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For Imaging and Radiotherapy Professionals

2020

FUJIFILM

Value from Innovation

NEW

FDR nano

with integrated Artificial Intelligence

Clinical trials of the AI software for chest x-ray abnormalities demonstrated:

97.6% successful in detection of chest conditions

100% successful in the diagnosis of tuberculosis

LUNIT AI

Instantly Identify Anomalies at Acquisition to Fast Track Workflow and Patient Pathway

The FDR nano with integrated AI uses deep learning algorithms to apply abnormality scores and heat maps on radiographs acquired by the bedside, providing a clear visual and statistical analysis of the image instantly. The integrated AI allows radiographers to assess a wide range of conditions including:

- Nodule consolidation
- Pneumothorax
- Calcification

- Consolidation
- Cardiomegaly
- Pleuro effusion

- Pnemoperitoneum
- Fibrosis

The AI technology enables fast track pathways for patients with abnormal images and improves early detection whilst delivering a reduction in false negatives.

Contents

Editorial

Meeting the Challenges of a Changing World

It seems odd to be writing this editorial now during 'lock down' and looking back at all of the articles that were commissioned for this edition of *Imaging and Oncology* before we knew anything about Covid-19. Our world was a different place then…

Editing and proofreading this time round has been a little more challenging due to us all working remotely. My home computer has certainly been working a lot harder over the past few months.

Once again, I would like to thank both Mel Armstrong and Charlotte Beardmore for their support and guidance. Thank you also to all the authors who have contributed to this edition.

This publication begins with a position paper from the Consultant Radiographers Advisory Group (CRAG), and the theme of career progression continues with an exploration of advanced clinical practice in therapeutic radiography from a team of experienced therapeutic radiographers and an article discussing 'The Career Sonographer' by Pamela Parker.

Working together across organisations is the theme for the contribution from Fiona Thow, Erika Denton and Andy Howlett, where they discuss the advantages of imaging networks. The value of allied health professionals (AHPs) and senior clinical leadership is explored by Joanne Fillingham, where she stresses the importance role that AHPs perform within the NHS.

It is always important to consider our service users, and once again we have some thought provoking articles which consider the needs of our patients. Gareth Hill explores the needs of lesbian, gay and bisexual patients affected by cancer, and Simon Girling discusses the patient care considerations for transgender patients in the nuclear medicine department. Daniel Hutton explains the concept of cancer prehabilitation to us and Jim Phillips explores personalised care. Engaging patients in problem solving and discussion about 'Always Events' is the subject of the article from Louise Harding and Paula Park.

Finally, Amanda Martin and Emma Dodd ask us to consider how we support newly qualified staff in their preceptorship period. This may prove to be more significant for those joining the profession during the pandemic, as services have changed considerably and staff are under greater pressure.

I hope that you will also find something useful for your own practice. Happy reading.

RMStrudwick

**Best wishes
Dr Ruth Strudwick
Editor**

Foreword

Sharing Best Practice to Create a Workforce Fit For the Future

Welcome to the 2020 edition of *Imaging and Oncology* in what has been a difficult and challenging start to 2020. This publication addresses topical issues pertaining to our profession, and the issues that need to be highlighted to ensure that we have a workforce and a workplace fit for the future.

The world we live in is changing and what people need from healthcare is also changing. As professionals, it is imperative that we embrace and continue to improve our own knowledge and development of what our patients, stakeholders and the public need from us. The healthcare system continues to change at a fast pace and it is vital that we are an educated, informed, flexible workforce, that still delivers best quality care.

The concept of sharing best practice and providing evidence-based research is not new. There are gaps in our working practice and gaps in our experience, so we must continue to encourage and commend our contributors to deliver thought provoking articles. This will innovate our practice and provoke debate or even inspire others to be the skilled professionals needed to lead our profession into the future.

During my year as President of the Society and College of Radiographers, it has been my privilege to see this in practice; the depth and breadth of advanced practice at all levels, covering all aspects of imaging and radiotherapy is astonishing. Our profession is acutely aware of the need for changing practice but we are also aware that these changes must be well-researched and evidence-based for the benefit of patients and their individual needs.

I hope you enjoy reading this issue, utilising and sharing information from these articles, working together to develop your knowledge and your profession, and maybe encouraging you to contribute to our publications to highlight, inspire and support our profession for the future.

Gill Hodges

Best wishes
Gill Hodges
President
Society & College of Radiographers

Consultant Radiographers in the United Kingdom – The Society and College of Radiographers (SCoR) Consultant Radiographers Advisory Group (CRAG) Position Paper

A rising focus on productivity, workforce efficiency and increasing consumer expectations, has created an urgency to review patterns of practice in the National Health Service (NHS)[1-3].

The non-medical consultant post was pioneered to the allied health professions (AHP) in the United Kingdom (UK) in 2000[3]. Diagnostic imaging and radiotherapy are a vital part of the cancer patient pathway and there is a healthcare priority to improve access to rapid diagnosis and treatment. Consultant radiographers are also found in other areas of clinical practice, bridging modality use and frequently replacing medically led services[4,5]. The first consultant radiographer (CR) role was appointed more than a decade ago and the number of CRs has steadily grown over that period in both diagnostic and therapeutic radiography settings[4].

