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ABSTRACT

Outcome measurement – Developing standardized advanced practice workload measurement tools in Ontario, Canada

Ms Kitty Chan,[1] Mr Biu Chan,[1] Ms Kelly Linden,[2] Miss Vickie Kong,[1] Ms Nicole Harnett[1]

[1]*Princess Margaret Cancer Centre, Toronto, Canada,* [2]*Ottawa Hospital, Ottawa, Canada*

Background: Clinical specialist radiation therapists (CSRTs) in Ontario formed a Community of Practice (CoP) with local health agency to promote knowledge creation & exchange. The CoP developed a standard advanced practice (AP) code set (a list of clinical activities with measures of workload) to quantify AP workload for CSRTs in Ontario. Lessons learned in the development & implementation of this AP code set are presented.

Methods: The CoP compiled a list of AP activities from all CSRTs. Feedbacks from three radiotherapy department managers were used to design and categorize the AP codes into 5 domains: patient interactions, multi-disciplinary consult, virtual consultation, resource optimization and technical. The final code set consisting of 20 codes was imported to the radiation therapy electronic medical record (RT-EMR) system. All CSRTs were invited to capture these codes between January–March and April–June, 2020 and submitted the data for analysis. See Figure 1.

Results: Fifteen of 22 (68%) CSRTs from eight of ten cancer centres submitted data. All codes were used. CSRTs that have a clinical component to their roles captured more codes in the patient interaction and technical categories. During COVID-19 pandemic, virtual consultation code captures increased. After implementation, CSRTs identified a few barriers for data collection: RT-EMR upgrade, ambiguity in AP code description, difficulty in distinguishing AP versus regular radiotherapy or administrative activities.

Conclusion: A standardised AP code set enables workload measurement of CSRT roles in different cancer centres. This allows provincial leadership to assess impact of CSRT to the cancer system.[1]

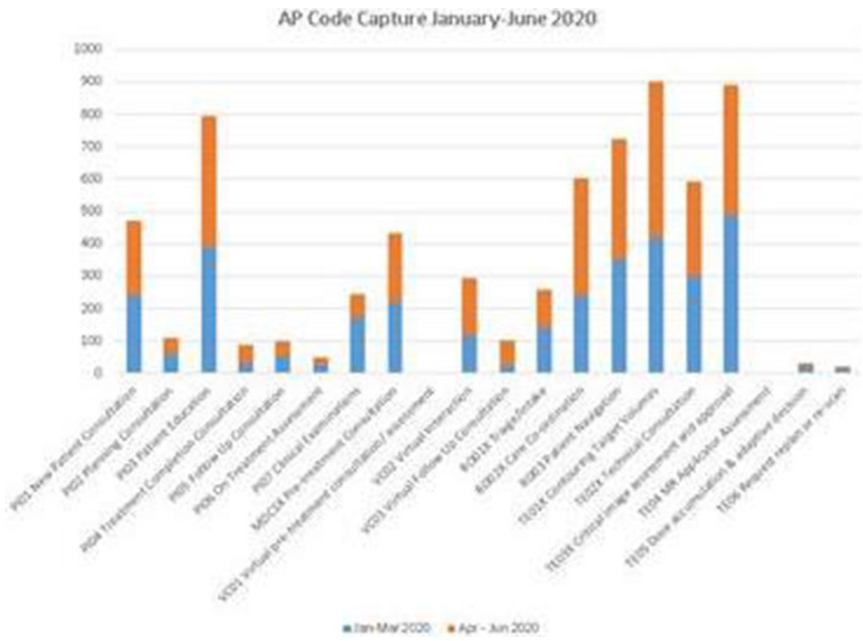

Figure 1

Radiographer-led clinical mark-up for superficial radiotherapy for skin cancer - developing training for advanced practitioners

Mr Marcus Dakers[1]

[1]*Musgrove Park Hospital - NHS, Somerset Foundation Trust, Taunton, United Kingdom*

Aim: Non-Melanoma skin cancers such as Basal Cell Carcinomas (BCC) and Squamous Cell Carcinomas (SCC) are the most common cancers worldwide[1]. Melanoma is the 5th most common UK cancer[2]. While many of these cancers are treated via surgery, some will require primary or adjuvant radiotherapy[3].

Determining the precise size and shape of the radiotherapy treatment, known as clinical mark-up, is commonly completed by a Clinical Oncologist (CO) or specialist doctor. The radiotherapy multidisciplinary team aimed to develop a therapeutic radiographer role specialising in radiotherapy for skin cancer, expediting and improving the patient care pathway. The objective was to develop a training package for therapeutic radiographers to undertake autonomous clinical mark–up.

Process: The implementation of a radiographer-led service included:

- Masters in skin cancer care
- Clinical supervision with a CO
- A 50 case portfolio
- Approval of clinical competence by Lead CO and radiotherapy manager
- Weekly prospective peer review of all Mark-Ups

Benefits/Challenges: The formation of this new, specific role required assessing the benefits to the service versus expenditure, however, by incorporating this patient-centred-role alongside or in place of the CO for suitable cases, patients are provided choice

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regarding their attendance. Increasing flexibility ensures cancer waiting targets are met.

