

2016-2021 Society and College of Radiographers Research Strategy

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Summary

This is the fourth research strategy presented by the Society and College of Radiographers (SCoR) continuing upon the work of previous editions.

It is published in response to the Society and College of Radiographers Strategy [2015-2017]¹ which conveys research as a key part of the College of Radiographers' mission:

The College of Radiographers will promote imaging and radiotherapy science and practice for the benefit of all. We will do this through:

- **Standards for education and practice**
- **Promoting and conducting research**
- **Listening to patients and service users**

This research strategy focuses on the following specific objectives:

- Society of Radiographers: Supporting professional development: S4.5
- College of Radiographers: Building professional credibility through research: C3.1-C3.5

It should be noted that this new research strategy is not exclusive to the objectives above; it will also underpin many of the other strategic objectives ensuring that radiography continues to grow as an evidence-based profession with the emphasis on improving patient care and service delivery.

This strategy is inclusive of all SCoR members and is targeted at all levels of the profession from student to expert practitioners and at all levels of research, from novice through to research professorships. The SCoR policy is that all radiographers are required to engage with research and this strategy aims to detail how the SCoR and its membership will support this over the next five years.

This document has been aligned with research strategies of other Allied Health Professions (AHPs) and the Government drivers across the UK, and is targeted at both UK radiographers and external audiences.

All patients undergoing diagnostic imaging or radiotherapy deserve evidence-based practice to underpin the care they receive. This strategy supports the radiography profession in delivering this over the next five years.

Fast facts about the radiography workforce

- The radiography workforce is pivotal to delivering fast and reliable diagnoses of disease, and curative and palliative treatment and care for patients with cancer, taking responsibility for managing the complete care pathway. The radiography workforce: diagnostic radiographers; therapeutic radiographers; sonographers; nuclear medicine technologists; dosimetrists; and others working at practitioner level .²
- The SCoR has defined the *Scope of Practice*² for its members as “that which the member of the professional workforce is educated and competent to perform”. The SCoR is clear that it sees no boundaries to professional practice and that research is a key component in supporting changing scope of practice.
- The professional diagnostic radiography workforce takes the lead responsibility for the management and care of patients undergoing the spectrum of imaging examinations together with associated image interpretation. Increasingly, it also leads on integrating these two processes into the patient care pathway as a member of the multidisciplinary team.^{3,4}
- There is a greater focus on prevention and early diagnosis (including the National Screening Committee programmes) which inevitably increases the role and scope of clinical imaging and radiotherapy practice. Currently:
 - 98% of patients will undergo diagnostic imaging at some point in their life.⁵
- The professional therapeutic workforce takes the lead responsibility for the management and care of patients undergoing radiotherapy during the pre-treatment, treatment delivery and immediate post-treatment phases. Working as part of the multidisciplinary cancer team, their role supports patients and their families through the entire cancer journey from health promotion to end of life care.^{6,7} Currently:
 - every two minutes someone in the UK will be diagnosed with cancer⁸
 - 1 in 2 people born after 1960 in the UK will be diagnosed with some form of cancer during their lifetime⁸
 - approximately 4 in 10 people diagnosed with cancer undergo radiotherapy and this cures more people of cancer than chemotherapy drugs.⁹
- The majority of the professional workforce is registered and regulated by a statutory regulatory body. For those who have qualified as diagnostic or therapeutic radiographers, this will be with the Health and Care Professions Council (HCPC). All UK radiographers hold a minimum of a Bachelor of

Science degree (or equivalent). Professional and legal frameworks define the way in which the profession must practice; of particular importance is The Society and College of Radiographers' *Code of Professional Conduct*¹⁰ and the Health and Care Professions Council's *Standards of Conduct, Performance and Ethics*.¹¹

The Society and College of Radiographers Vision for Research

The overarching Society and College of Radiographers' vision for research is to improve patient care and outcomes by continuing to develop, grow and implement a high quality evidence-base that addresses key patient-focussed research priorities.

Aims

This strategy has three key aims:

Aim 1: Embed research at all levels of radiography practice and education;

Aim 2: Raise the impact and profile of radiography through high quality research focussed on improving patient care and/or service delivery;

Aim 3: Expand UK radiography research capacity through development of skilled and motivated research-active members of the profession.