The objective of the CR role is to improve patient outcomes by developing alternative care models, whilst leading and redesigning evidence-based clinical services. Success in these positions was achieved through strong clinical leadership and high-level strategic thinking across the four core domains of:

- Expert clinical practice;
- professional leadership and consultancy;
- education, training and development;
- practice and service development, research and evaluation[3-4].

Despite the fact that key guidelines for the role of non-medical consultants have been published, the specific and definitive role outline with progression pathways of the CR continues to be controversial[5,6]. Many CR appointments were made with the best intention of having expert clinical practitioners in departments addressing escalating clinical workload and workforce issues. However, there was often little understanding of the original definition of the role. Significant challenges around role expectation have been experienced by both practitioners and the radiography professional body alike[5].

In order to promote a culture responsive to changing healthcare needs in diagnostic imaging and radiotherapy, the Consultant Radiographer Advisory Group (CRAG) was established under the Society and College of Radiographers (SCoR) in September 2017. This paper aims to present an overview of the current status and perceptions of CRs and deliver the CRAG vision on the future of consultant practice for UK radiographers.

The Consultant Radiographer Advisory Group (CRAG) and its vision

CRAG is formed of 16 members appointed from the CR community. The membership is designed to be representative of the diverse range of clinical practice in both diagnostic imaging and radiotherapy across all four countries of the UK.

Prior to the formation of CRAG, the wider CR group made a significant contribution to the development of the profession, in particular by raising the profile of the CR role nationally and providing a forum for communication and support. The CRAG primary role is to progress this work by providing an effective voice representing both the community of CRs and the diagnostic imaging and therapeutic radiographer workforce.

The CRAG aims to provide leadership and ongoing development by empowering and supporting accredited CRs, in order to generate best evidence-based practice with the highest radiographic standards to patients, carers, and healthcare staff. In all aspects of consultant practice, CRAG works with and advises the SCoR on current and future challenges in the profession and contributes to wider issues in health and social care.

Definitions of a consultant radiographer

A range of terminology and definitions have been used to describe CRs within the published literature[4-12]. CRs are often described as innovative thinkers and trailblazers who are experts in their specialisms, bringing strong clinical leadership and strategic direction to their particular area of expertise. They are highly motivated and passionate patient service advocates, who strive for continuous improvement of patient pathways and outcomes through evidence-based practice and service evaluation.

Aligning with statements by the Department of Health (DoH) in 2013[9], the CRAG defines a CR as an individual who:

(i) Provides clinical leadership within a clinical speciality, and;

(ii) brings strategic direction, innovation and influence through the four domains of practice:

In advocating for CR roles, the CRAG believes that each consultant position is unique and should not be perceived merely as a replacement for the clinical expertise of medical colleagues to deliver a clinical service.

The objective of the CR role is to improve patient outcomes by developing alternative care models, whilst leading and redesigning evidence-based clinical services.

- Expert clinical practice.
- Professional leadership and consultancy.
- Education, training and development.
- Practice and service development research and evaluation.

Examples of activities fulfilling the four core domains of consultant radiographers

The CRAG recognises the four key elements to consultant practice. Whilst many of the day-to-day activities of the CR can be ascribed to two or more of these domains, they serve as a useful indication of the type and impact of work undertaken when acknowledging the depth and breadth of their wider role and responsibilities.

Expert clinical practice

CRs are, of necessity, highly qualified in their specialist field. They act as a knowledge resource within their department and also across disciplines. These skills extend further through leading and contributing to clinical decisions that are not protocol driven and require the balancing of evidence, clinical reasoning skills and experience. The responsibility of the CR is not only to deliver this locally, but also to advise as a national and international expert in the development of guidelines and policy, beyond the obvious connections to diagnostic and therapeutic radiographic services.

CRs are core members of the multi-disciplinary team, contributing to management decisions regarding complex cases, integrating evidence into clinical practice with a patient-focused approach[5,7].

Professional leadership and consultancy

The role and responsibilities of healthcare leaders are highly varied in terms of their objectives, targets and leadership style. The professional leadership of the CR is specific not only to their area of specialism, but also in terms of motivating and inspiring the radiographic profession as a whole. With their acknowledged expertise, and ability to

process complex information and engage wider staff groups and organisations, CRs can strategically drive change by challenging current healthcare structures[4,5,7]. Through this, they raise the profile of the profession and promote best practice. Examples include appointments as panel members for guideline committees, expert advisors to industry and government bodies (such as the Health and Care Professions Council and the National Institute for Health and Care Excellence), and programme development advisors for Higher Education Institutions, where they may also lead on research projects or provide expertise in higher degree development and assessments.

