the longstanding routes of diagnostic and therapeutic radiography, or through new routes in those fields that are developing rapidly and need a much larger, dedicated workforce, notably nuclear medicine, ultrasound and magnetic resonance imaging.

2. Purpose

2.1 There are a number of purposes that this document fulfils. These are:

- Strategic planning for the education needs of the radiography workforce at UK wide, national and regional levels;
- Informing contracting for and funding of education provision, including clinical education;
- Enabling innovative provision to support current and new roles, interprofessional and cross-boundary working, and the career development needs and aspirations of the radiography workforce;
- Demonstrating the contribution that radiography education can make to the wider health service;
- Providing guidance for education providers, encouraging diversity of provision and best education practice, including collaborative practices.

3. Principles underpinning the strategy

3.1 The principles inherent in this education strategy are already well established within the profession and are worth re-stating.

- Practice is always underpinned by appropriate education;
- Education is at the forefront of and vital to practice development;
- Continuing professional development is a requirement for the whole radiography workforce;
- Education is of a standard that reflects best practice;
- Patient care and service needs are central to the curriculum;
- Education provision is a continuum designed to address both breadth and depth of knowledge and skills development;
- Education quality is evidenced by professional body approval of programmes, providers and resources;
- Provision of support, including in practice placements, for students should be equitable to that provided for all other healthcare professions;

4. Nature of provision

- 4.1 This strategy is not concerned with specific awards, but with the level of awards and the outcomes that are achieved. The College of Radiographers, therefore, will consider all awards contributing to personal educational development that enhances the contribution individuals make to any aspect of radiography practice at any level (Society and College of Radiographers' Level Descriptors for the four levels of practice are detailed in Appendix 1). The pivotal level, however, is that which leads to registration or its equivalent.
- 4.2 The Approval and Accreditation Board of the Society and College of Radiographers has an essential role at all levels of education provision in advising on development and best practice in education provision, providing external review as a 'critical friend', approving education provision and accrediting academic and clinical environments which deliver approved education (the role of the Approvals and Accreditation Board is detailed in Appendix 2).
- 4.3 Registration level** (the level which confers professional body recognition and accreditation as a practitioner)
- 4.3.1 This level is fundamental as it defines the level of entry to professional practice within clinical imaging or radiotherapy and oncology. All practitioners are expected to display graduate level outcomes, although some may hold the Diploma of the College of Radiographers rather than a degree. There are others who meet all the College of Radiographers requirements for professional practice but in a specialised field of practice, such as Nuclear Medicine, where the scope of practice is of a similar standard but does not fit within the specific Health Professions Council (HPC) Standards of Proficiency for Diagnostic or Therapeutic Radiography. These persons, while not meeting requirements for registration with the HPC, may meet those for accreditation at practitioner level with the College of Radiographers. It is essential to attain this level in order to advance to specialist, developed or advanced practice.
- 4.3.2 Education Provision at this level is required by the College to meet:
- Graduate outcomes;
 - The College of Radiographers' Curriculum Framework outcomes;
 - Where available, outcomes which meet the requirements for registration with the Health Professions Council.⁶
- 4.3.3 Provision at this level is expected to show cognisance of relevant, current documentation, to include:
- *Education and Professional Development: Moving Ahead*
 - *Strategy for Professional Development;*
 - *Research and the Radiography Profession: A strategy and five year plan*
 - Quality Assurance Agency's frameworks for Higher Education qualifications
 - Quality Assurance Agency's Benchmark statements
- 4.3.4 At this level, the role of the professional body includes:
- Approval of new programmes and re-approval of established programmes as being fit for award and for developing individuals that are fit for purpose and practice;
 - Approval and accreditation of practice placements;
 - Accreditation of institutions delivering approved education;
 - Advising on developments and best practice in education and practice, and requirements for the future workforce;
 - Registration and indexing of students;
 - Maintaining a professional register of qualified and accredited practitioners.

4.4 Advanced practice/consultant practice

4.4.1 This covers all levels beyond that of entry to professional practice, demanding increased levels of mastery and incorporating aspects of specialist, developed and/or advanced practice. The College of Radiographers recognises that the development of an individual may be in broadening knowledge and scope of practice at a particular level and/or gaining a greater depth or higher level of skills and knowledge. Recognition of advanced practice or consultant practice by the Society and College of Radiographers is related to recognition of outcomes at the appropriate level as detailed in Appendix 1.

4.4.2 The College also believes there is a significant role for managers, Strategic Health Authorities and radiography leads in identifying the potential of individuals and taking a proactive approach to the development of service provision.

