

The Prostate/Urology Specialist Cancer Workforce Provision of Specialist Therapeutic Radiographers in the Treatment and Care of Men with Prostate Cancer

**Sponsored by Prostate Cancer UK
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FOREWORDS

A large proportion of men diagnosed with prostate cancer will receive radiotherapy at some point during their treatment pathway.

The treatment and care of those receiving radiotherapy will be managed by therapeutic radiographers, whose roles have emerged over the last decade allowing them to work at Advanced and Consultant practitioner levels.

This new and exciting initiative from Prostate Cancer UK to work collaboratively with the Society and College of Radiographers has produced an inspiring document that highlights how therapeutic radiographers working at these advanced levels can make a real difference to the patient experience.

But, as always, more can be done and the recommendations within this report will energise specialist radiographers and help service managers to continue and expand this emerging practice.

My thanks go to all those who contributed to this report and for those who provided the case reports, that helped illustrate this document.

And a special thank you to Prostate Cancer UK who commissioned this report, a first of its kind, and to Hazel Colyer and the project team for producing such an inspirational document that will be used to further improve the patient experience and to encourage the development of prostate/urology specialist roles in all radiotherapy departments.

Sheila Hassan, President, Society of Radiographers

It's a fact. More men will receive radiotherapy treatment for prostate cancer than any other treatment modality. This comes as a direct result of an increase in the numbers of men being diagnosed with the disease, continuous advances in radiotherapy treatment and mounting calls to match levels of radiotherapy being delivered internationally - from 38% of all patients with cancer receiving radiotherapy in England, to around 50%.¹

¹ 2. The Independent Cancer Taskforce. Achieving world-class cancer outcomes: a strategy for England 2015-2020. Available at: www.cancerresearchuk.org/sites/default/files/achieving_world-class_outcomes_-_executive_summary

In our goal to help more men survive prostate cancer and enjoy a better quality of life, we know the critical role that health professionals play in men's diagnosis, treatment and care, crucially influencing both their health outcomes and experiences. For those men that opt for radiotherapy as a primary treatment, they spend a significant and intense period of their clinical journey in the radiotherapy centre. While in the past these patients would have been under the care of therapeutic radiographers in general oncology roles, we are seeing a new development that means more men are under the care of an advanced practitioner employed as a prostate or urology site-specialist. We commissioned this report to better understand these new site-specialist roles because we believe, like the many radiotherapy centre managers who created these roles, that prostate experts in therapeutic radiography can improve experiences and outcomes for men who undergo radiotherapy treatment.

This report comes on the back of the Independent Cancer Taskforce's newly published cancer strategy for England (2015-2020),¹ which, sitting under its six strategic priorities, calls for patients to have access to a Clinical Nurse Specialist (CNS) or other key worker to help coordinate care. Earlier this year we published worrying findings about the urology nurse specialist workforce which is facing a future crisis in terms of supply meeting demand.² Thankfully, in radiotherapy, the outlook is better. From this research, we are pleased to see a growth in the number of prostate / urology site-specialists in the UK, and the trend is moving in a positive direction with more centres confirming plans to appoint a prostate or urology site specialist within the next three years. Given what we know about the pressures of urology nursing, there is potential for more radiographer site-specialists to take on this key worker role for radiotherapy patients.

From this research it is clear: we need more evidence of how these new roles benefit patients in terms of outcomes and experiences as well as of efficiencies that they create for the NHS. For those embarking on creating these new roles in centres, we urge you to look at the learning and resources collated through this project and to ensure monitoring and evaluation is built into any new post. In the current economic climate, we need to demonstrate the return on investment, both social and financial.

This project was not just about research; the new online forum on prostate radiotherapy will provide a valuable resource and space for radiographers with an interest in prostate cancer to come together to share practice, learn from one another and to set-up joint initiatives in researching and advancing developments in the field. The foundations are already in place for these new roles; success will be building on what's already there to ensure that men who have to undergo radiotherapy treatment, whether curative or palliative, access the best care and support possible.

Owen Sharp, Chief Executive, Prostate Cancer UK

² 9. Leary et al. The specialist nursing workforce caring for men with prostate cancer in the UK. Prostate Cancer UK, 2015. Available at: http://prostatecanceruk.org/media/2491517/2631-urology-nurse-workforce-research-report_web.pdf [both accessed 21.09.2015]

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Executive Summary

Therapeutic radiographers are critical in the prostate cancer patient pathway – they have specialist, technical expertise to plan and deliver treatment combined with intense patient contact over several weeks. Their knowledge, skill, care and support are essential to ensuring that the outcomes and experiences of men are as successful and as positive as possible.

National work to raise radiotherapy standards has been ongoing since the publication of the National Health Service (NHS) Cancer Plan in 2004.¹ This work has been aided by major developments in technology that have enabled high-dose radiotherapy to be planned and delivered more accurately and for treatment to be monitored and verified using diagnostic imaging systems. The outcome of these initiatives is that radical, high-dose radiotherapy has become the treatment of choice for many early stage cancers, including prostate, as well as being an important tool for palliative care.

The expansion of the use of radiotherapy has generated opportunities for therapeutic radiographers to develop new roles beyond registration. The recommendations of the recently published cancer strategy for England 2015 – 2020² include increasing access to radiotherapy as well as investment in a radiotherapy equipment replacement programme. There is also emphasis on the patient experience and there should be at least as much effort and energy offered and focus given to delivering an excellent patient experience alongside the goal of continually improving patient outcomes from the treatment, recognising that patients should have access to a specialist practitioner/key worker with advanced or consultant level knowledge and skills.

The number of men diagnosed with prostate cancer continues to increase^{3,4,5,6,7} alongside the availability of complex radiotherapy and this needs to be matched to prostate-specific knowledge and expertise in both external beam radiotherapy and brachytherapy. In cancer centres across the United Kingdom (UK), there are a growing number of prostate/urology specialist radiographer roles, with post holders being responsible for streamlining and focussing care and support across radiotherapy pathways.

It has been demonstrated that cancer patients see the benefits of having access to a key worker, normally in the guise of a specialist nurse,⁸ but recent research suggests that urology/uro-oncology specialist nurses are time poor, often with vast caseloads and complex and varied responsibilities.⁹ The shared view of Prostate Cancer UK and the Society and College of Radiographers (SCoR) is that prostate/urology specialist radiographers potentially have a vital role in co-ordinating care for these patients, as well as in ensuring their centres are providing the best treatment and support possible, deploying the appropriate and most advanced planning and treatment techniques.

Prostate Cancer UK therefore commissioned the Society and College of Radiographers to carry out a service mapping and development project in order to understand and strengthen the growing prostate site-specialist workforce. The overall aim of the project was to describe the current situation in relation to the United Kingdom (UK) prostate/urology specialist radiographer workforce and to understand the specific nature and value of these roles. The support and development needs of practitioners were to be identified in order to create an online community forum and framework

for collaborative practice with associated resources, opportunities for networking and future role developments.

A mixed methodology was developed comprising quantitative data collection from key stakeholders in every cancer centre in the UK through an online survey, and qualitative data via workshops with identified individuals working in the field. The survey was sent to all radiotherapy service managers (RSMs) in the UK and comprised 14 questions covering the volume of work associated with prostate cancer, treatments offered, the number and scope of the specialist radiographer workforce and future plans for development of additional roles. Managers were also asked to provide any relevant job descriptions.

The workshop and interview topics were pre-identified by the project team to obtain practitioners' views about their role in the care and treatment offered to men with prostate cancer, using the domains of advanced/consultant practice. The nature and scope of the specialist role was explored under the following headings; key relationships including service users, barriers to change, the scope of practice and service development, education and training and opportunities for research. The chance was also taken to identify particular expertise and resources that might contribute to a sustainable online forum. Following preliminary qualitative analysis of the workshop data, a dissemination conference was organised in June 2015 for practitioners, service managers and others. The programme included sharing the initial key findings from the project and a discussion about future directions for the service and the role and contribution of the specialist radiographer workforce.

The number of cancer centres and personnel participating in the project was:

- 46 cancer centres responded to the survey from a total number of 72;
- 17 prostate/urology site specialists from 14 cancer centres attended the two designated workshops;
- 13 information, support and review radiographers with experience of caring for men with prostate cancer from 12 cancer centres attended a session at the radiotherapy information, support and review forum;
- 50 delegates, including speakers, together with SCoR and Prostate Cancer UK staff attended the dissemination conference.

The project has demonstrated that prostate/urology specialist roles are reliably in place in 18 cancer centres, mostly in England, and their numbers are increasing. The majority of posts have been created out of the existing radiographic establishment. The role is not yet sustainably embedded and might best be described as 'emerging'. Practitioners' core functions are generally similar but there are differences, which can probably be attributed to the isolated way in which they have developed. Most of the domains of advanced and consultant practice are represented but under-developed; there is a lack of consistency about what the role should be and no robust sense of identity or professional ownership of the role. There are valuable insights into the role that should be taken forward in the development of a consistent, standardised, specialist key worker role to optimise radiotherapy and support for men with prostate cancer.

Particular themes highlighted by the project are:

- the need to address sustainability;
- the need for a more consistent understanding of the core functions of the role;
- the lack of clarity about the limits of the role, ie where it should begin and end;
- the expressed ambivalence about the value of professional supervision;
- the need for support for relevant education and skills development, especially prescribing;
- a lack of engagement with research both in relation to the role and radiotherapy practice.