Education, training and development

CRs within the radiographic professions have a key role in the post-graduate education of radiographers and other professionals. These include specialist medical registrars, consultants and advanced practitioners from the wider healthcare professions plus nursing and midwifery. They also have a responsibility in educating non-medical policymakers, patients, patient advocates and government bodies.

Fundamental to the practice of CRs is their involvement in the design of new patient treatment pathways. An example is radiographer-led discharge from emergency departments, first introduced in the Mid Yorkshire Trust in 2004 and now adopted widely across England[13]. The CR involves the patient whilst advocating and working across professional boundaries to implement patient pathway improvements. Collaborative working of this nature achieves service improvement, reduces waiting times and elevates quality standards.

The role of the CR is fundamental in policy and guideline development, not only at a single institution but also at national and international levels. Examples include participation in working committees on occupational standards with Skills for Health, the Health Education England, the NHS Education for Scotland, and other national/ international specialist fora.

Practice and service development, research and evaluation

Clinical implementation of evidence-based research theory relies on the evaluation of current clinical services and its redesign. This is often complex and requires strategic planning, a high-level understanding of the clinical and political issues, and the ability to work collaboratively to be able to identify, address and adapt to an ever-changing environment. CRs are perfectly positioned within their role to facilitate the implementation of national policy within their local clinical service. This can help identify gaps in the knowledge base to initiate and lead research that will enhance the service evidence base further. CRs work collaboratively and effectively with Higher Education Institutions, as well as the wider multi-disciplinary team to achieve this both within and across the diagnostic imaging and radiotherapy services.

In terms of research dissemination, CRs can evidence their contributions to research by presenting at national/international conferences and publishing manuscripts in peer-reviewed journals. Another example of CRs' contributions to professional publications is being regular reviewers and editorial board members of journals.

Current challenges of consultant radiographers

It is of note that barriers and challenges to developing the CR role are still evident. Often a clinical focus is the primary driver for development of a CR position. These roles frequently demonstrate highly specialised activities that enable increased educational potential across the diagnostic and therapeutic radiographic team. As a consequence, improved multi-disciplinary team working at a lower cost and improved wider impact may be achieved than through a single medical colleague[7,8,12].

The initial government documentation suggested that CRs should allocate a minimum of 50% of their time to clinical practice, with the remainder being distributed across the other three core domains of practice[5]. Supported by several publications, it has been recognised that a CR's job plan contributes to an inability to practice across all four core domains, even though these are equally important to the role of a CR. Research and service evaluations are often the core domains in which the CRs fail to emphasise in their job plans[6]. This may be caused by the limited understanding of employers about the roles of CRs. Job plans of CRs are often developed as a substitute clinical expert and act as a stopgap for an inability to employ a radiologist. Equally, this may also be driven by financial gains to the healthcare organisation or changing clinical demands placing more pressure on the clinical expertise portion of the CR role during its lifetime. Although this allows the service to cope with increasing clinical workload, it prevents CRs from being able to support others in their leadership, educational and research roles.