Impact/Outcomes: Supporting and funding development of the therapeutic radiographer's specialist expertise has enabled improved relationships within the MDT to provide patients with the best possible outcomes.

The development process of this role, its scope and patient/service benefits could support other centres which are looking to implement a similar model.

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Transforming vision into reality: Developing the head and neck clinical specialist radiation therapist role

Ms Madette Galapin,[1] Mr Stephen Russell,[1]
Ms Darby Erler[1,2]
[1]Sunnybrook Health Sciences Centre, Toronto, Canada;
[2]Department of Radiation Oncology, University of Toronto, Toronto, Canada

Introduction: The Clinical Specialist Radiation Therapist (CSRT) role was introduced in the early 2000s as a new model of care to address the demand for cancer services, improve the quality of patient care, and inspire research and innovation in radiation therapy.[1] In 2019, a Head and Neck (HN) CSRT position was created at our institution based on growing clinical needs of this complex patient population.

Methods: Development of the HN-CSRT role was guided by the Advance Practice Registered Technologist (Radiation Therapy) competency profile, which includes clinical, technical and professional domains.[2] Role development meetings were held on a regular basis with key stakeholders including departmental leadership, radiation oncologists and the HN physicist. Areas of improvement in the patient care pathway were identified by conducting an environmental scan and process mapping exercises. Workload codes were used to capture interactions with patients via MOSAIQ.

Results: Key roles within the technical competency that were identified include updating the HN image guidance protocols and reviewing image registrations before treatment. Within the professional competency, the HN-CSRT has taken the lead in research and quality improvement studies, developed patient education material, provided staff education sessions, and co-chaired HN radiation therapy site group rounds.

Conclusion: Implementation of the HN-CSRT role has been successful thus far. Challenges include achieving consensus on priority issues, developing advanced expertise and knowledge, and ensuring the role complements the inter-professional team. Future directions include expanding the clinical domain, identifying outcome measures to evaluate short and long-term impact, and ensuring sustainability of the HN-CSRT role.

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Supporting the future advanced clinical practice workforce; evolution of a pre-registration diagnostic radiography programme

Mrs Helen Harcus,[1] Mr Voyin Pantic,[1] Mr James Harcus[1]
[1]University Of Leeds, Leeds, United Kingdom

Advanced practice in the UK has been commonplace for more than 20 years. In 2000 the Department of Health[1] outlined the four functions (pillars) for advanced practice, though it may be argued that radiography as a profession perhaps lagged in fulfilling these compared to other health professions.

In 2017 Health Education England[2] outlined its multi-professional framework for advanced clinical practice, a standard which now guides practice and again clearly articulates these four pillars.

Historically, education leading to advanced practice has been in the domain of post-registration courses, indeed stipulated that anyone undertaking such roles complete approved post-graduate education.[3] Such education tends to focus on the expert clinical knowledge required to undertake roles such as reporting and ultrasound, other pillars being less well considered.

Increasingly undergraduate programmes are aiming to develop the fundamental skills which may give the student a platform for future advanced roles; addressing the other pillars which may then support the subsequent development of expert practice at post-registration level.

This paper aims to discuss the development of an undergraduate Diagnostic Radiography course over the last 10 years. It outlines the pedagogical approaches employed; such as the use of optional modules and extended (3+1) degree programmes. It discusses this evolution which has led to the validation of an extended pre-registration programme, the 'MRad,' which aims to scaffold a student's development in all four pillars core to advanced clinical practice roles. It will 'flip' the education of such roles, and embrace a career structure expected of a graduate professional and beyond.

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Development of reporting and accuracy in trainee reporting radiographers; a small cohort study

Mr James Harcus,[1] Prof Bev Snaith[2,3]
[1]School of Medicine, University Of Leeds, Leeds, United Kingdom, [2]Mid Yorkshire Hospitals NHS Trust, Wakefield, United Kingdom, [3]Faculty of Health Studies, University of Bradford, Bradford, United Kingdom

Introduction: Development of image interpretation skills relies on a combination of education and experience and may take on a variety of formats.[1-7] This study aims to assess the development of reporting skills in trainee reporting radiographers.
Methodology: Eight trainee reporting radiographers undertook a time-restricted image bank representative of a typical reporting workload at the start, midpoint and end of their training. The accuracy, sensitivity and specificity as well as the length and number of reports written was analysed.
Results: Mean accuracy and sensitivity increased from initial (83.9%;70.9%) to midpoint (89.9%;94.9%) but fell by the endpoint (89.4%;88.8%) although no statistically significant (p=0.16) effect was demonstrated. Specificity continually increased from the start (86.3%) to end (90%). The number of reports completed increased and the length of the reports reduced from the start to end of training. A number of common errors were identified.
Discussion: Findings suggest image interpretation skills might plateau or even reduce over time and as in previous studies suggested a 'tail-off' in the latter stages of training[4,8,9] and that the relative exposure to education and normal and abnormal cases appears to have an effect. Report style and efficiency generally improved though there was a marked variation in the cohort and, along with the common errors, suggests individualised and focused learning might be appropriate.[7]
Implications for Practice: The effective development of image interpretation skills relies on varied approach to education and assessment.[2] These factors are imperative when designed training programmes and on-going development of image interpretation skills.