Through the research a number of recommendations have been identified. These recommendations have been grouped by stakeholder as follows:

Recommendations for prostate/urology specialist practitioners

- Continue to develop the role to become the key worker for men with prostate cancer for a certain period in the patient pathway.
- Engage more fully with all domains of advanced and/or consultant practice.
- Contribute to research into the value and impact of the prostate/urology specialist role.
- Seek opportunities to lead research into radiotherapy practice and patient experience.
- Participate in the development of the online community forum.
- Share practice, knowledge and experience, both within the cancer centre and wider multidisciplinary team (MDT) as well as beyond the employing authority to help those looking to develop and advance roles in other centres.

Recommendations for service managers

- Formulate site-specialist job descriptions that are clearly defined and include arrangements for cover for sickness and leave, and professional supervision.
- Ensure that cancer centre workforce development plans reflect the strategic priorities of the Independent Cancer Taskforce strategy for 2015 - 2020.³
- Undertake personal development and review (PDR) to support relevant professional development for prostate/urology specialist practitioners in post and identify potential successors.
- Share with other service managers to learn from those who have already created these roles or support those who are embarking on it.
- Build in research component to site-specialist roles to include measures of impact that will evidence efficiencies, experiences, and outcomes.

Recommendations for the SCoR

- Update the radiographic workforce advice and guidance to reflect the strategic priorities of the Independent Cancer Taskforce strategy for 2015-2020.³
- Develop a model role descriptor to support service managers.
- Provide advice and support to service managers for business case development, including sustainability and succession planning.
- When possible, promote independent prescribing as the gold standard for prostate/urology specialist radiographers.
- Develop a database of postgraduate education and training opportunities to support development of full professional autonomy.

- Promote professional accreditation of advanced and consultant practitioners.
- Develop and provide ongoing support for an online community forum and support network with resources for prostate/urology specialist radiographers.
- Deliver conference presentations to the profession and to relevant charities.
- Share the project report with the wider radiotherapy workforce, the Radiotherapy Board, the cancer MDTs and via the Radiotherapy Clinical Reference Group in England, and equivalent groups in the UK.

Recommendations for Prostate Cancer UK

- Share information about educational opportunities as well as funding available to support continuing professional development.
- Use project findings to inform the development of Prostate Cancer UK's education programme.
- Promote relevant research opportunities and share findings from funded research projects.
- Ensure widespread dissemination of evidence gained from funded prostate site-specialists.
- Work in collaboration with SCoR to share the project report widely with key stakeholders.

Recommendations to national stakeholders

- Be aware of the developing role and contribution of therapeutic radiographers as key workers in the delivery of cancer services.
- Consider the development of the site-specialist therapeutic radiographer role in workforce planning models for cancer services.
- Work with the Society and College of Radiographers to support further development of site-specialist roles and assessment of their impact on patient care.

References

1. Department of Health. *The NHS Cancer Plan and the New NHS; providing a patient-centred service*. London: Stationery Office; 2004. Available at: http://collection.europarchive.org/tna/20080107220102/dh.gov.uk/en/publicationsandstatistics/publications/publicationspolicyandguidance/dh_4092531 [accessed 21.09.2015]
2. The Independent Cancer Taskforce. *Achieving world-class cancer outcomes: a strategy for England 2015-2020*. Available at: http://www.cancerresearchuk.org/sites/default/files/achieving_world-class_cancer_outcomes_-_executive_summary.pdf [accessed 21.09.2015]
3. Bray F, Lortet-Tieulent J, Ferlay J, et al. *Prostate cancer incidence and mortality trends in 37 European countries: an overview*. *Eur J Cancer* 2010; 46:3040-52.
4. The Office for National Statistics, 19 June 2014 Available at: www.ons.gov.uk/ons/rel/vsob1/cancer-statistics-registrations--england--series-mb1-/index.html [accessed 21.05.2015]
5. Information Services Division, NHS Scotland, 28 April, 2015. Available at: <https://isdscotland.scot.nhs.uk/Health-Topics/Cancer/Publications/2015-04-28/2015-04-28-Cancer-Incidence-Report.pdf?92353457213> [accessed 21.09.2015]
6. The Welsh Intelligence and Surveillance Unit *Cancer in Wales* April, 2014. Available at: <http://www.wcisuwales.nhs.uk/sitesplus/documents/1111/CANCERinWALESApril2014FINAL%28Eng%29.pdf> [accessed 21.09.2015]

7. The Northern Ireland Cancer Registry, 2012 Available at: <http://www.qub.ac.uk/research-centres/nicr/CancerData/OnlineStatistics/> [accessed 21.09.2015]
8. Cancer Clinical Nurse Specialists Impact Briefs. Available at: <http://www.macmillan.org.uk/Documents/AboutUs/Research/ImpactBriefs/ImpactBriefs-ClinicalNurseSpecialists2014.pdf> [accessed 21.09.2015]
9. Leary A et al. Prostate Cancer UK *The specialist nursing workforce caring for men with prostate cancer in the UK Research report 2014*. 2014. Available at: http://prostatecanceruk.org/media/2491517/2631-urology-nurse-workforce-research-report_web.pdf [accessed 21.09.2015]

1. Introduction and Rationale

1.1 Therapeutic radiographers plan and deliver radiotherapy and care for patients with cancer before, during and after their treatment. They provide specialist expertise, advice and continuity of support for patients across the radiotherapy treatment pathway. National work to raise radiotherapy standards has been ongoing since the publication of the National Health Service (NHS) Cancer Plan¹ and subsequent formation of the National Radiotherapy Advisory Group in 2005, culminating in the recently published *Vision for Radiotherapy 2014 – 2024*.² The vision paper highlights the importance of skills-mix and new roles at advanced and consultant levels of practice in order to enable delivery of innovative and advanced radiotherapy to patients.

1.2 An independent task force was set up in early 2015 to formulate an action plan to radically improve the outcomes that the NHS delivers for people with cancer. The resultant strategy³ proposes six strategic priorities many of which are particularly relevant to this project. Recommendations include; increasing access to radiotherapy, investment in a radiotherapy equipment replacement programme, addressing critical workforce deficits, a strategic review of future workforce needs and access to a clinical nurse specialist (CNS) or other key worker for all people with cancer.

1.3 The focus of this project is the care and treatment of men with prostate cancer. As the number of men diagnosed with this disease increases^{4,5,6,7,8} and technological developments and medical advances continue, the availability of complex radiotherapy is expanding and needs to be aligned with prostate-specific knowledge and expertise in both external beam radiotherapy and brachytherapy. In cancer centres across the United Kingdom (UK), there are prostate/urology specialist radiographer roles, with post holders being responsible for streamlining and focussing care and support across radiotherapy pathways.

1.4 Figures obtained from the National Clinical Analysis and Specialist Applications Team (NATCANSAT)⁹ show that the number of prostate episodes for radiotherapy providers in England has increased from 18778 in 2009/10 to 23879 in 2014/15, a rise of 21%. These figures are included in the urology tumour group, which demonstrates that, of the 28,684 teletherapy urology episodes in 2014/15, 17,506 were of radical intent and 11,151 were of palliative intent. Eighty-five (85%) of NHS Radiotherapy Data Set (RTDS)⁹ prescriptions with palliative intent for urology patients are treating metastases, leaving 15% of urology patients having palliative symptom control to the primary tumour and /or pelvic nodes.

Table 1. The split of modalities for all urology episodes in 2014/15

Modalities	External Beam	Kilovoltage	Brachytherapy	Total
Urology Episodes	27181	203	4662*	32046

*This increase in 2014/15 is in part due to the scope of the Radiotherapy Dataset (RTDS) expanding to include sealed sources not from brachytherapy machines ie prostate seeds.

1.5 The exact number of site-specialist posts and their nature and scope has not been quantified or evaluated. A recent unpublished survey about therapeutic radiographer roles, undertaken by the Society and College of Radiographers (SCoR) in March 2014, identified 15 prostate and bladder site specialist roles in 13 centres from a sample of 43 centres nationwide.¹⁰ This compared to 13 breast cancer site specialists, 9 head and neck cancer site specialists and smaller numbers of palliative care, gynaecological, lung, skin and gastro-intestinal tract site specialists.

1.6 It is known that some centres employ urology specialist radiographers whose work includes caring for men with prostate cancer, whilst others employ prostate cancer site specialists. A decision has therefore been taken by the project team to describe the workforce as prostate/urology specialist radiographers.

1.7 It is also known that review clinic and information and support radiographers (ISRs) are in post in many centres and these individuals often also play an important role in providing care and support to prostate patients.

Rationale

1.8 Prostate Cancer UK recognises that therapeutic radiographers have a very focused role with intense patient contact, which makes them critical in the prostate cancer patient pathway. Their knowledge, expertise, care and support are essential to ensuring that the outcomes and experiences of men are as successful and as positive as possible. It has been demonstrated that cancer patients see the benefits of having access to a specialist nurse,¹¹ but recent research suggests that urology/uro-oncology specialist nurses are time poor, often with vast caseloads and complex and varied responsibilities.¹²

1.9 The charity already works closely with the Society and College of Radiographers (SCoR) on a number of joint initiatives in order to advance treatment, knowledge and skills in prostate cancer, including through the provision of clinical research training fellowships, education and training courses and funding. Prostate Cancer UK also funded a site-specialist radiographer to pilot a service improvement project in a major cancer centre in England.