These findings surfaced recently in a study by Deane et al. questioning the value and perceived limited impact of voluntary accreditation with the SCoR[14]. With no national consensus on how to measure the impact of the role demanded by positions, peer review via voluntary accreditation should be perceived by CRs and service providers as a way to address governance concerns and find ways to ensure all four domains of practice are met. This would also be a significant gain for those departments achieving accreditation for the quality and imaging standards of their services.
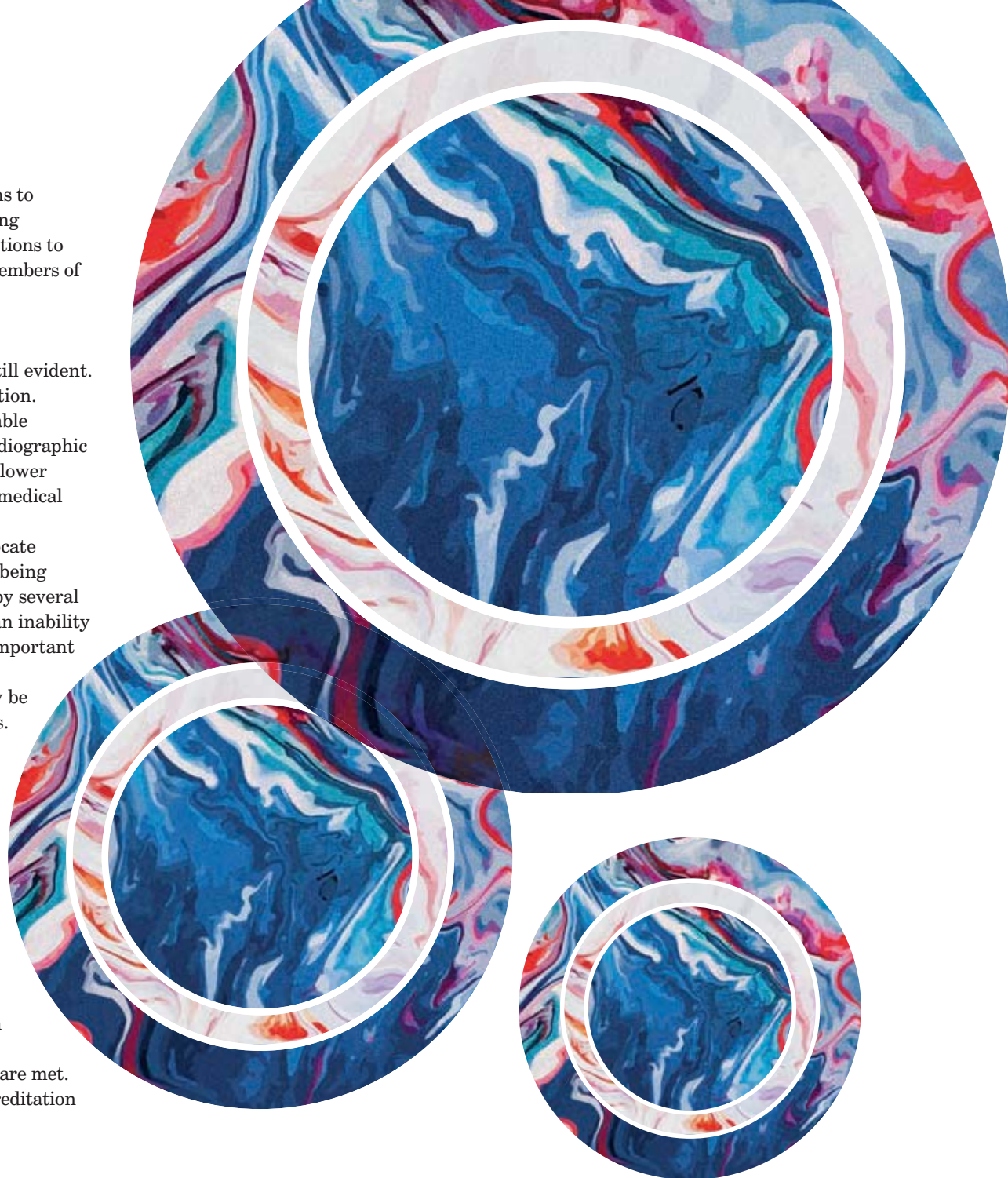
Back in 2006, the need for more consultant practitioners with appropriate accreditation by the SCoR was identified, with the associated remit of enabling strong governance of CR role development[15]. The CRAG strongly recommends that those aspects of practice that would attract peer recognition, such as the aim of accreditation, should be clarified for those making decisions about service delivery, staffing and their development. This would also contribute to grading roles according to a recognition process that is accepted to the wider expectations of the descriptions provided in the initial ideals defined by the Department of Health in 2000[1,3]. This can be aligned closely with the recent published guidelines *Transforming Healthcare through clinical academic roles in nursing, midwifery and allied health professions*[16] and *Multi-professional Framework for Advanced Clinical Practice*[17].

CRAG position statement – conclusion

Currently, there are 189 CRs registered with the SCoR and the number of CRs is increasing. This implies that the positive impact of CR roles on diagnostic imaging and radiotherapy service delivery has been recognised, however this should not just be as a clinical focus. CRs work across clinical, academic, and research practice boundaries to care for patients, and deliver improved patient outcomes. Accordingly, CR roles encompass the development of the radiographic profession and hold strategic influence across the whole four-tier structure in radiography.

In advocating for CR roles, the CRAG believes that each consultant position is unique and should not be perceived merely as a replacement for the clinical expertise of medical colleagues to deliver a clinical service. The CRAG aims to raise the CR profile across the profession, and the wider healthcare team nationally and internationally. It is essential for all CRs to work in unity to promote the visibility of the hidden impacts that the CR role enables in clinical service delivery.

Radiography cannot continue to be perceived mainly as a technical profession, as without the input of the two branches of radiographic practice, highly significant aspects of NHS provision cannot be achieved nor can the health service expect to cope in the future.

Through recognition of the wider value of the education, research and innovation/leadership domains of practice within the CR position, there are benefits to patient services. Individuals who are recruited into the CR roles should provide evidence on how they fulfil all four core domains as required, and will aspire to those highest levels of evidence generation such as doctorate learning. CR roles should have significant financial and resource support to enable the fullest role development; and to include higher research degrees so reinforcing the perception of the profession as a key player within the health service.

The CRAG aims to provide leadership and ongoing development by empowering and supporting accredited CRs, in order to generate best evidence-based practice.

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CRs are core members of the multi-disciplinary team, contributing to management decisions regarding complex cases, integrating evidence into clinical practice with a patient-focused approach.

Dr Yat Tsang, Sue Williams, Heather Nisbet, Laurence Skermer, Sairanne Wickers and Dr Jonathan McConnell, on behalf of the Consultant Radiographers Advisory Group (CRAG).