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Rough Terrain Ahead: Prepare, Persevere, and Progress

Ms Nicole Harnett[1,2]
[1]Department of Radiation Oncology, University of Toronto, Toronto, Canada, [2]Princess Margaret Cancer Centre, Toronto, Canada

This year's conference themes accurately describe three key phases under which much of our advanced practice efforts will fall – getting off the ground, making a difference, and new roles/new directions. While each are equally important phases of the advanced practice journey we are in, they differ greatly in the effort vs. reward calculation. The speed of progress is different for each of these phases, so the mindset, skill set and tool kit we must bring to the challenges of each phase is different.
The slow shallow slope of trying to get something off the ground is deceptively punishing given its almost flat appearance. This is compared to the steep, almost exponential, slope of the "making a difference" phase where you are up to your neck in efforts to realize the potential of everything you have been working towards. Then comes the adjustment of your lens as your journey planes out and permits (sometimes suddenly) the ability to look beyond what is directly in front of you (ie. the steep incline) and see the horizon and its multitude of possibilities.
In this talk, I will use my experience with 15 years of advanced practice activities to share my perspectives on how the journey draws differently on our skills, our thoughts, and our actions and

share some thoughts on how we can shape the future of advanced practice in radiation therapy.

Underpinning the journey of advanced clinical practitioners

Dr Jane M Harvey-Lloyd,[1] Dr Ruth M Strudwick
[1]University Of Suffolk, Ipswich, United Kingdom

Following the publication of the Multi-professional Framework for Advanced Clinical Practice in England (DoH, 2017)[1] Health Education England (HEE) has been undertaking further work by developing multi-professional credentials and an overarching framework. There is now a clear expectation that all Advanced Clinical Practitioners (ACPs) will be educated to master's level in addition to being accomplished and experienced clinicians, capable of expanding their role and scope of practice. This expectation is also supported by the Society and College of Radiographer's (SCoR) Career Framework (2016)[2], stating that by 2021 there would be an expectation that all advanced practitioners will hold a full master's degree.

The body of advanced practitioners within the radiography profession is growing but anecdotal evidence suggests that very few possess a master's level qualification let alone a full master's degree. In identifying a gap in our postgraduate provision, a framework has been developed to support those advanced practitioners to gain a master's level qualification by utilising their clinical expertise and/or focusing on a specialist area of practice.

The purpose of this presentation will be to discuss the development of the master's framework and how it has been designed to bring together radiographers from different specialities to support them on their journey to fulfil the future expectations of both the SCoR and HEE. The challenges of developing the course(s) and the importance of stakeholder engagement will be explored as will the fundamental culture change within the profession around what constitutes an advanced practitioner or ACP.

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Scoping review of UK & Australia pre-registration diagnostic radiography programmes to support future advanced practice

Mr Johnathan Hewis,[1] Mr James Harcus,[2] Mr Voyin Pantic[2]
[1]School of Dentistry & Health Sciences, Charles Sturt University Port Macquarie, Australia, [2] School of Medicine, University of Leeds, Leeds, United Kingdom

At the point of entry level registration In the UK[1] and Australia[2], newly graduated diagnostic radiographers are expected to be able to identify and convey knowledge about significant findings on axial, appendicular, chest and abdominal radiographs. This includes the ability to distinguish normal and recognise the presence or absence of abnormal findings that may be conveyed either verbally or in written form.

Previous research has predominantly focused on the evaluation of postgraduate education in the context of advanced practice for reporting diagnostic radiographers. Undergraduate education is critical in the development of 'first post' image interpretation capabilities but also provides a foundation for future advanced practice roles.

This study aims to review the educational curriculum of undergraduate diagnostic radiography courses in the UK and Australia with a focus on the development of image interpretation knowledge, skill and attitude which may relate to roles upon either initial registration or subsequent advanced practice. This study will employ an in-depth qualitative content analysis of educational curriculum documents freely available in the public domain for a range of higher education institutes in the UK and Australia that deliver undergraduate diagnostic radiography courses. Content analysis is frequently used to analyse text data[3]. Data will be extracted and coded prior to identification of emergent themes.

The aim of this data analysis is to provide a comparative overview of practice in the UK and Australia, which may help to guide the development of educational programmes in providing the scaffolding for the future advanced practice workforce.

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Advancing technology advancing roles. The impact of a stereotactic radiosurgery APRT

Ms Lori Holden[1]
[1]Toronto Sunnybrook Odette Cancer Centre, Toronto, Canada

To address the evolving challenges of our brain metastases population, coupled with new technology in our department, a new advanced practice radiation therapist in stereotactic radiosurgery (SRS-APRT) role was developed. This role was implemented to oversee the development, implementation, training, and management of daily operations in the Gamma Knife (GK) unit. The goal was to increase efficiency, reduce wait times, and improve care and outcomes for brain metastases patients. Since its implementation in 2016, capacity has increased from 1 to approximately 8 patients, receiving daily treatment. The SRS-APRT demonstrates leadership by developing GK standards, protocols, educational materials, training, and staffing oversight; expanding a team of 2 to a complement of 9 radiation therapists (RTs) competent in GK treatment. Development of the program provided a unique opportunity for the APRT to establish novel clinical and technical/planning

RT-based competencies. It is these planning competencies that enabled tasks traditionally held by physicists to be transitioned to GK RTs, thus positioning the department as having the only known RT led GK unit. The clinical/ technical impact of the APRT is captured using National Hospital Productivity Improvement Program codes, which measure workload based on specific tasks being performed. In a two-year time period, approximately 800 patient interactions were captured. To date, over 5000 targets have been treated on the GK- now the busiest GK unit in Canada. The embedded SRS-APRT role continues to impact efficiency and quality of patient care, and is now well poised to focus on future research such as personalised medicine in GK.