1.10 The shared view of Prostate Cancer UK and SCoR is that prostate/urology specialist radiographers potentially have a vital role in co-ordinating and ensuring their centres are providing the best care possible to these patients, deploying the appropriate planning and treatment techniques. These post-holders have the potential to:

- act as local champions driving change to ensure their cancer centre is implementing evidence-based practice in all aspects of patient care;
- provide continuity of care for all patients by being a point of contact and support (key worker) to patients during their prostate cancer treatment journey;
- educate and train the radiotherapy workforce to ensure consistency of standards in planning and treatment delivery;
- maintain quality through undertaking audit and radiographer-led research to monitor local service activity, be able to compare to national standards and drive local improvements to the radiotherapy service;
- develop radiotherapy workforce capacity, through development of advanced level skills, enabling skills mix and supporting radiographers in the delivery of the more routine elements of the pathway previously delivered by clinical oncologists.

1.11 Prostate Cancer UK therefore wished to commission this service mapping and development project in order to understand and strengthen this growing, specialist workforce. This includes information about how and where the roles have developed, what the support and development needs of post-holders are, and what evidence there is to show their impact on patient experience and outcomes. Prostate Cancer UK wishes to put the findings to immediate use, making them available to those in these roles, those in the process of creating them or those considering developing them in the future.

1.12 Although it is known that there is some informal cooperation between existing site specialists, there is no regular, facilitated meeting space or discussion forum. As well as co-hosting a national conference to share the research and practice to date, Prostate Cancer UK is committed to help share learning and build opportunities for networking, collaboration and peer support. An important output of the project is an online forum where interested radiographers can not only speak to their peers about their work in prostate treatment and care but also access the tools, resources, and information they need to lead and deliver excellence in their hospitals.

1.13 This joint report was a principal output of the project and will be shared with key stakeholders, including NHS radiotherapy service providers, radiographers, education institutions, NHS England, Health Education England and equivalent bodies in the devolved countries.

2. Project Aim

The overall aim of the project was to describe the current situation in relation to the UK prostate/urology specialist radiographer workforce and to understand the specific nature and value of these roles. The support and development needs of practitioners were to be identified in order to create an online community forum and framework for collaborative practice with associated resources, opportunities for networking and future role developments.

3. Project Objectives

The objectives of the project were to:

- map the prostate/urology specialist radiography workforce; identifying the number, rationale for and sources of site specific posts in UK cancer centres and other specialist roles which include care and treatment of men with prostate cancer;

- elicit plans for the future development of prostate/urology radiography site specific posts in UK cancer centres over the next three years;
- understand and evaluate the role of the prostate/urology site specialist radiographer;
- assess the relative contribution of brachytherapy, clinic review and information radiographer roles to the care of those with prostate cancer;
- identify sources of professional expertise;
- propose a model job description for a prostate specialist radiographer;
- identify the support and development needs of the prostate/urology specialist radiographer community;
- develop a sustainable online community forum and support network.

4. Project Deliverables

4.1 As well as a published report, informed by primary research, a key output of the project was to create an online community forum and support network with resources for prostate/urology specialist radiographers, hosted by the SCoR Communities Project. The forum will enable post holders to be part of an established specialist interest group for ongoing sharing of best practice and ideas. In addition it is planned that the forum creates opportunities for the wider radiotherapy community to better manage and support prostate cancer patients receiving radiotherapy, including those centres that do not have prostate/urology site specialists.

5. Role Development in Therapeutic Radiography

5.1 Since the 1990s there have been many major developments in technology that have enabled high-dose radiotherapy to be planned and delivered more accurately and for treatment to be verified using diagnostic imaging systems. Together with a renewed policy focus on cancer,^{13,14,15} this has resulted in radical, high-dose radiotherapy being the treatment of choice for many early stage cancers as well as being an important tool for palliative care.

5.2 This expansion of the use of radiotherapy has generated opportunities for therapeutic radiographers to develop new roles beyond registration. Initially these were opportunistic and often as a result of the increased workload of clinical oncologists, for example radiographer-led review of patients. In 2000 the Department of Health published its four-tier structure for professional practice, which identified assistant, practitioner, advanced practitioner and consultant practitioner roles for allied health professionals.¹⁶ The recently published strategy for England³ continues this direction of travel with strategic priorities that emphasise the optimal use of skills and grant patient experience. There should be at least as much effort and energy offered and focus given to delivering an excellent patient experience alongside the goal of continually improving patient outcomes from the treatment, recognising that patients should have access to a specialist practitioner/key worker with advanced or consultant level knowledge and skills.

5.3 These initiatives have provided the policy framework for the SCoR to continue to pursue professional support and guidance for role development for the whole radiography workforce, including a policy document that defined three roles for advanced and consultant therapeutic radiographers; site specific, technical expert and community liaison.¹⁷

5.4 Further policy and guidance documents have sought to embed the structure into imaging and cancer centres and professional role development, underpinned by appropriate education and training now integral to the scope of radiographic practice.¹⁸ The knowledge, skills and attributes required to support role development across the whole radiotherapy pathway from referral to discharge have been agreed and published by the profession in its Education and Career Framework.¹⁹

5.5 The emergence and prevalence of specialist roles supporting the care and treatment of people with prostate cancer is an important outcome of role development at both advanced and consultant levels of practice and is the subject of this project. Their development has usually been as a result of a local need being identified and often because a radiographer has a special interest in the topic.

Project Methodology

6.1 The project is a service mapping and development project. A mixed methodology was developed comprising quantitative and qualitative data collection from key stakeholders in every cancer centre in the UK. Östlund et al identified a trend for conducting parallel data analysis on quantitative and qualitative data in mixed methods healthcare studies.²⁰ Triangulation as a methodological metaphor was identified as a means to enable the integration of both qualitative and quantitative findings and facilitate clarification and validity of outcomes. It is also important to ensure transparency in mixed methods studies and the presence of key methodological components in published reports.²¹

6.2 To that end, a design and delivery framework was utilised to ensure core subject topic areas were explored in as consistent a manner as possible and utilising the same personnel to conduct face to face workshops and therefore seek to minimise subjective bias as much as practicable.²² Each stage of the project was completed to meet the overall project aim.

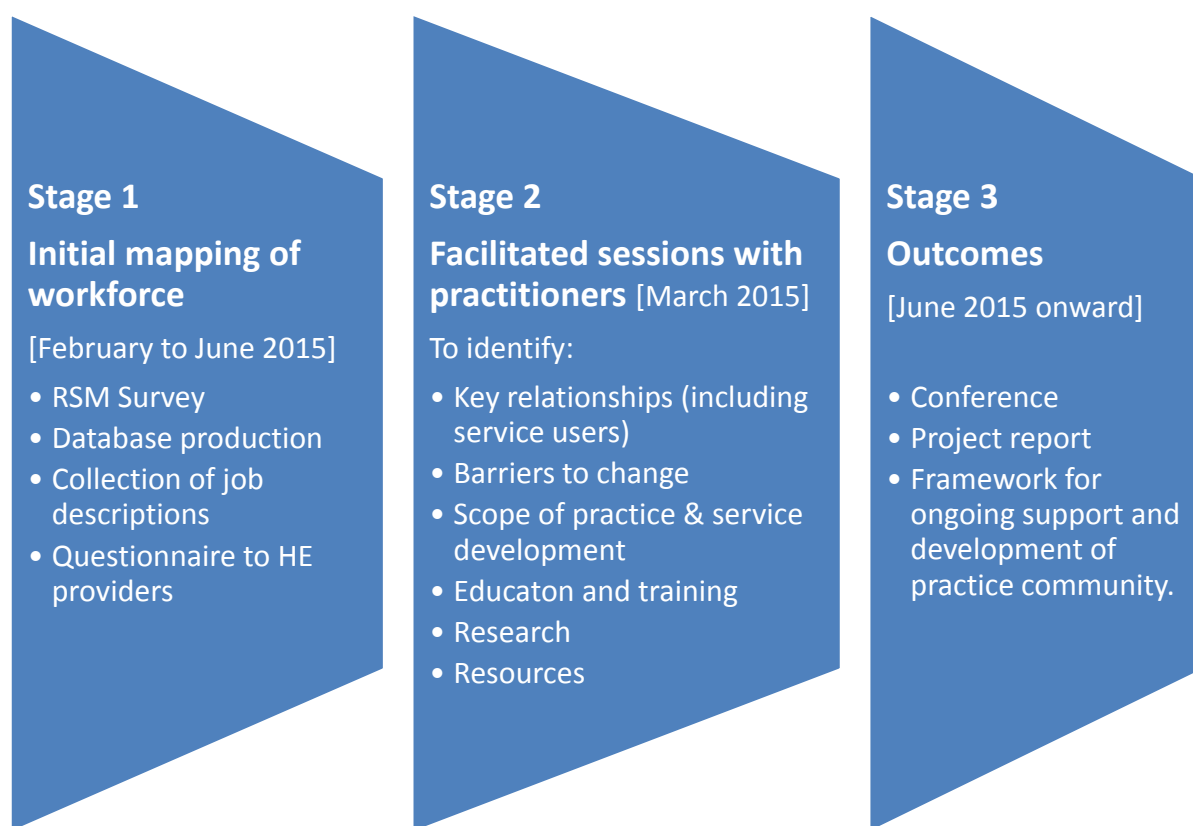
6.3 The key stakeholders were identified as; all radiotherapy service managers (RSMs) in the UK because they are responsible for service planning and development, prostate/urology specialist therapeutic radiographers in post and other professionals with a specific role in caring for men with prostate cancer. Higher Education Institutions (HEIs) responsible for developing prostate specific postgraduate modules were also included.

6.4 Overall, the number of cancer centres and personnel participating in the project was:

- 46 cancer centres responded to the survey from a total number of 72;
- 17 prostate/urology site specialists from 14 cancer centres attended the two designated workshops;
- 13 information, support and review radiographers with experience of caring for men with prostate cancer from 12 cancer centres attended the session at the radiotherapy information, support and review forum;
- 50 delegates, including speakers, together with SCoR and Prostate Cancer UK staff attended the dissemination conference.