4.4.3 Education provision at this level is required by the College to:

- Demonstrate postgraduate outcomes;
- Meet the College of Radiographers' Curriculum Framework outcomes;
- Support service delivery needs;
- Enable individuals to progress;
- Include workbased learning, as a central expectation at this level.

4.4.4 Meeting the above also supports managers, Strategic Health Authorities and radiography leads to deliver and quality assure both advanced and consultant practice.

4.4.5 Provision at this level is expected to show cognisance of relevant, current documentation, to include:

- *Education and Professional Development: Moving Ahead;*
- *Curriculum Framework;*
- *Clinical Education and Training: Capacity and Quality;*
- *Strategy for Professional Development;*
- *Research and the Radiography Profession: A strategy and five year plan;*
- Quality Assurance Agency's frameworks for Higher Education qualifications.

4.4.6 At this level of practice the role of the professional body includes:

- Quality assurance of provision;
- Endorsement of CPD;
- Recognition and accreditation of advanced practice, consultant practice and individual achievement;
- Advising on developments;
- 'Kite marking' learning environments, both clinical and academic;
- Ensuring national recognition and transferability of practice at this level.

4.4.7 It is expected that, at this level of practice, responsibilities of the individual would include:

- Maintaining and broadening expertise;
- Supporting pre and post registration learning;
- Participating in research and development.

4.5 The support workforce

4.5.1 This level covers all those within the clinical imaging or radiotherapy and oncology workforce working under the supervision of a practitioner and includes all helpers and assistants be their role generic or specific. Outcomes are related to their scope of practice and the appropriate level of knowledge required.

4.5.2 Education provision at this level is required by the College of Radiographers to:

- Meet S/NVQ Level 2 and 3 outcomes and,
- Where appropriate for the scope of practice of assistant practitioners, meet outcomes of S/NVQ Level 3 Health Award, Certificates of Higher Education, Diplomas of Higher Education and Foundation Degrees.
- Embed relevant National Occupational Standards within these outcomes.
- Meet outcomes appropriate to the level of the award.

4.5.3 Provision at this level is expected to show cognisance of relevant, current documentation, to include:

- *Education and Professional Development: Moving Ahead*;
- *The College of Radiographers Curriculum Framework (2003)* outcomes for Assistant Practitioners;
- Other Society and College of Radiographers' documents relating to the support workforce;
- National Occupational Standards related to the scope of practice of assistant practitioners;
- The NHS Knowledge & Skills Framework;
- Quality Assurance Agency's frameworks for Higher Education qualifications;
- Qualifications and Curriculum Authority (QCA) framework.

4.5.4 At this level of the role of the professional body includes:

- Approval of new programmes and re-approval of established programmes;
- Accreditation of the scope of practice of individuals;
- Maintaining a Voluntary Public Register of accredited assistant practitioners.

5. Nature of participants/learners

5.1 The College of Radiographers welcomes the greater diversity of learners undertaking learning within the radiography workforce. It encourages the development of flexible and coherent provision enabling those from a variety of educational and experiential backgrounds to access appropriate education and training suited to their individual circumstances and progression within the workforce.

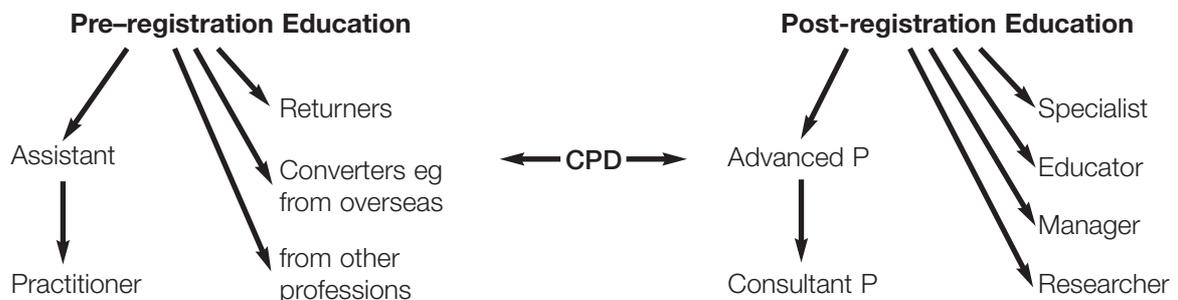
5.2 Learners at pre registration level include:

- Individuals training to be assistants;
- Assistants learning to become practitioners;
- Direct entrants to undergraduate and postgraduate programmes leading to accreditation at practitioner level;
- Returners updating their knowledge and skills;
- Overseas radiographers developing their knowledge and skills for registration and practice in the UK;
- Those converting from other professional groups, for example a sports scientist becoming a diagnostic radiographer or a nurse becoming a therapeutic radiographer.