Pulmonary nodule reporting radiographers: The role and impact on the MDT

Mr Paul Holland[1], Ms Alison Clubley[1], Ms Hazel Spence[1], Ms Deborah de Abreu[1]

[1]Nottingham University Hospitals, Nottingham, United Kingdom

Introduction: Pulmonary nodules are a common finding on computed tomography (CT) scans of the chest. Evidence-based guidance from the British Thoracic Society[1] and Fleischner Society[2] have recommended the use of volumetric software for analysis as it helps to minimise the number of repeat CTs. The advantage of volumetry has been at the detriment of additional radiologist reporting time required for analysis. To alleviate this, the Trust recruited and trained radiographers to perform volumetry reporting and become part of the pulmonary nodule multidisciplinary team (PNMDT).

Discussion: Three radiographers were originally recruited to report pulmonary nodule follow up scans for the past 4 years. Through 1-2-1 reporting sessions, informal teaching, attending the MDT and use of guidelines and online resources the radiographers are able to produce primary reports for nodule follow up.

Impact on the PNMDT has been a considerable one with cost savings, better escalation for growing nodules and the ability to discharge patients more promptly. Furthermore, the addition of another post (June 2020) has allowed us to run an extra MDT each week, which is largely due to the success and demand of the PNMDT service. We continually audit our reports in particularly the volumetry against the approving thoracic radiologist, details of which are illustrated on Figure 1. Furthermore, follow up interval CT referrals and CT referral authorisations are now also done by the radiographers (previously done by respiratory physicians and other referrers). This practice has further improved the service and ensured patients within the PNMDT pathway received a follow up CT.

Conclusion: Pulmonary nodule reporting radiographers can be used effectively to support radiologists as part of the pulmonary nodule MDT pathway, escalate findings, or enable discharge more effectively.

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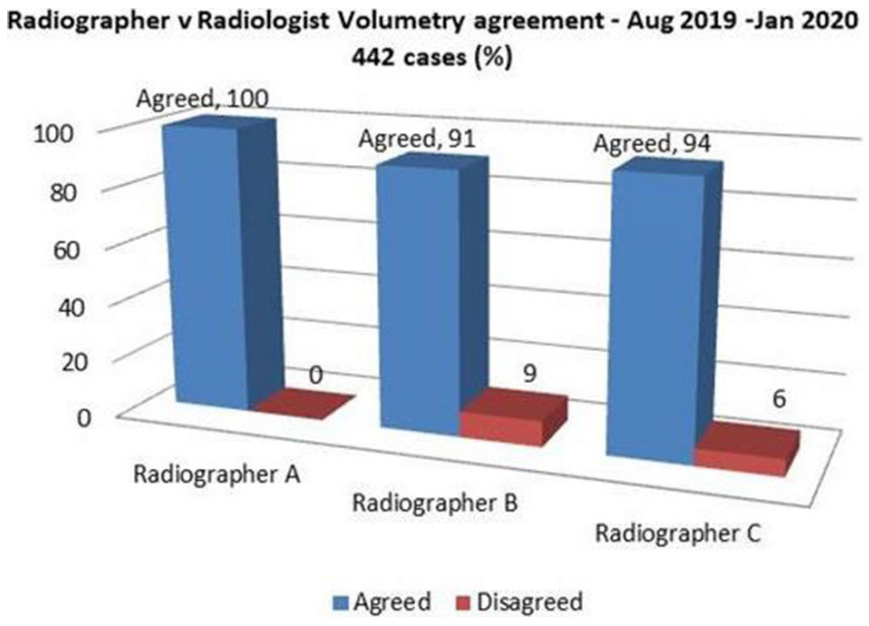

Figure 1

Advanced practice review radiographer: Developing a learning & development pathway

Mr Naman Julka-Anderson,[1] Mrs Carly Elliott[1]

[1]Imperial College Healthcare NHS Trust, London, United Kingdom

The NHS Long-Term Plan highlights how Advanced Practice is central to helping transform service delivery by providing enhanced capacity, capability, productivity and efficiency within multi-professional teams.[1]

All health and care professionals working as Advanced Practitioners should develop their skills and knowledge to the standard outlined in the Health Education England framework.[2,3]

Working in Radiotherapy Treatment Review requires a collection of interpersonal skills, as well as specialised/advanced knowledge, evidence based practice and clinical skills to support the service.[4]

As the local department's review team is nurse led, a need to develop competencies for radiographers undertaking on-treatment review arose.

A Professional Development Portfolio has been designed with a focus on each Advanced Practice pillar. This ensures practitioners work towards that Scope of Practice and accreditation with the Society College of Radiographers.[5]

Each pillar has a level 1 (entry/basic) to level 4 (advanced/expert) requirements to work towards (Figure 1). Level 4 can be achieved in addition to level 1-3 but allows for cross over between the pillars to achieve competence.