The stages of the project and data collection methods are described in detail in sections 6.6 and 7 below.

6.5 Project stages and time frame



6.6 Ethical issues

The study was categorised as a service evaluation and development project. Accordingly, there was no requirement for it to be scrutinised by a UK Research Ethics Committee. Nevertheless, the work was carried out in a manner that ensured that the rights, safety, dignity and well-being of all participants in the study were upheld.

6.6.1 The participants of the workshops were advised that their personal data may be shared with Prostate Cancer UK for the purposes of research as part of the joint research programme between the two organisations.

6.6.2 Consent for the radiotherapy service manager departmental survey, interviewees and delegates were obtained in compliance with the Data Protection Act (1998).²³ Similarly, any personal data collected, recorded and used by the SCoR will have the appropriate safeguards applied to ensure compliance.

7. **Methods of data collection**

7.1 Stage 1

7.1.1 Quantitative data were gathered using Survey Monkey™. The survey was sent to radiotherapy service managers (RSMs) in all cancer centres in the UK during February 2015 (N = 72). The number is made up of 64 National Health Service (NHS) facilities across 68 sites and 8 non-NHS facilities.

Reminders were sent on two occasions and, due to queries about the way in which some of the data had been annotated in Survey Monkey™, follow-up telephone calls were also made to five individuals.

7.1.2 The survey comprised 14 questions covering the volume of work associated with prostate cancer, treatments offered, the number and scope of the specialist radiographer workforce and future plans for development of additional roles. Managers were also asked to provide any relevant job descriptions.

7.1.3 All Higher Education Institutions (HEIs) that offer radiography programmes at pre-registration level were contacted during April 2015 to request information about existing postgraduate provision to support the education and development of the prostate/urology specialist workforce (N = 36). A copy of the questionnaire is at Appendix 1.

7.2 Stage 2

7.2.1 Qualitative data were gained through a series of facilitated workshops. These were facilitated by an independent education and management consultant together with the project lead and another SCoR professional officer.

7.2.2 Potential workshop participants were identified in two ways: firstly, a group email was sent to all RSMs requesting the names of prostate/urology specialist radiographers and followed up at their annual national meeting. Secondly, post holders were identified through existing SCoR networks.

7.2.3 Two dedicated facilitated workshops for prostate/urology specialist radiographers, and other significant practitioners identified through the survey, were held during March 2015. To maximise participation, one was in London and one in Manchester. In addition, a slot was included at a regular meeting of the radiotherapy information, support and review forum in March for a facilitated discussion of the workshop topics.

7.2.4 The workshop topics were pre-identified by the project team. The intention was to obtain practitioners' views about their role in the care and treatment offered to men with prostate cancer, using the domains of advanced/consultant practice. The nature and scope of the specialist role was explored under the following headings; key relationships including service users, barriers to change, the scope of practice and service development, education and training, and opportunities for research. The chance was also taken to identify particular expertise and resources that might contribute to a sustainable online forum. At the end, existing prostate/urology specialists were asked for their thoughts about what the service would lose if their role did not exist.

7.3 Stage 3

Following preliminary qualitative analysis of the workshop data, a dissemination conference was organised in June 2015 for practitioners, service managers and others. The programme included sharing the initial key findings from the project together with perspectives from a specialist practitioner, a service manager and a clinical oncologist. Case studies were presented by a service user and specialist practitioners. The event concluded with a sharing of the project outcomes to date

and a discussion about future directions for the service and the role and contribution of the specialist radiographer workforce.

Case Study 1 – Andrew Styling

I am a Urology Advanced Practitioner Radiographer who qualified in 1998 and gained my MSc in Radiotherapy and Oncology in 2009. In September 2011 I began the process of succeeding my predecessor in the role of the advanced practitioner. From this point to February 2012, the reins were carefully handed over.

I came into the role with an MSc. However, there were still several aspects of academic grounding that needed to be attained. From September 2011 to May 2012, I completed a 30 credit Expert Practice module, addressing on-treatment review and consent. Good clinical practice (GCP) and advanced communication skills training were also completed during this time. My first on-treatment review clinic started in July 2012.

What do I do currently?

- Co-ordinate prostate brachytherapy and can consent by delegation. I also have a radiographer-led clinic
- Run an SOS service, office-based
- Run two on-treatment review clinics
- Develop Patient Group Directions
- Follow-up patient reviews
- Hold the bleep for the Radiotherapy Department
- Am a trainer and expert resource in Bladder Carbogen Nicotinamide (BCON)
- Am an expert resource member of an MDT
- Facilitate research/audit/service development

What do I believe that I achieve?

- Improved patient experience
- Improved access to health care professionals
- A reduction in hospital attendances for patients with post-radiotherapy complications
- Improved implementation of innovative technologies
- Greater consistency with respect to patients and staff
- Improvement in meeting cancer targets, driving efficiency through better co-ordination of the pathway

I am proud of what I have achieved so far. The role is fulfilling, dynamic and continues to evolve. My next project is to introduce radiographer-led gold fiducial marker insertion. Essential to developing this role is collaboration and the sharing of best practice across our profession, nationally. However, in developing specialist skill sets, excellent patient care must remain the focus.

8. Survey Results with Commentary

8.1 The survey comprised 14 questions. This section summarises the findings and comments on their significance in the context of the development of site-specialist radiographic roles more generally. A copy of the questionnaire is at Appendix 1.

8.2 A total of forty-six (46) responses were received, including one by telephone, which is 64% of the total number of 72 cancer centres in the UK. No responses were received from Wales and two from

five centres in Scotland. The response from Northern Ireland indicated that there are currently no urology/prostate specialist roles. The response from English centres is comprehensive with only five centres failing to respond. The response distribution, however impacts negatively on the project aim to be UK-wide.

8.3 Validity of findings

Not all respondents answered all questions; *the number of respondents to each is indicated next to the question in brackets below*. Respondents not answering all of the questions in the survey or giving incomplete answers to questions are the source of the inconsistencies of figures in the report, which is of concern. However, for England, the project findings may be regarded as a valid representation of the current situation with regard to the numbers and scope of practice of the prostate/urology specialist workforce. The participation of 17 specialist practitioners from 14 centres in the workshops reinforces the validity of the findings.

8.4 Estimated volume of prostate cancer new patient referrals (N = 45)

Respondents estimated that prostate cancer referrals account for up to 40% of new patients, with a majority estimating <20%. Although only an estimate, the responses indicate that prostate cancer comprises a significant percentage of the total workload of cancer centres.

8.5 Table 2. Treatments offered for prostate cancer (N = 45)

Treatment	Volume of prostate workload by percentage
Radical External Beam Radiotherapy (EBRT)	Thirty-seven (37) centres said that more than 50% of their prostate work is radical EBRT, with two (2) centres stating that it is 90%.
Brachytherapy	Twenty-one (21) centres offer brachytherapy, representing between 10% - 30% of the prostate workload.
Palliative radiotherapy to primary and secondary sites	Twenty-five (25) centres estimated that between 10% - 30% of the prostate workload was palliative.

8.6 Table 3. Numbers of site-specialist posts including prostate/urology at March 2015 (N = 44)

The survey asked how many tumour site-specific specialist radiographers were in post across 10 different tumour sites.

Tumour site	Number of centres with posts	Total number of posts
Breast	16	28
Colo-rectal	6	6
Gynae-oncology	13	13
Head and neck	10	11

Lung	6	6
Neuro-oncology	6	6
Paediatric	5	5
Palliative care	5	5
Prostate only	7	8
Urology including prostate	13	17
Total		105

The total number of prostate/urology specialist radiographers in post is 25, but it is not known if these posts are whole time equivalent. This number compares favourably with the number of breast site-specialist posts, reflecting the prevalence of these two disease sites in the radiotherapy workload. The larger numbers of head and neck and gynae-oncology posts also reflect the volume of work in cancer centres associated with these tumour sites. Because of the specialist nature of these posts, these role-holders will often play a key worker role.

These findings are particularly interesting when we look at numbers of Clinical Nurse Specialists. According to the 2014 Macmillan census of the specialist adult cancer nursing workforce there are 557.8 specialist nurses working in breast cancer compared to 380.1 in prostate/urology.²⁴ Further investigation shows that when provision of nursing is mapped to incidence there are 87 cases per breast cancer specialist nurse as opposed to 159 new cases per urology nurse. This suggests the urology and prostate cancer patients, who make up the bulk of cases, may be in need of key worker support elsewhere.

8.6.1 Cancer centres with either prostate and/or urology specialist roles (N = 44)

Of the 44 respondents, 18 cancer centres have either prostate or urology (including prostate) specialist radiographers in post (41%), **with 2 centres having both roles**. Of these;

- Thirteen (13) centres stated that they employ at least one urology specialist radiographer with two (2) of these centres having two (2) posts and one (1) centre having three (3) posts.
- Seven (7) centres stated that they employ a prostate specialist radiographer with one (1) of these having two (2) posts.
- Twenty (20) centres reported no prostate/urology specialist roles (45%).
- Six (6) centres did not answer the question (14%).

The map below shows the geographical site of the 18 cancer centres with either a prostate specialist radiographer or a urology (including prostate) specialist radiographer in post.



8.7 Rationale for development of posts (N = 44)

The chief reasons given for implementing site-specialist posts were; to improve service quality (N = 16) and skills mix (N = 14). These were followed by; to provide radiographer development opportunities (N = 11), to provide a more efficient service (N = 9), and to manage the increasing workload (N = 8). Only four (4) centres identified cost savings as a reason. No evidence was provided to demonstrate the impact of these roles and whether they met their specified purpose but respondents did not provide with any evidence as to whether these roles have indeed made financial efficiencies as yet.