5.3 At post registration level learners include:

- Individuals developing their knowledge and skills to advanced and consultant level;
- Those developing new knowledge and skills in specialist areas of practice, education, management and research.

5.4 Additionally, at both pre and post-registration levels, there are learners engaged in continuing professional development, including that mandated by employers or placements, for example fire training, manual handling, etc.



5.5 Learners are accessing education on a full or part-time basis and should have appropriate opportunities to enter and leave at various points along the learning continuum with suitable accreditation for their individual learning and experience.

5.6 Increasing numbers are likely to be undertaking 'in service', workplace based or distance learning programmes.

5.7 Learners may be studying programmes of higher education that are at Certificate or Diploma of Higher Education, Foundation degree, Bachelor of Science degree with Honours, Postgraduate Certificate, Diploma or Masters Level. Some may be studying for an S/NVQ or equivalent, especially support staff and trainee assistant practitioners.

5.8 The Society and College of Radiographers believes that the general educational requirements for assistant practitioners are provided for by the S/NVQ 3 Health award, or its equivalent, including education related to National Occupational Standards.

5.9 There are many complimentary roles the Society and College of Radiographers plays in supporting learners including advising, assessing, accrediting and recommending. These include:

- Accreditation of individuals as assistant practitioners, practitioners, advanced and consultant practitioners and as having specific additional skills and knowledge, such as in IV injecting, prescribing, clinical education, etc;
- Provision of advice and consultancy to individuals prior to and whilst undertaking education at all levels;
- Provision of advice to employers to ensure that education is meeting service needs;
- Recommendation of the education required to bridge gaps for entry with advanced standing;
- Approval of awards and programmes within the College of Radiographers' approval and accreditation framework.

6. The nature of education opportunities

- 6.1 Whilst there should be a wide range of education available to all, education at all levels must include **statutory** and core elements. **These include** those relating to:
- Health and safety at work, to include manual handling;
 - Ionising Radiation Regulations;
 - Ionising Radiation (Medical Exposure) Regulations;
 - Non-ionising radiation used in clinical imaging;
 - Cardio-Pulmonary Resuscitation;
 - Infection Control.
- 6.2 The Society and College of Radiographers recognises the many opportunities available for both formal and informal education to be undertaken and acknowledged. This includes experiential learning, and should be acknowledged via Accreditation of Prior (Experience and) Learning, AP(E)L procedures wherever applicable.
- 6.3 Provision includes both radiographic and non-radiographic skills and knowledge. Non-radiographic education covers a wide range of skills and knowledge including communication and counselling, general management and patient management, research and teaching and assessment.
- 6.4 There should be 'in house' and external provision for personal development of staff, which may be accredited by the professional body or another, recognised body. Where applicable these should be credit rated and contribute to a suitable academic award.
- 6.5 The Society and College of Radiographers has published *A Strategy for Continuing Professional Development* (2003) and developed a CPD tool which is available to all members, to support their continuing professional development and lifelong learning. It encourages employers to recognise that the successful recruitment and retention of staff depends on employee friendly policies and that investment in staff development opportunities is a prerequisite of a competent and well-motivated workforce. This facilitates service development and enhances the service provided to patients.

7. Nature of providers

- 7.1 It is expected that education providers are centres of excellence, with a critical mass of staff well qualified in the context of the programmes offered in the particular institution and in higher education generally.
- 7.2 Education provision needs to articulate clear values and identify its mission and purpose. It needs to be evidence based both in terms of radiography practice and education principles.
- 7.3 **Collaboration** is a key feature of education provision. Collaboration between education providers and placement providers is essential for the effective integration of theory and practice and provision of a cohesive programme of education.
- 7.4 With the increasing diversity of learning opportunities for all levels of practice within the radiography workforce there is an increasing need for collaboration between higher education and further education and other education providers to ensure an integrated continuum of provision along the knowledge and skills escalator.
- 7.5 The good general radiography education provided by many education and service providers should be enhanced by provision from regional and national **centres of clinical expertise**, which should act as a resource across the radiography workforce for education in specific areas of practice.
- 7.6 Depending on the nature of the provision a critical mass of students is required in order for a programme to be viable and to allow sufficient peer support. Increasingly it is expected that collaboration of centres will be needed to achieve this.
- 7.7 Whilst the Society and College of Radiographers recognises the need for local provision to meet local service needs and development, this should be looked at in the wider national context and not impede the mobility of staff within the national workforce. Key to education provision is ensuring all individuals are fit to practice within their scope of practice and provision of a service that is responsive to and anticipatory of patients' needs.