Case studies have been designed for each treatment site and pillar to help advance the practitioner's knowledge, understanding, confi-

dence and management strategies in line with local protocols and procedures. This allows for practitioners to explore the evidence base, research, potential audits and training opportunities of all treatment sites to encompass all four pillars.
Reflective practice is embedded to encourage practitioners to review and consolidate their learning, identify further learning needs, demonstrate how their practice incorporates all four pillars, and help mentors provide appropriate support.

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Radiographer education, research and practice: A Delphi study looking toward 2031

Dr Jonathan McNulty,[1,2] Mrs Charlotte Beardmore,[1,3] Professor Graciano Paulo,[1,4] Emeritus Professor Audrey Paterson[1]
[1]European Federation of Radiographer Societies, Utrecht, The Netherlands, [2]School of Medicine, University College Dublin, Dublin, Ireland, [3]The Society and College of Radiographers, London, United Kingdom, [4]Department of Medical Imaging & Radiotherapy, Coimbra Health School, Coimbra, Portugal

Radiographic practice underpinned by education and informed by research is vital to the delivery of effective and timely medical imaging, nuclear medicine and radiotherapy services and this importance can only grow as the shift from population to personal healthcare takes effect. The EFRS Radiographer Education, Research, and Practice project was established to produce a White Paper based on considered expectations of and ambitions for radiographers over the next decade.
Through a Delphi methodology, a group of leading radiographers from across the globe were asked to draft statements that described expectations and ambitions related to radiographers' education, research, and practice. This resulted in 216 statements which were then entered into an online survey tool. An invitation to complete the survey was then sent to 448 radiography educators, practitioners, researchers, and to the international expert group. Survey participants were asked to consider each statement and indicate their level of agreement.
Responses were received from 157 respondents. Detailed analysis enabled the 216 statements to be stratified into three levels of importance under the headings: education, research, and practice. Subsequently stakeholder organisations, including patients and other professions, were invited to share their views of the future of the radiographer profession and all 114 EFRS member organisations were invited to review and comment.
Our profession's ambitions and expectations for the future align with aspects of advanced practice, new roles, setting standards, building evidence, promoting our professions, and it is hoped that the White Paper will support activity linked to building a strong professional future.

Inspiration

Mr Rob Milner[1]
[1]The Rotherham Foundation NHS Trust, Rotherham, United Kingdom

What is inspiration and when was the last time you were inspired by something or someone? Why are children so easily inspired but as adults we struggle so much with the concept? When and why did we lose our inspiration? Who or what should we look to for inspiration and why should we strive to inspire others?
I want to talk about inspiration, which is associated with advanced practice through the leadership domain. Inspiring others isn't as simple as being a role model or a good public speaker; to inspire others, you too need to be inspired.
Unfortunately, in most cases inspiration takes time, and it takes defined action and an idea of what it is that you want to go after, to become inspired. When you are inspired you are mentally and emotionally stimulated; you are excited and that electricity is infectious. Others won't be able to help becoming inspired through your own inspiration. I will provide a couple of actions that you can take in order to inspire yourself, and in doing so you will begin to inspire others. This is key to making long-lasting positive change within radiography and is a core component of advanced and consultant practice which, in my opinion, is often overlooked.

APRT improving access to quality cancer care for indigenous populations in Alberta

Ms Winter Spence,[1] Dr Fiona Mitchell[1]
[1]Cancer Care Alberta, Edmonton, Canada

Alberta Health Services vision is "Healthy Albertans. Healthy Communities. Together". In northern Alberta, communities are spread over a vast expanse and include First Nations, Métis, and Inuit people, many who reside in remote locations. These communities experience disparities in health outcomes[1], and decreased access to cancer care services, including radiation therapy (RT)[2].
In 2021, Cancer Care Alberta will open the new Grande Prairie cancer centre, the most northern RT centre in North America. Patients

and families tell us that care close to home has a tremendous impact on their quality of life improving outcomes when family and friends are close. Given the distribution of Indigenous patients in Alberta, an APRT role with a focus on Indigenous care, underpinning a desire to bridge known gaps, is being explored.

A proposed APRT role is a first in Canada for a Radiation Therapist to travel to communities to consult, assess and follow-up with Indigenous patients. Existing technology, utilising telehealth, will provide care and support to health centre staff in remote communities. Education and training, in partnership with local communities, will be provided to better address the burgeoning demand for cancer services within the Indigenous population[3].

This proposed APRT role will provide new evidence to support Indigenous cancer care initiatives, strengthen relationships between the cancer program and Indigenous communities, increase awareness for the role of RT and increase referral rates from remote communities, and ultimately improve access to quality cancer care for Indigenous populations.