Expectations by 2021

Expectations by 2021	
1:	By 2021 all research undertaken within the radiography profession will demonstrate a potential impact on patient care and/or service delivery.
2:	By 2021 all research projects undertaken within the radiography profession will have evidence of involvement of patients and the public and/or other relevant stakeholder(s).
3:	By 2021 all clinical and academic radiotherapy and imaging departments will have a local research strategy.
4:	By 2021 all research undertaken within the radiography profession will be disseminated to a relevant forum.
5:	Research funding income across the radiography profession will increase year on year, with a greater number of radiographers acting as Principal Investigator for nationally, or internationally, competitive grants.
6:	By 2021 clinical research careers will be well established within radiotherapy and imaging departments, supported by the national researcher job profiles for Allied Health Professionals.
7:	By 2021 there must be an expectation that all practitioners in radiography at advanced level hold a minimum of a full Master's degree.
8:	By 2021 there must be an expectation that all practitioners in radiography at consultant level will hold, or be working towards, a Doctoral level award.
9:	By 2021 1% of the radiography workforce (about 300) will hold, or be working towards, a Doctoral level award.
10:	More research from radiographic practitioners will be Research Exercise Framework (REF) returnable.

It is acknowledged that not all expectations will be feasible within a pre-registration research context.

An annual report on progress will be delivered.

Delivering the strategy aims

Aim 1: Embed research at all levels of radiography practice and education

1.1 Develop a radiography workforce that engages critically with research to ensure that care provided to service users is based on the best available evidence.

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
1.1.1	All undergraduate and postgraduate training programmes must contain components that develop critical research appraisal skills.	Education Institutes (EIs), SCoR, academics
1.1.2	Job descriptions across the radiography profession should include a responsibility to engage with research evidence at an appropriate level, guided by national job profiles.	Radiography service managers, SCoR
1.1.3	All four levels of practice - assistant, practitioner, advanced and consultant – must include the domain of research, as noted in the SCoR Education and Career Framework (12).	Radiography service managers
1.1.4	Where job descriptions specify research activity, this should be reflected in the job plan with specified time allocation for research. In particular this will apply to research radiographers, consultant practitioners, advanced practitioners, and academic staff.	Radiography service managers, SCoR, EIs, consultant practitioners, advanced practitioners, academics
1.1.5	Engagement in evidence-based practice and research activities to be evaluated at annual staff appraisals.	Radiography service managers and team leaders
1.1.6	Promote critical engagement with the evidence base through initiatives such as journal groups. These should be supported at a local, regional, national and international level.	All members, SCoR, research active members, radiography service managers, practice educators
1.1.7	Local clinical policies and protocols should be regularly assessed against NICE guidelines and the current evidence base.	Radiography service managers, consultant practitioners, all members
1.1.8	All formal CPD activities should include engagement with the wider literature/evidence base.	CPD event organisers, practice educators, SCoR

1.2 Foster a culture across the radiography profession that values research and evaluation activities as a core part of delivering high quality patient care for all.

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
1.2.1	All research activities should clearly demonstrate an impact on patient care or service delivery.	Research active members, SCoR , radiography service managers
1.2.2	Education and CPD events aimed at leadership and management should include elements that highlight the wide ranging benefits of research within clinical and academic departments.	EIs, academics, CPD organisers, practice educators, SCoR
1.2.3	Develop and implement local research strategies. These should be proportionate, reflecting the priorities and size of each individual department (eg a short statement of intent would be appropriate for small departments).	Radiography service managers, research active members, consultant practitioners
1.2.4	Encourage dissemination of case studies where research activities have led to improvements in patient care and service delivery.	SCoR, research active members, radiography service managers
1.2.5	Research to become a standing item on staff meeting agendas in all imaging, radiotherapy and academic departments.	Radiography service managers, Heads of EIs, consultant practitioners, practice educators

Aim 2: Raise the impact and profile of radiography through high quality research focussed on improving patient care and/or service delivery

2.1 Ensure all research conducted by radiographers has a clear benefit to patient care and/or service delivery.

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
2.1.1	Update the SCoR research priorities based on consultation with service users and public engagement. To be achieved through a Delphi consensus study.	SCoR
2.1.2	Encourage departments to use the research priorities in their own research strategies.	Heads of EIs, radiography service managers
2.1.3	All submissions for College of Radiographers Industry Partnership Scheme (CoRIPS) funding MUST match at least one of the research priorities.	Research active members, SCoR
2.1.4	Public patient involvement to be consulted upon in the development stage of all research studies.	Research active members, SCoR
2.1.5	Engage public / patient involvement throughout the research process where appropriate, to include all patient-focussed research projects.	Research active members, SCoR
2.1.6	Impact planning resources to be made available on the research pages of the SCoR web site.	SCoR
2.1.7	Encourage researchers to include impact planning within the development of their research proposals.	Research active members, SCoR, consultant practitioners
2.1.8	Recognise that all members of the profession have a responsibility to translate current research findings into practice.	All members, practice educators, radiography service managers