8. Expectations of funders/purchasers

8.1 The Society and College of Radiographers expectations of funders/purchasers are that they:

- Are responsible for local provision but consider this within the national context;
- Plan for the future basing this on service/patient need and not on looking at historical requirements and provision;
- Recognise the finite capacity of both education and practice education provision and the impact of capacity on quality of provision were capacity to be stretched;
- Adopt a collaborative approach both with and between professions;
- Have a mutual recognition of impacts of different funding streams (education sector, health sector, Learning and Skills Council);
- Give equal attention to the importance of funding for education and development of all levels within the radiography workforce;
- Take a holistic approach to the commissioning of education provision;
- Recognise the importance of, and provide support for all learning activity and professional development across the radiographic workforce;
- Encourage and drive the sharing of practice, facilities, etc.

9. Nature of learning environments

9.1 Learning environments should provide a diverse range of learning opportunities that prepare individuals fit for practice at the appropriate level in the radiography workforce and able to provide streamlined patient centred services. Important aspects of the learning environment include:

- Patient/client input/involvement in the learning planning and process;
- Practice learning environments, including clinical skills laboratories, need to provide the learner with a sufficient volume and range of experience and ensure there is appropriate clinical mentoring and support of learners at all levels;
- Academic and clinical environments should provide a stimulating learning experience employing a range of learning methods;
- Provision of student/learner guidance and support;
- Sufficient facilities and resources, including information technology, should be provided for the range of learners at all levels in both the academic and practice environments;
- Interprofessional learning should play an important role in learning environments facilitating effective team working and promoting mutual understanding of roles and responsibilities;
- Sufficient time should be allocated for education activities and the provision of support for learners at all levels.

Appendix 1: Level descriptors

Level descriptors 2005

Background

The level descriptors identified here are intended to provide a guide for members, employers, practitioners, educationalists, etc and broadly follow the SEEC structure for educational levels by identifying operational contexts, cognitive descriptors and transferable skills. The level descriptors seek to clarify the likely level of achievement of personnel working at each level classified by the profession as: Assistant Practitioner; Practitioner; Advanced Practitioner; and Consultant Practitioner. The descriptors identified here also have a relationship to educational levels of achievement of: sub-degree; bachelor degree; masters' degree; and doctoral work.

What are the descriptors?

The descriptors define the complexity, demand and autonomy expected of personnel operating at the defined level and for a particular scope of practice. Through a hierarchy of knowledge and skills they track the career progression through from first level employment to consultant practice. They are descriptions of the characteristics and context of achievement and allow for the employee and employer to map achievement and progression. It should be recognised that for some workers progression will mean continued development within the same area or within a changed context at the same level rather than movement through the hierarchy described here.

Format of the descriptors

The descriptors are grouped under four headings.

- (i) **Development of knowledge and understanding (subject specific):** these descriptors describe:
 - (a) The factual and/or conceptual base of the field of study and the degree of complexity;
 - (b) The ethical issues, both personal and in relation to others, that the learner has to address.
- (ii) **Cognitive/intellectual skills (generic):** These descriptors capture the developing higher level cognitive skills and command of knowledge and understanding which we expect of learners as they progress through the education system.
- (iii) **Key transferable skills (generic):** This group of descriptors summarises the continuum of learning through a range of key transferable skills which all students would typically be expected to acquire through any programme of learning.
- (iv) **Practical skills (subject specific):** Many, although not all, subject areas include practical skills which can range from the ability to use information technology for data processing and communication, use of instruments, laboratory techniques, performance skills, spatial awareness, design and creative skills. The precise nature of the development of practical skills will be discipline specific and each programme of learning will need to specify the practical skills required.

Interpretation of the descriptors

Areas of achievement differ according to the extent to which the knowledge or skills developed are **generic** or more **subject specific**.

In general, the level is characterised by three important related factors:

- The **autonomy** of the worker;
- The increasing **responsibility** that is expected of the worker;
- The nature and complexity of the task(s).

Some or all of the following skills may be identified at any level:

- a) Investigative skills/methods of enquiry;
- b) Data and information processing/information technology;
- c) Content/textual analysis;
- d) Performance skills;
- e) Service development;
- f) Professional skills;
- g) Spatial awareness;
- h) Management skills.

