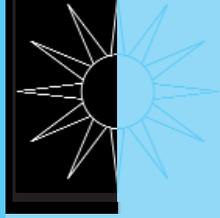


THE COLLEGE OF
RADIOGRAPHERS



RADIOGRAPHY

Research and the Radiography Profession

A Strategy and Five Year Plan

THE SOCIETY OF
RADIOGRAPHERS





Research and the Radiography Profession A Strategy and Five Year Plan

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Foreword

The Society and College of Radiographers is pleased to present *Research and the Radiography Profession – A Strategy and Five Year Plan* outlined within this document.

It contains wide reaching proposals that will continue to develop research skills in the profession. It sets out expectations, outlining individual, managerial and professional body responsibilities as well as offering guidance on achieving those expectations.

It is anticipated that this document will support change within diagnostic imaging and radiotherapy and oncology departments, so ensuring that practice and patient centred care become fully evidence-based.

The Society and College of Radiographers gratefully acknowledges the work of its research group in the preparation of this document.

Executive summary

There have been numerous policy directives from the National Health Service (NHS) focusing responsibility on the health care professions and their academic institutions to provide evidence-based care. However, currently the shortage of health service researchers is frustrating these directives.

Graduates of radiography programmes must be able to practise safely and use an evidence base in their clinical decision-making. It is, therefore, important that the profession supports research opportunities, allowing for expansion and development in research¹. There is also a need to promote radiography as a unique discipline with its own knowledge base, and with a high quality research and publication profile. Flexible career pathways are required, encompassing clinical, education, management and research skills which are vital for the progression of the profession.

Within the profession, there must be a commitment to:

“Excellence in education, training and research to equip current and future NHS and social care staff with the skills and knowledge required for the effective delivery of care that is responsive to service needs.”²

This Strategy for Research highlights the main research targets for radiography and provides a developmental plan for the future. It is underpinned by key documents and recommendations from:

- The Department of Health;
- The Research Forum for the Allied Health Professions Federation;
- The Strategic Learning and Research Committee.

1. Research policy

The policy of the Society and College of Radiographers (SCoR) is to encourage all radiographers to use research in their practice, thus securing for their patients the best evidence and knowledge based care available.

2. Aim of this strategy

The aim of this strategy is to outline the responsibilities and commitment required of all radiographers to include research skills as part of their occupational development, for the advancement of the whole profession, and for the benefit of their patients.

3. The strategy

- 3.1 Research is a fundamental component of professional practice and all individuals have a personal responsibility to ensure this happens.

The objectives of this strategy are to:

- 3.2 Provide support for all radiographers to engage in lifelong learning and training.
- 3.3 Enable all radiographers to develop their evidence and knowledge based practice.
- 3.4 Promote the need for radiographers to be research aware and research users as part of their continuing education.
- 3.5 Advocate an evaluative culture in the workplace with the involvement of radiographers in the whole research cycle.
- 3.6 Focus on the barriers to research within the profession and present a foundation to solve or reduce these issues.
- 3.7 Ensure high quality research is undertaken to attest radiographic procedures.
- 3.8 Accentuate the need for both a unidisciplinary and multidisciplinary approach to research, affording radiographers the opportunities to forge strong partnerships with other health professional groups.
- 3.9 Identify research centres with multidisciplinary expertise that could act as sources of training and mentorship.
- 3.10 Emphasise that dissemination and publication of research findings is paramount.
- 3.11 Encourage special interest groups at national and international level.
- 3.12 Support joint research practitioner posts, between Higher Education Institutions (HEIs) and clinical departments, thereby strengthening links between academia and practice.

- 3.13 Promote radiographic honorary contracts with education institutions, industry, and government departments.
- 3.14 Establish postdoctoral awards and fellowships.
- 3.15 Secure funded Radiography Fellows, Readers, and Chairs.
- 3.16 Provide support networks for research, with appropriate resources and funding.
- 3.17 Identify and pursue research priorities for radiography.
- 3.18 Ensure radiographers are involved in local and national research agendas.
- 3.19 Enable The Society and College of Radiographers to describe and evaluate the nature and extent of radiography research conducted.