2.2 Strengthen and focus research to address international, national, regional and professional priorities.

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
2.2.1	Regularly circulate current international, national and regional research priorities to membership and maintain a resource on the SCoR webpages with links to relevant external organisations (eg DH).	SCoR
2.2.2	Promote radiography research within the Council for AHP Research (CAHPR).	SCoR, research active members
2.2.3	Encourage individual practitioners to join key multi-professional / multi-agency research-related committees (eg Research ethics committees, funding boards, National Institute for Health and Care Excellence (NICE) committees and National Institute for Health Research groups).	SCoR, radiography service managers, practice educators, all members

2.3 Continue to improve quality of research supported by strong research leadership.

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
2.3.1	Support a research mentorship programme within the radiography profession, to enable senior radiographic academics /clinical-academics, and other experienced researchers to support and develop novice researchers.	SCoR, academics, research active members
2.3.2	Recognise collaborative working in research as a method for strengthening research studies and improving quality. Support by the SCoR research network, and the CAHPR hubs.	Research leaders, academics, research active members
2.3.3	Audit research activity across departments (clinical and EIs) every five years using the currently adapted Auditing Research Capacity (ARC) tool.	Heads of EIs, radiography service managers, SCoR
2.3.4	Increase research outputs eligible to be submitted to the Research Excellence Framework, supported by mentorship and increased peer working.	EIs, academics, research active members, SCoR
2.3.5	Increase the number and quality of grant applications across the profession by ensuring members use the CAHPR network and other mentorship and support schemes.	Academics, research active members, SCoR
2.3.6	Develop resources to support quality in research, including 'how to' articles on all aspects of the research process and sharing of success stories on the SCoR web pages, SCoR publications and the SCoR research network.	Academics, research active members, SCoR
2.3.7	Encourage research active radiographers, and those interested in research, to identify gaps in their research knowledge and skills to help direct and focus individual training plans. Supported by annual appraisals and mentorship.	Academics, research active members, SCoR, radiography service managers and team leaders, practice educators

2.4 Strengthen collaborative links between clinical and education institutions and industry partners to encourage the transfer of research ideas, skills and people. (see figure 1)

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
2.4.1	Formalise managerial support for collaborative research. To include pathways for secondments, joint appointments and honorary contracts.	SCoR, radiography service managers, Heads of EIs, research active members, industry partners
2.4.2	Recognise Master's and Doctoral level research students as an opportunity to build links between clinical and EIs.	Academics, Heads of EIs, research students, radiography service managers, SCoR
2.4.3	All research active departments should set local themes and priorities that reflect local expertise and specialisms. These will guide suitable collaborative links and enable the development of joint visions across clinical and academic sectors.	Heads of EIs, radiography service managers, consultant practitioners, practice educators
2.4.4	Utilise the research network /special interest group as a forum for developing collaborations.	Research active members, SCoR
2.4.5	Provide opportunities and support for research active staff members to attend networking events (eg conferences). To be achieved through dissemination of opportunities at local, regional and national level.	SCoR, radiography service managers, research active members
2.4.6	Identify, develop and foster links with industry partners.	Industry partners, radiography service managers, Heads of EIs, research active members, SCoR
2.4.7	An audit will be undertaken every two years.	SCoR