Assistant practitioner level (Pre-registration)

The Assistant Practitioner operates within a defined scope of practice and under the supervision of a registered radiographer or practitioner under the terms of IR(ME)R. They perform limited clinical imaging or treatment procedures in situations where standard protocols can be applied consistently.

Knowledge and Understanding

Knowledge will be appropriate to the context and scope of practice and may exist within a tightly focused area of practice, such as breast screening and breast radiotherapy or a broad area such as appendicular radiography and megavoltage radiotherapy.

The Assistant Practitioner:

- **Knowledge base:** Has a given factual and/or conceptual knowledge base with emphasis on the nature of the field of study and appropriate terminology;
- **Health and Safety:** Can work safely within agreed limits under supervision, applying protocols and recognising and responding appropriately to breaches of standards;
- **Ethical issues:** Can demonstrate awareness of wider social, environmental and ethical issues which govern the practice of radiography and is able to discuss these in relation to personal beliefs and values.

Cognitive/Intellectual skills (generic)

The Assistant Practitioner:

- **Analysis:** Can analyse situations with guidance using given classifications/principles and can compare alternative methods and techniques;
- **Synthesis:** Can collect and categorise ideas and information in a predictable and standard format;
- **Evaluation:** Can evaluate the relevance and significance of information and its implications within the limits of the scope of practice;
- **Application:** Can identify key elements of practice situations and apply given tools/methods accurately and carefully in a considered manner.

Key/transferable skills (generic)

The Assistant Practitioner:

- **Group working:** Can interact and work effectively within the multi-disciplinary team as a member of a group and meet obligations to others;
- **Self evaluation:** Can evaluate own strengths and weakness within criteria largely set by others;
- **Management of information:** Can manage information, collect appropriate data from a range of sources and undertake research tasks within protocols and with external guidance;
- **Autonomy:** Can take responsibility for self with appropriate support and direction;
- **Communications:** Can communicate effectively in a manner appropriate for practice working within the multi-disciplinary team and with a range of patients and clients;

- **Problem solving:** Can recognise key problem areas and apply given tools, methods and protocols accurately and carefully to a well defined problem.

Practical skills (subject specific)

The Assistant Practitioner:

- **Application:** Can operate in predictable, defined contexts that require use of a specified range of standard techniques;
- **Autonomy in skill use:** Is able to act with limited autonomy, under direction or supervision, within defined guidelines.

Practitioner level (Registration)

The registered Practitioner is deemed to be competent to practice autonomously within their discipline and to have achieved the foundation skills for the continued development of practice.

Knowledge and Understanding (subject specific)

The Practitioner:

- **Knowledge base:** Has a comprehensive/detailed discipline(s) knowledge, with areas of specialisation in depth, and an awareness of the provisional nature of knowledge;
- **Health and Safety:** Can work safely with minimal supervision, applying protocols and setting standards;
- **Ethical issues:** Is aware of personal responsibility and professional codes of conduct and will incorporate a critical ethical dimension into their work.

Cognitive/Intellectual skills (generic)

The Practitioner:

- **Analysis:** Can analyse new situations without guidance, using a range of techniques appropriate to practice;
- **Synthesis:** With minimum guidance can transform abstract information and concepts towards a given purpose and design novel solutions;
- **Evaluation:** Can critically evaluate evidence to support conclusions/recommendations, reviewing its reliability, validity and significance. Can investigate contradictory information/identify reasons for contradictions;
- **Application:** Is confident and flexible in identifying and defining problems and can apply appropriate knowledge and skills to their solution.

Key/transferable skills (generic)

The Practitioner:

- **Group working:** Can interact effectively within the multi-disciplinary team or professional group, negotiate in a professional context and manage conflict;
- **Communications:** Can engage effectively in debate in a professional manner within the multi-disciplinary team and with patients and clients;
- **Problem solving:** Is confident and flexible in identifying and defining problems and the application of appropriate knowledge, tools/methods to their solution;
- **Learning resources:** With minimum guidance can manage own learning using the full range of resources for the discipline(s). Can work professionally within the discipline;
- **Self evaluation:** Is confident in application of judgment and can challenge received opinion and reflect on action. Can seek and make use of feedback;
- **Information management:** Can select and manage information, competently undertaking research tasks with minimum guidance;

- **Autonomy:** Will accept responsibility for own work and demonstrate the capacity to critically evaluate it.