4. Five Year Plan

- 4.1 The strategic objectives are ambitious with some already, or almost, in place and some being longer term. From the objectives, a five-year plan has been formulated, to strengthen knowledge and improve research capacity and capability.
- 4.2 *All* radiographers will be able to appreciate and use substantiated evidence in their work.
- 4.3 *All* radiographers will use an evidence-base to provide high quality services to patients. Some radiographers will be involved in undertaking and developing research as part, or all, of their career pathway. These individuals will ensure that radiography has a greater influence in the health care plan^[3] and future health and social care planning.
- 4.4 In 2001, the percentage of radiographers recorded as research active with a PhD, was 0.04%^[4]. There will be a significant increase in the number of postdoctoral researchers with at least 3% of the profession research active by 2010.
- 4.5 Currently, radiography has a few personal and visiting Chairs, Readers, and Research Fellows. By 2010, there will be appointments to three funded Chairs.
- 4.6 At least 1% of the profession per Society and College region or country will hold a joint appointment, with a focus on knowledge and evidence development.
- 4.7 There will be a research representative on each regional committee and national council, to confirm effective communication and sharing of information.
- 4.8 There will be a yearly evaluation of research activity within the profession. This will aim to capture both the quantity of research undertaken and the subject orientation.
- 4.9 A second research priority analysis study will be undertaken in 2006/7.
- 4.10 The Society and College's website research pages will be developed into a comprehensive resource of advice.
- 4.11 The Society and College of Radiographers will encourage radiographers to apply for existing research and development funds.
- 4.12 *Radiography*, the peer-reviewed journal, will have become impact rated by 2010.
- 4.13 There will be centres of expertise, acting as sources of reference and support, offering mentorship and, over time, securing succession planning. These centres will have well-established infrastructures, with good research capacity and capability, and a strong publication and dissemination record. In particular, they will be expected to contribute to NHS research priorities^[5].
- 4.14 Radiographers will take a proactive role, optimising research accomplishment in collaborative multidisciplinary groups. For example, The Society and College commends the integrated approach to radiotherapy research being established by the Academic Clinical Oncology and Radiobiology Research Network (ACORRN).
- 4.15 All radiographic departments in the United Kingdom will have their own five-year strategic plans for research.
- 4.16 By 2010, a College of Radiographers Award of Fellowship by research and portfolio will have been established.
- 4.17 The Society and College of Radiographers will award £25,000 annually towards radiographic research. This sum will be allocated on merit and may be a single grant or assistance towards several projects, dependent on the number and standard of applications.

5. Rationale

5.1 In 1991, the Department of Health produced its first research and development strategy⁶. This recognised the need for health care to have an evidence base, with standards for delivery and a reduction in unacceptable variations⁴. In 2001, the Research Forum of the Allied Health Professions Forum (now Federation) (AHPF) proposed a nationally coordinated approach to improving research in the Allied Health Professions (AHPs). The Society and College of Radiographers, a member of the AHPF, has adopted the following objective and from it has developed this strategic plan for research.

“To improve the capacity to undertake and use research so as to improve the quality of patient focused health care.”⁷

5.2 The Society and College of Radiographers believes a whole system approach is required between theory, research, education, practice, and policy. Organisational and managerial support will be pivotal in ensuring research improves practice.

“There is a need to ensure improved opportunities for members of allied health professions to develop their skills in: accessing, appreciating and using research evidence; undertaking research and considering research careers and; harnessing existing capacity to influence the wider research and development agenda.”⁸

5.3 Since 1995, the standard radiography qualification in the United Kingdom has been a first degree. This has helped expose students to a research culture early in their careers. However, the profession cannot expect undergraduate research projects alone to form the radiographic knowledge base⁹. The ‘New NHS’¹⁰ requires the delivery of high quality proven care and a workforce that recognises its personal accountability, able to explain, justify, and defend its actions and decisions. Radiographers are an important part of this workforce and must be committed to lifelong learning and developing the professional body of knowledge^{11, 12}.

5.4 Currently, The Society and College of Radiographers believes there is a lack of experienced radiographer researchers in well-developed career structures. For radiography to become research active, radiographers need to be supported to the highest levels of practice, holding postgraduate and doctoral qualifications.

“The delivery of modern, effective and high quality health and social care demands that all health and social care practitioners must be trained and educated to an increasingly high standard.”¹³

5.5 The Society and College’s career progression framework¹⁴ advocates that:

- All practitioners should be research aware;
- Advanced practitioners should contribute to research and must use evidence in their practice;
- Consultant practitioners should be advancing in practice and be leaders in their field, who are advising and supporting others. They will have a crucial function in ensuring research and practice are effectively merged¹⁵.

5.6 To achieve this it is essential that research becomes an integral part of everyday procedures for clinical, academic, and managerial staff. Hence, the Society and College has developed this strategy for research, which contains a focused five-year plan that places demands on all radiographers.

6. Cultural change and research commitment

- 6.1 The Society and College believes cultural change is required to unite research evaluation with professional standing. Radiographers need to be involved in investigative work from local to international levels, and must contribute to the various radiography specialities, whilst liaising with other disciplines. The radiographic profession must achieve a standard of research productivity that is at least equal to other allied health professions. Individual practitioners must be working as informed consumers of research as part of their everyday practice⁴ and:

“... respond positively to new demands both from technological changes and from widening and changing roles.”⁸

- 6.2 To achieve this, the Society and College expects Chief Executives and Service Managers to be actively involved in creating and sustaining an environment that develops the knowledge and evidence base.

“Employers in health and social care have a duty to support education and research enterprise that will deliver evidence based care and a next generation of employees.”¹

This will assist departments in implementing their own five-year strategies for research, in line with their organisation’s research and development plans.