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Imaging Networks – A New Model for Service Delivery

Following the 'Review of Acute Hospitals' by Lord Carter[1], it became apparent that there was little useful data for benchmarking imaging services in England, in order to understand both warranted and unwarranted variation, and to gain an understanding of what good looks like.

Increasing demands on imaging services coupled with ageing equipment and severe staffing shortages, has meant that almost all imaging departments rely on costly outsourcing and insourcing to meet the capacity gap. However, prior to the first National Imaging Data Collection (NIDC) in April 2017, there were no nationally held data on imaging expenditure, capital assets and staffing numbers and composition by grade and staff type.

There have now been three NIDC collections which have been shared with imaging departments to support them with benchmarking their own imaging services with similar Trusts. These data have also been used to develop and inform a new national model for service delivery for England, through the development of imaging networks. The data have been made available to provider Trusts through the 'The Model Hospital' portal[2].

What the data show

Workforce (variation and vacancies)
The NIDC showed significantly high vacancy rates, which on average for Band 5 radiographers was around 15%. Noting that this was an average figure, in some Trusts this figure was much higher (see Figure 1)

Similarly for Trusts returning data on radiologists, the vacancy figures were at a similar level (see Figure 2).
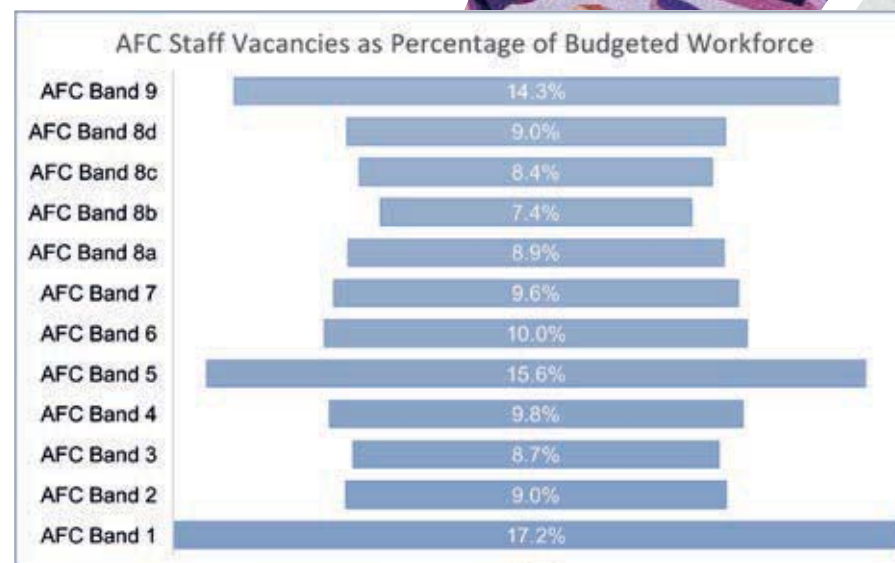
Figure 1: Mean vacancy rates by FTE (Non-Medical).
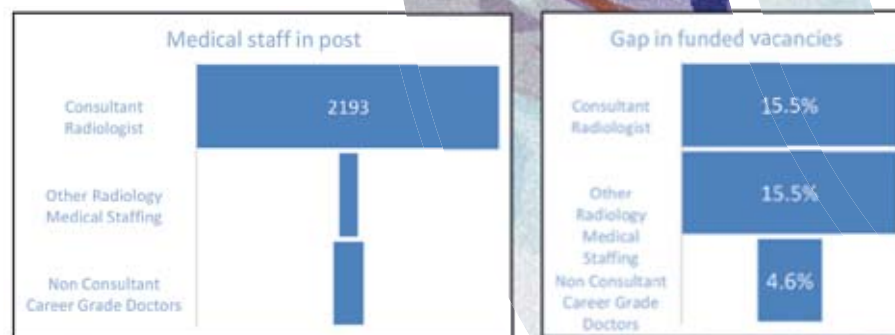
Figure 2: Medical staff in post with mean vacancy rate (excluding doctors in training).

Source: National Imaging Data Collection 2017/18, NHS Improvement (return from 132 Trusts), October 2018 ESR = 2826 Consultants + 81 SAS = 2907 (active assignments).

However, what the data did show was a significant difference in the types of staff roles that departments were employing and the variation in the numbers of staff at different pay bands. This was not surprising when we also looked at the variation in how staff were being deployed and the types of tasks that they were undertaking in those roles. The variation in radiographers undertaking reporting of plain radiographic images varied from 0% to 79% (see Figure 3).

The most recent NIDC for 2018/19 has seen that variation rise from between 0% to 89%. When we look at reports by reporter type there is regional variation which warrants further investigation, particularly around the level of auto reporting/delegated reporting (refer to Figure 4). This should be reviewed in the context of the report by the Care Quality Commission (CQC) about imaging reporting backlogs[3].