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Transforming and advancing medical radiation professions

Dr Michael Neep[1,2]

[1]Department of Medical Imaging, Logan Hospital, Meadowbrook, Australia, [2]School of Clinical Sciences, Queensland University of Technology, Brisbane, Australia

It is clear the overarching purpose of advanced practice is to improve patient care. However, it is not uncommon for professionals to grapple with the very notion of advanced practice. An advanced practitioner is a vehicle that can drive the advancement of a profession, including medical radiation sciences (MRS). Advanced practitioners are those who can both recognise and challenge the assumptions underlying the MRS practice. They can identify and articulate their role and their contribution to both patient outcomes and healthcare as a whole. By engaging in advanced practice, medical radiation professionals are forced to rethink their existing approach. This then encourages new ways of thinking, preserving the strengths and removing the weaknesses of the previously adopted ideas. Such disposition has the potential to ignite new traditions based on a sound scientific foundation that can ultimately advance MRS practice and research. The underpinning tenets of advanced practice within MRS are similar between Australia, United Kingdom and Canada.[1-3] They encompass clinical skills, education, research and leadership. This amalgamation of skills, pursuits and attributes is designed to promote and develop practice through the delivery of clinical leadership. The aim of this presentation is to explore the aforementioned fundamental domains by providing examples derived from my own practice as well as the literature, and to demonstrate how they may lead to advancing the MRS profession.

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The journey to advanced practice

Mr Mike Odgren[1]

[1]Diversified Radiology, Denver, United States

Achieving the goal of becoming an advanced practice radiographer, called a radiologist assistant (RA) in the United States, has many required steps which entail years of education and training; however, there are also some additional items which some may consider helpful to better prepare the aspiring candidate. This presentation will inform the radiographer about how best to prepare, train and succeed in an advanced role.

This presentation will explore the history of advanced practice in the United States. Prerequisite education and certification will be discussed, including additional considerations before applying. Educational programs will be explored, as well as the certification examination process. The various roles of RA practice will be examined. In closing, the keys to success in practice will be proposed.

A systematic review of evidence about advanced roles for therapeutic radiographer

Ms Celeste Oliveira,[1,2] Ms Bárbara Barbosa,[3,2] Mr Guilherme Couto,[4] Dr Isabel Bravo,[3] Dr Ricardo Khine,[5,6] Dr Helen McNair[5,7,8]

[1]Department of Radiotherapy, Instituto Português de Oncologia do Porto (IPO Porto), Porto, Portugal, [2]Escola Internacional de Doutoramento, Universidad de Vigo , Vigo, España, [3]Medical Physics, Radiobiology Group and Radiation Protection Group, IPO Porto Research Centre (CI-IPOP), Instituto Português de Oncologia do Porto (IPO Porto), Porto, Portugal, [4]Radiography Department, University of Malta , Msida , Malta, [5]European Federation of Radiographer Societies, Utrecht, Netherlands, [6]School of Health Care and Social Work, Buckinghamshire New University, Buckinghamshire, United Kingdom, [7]The Royal Marsden Hospital, Radiotherapy, Surrey, United Kingdom, [8]Institute of Cancer Research, Surrey, United Kingdom

Background: Advances in technology linked to specialist techniques and growing cancer care demand a greater level of autonomy, responsibility, and accountability in the Therapeutic Radiographer (TR) clinical practice driving the subsequent development of new roles, including "advanced practice roles". The evidence is scattered, and the concept has evolved depending on the advances in treatments and increasing workload. This study aims to identify and synthesise the advanced roles in radiotherapy describing the scope of practice of the advanced practitioners.
Methods: The systematic PRISMA review of the literature was carried out with PROSPERO registration: CRD42020177103. Articles were deemed eligible for inclusion if they were peer-reviewed and focused on the advanced practice of TR. The literature was scrutinised for advanced roles, tasks, or activities practised by TR. Thematic analysis was used to organise roles into themes (dimensions).
Results: A total of 443 articles were screened for relevance of which 87 studies were selected for quality appraisal. Advanced roles were listed into seven different dimensions: patient care and support; treatment planning; treatment imaging and delivery; management and leadership; quality and risk management; research and service development; and education and training.
Conclusion: This review highlights the variability of both advanced radiotherapy role implementation and description of the scope of this advanced level. TR has moved beyond the traditional scope of practice with skills-mix initiatives involving the collaboration of multidisciplinary teams. In two decades of advanced practice development in radiotherapy, the roles that become established are those that meet local service needs.

A reflection on the benefits of embedding sub-specialist advanced practice roles within cross-sectional imaging

Ms Ruth Reeve,[1] Ms Catherine Williams,[1] Ms Roma Dave,[1] Ms Zoe Jennings,[1] Ms Ben Ridge[1]

[1]Portsmouth Hospitals University Trust, Portsmouth, United Kingdom

Introduction: Advanced practice roles are well documented and continue to respond to the changing landscape in diagnostic imaging. In the UK there are a range of advanced practice roles throughout multiple modalities. We aim to describe establishing diverse and unique roles within a busy NHS trust, providing subgroups of examples within cross-sectional imaging and the benefits of these roles.
Methodology: A reflection on five specialist advanced practice roles within the cross-sectional imaging department, unique to one NHS trust. The roles have been evaluated using pillars of advanced practice to demonstrate how they achieve a high level of practice in clinical and expert practice; professional leadership; education, training and development; and practice and service development, research and evaluation.
Results: Examples of advanced practice included CT GI Radiographer, GI Sonographer, CT Cardiac Radiographer, Musculoskeletal Sonographer and Head and Neck Sonographer. Each role was new to the respective department with some uncommon areas of advanced practice nationally. Evidence presented demonstrates how these new roles meet the criteria for advanced practice, discussing the benefit they make to their profession, department and patients.
Conclusion: All advanced practice roles demonstrate expert practice with clear examples of professional practice evidencing the four domains of advanced practice. The establishment of these roles demonstrate the advantage for diagnostic imaging in developing roles of new and unique areas of advanced practice.