8.8 Table 4. How posts are funded (N = 31)

Funding Source	N ^o of Posts
New post created out of existing radiographer establishment	11
Additional funding for a new post secured by a business case	2
Charitable funding secured	5
Total	18

The above table illustrates how current posts have been funded. The majority of posts have been created from the existing radiographic establishment, which suggests that service managers are supporting the development of advanced roles where a service need is identified. However, this could place additional pressure on remaining staff when workloads are already very high.

8.9 Future plans for new site specialist posts within three years (N = 44)

Respondents were asked how many tumour site-specific radiographers they were planning to introduce in the next three years and these are shown in Table 5 below. The survey did not ask for reasons but it could be assumed that these are similar to those given in 8.7 above.

Table 5. Number of site-specialist posts across tumour types – current and planned

Tumour site	Current number of centres with posts	Current number of posts	Number of centres planning to introduce posts	Total number of posts planned	Total number of posts, current & planned
Breast	16	28	11	11	39
Colo-rectal	6	6	4	4	10
Gynae-oncology	13	13	5	5	18
Head and neck	10	11	13	14	25
Lung	6	6	4	4	10
Neuro-oncology	6	6	3	3	9
Paediatric	5	5	0	0	5
Palliative care	5	5	15	17	22
Prostate only	7	8	13	13	21
Urology including prostate	13	17	9	10	27
Total	X*	105	X*	81	186

* The number of centres cannot be totalled because cancer centres have multiple numbers of site-specialist radiographers

Of the planned future prostate/urology workforce;

- Thirteen (13) centres stated that they planned to introduce a prostate specialist role
- Nine (9) centres stated that they planned to introduce a urology specialist role

8.9.1 Cancer centres with planned prostate and urology (including prostate) roles

The map below shows the geographical site of the cancer centres with stated plans to introduce either a prostate or urology (including prostate) specialist radiographer role in the next three years.



8.9.2 Table 6. This shows the stage at which respondents indicated that plans had been reached for a prostate/urology site specialist post.

Stage of development	Prostate	Urology
Idea under discussion	10	3
Agreed in principle with oncologist	4	3
Agreed in principle with business manager	1	0
Funding sources being considered	3	3
Funding source identified	0	1

Together, prostate/urology is clearly seen as the greatest area of planned growth. It can be assumed that, for some of those who stated that they had no plans, the reason is that they already have these posts. In terms of other cancer sites, only head and neck and breast are looking to grow significantly over the next three years, with palliative specialists similarly seeing an increase. This raises questions about where both the specialists and the funding will come from and the effect on the radiotherapy workforce as a whole.

8.10 Number of review clinic radiographers where a significant proportion of workload is men with prostate cancer (N = 27)

Fifty-seven (57) posts with a WTE of 31.7 were identified. The proportion of their caseload that was men with prostate cancer ranged from <40% - 70%. Two (2) respondents stated that 100% of the review clinic radiographer's caseload was men with prostate cancer. This data suggests there is a body of potential prostate specialists who work in review roles. These review radiographers may already have specialist knowledge and expertise or require additional education and training.

8.11 Number of information radiographers where a significant proportion of workload is men with prostate cancer (N = 14)

Twenty-three (23) posts with a WTE of 17.4 were identified. The proportion of their caseload that was men with prostate cancer ranged from <40% - 50%. One (1) respondent stated that 100% of the information radiographer's case load was men with prostate cancer.

8.12 Number of brachytherapy radiographers where a significant proportion of workload is men with prostate cancer (N = 16)

Thirty-eight (38) posts with a WTE of 32.9 were identified. The proportion of their caseload that was men with prostate cancer ranged from 0% - 80%.

8.12.1 Table 7. This indicates the number of WTE posts where respondents indicated the proportion of their workload that is estimated to be men with prostate cancer.

Number of WTE posts	Estimated proportion of workload on prostate patients
2	0%
12	Up to 40%
7	50%
3	60%
1	80%
1	100%
26	

9. Summary of Survey Findings

9.1 The number of urology/prostate specialist roles identified in March 2015 was 25, which is an increase of 10 from the previous year. The posts are within 18 cancer centres; a further 20 centres reported that they did not have a urology/prostate specialist. While progress is being made with specialist role development, it can be inferred that at least half of cancer centres do not have prostate/urology specialists in post, despite the demonstrable increase in referrals. Encouragingly, 22 centres stated that they planned to introduce either a prostate or urology specialist role in the future but in 12 of these cases it was only an idea under discussion.

9.2 Brachytherapy, clinic review and information radiographer roles are present in approximately three quarters of centres that responded. In most cases, they include the care and treatment of men with prostate cancer and could potentially be seen as a 'pool' from which prostate/urology specialist

roles might be drawn in the future. Further analysis of the data was undertaken to see what relationship, if any, existed between the presence of brachytherapy, clinic review and information specialist roles, and prostate/urology posts. Only two (2) cancer centres indicated in the survey that they employ all of these specialists in addition to a prostate/urology specialist radiographer. A further seven (7) have information radiographers, eight (8) have brachytherapy radiographers and fourteen (14) have clinic review specialists.

9.3 Palliative care roles with a significant component of care involving patients with prostate cancer are present in five (5) centres who responded. Fifteen (15) centres have indicated that there are plans at various stages of development to introduce this component of specialist care.

9.4 Overall, the results demonstrate that, over the past 15 years, national policy drivers^{1,2,12,13,14,15,16} and the increase in the complexity of the radiotherapy pathway have resulted in a variety of advanced and consultant roles being developed in cancer centres to support patient-centred care and treatment that is as focussed and streamlined as possible. This includes a significant focus on men with prostate cancer, to improve service quality and skills mix.

9.5 The NHS strategic priorities include ensuring that all its workforce skills are optimised and services configured around the needs of patients.³ It seems that the cancer centres who responded to this survey are working towards achieving their priorities, consistent with their organisational structures and workforce development plans.

10. Higher Education Provision

10.1. Four (4) responses were received from Higher Education Institutions (HIE) that provide relevant education. These indicated a range of postgraduate provision covering accredited taught modules, work-based learning modules with personalised learning contracts that include assessment of clinical competence, and workshops. Most universities have inter-professional frameworks of modules, which are offered as stand-alone courses or can be aggregated with other modules towards an MSc award.

10.2 Further work will be undertaken to build a comprehensive database of postgraduate provision to support the urology/prostate specialist workforce. This information will be shared on the new online forum developed as part of this project.

10.3 In addition, two members of academic staff expressed a strong interest in being involved with the online community and offered to facilitate academic support for this.

Case Study 2 – Hannah Nightingale and Cathy Taylor

The advanced roles of radiographers specialising in prostate cancer at a large cancer centre in the north of England have evolved in part due to working time directive initiatives for doctors limiting their hours of work. Combined with growing caseloads from high incidences of cancer and shortages of consultant oncologists, it was deemed essential to advance the traditional roles of radiographers. Practices have developed to include; brachytherapy volume studies, consenting patients and reviewing patients during their radiation pathway. These practices have allowed radiographers to ensure efficient services for patients by cutting waiting lists, increasing support for patients and the clinical team, as well as giving radiographers enhanced professional satisfaction.

It is essential that these roles are endorsed by the whole clinical team, allowing correct utilisation and support for the radiographers in the development of their advanced skills. When correct strategies are not implemented, this can pose challenges. Defining a clear scope of practice can protect the teams and ensure role boundaries are clear. Radiographers in such roles may also require extra support to ensure a degree of clinical competency is achieved for example on a Linac or with brachytherapy treatments and this can be difficult to achieve with the other responsibilities these roles encompass.

As practitioners in specialist/consultant roles, we have enjoyed the enhanced skills and knowledge we have acquired from the clinical teams, and the responsibilities we have gained with this. Being able to support patients using a holistic approach, for example, through their entire pathway is extremely rewarding.

In the future, these roles are likely to expand as newer technologies within radiation delivery specialise even further. For example brachytherapy delivered as monotherapy will increase the case load of patients, and will require expert knowledge. We are also likely to see an increase in radiotherapy patients due to the new research findings from the STAMPEDE trial suggesting radiotherapy to the primary prostate cancer even in metastatic patients is likely to be beneficial.

11. Analysis and Evaluation of Qualitative Data

11.1 As described in 7.2 above, facilitated workshops were held to enrich the survey data with qualitative information from practitioners already in post. The workshop topics had been pre-identified by the project team to obtain participants' views about their specific role in the care and treatment pathway for men with prostate cancer, using the domains of advanced/consultant practice.

11.2 The chance was also taken to identify particular expertise and resources that might contribute to a sustainable online forum. At the end, existing prostate/urology specialists were asked for their thoughts about what the service would lose if their role did not exist.