Equipment

The NIDC also provided information regarding the age profile and variation in the cost of the imaging capital equipment base.
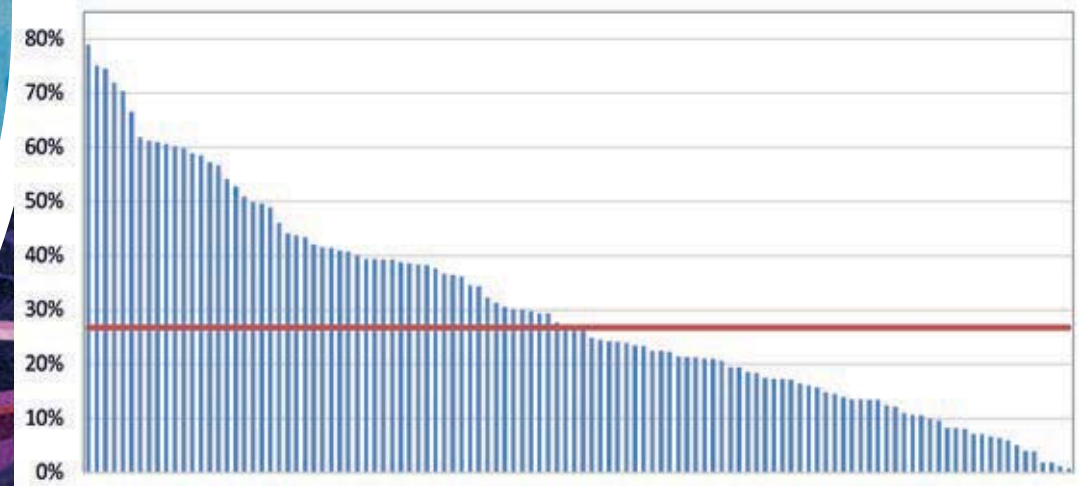
Figure 3: Percentage of plain x-rays reported by reporting radiographers, number of reports by reporter type for each Trust.

Source: National Imaging Data Collection 2017/18, NHS Improvement.

Most imaging services are relying on outsourcing (to independent sector organisations) or insourcing (paying radiographers and radiologists for additional sessions).

Figure 4: Percentage of reports by reporter type by NHS regions.

Source: National Imaging Data Collection 2017/18, NHS Improvement.

This allowed us to see the variation in cost for computed tomography (CT), magnetic resonance imaging (MRI) and other equipment, despite the average cost of such equipment not having changed significantly over a four to five year period.

National Health Service (NHS) Improvement was able to then start to develop a 'standard specification' for CT, MRI and mammography equipment to allow for economies of scale when purchasing, to reduce the variation in cost and in specification. The variation between regions for CT was £490k-£650k and for MRI £800k-£850k (excluding VAT). This allowed a business case to be made to Her Majesties Treasury to fund the replacement costs for all CT, MRI and mammography equipment over ten years old to be replaced. An announcement was made by the Prime Minister in September to fund £200m worth of equipment over the next two years to start to update the installed equipment base in the NHS[4].

The data collection, and hence the national asset register, has allowed further work to be done to model the current and future imaging equipment requirements over the next five and ten years. Demand forecasts have been calculated using historic growth, demographic growth and demand generated by the aspirations and commitments in the Long Term Plan for the NHS[5] for each modality. Historic growth alone on average over the last four years has been 7.4% and 7.1% for CT and MRI, with less growth in plain radiography of 1.4%[6].

Proposed new model of delivery

Using the data collected over the last three years, there is a capacity gap which is driven by high vacancy rates and old/ageing equipment. This has led to most imaging services relying on outsourcing (to independent sector organisations) or insourcing (paying radiographers and radiologists for additional sessions) in order to meet the capacity shortfall. In 2017/18, the NHS spent £182m to meet this shortfall in imaging capacity.

It is agreed that there needs to be investment in both staffing and equipment to meet some of that shortfall, however, there are also opportunities for improved productivity by using capacity and demand across a wider footprint, where individual Trusts work collaboratively to use staffing and equipment capacity more flexibly. This not only gives the opportunity to gain economies of scale on procuring outsourcing services, making costs more transparent, but it also allows some Trusts to access insourcing from within the network. Early results of a Vanguard network demonstrated cost savings from creating a 'backlog list' within a network and allowing radiologists and reporting radiographers to report those studies for an additional payment. This insourcing model was more cost effective than outsourcing the same work and saved the Trusts involved around 31% on their outsourcing costs.

Other benefits can be categorised into:

1. Service resilience.
2. Patient benefits.
3. Staff benefits[7].

When proposing the configuration of the imaging networks they were based on clinical flows and pathways for patients, as they needed to build on existing clinical relationships and meet requirements for appropriate image sharing or transfer. The networks were configured around pathways for cancer, stroke, acute cardiac, trauma and maternity. Activity volumes and existing collaborations were also considered to ensure that appropriate image sharing solutions would be able to support the networks, and to encourage existing clinical alliances that would give maximum buy-in to the concept.

The opinions of three provider Trust Chief Executive Officers (CEOs) was sought and feedback received was unanimous that networks should be clinically appropriate and led, to gain acceptance from clinicians, who would be critical to success.