The transition from senior radiographer to advanced clinical practitioner specialising in plain film reporting

Mrs Clare Richards[1]

[1]Musgrove Park Hospital, Taunton, United Kingdom

Background: Advanced clinical practice (ACP) has been developing in the UK for many years. In 2017, Health Education England (HEE) published a multi-professional framework for advanced clinical practice in England which set to define the four pillars of ACP; clinical skills, education, leadership and management and research[1]. However, radiographers have lagged behind other allied health professionals in the development of advanced clinical practice roles which meet all four pillars as outlined in the framework[2].
Purpose: This poster will explore some of the challenges encountered when establishing an ACP role for reporting radiographers, specifically in relation to evidencing achievement of the four pillars of the ACP framework.
Summary of Content: Autonomous reporting of medical images by a radiographer does not, in itself, meet the full criteria for ACP. Perceived barriers to creating a reporting radiographer role which

encompasses all four pillars include a lack of awareness of the broader remit of the ACP role. This poster will highlight areas of the HEE framework which are readily incorporated into the reporting role, or may be already present but open to expansion.
Finally, it will outline solutions to break down barriers for radiographers as ACPs in order to fully embed education, leadership and research within a reporting radiographer's role.

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Improving palliation: Development and implementation of a practice agreement for an advanced practice radiation therapist

Ms Natalie Rozanec,[1] Dr Woodrow Wells,[1,2,3] Dr Charles Cho,[1,2,3] Mr James Loudon[1]
[1]Southlake Regional Health Centre, Newmarket, Canada, [2]University of Toronto, Toronto, Canada, [3]Princess Margaret Cancer Centre, Toronto, Canada

Background: A palliative advanced practice radiation therapy (APRT) role was implemented in 2012. The APRT incorporates leadership and advanced knowledge, skills and judgment into clinical and technical aspects of care. Opportunities to improve efficiency of patient care were identified, as the current radiation oncology (RO) staffing model involves multi-institutional practices where ROs are offsite at least one day per week.
Methodology: Consultation took place with the APRT, Radiation Therapy manager and ROs to determine tasks/activities for delegation. The APRT demonstrated acquisition of the knowledge, skills and judgment required through concordance studies. Delegated tasks were drafted into a practice agreement (PA) and medical directive (MDR) in collaboration with the Office of Professional Practice. The documents were reviewed by the ROs, Radiation Therapy Manager and Director of the Regional Cancer Program. Final review was completed by the Medical Advisory Committee (MAC), which supervises/determines direction for medical practice.
Results: The PA and MDR were approved by MAC and implemented clinically. The APRT can initiate discussion and/or clarification of an established cancer diagnosis, discuss results of diagnostic tests/imaging with patients, and obtain informed consent for planning/delivery of radiotherapy. Other delegated tasks include entering/approving a diagnosis/radiation prescription/care plan in the electronic medical record, ordering/approving radiation treatment plans, weekly reviews, follow-up appointments, case review, radiation re-planning/re-simulation.
Discussion: The PA and MDR have allowed more efficient management of patient symptoms and expedition of radiotherapy treatment. Expansion of the PA and MDR to include prescribing medications and ordering diagnostic tests is in progress with plans for future implementation.

Formalising preliminary image evaluation by Australian radiographers: A valuable future practice?

Ms Allie Tonks,[1] Mr Justin Varcoe,[2] Miss Siena Maurici[3]
[1]Sydney Adventist Hospital, Sydney, Australia, [2]Blue Mountains Hospital, Katoomba, Australia, [3]Macquarie University Hospital, Sydney, Australia

Currently mandated under National Law, as articulated by the Medical Radiation Practice Board of Australia, is the minimum capability for all registered radiographers to assess acquired images for trauma or disease and convey findings to clinical staff. Despite endorsement of a written preliminary image evaluation (PIE) system by professional bodies in several countries including Australia, radiographer input remains inconsistent and often informal.[1] The purpose of this review was an assessment of current literature to determine if PIE would be of value to the Australian health system, particularly when a radiologist report is not available within a clinically relevant timeframe. A structured search of four health research databases produced 58 articles used to support conclusions drawn within the review, with 11 core articles of highest relevance assessed for bias and quality forming the basis of discussion. Studies have suggested there is a contextual need for PIE due to increased imaging service pressures, radiologist shortages, and subsequent reporting delays.[2,3,4] Radiographers appear well placed and willing to provide accurate initial input with evidence this would be valued and appreciated within the multidisciplinary team.[5,6,7,8,9,10,11] Commenting has also been shown to reduce diagnostic and communicative errors, with the potential to improve patient management.[12] Finally, it was shown that role extension can enhance recruitment, retention, and job satisfaction among radiographers.[11,13] Therefore, current literature supports implementation of radiographer PIE within the Australian health system. Future research into financial and legal aspects of initial commenting would also be of value.

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Toward a model of true interprofessional teamworking in image reporting- a review of the literature.