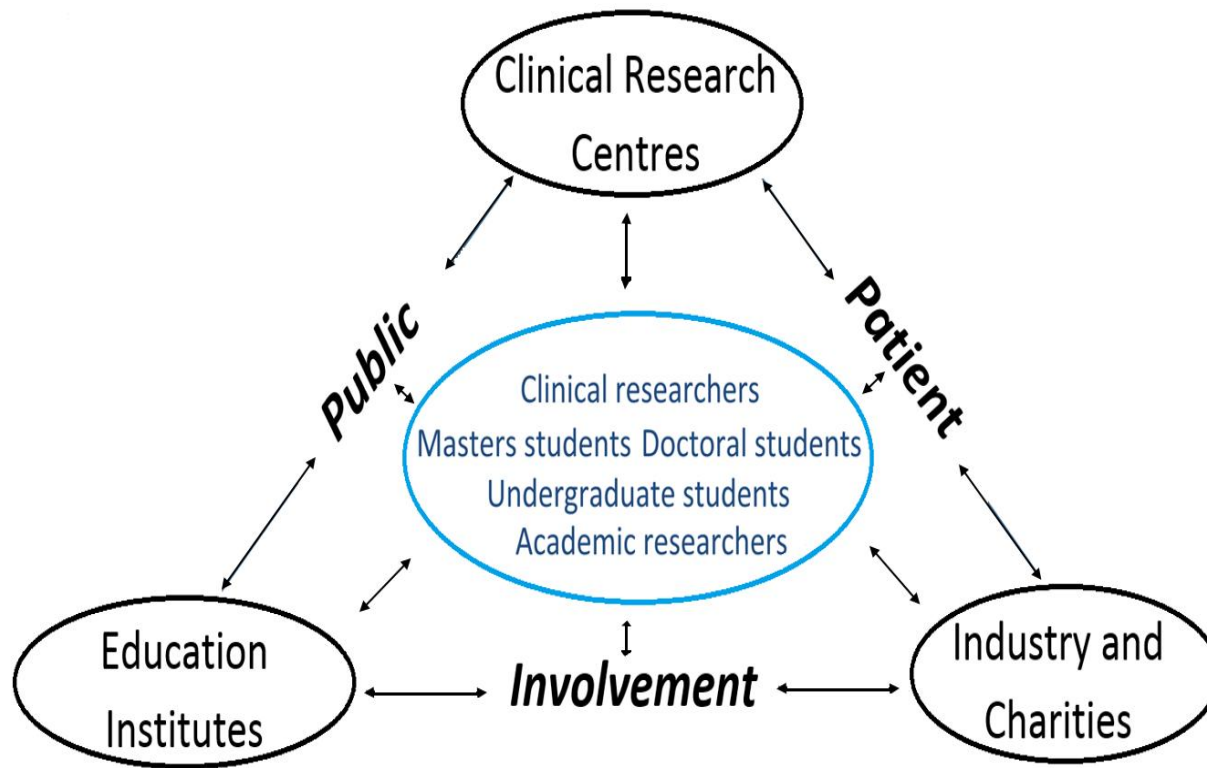


Figure 1: Collaborative links

2.5 Increase high quality dissemination of radiography research both within and outside the profession with a focus on maximising impact on patient care and/or service delivery.

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
2.5.1	Share research findings both nationally and internationally. This includes continuing support for the professional peer reviewed journal <i>Radiography</i> and developing the role of the monthly SCoR professional publications to support both novice and experienced researchers.	Consultant and advanced practitioners, research active members, SCoR
2.5.2	Departmental research strategies should include plans for support of staff to disseminate research findings at conferences and other events.	Radiography service managers, research active members
2.5.3	Dissemination to patient groups and to the general public to become expected of researchers. Through utilising social media (eg SCoR Facebook and Twitter feeds), the SCoR research web pages and relevant public engagement events.	Research active members, SCoR
2.5.4	Encourage discussion between authors of research publications through editorial correspondence, formalised online journal discussion forums with a focus on improving quality.	Research active members, SCoR, journal editorial boards
2.5.5	Support researchers at all levels to write quality research reports, supported by initiatives such as mentoring and collaborative writing.	Research active members, SCoR, research leaders
2.5.6	Commission and encourage publication of opinion and discussion articles on aspects of quality in research within the journal <i>Radiography</i> .	SCoR, <i>Radiography</i> editorial board
2.5.7	Encourage UK radiographic practitioners to join international research groups through partner organisations and international special interest groups	SCoR, research active members

Aim 3: Expand UK radiography research capacity through development of skilled and motivated research-active members of the profession

3.1 Embed research skills in the learning experience of every radiography student.

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
3.1.1	All undergraduate and postgraduate training courses must ensure there is a strong and positive culture towards research.	EIs, academics, SCoR
3.1.2	Development of basic research skills should form part of all pre-registration training programmes.	EIs, academics, SCoR
3.1.3	Provide opportunities for pre-registration students to be exposed to ongoing research and research-focussed activities within the academic or clinical environments (eg attendance at research seminars).	EIs, academics, SCoR, clinical placement sites, practice educators
3.1.4	Utilise the NHS Research Ethics Committee Proportionate Review Service for research studies that raise no material ethical issues to provide the opportunity for final year pre-registration students to undertake a research project.	EIs, academics, SCoR
3.1.5	Research active educators and post graduate research students should act as role models for pre-registration students (eg through initiatives which encourage attendance at research presentations/seminars).	EIs, academics, practice educators, SCoR
3.1.6	Continue support for the College of Radiographers' student research awards.	SCoR