Practical skills (subject specific)

The Practitioner:

- **Application of skills:** Can operate in complex and unpredictable contexts, requiring selection and application from a wide range of innovative or standard techniques and practices;
- **Autonomy in skill use:** Able to act autonomously, with minimal supervision or direction, within agreed guidelines.

Advanced practice level

The Advanced Practitioner will display expert practice within an identifiable area of radiography practice.

Knowledge and Understanding

The Advanced Practitioner:

- **Knowledge base:** Has depth and systematic understanding of knowledge in specialised or applied areas and can work with theoretical or research-based knowledge at the forefront of their academic discipline;
- **Ethical issues:** Has the awareness and ability to manage the implications of ethical dilemmas and work pro-actively with others to formulate solutions;
- **Disciplinary methodologies:** Has a comprehensive understanding of techniques and methodologies applicable to their own area of practice.

Cognitive and Intellectual Skills

The Advanced Practitioner:

- **Analysis:** With critical awareness can undertake analysis of complex, incomplete or contradictory areas of knowledge and communicate the outcome effectively;
- **Synthesis:** With critical awareness, can synthesise information in a manner that may be innovative, using knowledge or processes from the forefront of practice;
- **Evaluation:** Has a level of conceptual understanding that will allow critical evaluation of research, advanced scholarship and methodologies and argue alternative approaches;
- **Application:** Can demonstrate initiative and originality in problem solving. Can act autonomously in planning and implementing tasks at a professional level, making decisions in complex and unpredictable situations.

Key/Transferable Skills

The Advanced Practitioner:

- **Group working:** Can work effectively with a group as leader or member. Can clarify tasks and make appropriate use of the capacities of group members. Is able to negotiate and handle conflict with confidence;
- **Communications:** Can engage confidently in academic and professional communication with others, reporting on action clearly, autonomously and competently;
- **Problem solving:** Has independent learning ability required for continuing professional study, making professional use of others where appropriate;
- **Learning resources:** Is able to use full range of learning resources;
- **Self evaluation:** Is reflective on own and others' functioning in order to improve practice;
- **Management of information:** Can competently undertake research tasks with minimum guidance;

- **Autonomy:** Is an independent and self critical practitioner, guiding the practice of others and managing own requirements for continuing professional development.

Practical Skills

The Advanced Practitioner:

- **Application of skills:** Can operate in complex and unpredictable and/or specialised contexts, and has an overview of the issues governing good practice;
- **Autonomy in skill use:** Is able to exercise initiative and personal responsibility in professional practice;
- **Technical expertise:** Has technical expertise, performs smoothly with precision and effectiveness; can adapt skills and design or develop new skills and/or procedures for new situations.

Consultant practice level

The consultant practitioner is a champion in the clinical, academic or research field bringing new, innovative solutions to patient care. The role defines professional development and influences at a strategic level, and is pivotal in the integration of research findings in practice. The consultant practitioner is able to initiate clinical service developments and deliver improved patient outcomes through the implementation of clinical research and audit, governance and risk assessment.

Knowledge and Understanding

The Consultant Practitioner:

- **Knowledge base:** Has great depth and systematic understanding of a substantial body of knowledge. Can work with theoretical/research knowledge at the forefront of radiography to peer reviewed standards/publication quality;
- **Ethical issues:** Can analyse and manage the implications of ethical dilemmas and work pro-actively with others to formulate solutions;
- **Disciplinary methodologies:** Has a comprehensive understanding of techniques/ methodologies applicable to the discipline (theory or research-based).

Cognitive and Intellectual Skills

The Consultant Practitioner:

- **Analysis:** With critical awareness, can undertake analysis, managing complexity, incompleteness of data or contradictions in the areas of knowledge;
- **Synthesis:** Can synthesise new approaches, in a manner that can contribute to the development of methodology or understanding in that discipline or practice;
- **Evaluation:** Has conceptual understanding and critical capacity to allow independent evaluation of research, advanced scholarship and methodologies. Can argue alternative approaches;
- **Application:** Can act independently and with originality in problem solving, is able to lead in planning and implementing tasks at a professional or equivalent level.

Key/Transferable Skills

The Consultant Practitioner:

- **Group working:** Can lead/work effectively with groups. Can clarify tasks, managing the capacities of group members, negotiating and handling conflict with confidence;
- **Self evaluation:** Is reflective on own and others' functioning in order to improve practice;
- **Management of information:** Can undertake innovative research tasks competently and independently;

- **Autonomy:** Is independent and self-critical as a practitioner; guides and supports the practice of others and can manage continuing professional development of self and others;
- **Communication:** Can communicate complex or contentious information clearly and effectively to specialists/non-specialists. Can act as a recognised and effective consultant;
- **Problem solving:** Can continue own professional study independently, can make use of others professionally within/outside the discipline.