Mrs Kirsty Wood[1]
[1]*University Of Derby, Derby, United Kingdom*

Objective: Radiographers have been undertaking reporting tasks in the UK since the 1980's with a wealth of evidence published to support this practice[1]. Radiographers have since developed skills in reporting all body systems, from all referral sources across a range of modalities. Radiographer reporting is now considered established and demand for radiographers in this role is rising to meet service demand[2,3]. The aim was to review peer-reviewed literature to evaluate how the role of the reporting radiographer is portrayed and how the relationship between the two imaging professions is developing toward a truly interprofessional model.

Method: A systematic search of key databases (CINAHL Complete, Science direct, Medline, PubMed and PsychInfo) was conducted. Literature from all methodological designs was reviewed. Statements relating to the practice of reporting radiographers were gathered and arranged into themes. Key descriptive words were identified.

Results: Fifty articles were selected for review. Language used to discuss the role of the reporting radiographer has changed over time (see Figure 1). Recent publications focus on the importance of utilising the skills of all multi-disciplinary team members[2,4,5]. This features prominently when discussing future workforce design, such as with the Cancer workforce strategy[6] and the development of the national standards for musculoskeletal reporting[7].

Conclusion: Published literature has highlighted a move towards acceptance of the reporting radiographer role, with multi-disciplinary image reporting teams now commonplace. Effective multi-disciplinary team working is essential to the success and sustainability of the image reporting workforce moving forwards.

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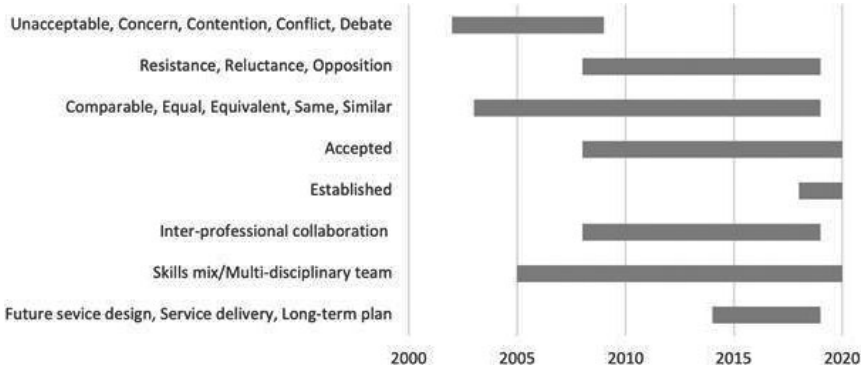

Figure 1

Agreement between consultant radiologists and reporting radiographers in chest radiograph reporting: a consecutive clinical series

Dr Nick Woznitza,[1] Prof Anand Devaraj,[3] Prof Sam Janes,[4] Prof Stephen Duffy,[5] Dr Keith Piper,[2] Dr Susan Rowe,[1] Dr Angshu Bhowmik,[1] Ms Natasha Hayes,[1] Mr Daniel Togher,[1] Dr Nikki Arumalla,[1] Dr Erik Skyllberg,[6] Dr Iain Au-Yong,[7] Dr Susan Geary,[8] Dr Bindu George,[7] Dr Stephen Ellis,[6] Dr Bhagabati Ghimire,[9] Mr Zoheb Shah,[5] Ms Sue Maughn,[10] Prof David Baldwin[7]

[1]Homerton University Hospital, London, UK, [2]Canterbury Christ Church University, Canterbury, UK, [3]Royal Brompton & Harefield Hospitals, London, UK, [4]Lungs for Living University College London, London, UK, [5]Queen Mary University London, London, UK, [6]Barts Health, London, UK, [7]Nottingham University Hospitals, Nottingham, UK, [8]Sherwood Forest Hospitals, Nottinghamshire,, UK, [9]Kings College London, London, UK, [10]East London Health & Care Partnership, London, UK

Aim: To investigate chest radiograph (CXR) reporting by radiographers.

Methods: 12-month consecutive CXRs referred from primary care were independently reported by consultant radiologists (CR; n=13) and reporting radiographers (RR; n=3). Respiratory physicians, blinded to reporter, compared reports for agreement. Discordant cases were reviewed by thoracic radiologists, blinded to reporter. Number of CR and RR generated CT scans and lung cancers diagnosed were recorded.

Results: 8,685 of 9,136 (95.1%) CXRs were included. Agreement and insignificant disagreement between CR/RR reports occurred in 5,981 (68.9%) and 1,347 (15.5%) of cases respectively. 1,357 (15.6%) of CR/RR reports had clinically significant disagreement. Thoracic radiology review has been performed for 908 of 1,357 (66.9%) discordant reports. Both reports were correct in 292 (32.1%), CR report correct in 255(28.1%), RR report correct in 271 (29.9%) and neither report correct in 90(9.9%). Thoracic radiologists were no more likely to agree with a CR or RR report (p=0.49; CI=-0.03,0.07). 350 CT scans were generated by CRs or RRs; 103 both CR/RR, 149 CR only and 98 RR only. 31 of 49 lung cancers were diagnosed on a radiology generated CT; n=22 both CR/RR, n=5 CR only and n=4 RR only (CR PPV=10.7%; RR PPV=12.9%).

Conclusion: CXR reporting by RR appears to be comparable to CR, with similar accuracy and use of further tests.