3.2 Increase radiographer engagement with clinical research activities and postgraduate research degrees.

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
3.2.1	Explore initiatives aimed at engaging students and staff in clinical research (eg elective placements or internships within a clinical research setting).	Research active members, research leaders, academics, practice educators, SCoR
3.2.2	Provide information and guidance on the SCoR webpages on the different research training routes. Supported by appropriate case studies.	SCoR, research active members
3.2.3	Develop pathways for final year pre-registration students who demonstrate high academic competence to move straight to Doctoral study.	Els, academics, SCoR
3.2.4	SCoR to continue to work with relevant organisations, including charities, to support research degree training for radiographic practitioners, whether through joint fellowship awards or other initiatives.	SCoR
3.2.5	Opportunities for doctoral study to be made available in the form of studentships or fee-waivers where possible by utilising existing schemes within Els for Doctoral scholarships/studentships or as part of an external grant application.	Heads of Els, academics, radiography service managers
3.2.6	Promote Doctoral awards as the preferred qualification for those seeking to work in academia, thus expanding the capacity for doctoral supervision within Els.	Els, academics, SCoR
3.2.7	Enable isolated researchers to build collaborative and supportive links through the SCoR research network and special interest group.	SCoR, research active members

3.3 Embed the clinical / academic radiographer role and increase the number of radiographers in research posts.

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
3.3.1	Explore opportunities for pump-priming research radiographer posts and development prospects with recognition that these individuals will ultimately become self-funding through research income.	Radiography service managers, research active members, consultant practitioners
3.3.2	Those in research posts should provide support to clinical colleagues to enable and support these individuals to engage more fully in research activities (eg consultant radiographers).	Research radiographers, radiography service managers
3.3.3	Encourage all research radiographers to identify an appropriate research mentor when first in post.	Research radiographers, radiography service managers

3.4 Encourage radiography researchers at all levels to apply for funding.

<i>Recommendations to achieve this:</i>		<i>Responsibility for implementation:</i>
3.4.1	Radiographic practitioners who have been successful at gaining funding to share their experiences in Synergy news, within the SCoR research network and on the SCoR web pages.	Research active members, SCoR
3.4.2	Explore and develop increased opportunities for SCoR funding.	SCoR
3.4.3	Researchers to target funding opportunities from research councils, charities and the National Institute for Health Research (NIHR).	Research active members, SCoR
3.4.4	Utilise the NIHR Research Design Service and their training opportunities.	Research active members
3.4.5	SCoR to develop resources and guidance on 'How to gain research funding'.	SCoR, research active members

Society and College of Radiographers Research Strategy 2016-2021 – at a glance

The overarching Society and College of Radiographers' vision for research is to improve patient care and outcomes by continuing to develop, grow and implement a high quality evidence-base that addresses key patient-focussed research priorities.

Main Aims

AIM 1: Embed research at all levels of radiography practice and education

- 1.1 Develop a radiography workforce that engages critically with research to ensure that care provided to service users is based on the best available evidence.
- 1.2 Foster a culture across the radiography profession that values research and evaluation activities as a core part of delivering high quality patient care for all.

AIM 2: Raise the impact and profile of radiography through high quality research focussed on improving patient care and/or service delivery

- 2.1 Ensure all research conducted by radiographers has a clear benefit to patient care and/or service delivery.
- 2.2 Strengthen and focus research to address international, national, regional and professional priorities.
- 2.3 Continue to improve quality of research supported by strong research leadership.
- 2.4 Strengthen collaborative links between clinical and education institutions and industry partners to encourage the transfer of research ideas, skills and people.
- 2.5 Increase high quality dissemination of radiography research both within and outside the profession with a focus on maximising impact on patient care and/or service delivery.

AIM 3: Expand UK radiography research capacity through development of skilled and motivated research-active members of the profession

- 3.1 Embed research skills in the learning experience of every radiography student.
- 3.2 Increase radiographer engagement with clinical research activities and postgraduate research degrees.
- 3.3 Embed the clinical/academic radiographer role and increase the number of radiographers in research posts.
- 3.4 Encourage radiography researchers at all levels to apply for funding.

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