Work continues with stakeholders to identify benefits and challenges to delivering imaging networks. Progress will be reported into the National Imaging Optimisation Delivery Board, with national progress being reported into the Diagnostics Programme Board.

Key enablers
Information technology (IT)

In order to deliver the benefits outlined in the previous section, it is essential to have an image sharing platform that can manage large volumes of studies and images. Established networks are looking at either a Vendor Neutral Archive (VNA) solution, where they opt for the same Picture Archiving and Communications System (PACS), or an image sharing cloud-based solution that can operate using different PACS. Some networks have secured funding through either cancer transformation funding or through Sustainability and Transformation Partnership (STP) transformation bids. A national case has been built to support funding for these IT solutions, as they will be key to the implementation of the networks by 2023.

These IT platforms will also be essential for the roll-out of artificial intelligence (AI) solutions at scale that can support diagnoses, prioritise patients for reporting and increase the efficiency of scheduling and booking processes, all of which could deliver risk and productivity benefits to imaging departments and to patients.

Outsourcing and Insourcing		Non-substantive Pay Cost Split			
Outsourcing, £139M	Insourcing, £43M	Agency Staff Costs, £79M	Internal Bank Staff Costs, £38M	External Bank Staff Costs, £16M	Overtime Staff Costs, £31M

Figure 5: Breakdown of non-substantive pay by type, Outsourcing and insourcing total cost
Source: National Imaging Data Collection 2017/18, NHS Improvement

There are also opportunities for improved productivity by using capacity and demand across a wider footprint, where individual Trusts work collaboratively.

Network resource

To establish the imaging networks, a dedicated team will be required to co-ordinate and lead this complex development, providing both clinical and managerial support. There is much work to be undertaken in order to report studies from multiple organisations, not least agreeing scanning and reporting protocols, and what level of interoperability is required. Practical arrangements for finance and governance need to be agreed and signed up to from CEOs, and staff working in the imaging networks need to be supported through any changes that they are likely to see in how they work.

   As with any transformational change process there are several operational procedures to be agreed, however active management of the change is required to support staff through the organisational development challenges of the establishment of new organisations and ways of working.

As a minimum resource

- Lead clinician (0.6 whole time equivalent (WTE) – 1.0WTE).
- Deputy lead clinician/liaison in each Trust (0.2WTE).
- Managerial lead/programme lead (1.0WTE).
- IT/PACS lead/project manager (1.0WTE).
- Workflow co-ordinator & business intelligence lead (2.0WTE).
- Human resource/workforce/project lead (1.0WTE).
- Admin and project support (1.0WTE).
- Ad hoc sessional payments (or agreed dedicated time) at a session per week for:
    - o Protocol alignment.
    - o Pathway standardisation.
    - o Quality improvement lead/accreditation.

An ongoing team would be required beyond 'set up' to ensure that there is clear leadership, co-ordination and accountability for this development through an appropriate governance framework. Consideration will also need to be given regarding where this team is physically located to deliver the operational needs of the network.

Next steps and implementation

Having launched the Imaging Strategy on 5 November 2019, in consultation with the NHS England and NHS Improvement Regional Directors and Executive Board, a period of consultation with the seven regions is underway to engage with integrated care system (ICS) leads and clinical networks.

Following the consultation process, the imaging network configurations will be published in an *Implementation Guide* which will also provide a range of toolkits, templates and self-assessment guides. Each imaging network will be supplied with a 'data pack' that will be derived from the national imaging data collection to support them to develop:

1. An image sharing plan (toolkit under development).
2. A workforce and training plan.
3. A capital equipment replacement plan.

Each network will be supported by their regional diagnostic imaging lead, who will provide tailored support and report progress of this development and requirements to the regional NHS England and the NHS Improvement regional teams.

National Imaging Network sharing events are being planned to support networks to share their work to date, templates, successes and challenges, to help accelerate their own development. Policy developments and commitments will be highlighted as areas for consideration, as they develop their network plans.

Fiona Thow, Head of Imaging Services Transformation, NHS England and NHS Improvement.

Professor Erika Denton, National Clinical Adviser, NHS England and NHS Improvement.

Andy Howlett, Director of Diagnostics, Medicines & Pharmacy Improvement, NHS England and NHS Improvement.

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An Exploration of Advanced Clinical Practice (ACP) in Therapeutic Radiography: A Qualitative Inquiry

The Five-Year Forward View[1] suggested that changes in models of care will result in more accessible, responsive and effective health, care and support services, enabling better co-ordinated support for patients and fewer trips to hospitals. It is anticipated that the new models of care will be replicable nationally. Approaches to delivering the new models of care include expanding health and care roles, and ensuring a flexible workforce that can provide the high-quality care.