11.3 Table 7. Workshop attendances

Date	Number Invited	Number Attended	Number of Centres represented
04.03.15 (London)	10	10	9
17.03.15 (Manchester)	11	7	5
26.03.15 (Information, support & review forum, London)	13	13	12
Total	34	30	

11.4 Key relationships

The multi-disciplinary team (MDT) approach to managing and optimising patients' care and treatment pathways has become embedded in cancer services. Therefore the workshop participants were asked about which relationships they perceived to be vital in making the specialist role work. The team heard that the prostate/urology specialist radiographer role tends to be quite unique; the post holder has to work independently and may feel isolated from time to time. The following professionals were identified as those with whom prostate/urology specialist radiographers have or may need to form sound relationships:

- *Clinical nurse specialists (CNSs)*
Relationships with CNSs were seen as key and complementary. The CNS role is well-established and they were viewed as allies and sources of knowledge and expertise. However, participants were of the view that not all CNSs understand the full impact of radiotherapy and so there are opportunities for mutual educational support. It was agreed that this relationship works best when respective roles are clearly defined and mutually understood.
- *Consultant oncologists*
Initially clinical oncologists were the key personnel because their support for undertaking specialist role development was vital since these were delegated clinical roles. Those specialist therapeutic radiographers in post stated that the roles are strongly supported by their oncologists particularly as they are beneficial in freeing up oncologist time.
- *Oncology registrars*
Participants felt somewhat ambivalent about the presence of oncology registrars with whom they may compete for oncologists' tutorial time at the same time as making a significant contribution to registrars' education and development with both technical support and the provision of advice for patient management. Some prostate/urology specialists also support medical students' clinical education.
- *Professional supervisor*
Despite SCoR advice about its importance to developing autonomous roles, few practitioners received professional supervision and most were ambivalent about the value of it. There was no engagement with additional academic supervision within the groups. Some individuals

felt that professional supervision would not impact positively on their practice, however consultant practitioners present did engage with this process.

- *Pharmacy manager*
Prostate/urology specialist radiographers identified their need for a sound relationship with the pharmacy manager in terms of implementing patient group directions, supplementary prescribing and prescribing policy.
- *Other hospital departments*
These were also seen as sources of advice and expertise; for example, gastro-enterology for patients with long term malabsorption conditions or where proctitis endoscopy is indicated.
- *Primary Care*
General practitioners are the primary carers of men with prostate cancer during their patient journey and beyond. In addition, practice nurses undertake much routine monitoring of patients in the community. Forging links with primary care to support the education of these professionals and to advise on patient management for all aspects of radiotherapy was seen as important but the majority of participants felt that their primary role was taking up most of their time and that they were too busy to look beyond the cancer centre to form external relationships.
- *Specialist charities*
Resources, support and services from the charitable sector such as Prostate Cancer UK and Macmillan were mentioned by participants as valuable sources of support for informing and preparing patients for treatment.
- *Service users*
Participants recognised both the value and the difficulties involved in engaging service users in an authentic way in cancer service evaluation and development. A couple of participants mentioned having a patient representative for meetings and dialogue with the local cancer service users group. Another specific example was given of 'Macmillan Volunteers' active within the clinical environment and trained to NVQ – level 4.

While the research phase did incorporate a number of interviews with other key professionals eg a clinical nurse specialist and clinical oncologist, the study focused primarily on the views of therapeutic radiographers. A follow-up piece of work to help understand the role and value of these site-specialists could be carried out to examine how other professionals experience these roles and what they believe they bring.

Case Study 3 – Amanda Ford

I qualified 33 years ago as a therapeutic radiographer at a large dedicated oncology hospital in the north of England with a state of the art radiotherapy department. Moving regularly during my career has provided varied roles, a wealth of experience and some amazing opportunities, including becoming superintendent of a newly-built, small department at the age of 25. I have also managed a brachytherapy department, a mould room, been superintendent of planning and research and development.

In 2001 I took up my current role as a Macmillan information and support radiographer, later called Macmillan radiotherapy specialist. I have two passions; patients, including patient experience care and communication, and raising the profile of therapeutic radiographers and educating others about their capabilities in supporting and caring for cancer patients. This role gives me the opportunity to pursue both.

My new Macmillan role was a blank page; developing multi-disciplinary teams, patient pathways and meeting huge unmet needs for both patients and the service were (and still are) the order of the day. This has involved collaborative working with many newly appointed CNS nursing colleagues and multi-disciplinary teams (MDTs).

I identify my patients at MDT meetings; any patient who is going to be offered radiotherapy as a treatment option. I see them at first diagnosis, support them through the decision making process and, if they do opt for radiotherapy, support them through the treatment and on into survivorship. Giving patients the knowledge and confidence to understand, be involved, take control and self-manage is an amazing reward.

Obtaining recognition and respect as an allied health professional in this field has been an ongoing challenge. Being told I couldn't do something because I wasn't a nurse has only served to drive me forward. I truly believe it's not where we come from or our label but the underpinning knowledge and skills we obtain along the way and our capabilities that count.

11.5 Scope of practice and service development

11.5.1 Participants were next asked to articulate their views about the scope of their roles and opportunities for role and service development. The project team heard that all workshop participants occupied substantive posts with detailed job descriptions, which they regarded as essential to the success of the role. They identified strongly with the need for specialist radiographers to have clearly defined roles linked to a specific job grade/pay band and with job plans that include a proactive training programme. Participants also identified the need for clearly defined inter-professional boundaries.

11.5.2 Prostate/urology specialists are designated as advanced or, in some cases, consultant practitioners and are (being) educated to master's level. Although job content is variable and tends to be in response to service need, the core functions of the role were unanimously agreed by all; the clinical aspect of which is as the key worker for men with prostate cancer having complex, advanced radiotherapy within a multi-disciplinary pathway.

11.5.3 Practitioners were concerned about a perceived lack of succession planning, including managing the day-to-day issue of cover if post holders were sick or on annual leave. The role-holders typically work independently and there is generally no WTE built in for sickness or annual leave and no one to cover these standard absences. This can mean that the patient is left unseen, clinics and appointments are delayed or postponed, or support comes in the form of a non-specialist. It also results in the post holder experiencing a challenging increase in their workload before and after these periods.

11.5.4 Sustainability for new role development is vital yet there was no concrete evidence that succession planning for prostate/urology specialist roles is being undertaken. If the prostate/urology specialist radiographer role is to become as widely accepted as the clinical nurse specialist, then this needs to be addressed urgently by those who are responsible for workforce planning and staffing profiles in cancer centres.

11.5.5 The ability to prescribe medicines was seen as necessary in relation to the current scope of practice, in the interests of efficiency, to optimise patients' experience of the treatment pathway and for their own job satisfaction. However, most practitioners were content with patient group directions (PGDs) or supplementary prescribing and were ambivalent about becoming independent prescribers although they saw advantages of timeliness and efficiency in becoming supplementary prescribers, provided that the infrastructure and educational frameworks were in place to support this development. Consultant practitioners present could see the advantages of independent prescribing. The outcome of the NHS England Allied Health Professions project on independent prescribing, which includes radiographers, is awaited.²⁵

11.5.6 Where the prostate/urology specialist role should begin and end was also disputed. Not all the practitioners were able to attend the multi-disciplinary team (MDT) meeting, but those who did were in no doubt of its value and importance as the starting point of the specialist key worker role. Participants agreed that the ideal beginning point should be attendance at the MDT meeting where the patients' treatment plan is decided. This would give the opportunity for continuity and relationship building. However, not all participants were afforded this opportunity.

11.5.7 There was anxiety about where the role should end. Most see the natural end point as discharge from radiotherapy, although they recognise that survivorship issues and the way in which cancer has become a long term condition mean that their skills and expertise could be extended beyond discharge from the service. The question was asked whether support beyond the end of radiotherapy is sustainable in practice. It was also pointed out that this is likely to depend on the working practices and staffing profile of individual cancer centres. There is scope for further exploration of this issue and who is best placed to provide follow-up care.

11.5.8 There is a natural human desire to have control over one's work and the open-ended possibilities of engaging with community-based services provoked anxiety about sustainability of the role. However, the key worker role entails co-ordination of professionals and services around the needs of patients and, given the paucity of knowledge about radiotherapy outside the profession, this is a key issue for the specialist workforce to address, particularly when considering management of problems such as late effects of pelvic radiation.

11.5.9 The widely held negative view of the value of professional supervision among the practitioners who attended the workshops is of professional concern. The radiography profession has long felt that, once qualified, practitioners do not need further supervision and it has mainly been resistant to appreciating the benefits that other professions value. Despite having professional guidance since 2003, updated in 2013,²⁶ the SCoR has made little impact on this. Yet, with continuing professional role development and a scope of professional practice that does not define specific limits, there is little doubt that radiographers would benefit from regular, professional supervision.

Those who receive it generally recognise its value, which suggests that the SCoR should take this forward.

11.5.10 In summary, this analysis of the scope of professional practice of those present at the workshops, together with job descriptions submitted by service managers, could be used to develop a model role descriptor to assist centres with making a successful business case for having a prostate/urology specialist role. It would also enable the potential for a more uniform approach to the development of the roles and their easier introduction while recognising that there needs to be scope for tailoring to meet local need and service set-up.

11.6 Education and training

11.6.1 Participants discussed educational and training needs necessary to support and develop practitioners in undertaking their roles, both in terms of developing their own expertise and the need to be a clinical leader and resource for others. However, the team learned that the need to identify and prioritise sources of funding for further training and development of the role at a time of severe financial constraints was problematic. This was linked by those present to the need to identify measurable outcomes and evaluate the benefits of the service being provided.

11.6.2 The following education and training issues were discussed:

- Provision of prostate/urology specific MSc or relevant modules. It was reported that funding is generally available for individual M-level modules that meet service need rather than the complete MSc award.
- A mixed provision for review and consent modules, with a combination of in-house and HEI programmes was highlighted as a good model. The opportunity to undertake in-house content and achieve academic credit through work-based learning modules was favoured by participants.
- As clinical leaders in their fields, prostate/urology specialist radiographers need to share their knowledge and expertise within cancer centres and out into the community. This can be a challenge due to time and resource pressures.
- Opportunities for targeted higher education masterclasses were proposed.
- A prescribing qualification would be beneficial, if not essential for all specialist role holders.