Practical Skills

The Consultant Practitioner:

- **Application of skills:** Can operate in complex and unpredictable/specialised contexts that may be at the forefront of knowledge. Has overview of the issues governing good practice;
- **Autonomy in skill use:** Can act in a professional capacity for self/others, with responsibility and largely autonomously and with initiative in complex and unpredictable situations; will carry their own caseload;
- **Technical expertise:** Has technical mastery, performs smoothly with precision and effectiveness; can adapt skills and design or develop new skills/procedures for new situations.

Appendix 2: Role of the approval & accreditation board

The Approval & Accreditation Board was established in 2004 to advise in the development and monitoring of the approval accreditation and review processes. The Board considers all aspects of validation, accreditation and ensures that the following aims are achieved within the accreditation framework:

- Commonality and consistency of approach and standards;
- Consideration of the whole spectrum of activity;
- Maintenance of appropriate links with the HPC for issues related to maintained competence to practice;
- Accreditation of practitioners from all disciplines and at all levels of practice;
- Utilisation of appropriate mechanisms for approvals and accreditation in all home countries and regions, working in an integrated way with the normal quality assurance processes that operate in each country.

Acknowledgments

The Society and College of Radiographers wishes to express its thanks and appreciation to the members of the working party who participated in drafting this document:

Julie O'Boyle, Education Development Manager, Trent Strategic Health Authority - Multi-Professional Deanery.

Ian Henderson, Chair of Approvals and Accreditation Committee. Principal Lecturer, Department of Allied Health Professions, London South Bank University.

Stephanie Wilson, Learning & Teaching Fellow (UCLT) and Director of Academic Guidance, Anglia Polytechnic University.

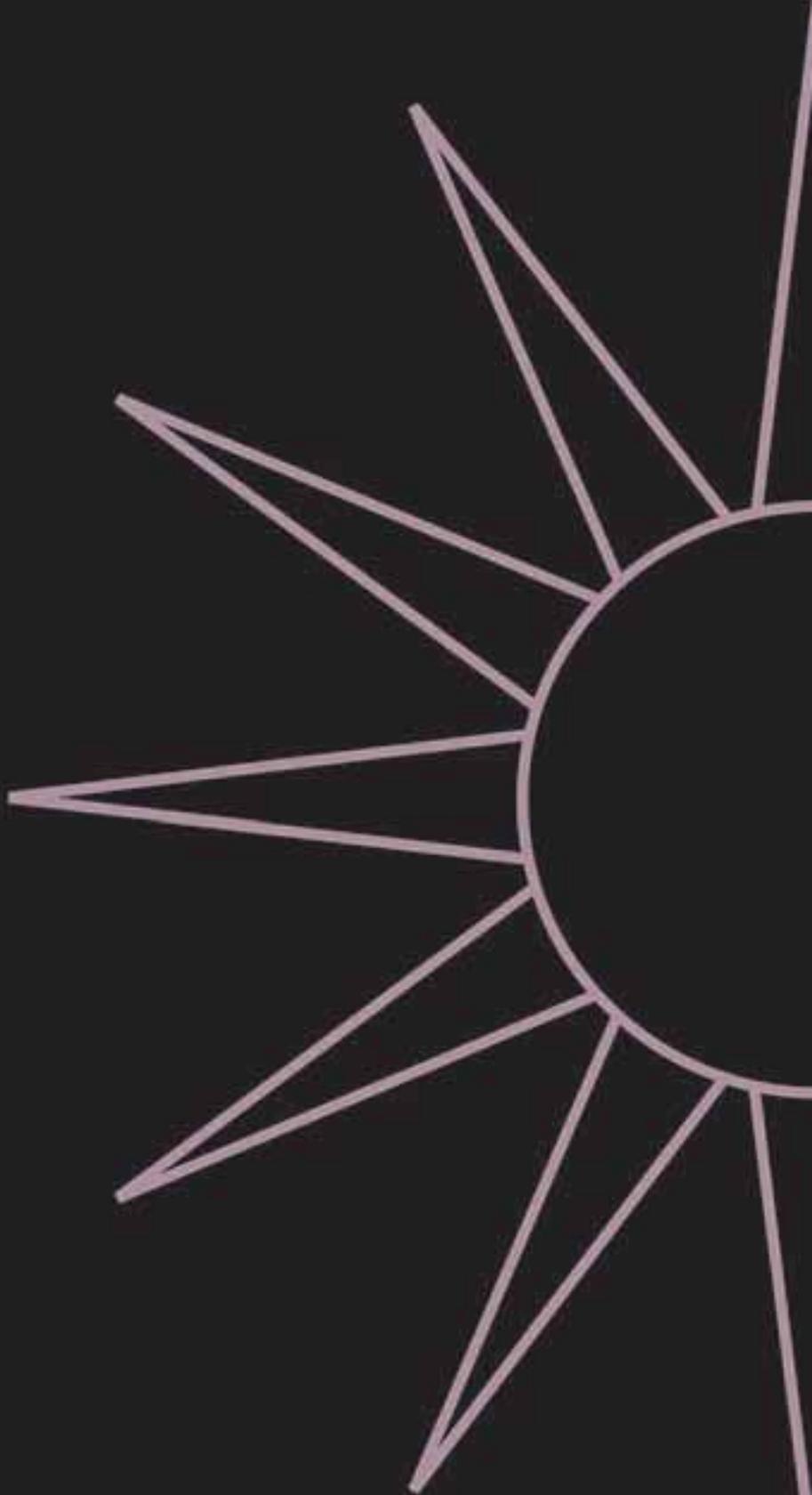
Thanks also to **Audrey Paterson**, Director of Professional Policy, who provided advice throughout.