- 6.3 Each centre should develop their research expertise and liaise closely with Higher Education Institutions (HEIs) to support local research and to meet regional and national priorities. As confidence and ability increases, staff should also engage in international studies, providing recognition for the organisation’s contribution.
- 6.4 The quality of supervision and mentorship must be appropriate. The use of multidisciplinary experts should be encouraged to guarantee the research undertaken is of the highest standard.
- 6.5 Radiographers must establish a suitable research role within the interprofessional team, by promoting the knowledge, skills, and values of radiographers in the wider health care environment.
- 6.6 Research questions need to be raised through collaborative ventures and radiographers should have the confidence and ability to either lead or be actively involved in the group.
- 6.7 Currently, there is no clearly articulated career pathway for researchers in radiography. Uncertainties about working in research are common and cause concern to those making career choices.

“It is important to sustain and develop the careers of those already in post, while at the same time anticipating the needs of those wishing to embark on a career as a researcher for the first time.”¹

- 6.8 The Society and College believes that Consultants, Advanced Practitioners, Practitioners, and others in the profession, must be supported to fulfil their aspirations for enhanced patient care through education and research¹.

“Increasingly we are endeavouring to deliver evidence-based health and social care and to succeed in this we need a cadre of active researchers both in basic science and in clinical work as well as a work force that is ‘research aware’ and educated to understand the benefits and the pitfalls in the outcomes of the research process.”¹³

- 6.9 It is vital the outcomes from research are related to the evidence base of radiography and contribute to the body of knowledge that defines the profession¹⁶. Both diagnostic and therapeutic radiography draw on elements of the natural and social sciences, evolving techniques that use ionising and non-ionising radiation to produce optimum images and diagnoses or optimum radical or palliative treatments. Currently, some procedures are still derived more from tradition and custom than from substantiation.

7. Current problems and barriers to research

7.1 Radiographic research is currently underweight compared with national peer groups. It is recognised there are barriers to research in the profession, such the demand for evidence is not yet being met⁵.

7.2 These barriers include:

- A scarcity of defined research career pathways;
- Shortages of staff, with poor recruitment and retention;
- A lack of available training to enable radiographers to undertake research and to critically appraise evidence;
- A deficiency of funding to implement a supportive research infrastructure, with capacity and capability across and between centres;
- Inequity in the distribution of available funding;
- A proportion of radiographers with a lack of confidence to engage in research;
- Insufficient flexibility between postdoctoral research and clinical training;
- Prolonged insecurity of short-term appointments;
- Limited research training opportunities.

8. Funding

- 8.1 In the United Kingdom there is approximately £3.5 billion available in research funding from public and private sources¹⁷. There are various financial opportunities available to radiographers that are currently under utilised.
- 8.2 The Department of Health (England) and the Higher Education Funding Council for England ((HEFCE)² recognise that for research capacity to grow in the allied health professions, considerable support and dedicated funding will be needed. There are similar capacity building funds being offered by the Northern Ireland R&D Office and also through NHS Scotland. In addition, discussions will be required with workforce development groups to guarantee that a research element is present in personnel contracts.
- 8.3 The Society and College believes it is essential that the profession is seen to be actively bidding for these monies. It aims to use its website to promote possible sources of funding and to offer guidance.

9. Publication and Dissemination

- 9.1 Radiographers must be encouraged to present and publish findings. If research is not published it cannot really be classed as research. It is acknowledged that recorded research activity is probably much lower than the reality because work has simply not been documented and disseminated.
- 9.2 The profession must be actively involved in the generation of publications which can be evaluated and used to transfer knowledge from research to practice and education¹⁸.
- 9.3 There are numerous radiographic and multiprofessional publications available to radiographers. For example, *Radiography* is the official peer reviewed journal of The Society and College of Radiographers. Its Editor-in-Chief and Review Editors are available to help radiographers proffer papers to a high standard, thereby facilitating the recognition of radiographers' work.

10. Conclusion

10.1 All health care professions are expected, by both the public and government, to modernise and improve outcomes, at a time when health service providers are experiencing unprecedented problems with staff recruitment and retention. Therefore, the development of a strong research culture is, perhaps, one of the most important challenges facing radiography practice. The quality and recognition of the research work undertaken will verify the effectiveness of professional standards and enable radiographers to deliver the best available, proven care.

10.2 Radiographers must have both the confidence and motivation to develop professionally. They need to be encouraged to evaluate the evidence and change procedures, if required¹⁹, allowing the practitioner to adopt a culture of lifelong learning. The Statements of Professional Conduct²⁰ state that:

*“Radiographers should use evidence-based practice. This may be achieved by active participation in audit and research. Additionally, radiographers have a responsibility to engage in developing the body of knowledge ...”*²⁰

10.3 The overall objective of this strategy document is to increase research activity within radiography to an internationally acceptable level of quality, which is at least commensurate with the achievements of other allied health professions.

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