11.7 Opportunities for research

11.7.1 Research is a core domain of advanced and consultant practice. Prostate/urology specialist practitioners are in advanced or consultant posts and are required to seek opportunities to undertake or become involved with research about prostate cancer, including making the role of prostate/urology specialist practitioner as effective as possible. While the need for research is well understood, it seems that opportunities are not being grasped.

11.7.2 There is an urgent and specific need to evaluate the impact of the role. The main reasons for implementation of posts were described in 8.7. They were; to improve service quality, manage the increasing workload, improve skills mix, provide radiographer development opportunities and provide a more efficient service. At the present time, there is little or no evidence that any of these important aims are being realised. In addition, prostate/urology specialist radiographers are ideally placed to lead research that is focussed on the development of radiotherapy practice, both technical

and relating to patient experience. Where roles are funded externally, there can be more impetus on recording evidence of impact; the Prostate Cancer UK funded post will report back on completion of the project.

11.7.3 Specialist practitioners must be able to demonstrate their value and the online community forum should make addressing this a priority.

11.7.4 Specific potential research topics identified were:

- evaluating the impact of specialist therapeutic radiographers on the patient experience;
- the opportunity for multi-centre audit on patient experience of interaction with radiotherapy services;
- a cost benefit analysis of the specialist role to assess areas such as value for money, impact on clinical oncologists' time, impact on staff development, introduction of new techniques.

11.8 Professional accreditation

Practitioners could identify and speak about their education and training needs at postgraduate level, their responsibilities in relation to the education and training of others, their role in leading clinical innovation and service development, and the need for research to underpin their professional practice. This information suggests that there is a significant opportunity for the SCoR to promote its professional accreditation process to this group of specialist practitioners as a means of embedding and sustaining role development and autonomous practice.

11.9 Challenges to further development of prostate/urology specialist radiographer posts

Workshop participants were asked what they thought were the barriers to further development of posts to embed them in many more cancer centres. They identified the following issues as significant:

- Lack of expertise in the successful development of the business case for specialist roles;
- Production of PGDs in relation to effectively managing treatment- related toxicity;
- Specialist posts can be seen as more costly. There is no reliable evidence but there is some anecdotal indication that there is a cost saving compared to a similar provision by oncologists;
- Oncologists may be reluctant to undertake the necessary development of specialist radiographers alongside their commitment to registrar training;
- Lack of succession planning for provision of the role at the planning and implementation stage;
- Lack of engagement with the role from the wider radiotherapy team;
- Workload pressure in cancer centres;
- Demonstrating sufficient numbers of patients to justify the specialist role.

11.10 What would the service lose if your role no longer existed?

The study shows that there is a paucity of hard evidence to demonstrate impact but we asked practitioners what they thought about the value of these roles. In thinking about the benefits of their roles, practitioners were asked to consider what would be lost if their role did not exist. They

listed the following, which can be grouped into two elements – patient experience and clinical expertise:

- expertise and compassion
- relationship with patient
- ‘accompaniment of patient along road’
- patient advocacy
- tools for audit / research
- prevention of side effects
- knowledge about the trajectory of late effects

11.12 Online forum

An important objective of the project is the establishment of a sustainable online community forum. Participants were asked what benefits this might bring and also what resources would be helpful. Post holders described some professional isolation and workload/caseload pressures. Some mentioned that these research events were the first time that they had been brought together with their peers in similar site specialist roles. Participants were enthusiastic about the creation of an online forum with virtual learning platform, supported by the SCoR. They saw it as both a supportive community of practice and also a place where resources could be made available. There remained a desire to meet face-to-face periodically in order to network, share and discuss prostate work.

The groups specifically identified the following potential benefits and characteristics of the online space for prostate practitioners:

- to give access to a toolkit of resources
- to support the creation of shadowing opportunities
- to enable a ‘buddy-up’ system for research opportunities
- to provide access to virtual learning platforms – signposting as appropriate
- to help develop and provide a competency framework, mapped to existing SCoR guidance
- to provide a forum to identify issues and then propagate further discussion via face-to-face networking meetings
- to hold guidelines and best practice
- to share information about funding opportunities eg Macmillan funding for brain and bone metastases specialist consultant roles
- to hold information relating to prescribing and planning
- to provide an opportunity for members to reflect on and articulate the value of the service and their role within it
- to include a Frequently Asked Questions (FAQ) section

11.13 Progress with implementation of the online forum

The initial development of the online community forum is almost complete and due for launch at the same time as the project report. This will be password protected and reside on the SCoR members section of the website. It is currently being populated with useful resources, including sample job plans, education and development quick guides, patient experience tools and useful contacts.

A facilitated blog to identify community functionality and key features will support the launch. There will also be a monthly guest blog to highlight relevant news from Prostate Cancer UK. The forum has undergone testing by 'critical friends' involved with the project prior to launch.

This online solution is also customisable and enables teams and individuals to be members of one or many groups while keeping in touch with dynamic projects by means of instant notifications. A full audit trail of versions, updates and comments, tasks, discussions and other project information makes it easy for new members to join teams and have all the information easily accessible.

12. Outcomes from the Dissemination Conference

Fifty-three (53) people attended the dissemination conference. Overall, it was well-received by participants. There was creative discussion that both reinforced and developed the findings from the project. The conference also provided a useful networking opportunity for those in specialist roles and enabled sharing of job content, relationship building and buddying opportunities. Three issues of particular relevance to the project were:

- *Succession planning.* With the added consideration of an expanding workforce and the expected number of retirements, this issue was challenging most centres that have specialist roles.
- *Value of the specialist role.* The need to identify and disseminate information about the value of the role was promoted by the service manager. Participants were reminded that the business case for the implementation of specialist roles needs to demonstrate at least a 5% cost saving to NHS Trust Boards.
- *Collaborative posts.* One service manager highlighted the potential for opportunities to have a shared role across centres. This could be an option for smaller cancer centres that may not have the workload to justify a specialist post.

Case Study 4 – Phil Reynolds

Since qualifying in 1999 I have worked in hospitals all over the UK, Australia and New Zealand. I started as a general treatment review radiographer eight years ago seeing patients for all tumour sites and for the past six years I have been the Advanced Urology Practitioner specialising in radiotherapy for prostate and bladder cancers. The development of this role came after a gap was identified in the quality of support available for these men.

My role is to be the link between urology and radiotherapy and so I have contact with all patients undergoing radiotherapy for a urological cancer. I support both the patient and their family throughout treatment after initially seeing them at a pre-treatment seminar.

As well as inserting gold seed markers into the prostate to aid the accuracy of treatment, I provide continuity of care throughout the course of radiotherapy. As a non-medical prescriber I am able to initiate treatment for side effects and provide a follow up clinic.

Close working with colleagues in the multi-disciplinary team is crucial to ensuring the best care for the patient as enabling referral to other specialities such as andrology or continence nurses as required. The role also includes involvement and facilitation of a monthly prostate cancer support group since its inception five years ago. I have really enjoyed helping facilitate the group as well as giving talks in my field of expertise.

As a member of the urology working party within radiotherapy, I help to continually improve

techniques and outcomes for patients having radiotherapy for a urological cancer. To that end I am also responsible for writing our department patient information as well as reviewing information for Prostate Cancer UK.

In the future I hope to continue advancing the role working towards a consultant practitioner and to continue to make the journey for the patient as smooth as possible.

13. Project Conclusions and Emerging Themes

13.1 This project has demonstrated that prostate/urology specialist roles are reliably in place in eighteen (18) cancer centres, mostly in England, and their numbers are increasing. The majority of posts have been created out of the existing radiographic establishment. The role is not yet sustainably embedded and might best be described as emerging. Practitioners' core functions are generally similar but there are differences which can probably be attributed to the isolated way in which they have developed. Most of the domains of advanced and consultant practice are represented but under-developed; there is a lack of consistency about what the role should be and no robust sense of identity or professional ownership of the role.

13.2 These early implementers of prostate/urology specialist radiographer roles have provided valuable insights into the role that should be taken forward in the development of a consistent, standardised, specialist key worker role to optimise radiotherapy and support for men with prostate cancer.

13.3 Particular themes highlighted by the project are:

- the need to address sustainability;
- the need for a more consistent understanding of the core functions of the role;
- a lack of clarity about the limits of the role ie where it should begin and end;
- the expressed ambivalence about the value of professional supervision;
- the need for support for relevant education and skills development, especially prescribing;
- a lack of engagement with research both in relation to the role and to radiotherapy practice.

13.4 Specifically, it is recommended that the following issues are prioritised by relevant stakeholders:

Workforce planning and service development

- Job descriptions that are clearly defined and include arrangements for cover for sickness and leave, and professional supervision together with job plans
- Development of a model role descriptor to support service managers
- Membership of prostate site-specific MDT for all practitioners
- Advice and support for business case development, including sustainability and succession planning.

Education and training

- Independent prescribing as the gold standard for prostate/urology specialist radiographers

- Publication of flexible postgraduate education and training opportunities, widely available in order to support development of full professional autonomy
- Professional accreditation of advanced and consultant practitioners.

Development of the research and evidence base

- Rigorous evaluation of the impact of the role
- Promotion of relevant research opportunities.

14. Project Recommendations

14.1 In summary, the benefits of the prostate/urology specialist radiographer role need to be established and promoted throughout the UK. Prostate Cancer UK and SCoR have the knowledge and expertise to facilitate this but require commitment from other key stakeholders to support and lead change. The recommendations below are proposed to particular groups of stakeholders.