References

- 1 College of Radiographers (2003) *A Curriculum Framework for Radiography*, CoR London
- 2 College of Radiographers (2002) *A strategy for the education and professional development of radiographers*, CoR London
- 3 College of Radiographers (2003) *Education and Professional Development: Moving Ahead*, CoR London
- 4 College of Radiographers (2003) *Career Progression Framework: Radiography Support Workforce*, CoR London
- 5 NHS Modernisation Agency (2004) *The Career Framework for the NHS*, NHS Modernisation Agency, Leicester.
- 6 Health Professions Council (Dec 2003) *Standards of Proficiency for Radiographers*; hpc London.

Bibliography

- College of Radiographers (2003) *A Curriculum Framework for Radiography*, CoR London
- College of Radiographers (2005) *A Framework for Professional Leadership in Clinical Imaging and Radiotherapy and Oncology Services*, CoR London
- College of Radiographers (2002) *A strategy for the education and professional development of radiographers*, CoR London
- College of Radiographers (2005) *A strategy for practice development in radiography*, CoR London
- College of Radiographers (2003) *Career Progression Framework: Radiography Support Workforce*, CoR London
- College of Radiographers (2004) *Clinical Education and Training: Capacity and Quality*, CoR London
- College of Radiographers (2003) *Clinical Supervision: A position statement*, CoR London
- College of Radiographers (2003) *Clinical Supervision Framework*, CoR London
- College of Radiographers (2003) *Developing the business case for consultant radiographers*, CoR London
- College of Radiographers (2003) *Education and Professional Development: Moving Ahead*, CoR London
- College of Radiographers (2004) *Recruiting and Retaining the Radiography Workforce*, CoR London
- College of Radiographers (2003) *Role Development Revisited: The Research Evidence*, CoR London
- College of Radiographers (2002 reprinted with minor amendments 2004) *Statements for Professional Conduct*, CoR London
- College of Radiographers (2004) *The Approval and Accreditation of Educational Programmes and Professional Practice in Radiography: Policy and Principles*, CoR London
- College of Radiographers (2004) *The Approval and Accreditation of Educational Programmes and Professional Practice in Radiography: Guidance on Implementation of Policy and Principles*, CoR London
- Health Professions Council (Dec 2003) *Standards of Proficiency for Radiographers*, hpc, London
- NHS Modernisation Agency (2004) *The Career Framework for the NHS*, NHS Modernisation Agency, Leicester
- Quality Assurance Agency for Higher Education (2001) *The framework for education qualifications in England, Wales and Northern Ireland*, QAA, Gloucester
- Quality Assurance Agency for Higher Education (2001) *The framework for qualifications of higher education institutions in Scotland*, QAA, Gloucester
- Society of Radiographers (2003) *A Strategy for Continuing Professional Development*, SoR London





The College of Radiographers

Limited company registration number 1287383

Registered charity number 272505

First Edition

November 2005

ISBN 1 8771101 28 X

£15 to SCoR members

£25 non-members

The Society of Radiographers

207 Providence Square

Mill Street

London SE1 2EW

Telephone 020 7740 7200

Facsimile 020 7740 7233

E-mail info@sor.org

Website www.sor.org