14.2 Recommendations for prostate/urology specialist practitioners

- Continue to develop the role to become the key worker for men with prostate cancer for a certain period in the patient pathway.
- Engage more fully with all domains of advanced and/or consultant practice.
- Contribute to research into the value and impact of the prostate/urology specialist role.
- Seek opportunities to lead research into radiotherapy practice and patient experience.
- Participate in the development of the online community forum.
- Share practice, knowledge and experience, both within the cancer centre and wider MDT as well as beyond the Trust to help those looking to develop and advance roles in other centres.

14.3 Recommendations for radiotherapy service managers

- Formulate site-specialist job descriptions that are clearly defined and include arrangements for cover for sickness and leave, and professional supervision.
- Ensure that cancer centre workforce development plans reflect the strategic priorities of the Independent Cancer Taskforce strategy for 2015 - 2020.³
- Undertake personal development and review (PDR) to support relevant professional development for prostate/urology specialist practitioners in post and identify potential successors.
- Share with other service managers to learn from those who have already created these roles or support those who are embarking on it.
- Build in research component to site-specialist roles to include measures of impact that will evidence efficiencies, experiences and outcomes.

14.4 Recommendations for the SCoR

- Update the radiographic workforce advice and guidance to reflect the strategic priorities of the Independent Cancer Taskforce strategy for 2015-2020.³
- Develop a model role descriptor to support service managers.
- Provide advice and support to service managers for business case development, including sustainability and succession planning.

- When possible, promote independent prescribing as the gold standard for prostate/urology specialist radiographers.
- Develop a database of postgraduate education and training opportunities to support development of full professional autonomy.
- Promote professional accreditation of advanced and consultant practitioners.
- Develop and provide ongoing support for an online community forum and support network with resources for prostate/urology specialist radiographers.
- Deliver conference presentations to the profession and to the relevant charities.
- Share the project report with the wider radiotherapy workforce, the Radiotherapy Board, the cancer MDTs and via the Radiotherapy Clinical Reference Group in England, and equivalent groups in the UK.

14.5 Recommendations for Prostate Cancer UK

- Share information about educational opportunities as well as funding available to support continuing professional development.
- Use project findings to inform the development of Prostate Cancer UK's education programme.
- Promote relevant research opportunities and share findings from funded research projects.
- Ensure widespread dissemination of evidence gained from funded prostate site-specialists.
- Work in collaboration with SCoR to share the project report widely with key stakeholders.

14.6 Recommendations to national stakeholders

- Be aware of the developing role and contribution of therapeutic radiographers as key workers in the delivery of cancer services.
- Consider the development of the site-specialist therapeutic radiographer role in workforce planning models for cancer services.
- Work with the Society and College of Radiographers to support further development of site-specialist roles and assessment of their impact on patient care.

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16. References

1. Department of Health. *The NHS Cancer Plan and the New NHS; providing a patient- centred service_* London: Stationery Office; 2004. Available at: http://collection.europarchive.org/tna/20080107220102/dh.gov.uk/en/publicationsandstatistics/publications/publicationspolicyandguidance/dh_4092531 [accessed 21.09.2015]
2. Cancer Research UK and NHS England. *Vision for Radiotherapy 2014 – 2024*. March 2014 Available at: https://www.cancerresearchuk.org/sites/default/files/policy_feb2014_radiotherapy_vision2014-2024_final.pdf [accessed 21.09.2015]
3. The Independent Cancer Taskforce. *Achieving world-class cancer outcomes: a strategy for England 2015-2020*. 2015. Available at: http://www.cancerresearchuk.org/sites/default/files/achieving_world-class_cancer_outcomes_-_executive_summary.pdf [accessed 21.09.2015]
4. Bray F, Lortet-Tieulent J, Ferlay J, et al. *Prostate cancer incidence and mortality trends in 37 European countries: an overview*. Eur J Cancer 2010; 46:3040-52.
5. The Office for National Statistics, 19 June 2014 Available at: www.ons.gov.uk/ons/rel/vsob1/cancer-statistics-registrations--england--series-mb1-/index.html [Accessed 21.09.2015]
6. Information Services Division, NHS Scotland, 28 April 2015. Available at: <https://isdscotland.scot.nhs.uk/Health-Topics/Cancer/Publications/2015-04-28/2015-04-28-Cancer-Incidence-Report.pdf?92353457213> [accessed 21.09.2015]
7. The Welsh Cancer Intelligence and Surveillance Unit *Cancer in Wales* April 2014 Available at: <http://www.wcisu.wales.nhs.uk/sitesplus/documents/1111/CANCERinWALESApril2014FINAL%28Eng%29.pdf> [accessed 21.09.2015]
8. The Northern Ireland Cancer Registry, 2012 [Online] Available at: <http://www.qub.ac.uk/research-centres/nicr/CancerData/OnlineStatistics/> [Accessed 21.09.2015]
9. The National Radiotherapy Data Set. National Clinical Analysis and Specialist Applications Team (NATCANSAT). The Clatterbridge Cancer Centre July 2015 <http://www.natcansat.nhs.uk/rt/rtds.aspx> [accessed 21.09.2015]
10. James S, Beardmore C, Dumbleton C.. *A survey on the progress with implementation of the radiography profession's career progression framework in UK radiotherapy centres*. Radiography August 2012 18(3): 153-159 Available on line at: [http://www.radiographyonline.com/article/S1078-8174\(12\)00023-5/pdf](http://www.radiographyonline.com/article/S1078-8174(12)00023-5/pdf) Registration required
11. Cancer Clinical Nurse Specialists Impact Briefs. Available at: <http://www.macmillan.org.uk/Documents/AboutUs/Research/ImpactBriefs/ImpactBriefs-ClinicalNurseSpecialists2014.pdf> [accessed 21.09.2015]
12. Leary A et al. Prostate Cancer UK, 2014. *The specialist nursing workforce caring for men with prostate cancer in the UK. Research report 2014* Available at: http://prostatecanceruk.org/media/2491517/2631-urology-nurse-workforce-research-report_web.pdf [accessed 21.09.2015]
13. Department of Health *A policy framework for the commissioning of cancer services. A Report by the Expert Advisory Group to the Chief Medical Officers of England and Wales_* London: Stationery Office; 1995. Available at:

- http://webarchive.nationalarchives.gov.uk/20130107105354/http://dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4014366.pdf [accessed 21.09.2015]
14. Department of Health. *The Cancer Reform Strategy* London: Stationery Office; 2007. Available at: <http://www.nhs.uk/NHSEngland/NSF/Documents/Cancer%20Reform%20Strategy.pdf> [accessed 21.09.2015]
15. Department of Health *Improving Outcomes: a Strategy for Cancer*. London: DH, 2011. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213785/dh_123394.pdf [accessed 21.09.2015]
16. Department of Health. *Meeting the Challenge: A Strategy for the Allied Health Professions*. London: Stationery Office; 2000. Available at: <http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/assetRoot/04/05/51/80/04055180.pdf> [accessed 21.09.2015]
17. Society and College of Radiographers. *Positioning Therapeutic Radiographers within Cancer Services: Delivering Patient-Centered Care* London: SCoR, 2006. Available at: http://www.sor.org/system/files/document-library/public/sor_positioning_therapeutic_radiographers.pdf [accessed 21.09.2015]
18. Society and College of Radiographers. *The Scope of Practice 2013* London: SCoR Available at: <http://www.sor.org/learning/document-library/scope-practice-2013> [Accessed on 21.09.2015]
19. Society and College of Radiographers. *Education and Career Framework for the Radiography Workforce* London: SCoR, 2013 . Available at: <http://www.sor.org/learning/document-library/education-and-career-framework-radiography-workforce> [Accessed on 21.09.2015]
20. Östlund U, Kidd L, Wengström Y, Rowa-Dewar N. *Combining qualitative and quantitative research within mixed method research designs: a methodological review*. Int J Nurs Stud. 2011 Mar; 48(3):369-383. doi: 10.1016/j.ijnurstu.2010.10.005. Epub 2010 Nov 16. Review
21. Wisdom JP, Cavaleri MA, Onwuegbuzie AJ, Green CA. *Methodological reporting in qualitative, quantitative, and mixed methods health services research articles*. Health Serv Res. 2012 Apr;47(2):721-745. doi: 10.1111/j.1475-6773.2011.01344.x. Epub 2011 Nov 8 Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3419885/> [accessed 21.09.2015]
22. Ryan-Nicholls KD, Will CI. *Rigour in qualitative research: mechanisms for control*. Nurse Researcher. April 2009;16(3):70-85.
23. Great Britain. *Data Protection Act 1998*. London: HMSO Available at: http://www.legislation.gov.uk/ukpga/1998/29/pdfs/ukpga_19980029_en.pdf [accessed on 21.09.2015]
24. Macmillan Census Report 2014. *Specialist adult cancer nursing in England:*
Available at: <http://www.macmillan.org.uk/Documents/AboutUs/Research/Researchandevaluationreports/Macmillan-Census-Report-England.pdf> [accessed 21.09.2015]
25. The NHS England Allied Health Professions Medicines Project Team *Consultation on proposals to introduce independent prescribing by paramedics across the United Kingdom*. Feb 2015. Available at: https://www.engage.england.nhs.uk/consultation/independent-prescribing-paramedics/user_uploads/consult-indpdndnt-prescrbng-paramedics.pdf [accessed 21.09.2015]
26. Society and College of Radiographers. *Professional Supervision- Advice and Guidance Document* London: SCoR, 2013 Available at:

<https://www.sor.org/learning/document-library/professional-supervision-advice-and-guidance-document> [accessed 21.09.2015]

18. Appendices

Appendix 1

Copy of questionnaire



Appendix 1
PCUK_COR_Survey_1