In response to the Five-Year Forward View, the Allied Health Professional (AHP) network, documented in the report *Allied Health Professionals into Action*[2] proposed the use of AHPs to transform health, care and wellbeing across the sector in supporting transformation of the workforce and optimising patient outcomes. One of the priorities identified within the portfolio of development included advanced level practice for clinical staff (termed advanced clinical practice), where practitioners operating at this advanced level would develop advanced clinical skills and specialisms, in order to enhance the ability of the profession and/or department/team to offer a greater depth of service and ease pressure elsewhere in the system. Advanced clinical practice is defined as 'a level of practice characterised by a high level of autonomy and complex decision-making, underpinned by a Master's level award or equivalent that encompasses the four domains of clinical practice, management and leadership, education, and research, with demonstration of core and area-specific clinical competence'[3].

The priorities for AHPs are therefore to meet the challenges of changing care needs through leadership, further skill development, evaluating, improving and evidencing impact of contribution, as well as utilisation of technology. Case examples from *Allied Health Professionals into Action*[2] have demonstrated how AHPs have achieved significant impact and identified best practice currently being delivered, in addressing the challenges set by the Five-Year Forward Plan.

The Health Education England (HEE) Multi-professional framework for advanced clinical practice (ACP)[3] and subsequent tools, provide an opportunity for application of advanced level practice and site specialist roles across clinical settings. Moreover, the Cancer Workforce Plan[1]: Delivering the cancer strategy[4] equally reinforces the opportunities. The report acknowledges that cancer alliances are developing service models and pathways to improve the treatment, support and experiences of people living with cancer and beyond. The new service models support existing staff to develop new skills, roles and responsibilities, to enable staff to employ their expertise within multi-disciplinary teams in different settings and places. In addition, the report highlighted the importance of investing in the future shape of the workforce, to meet the demands of personalised cancer services.

In oncology, therapeutic radiographers play a vital and changing role in the delivery of radiotherapy services treating patients with cancer. They are extensively involved at all stages of the patient's radiotherapy journey[5]. It is their significant contribution to cancer care delivery that makes a therapeutic radiographer an ideal contender for role development[6]. Opportunities for skill mix and new roles at advanced and consultant levels of practice for therapeutic radiographers have been highlighted as key to streamlining and focusing care and supporting patients across the radiotherapy pathway[7,8,9].

The aforementioned Cancer Workforce Plan[1,4] identified seven initial priority workforce areas along the cancer pathway that could be supported to deliver the objectives of the Five-Year Forward View by 2021. One of the workforce areas included therapeutic radiography, recommending the following actions:

- **Skill mix:** Capacity to upskill experienced therapeutic radiographers into advanced clinical practitioner roles.

- **New service models/innovations:** exploring how technology, innovative practice and new service models including networked services can help to improve delivery.

In addition, The Cancer Research UK report *Full team ahead: understanding the UK non-surgical cancer treatments workforce*[10] acknowledged the notion of skills mix, in that therapeutic radiographers will take on additional responsibilities in the next five years, both through more consultant therapeutic radiographers leading the management of pathways of care with support from the radiotherapy multi-disciplinary team (MDT), and therapeutic radiographers taking on a proportion of planning and voluming, conducting on-treatment and post-treatment review. This means an increased workload for the workforce as a whole and a full skill mix scenario would mean that future workforce numbers would remain with around a 10% shortage of the greatest level of need. This would result from consultant therapeutic radiographers taking on 30% of consultations from oncologists, almost all on-treatment review and radiotherapy end-of-treatment follow-ups, and 25% of plan checking (a responsibility shared with dosimetrists). As such, the aim of this evaluation was to explore the opportunities and the potential for advanced clinical practice in oncology, specifically reviewing therapeutic radiography as an exemplar.

Methods

The specific objectives were:
- To determine what advanced clinical practice roles exist within therapeutic radiography.
- To explore local profiles and role development of advanced clinical practice in therapeutic radiography.
- To explore the role development and evolution of roles for advanced clinical practitioners in therapeutic radiography.
- To determine what additional resources are required to roll out and ensure continuation of the existing and new roles.
- To explore opportunities for standardisation of advanced practice across the therapeutic radiography profession.

Stakeholder engagement was key in this evaluation. Three stakeholders, the clinical oncology faculty of the Royal College of Radiologists (RCR), Radiotherapy Service Managers Network and Institute of Physics and Engineering in Medicine (IPEM), were all consulted and engaged in the evaluation.

The research aim and objectives were addressed through a qualitative study design using a two-phased approach: document analysis of advanced practice (AP) job descriptions (JDs) and focus groups.

Phase One: Documentary analysis of AP job descriptions

Copies of existing AP job descriptions were requested from the 50 radiotherapy departments across England via the National Radiotherapy Managers Group network. There were 48 JDs received from 12 radiotherapy centres but 15 were excluded from the analysis as nine were duplicates, five related to consultant practitioner roles and one to a managerial position. A further two AP JDs sourced from advertisements on NHS Jobs were included; these originated from two regions. In total, 34 documents were included. Table 1 presents the geographical spread of the responses from the centres in each region and the origin of the NHS jobs JDs.

Each JD was reviewed against the criteria set out by the HEE Multi-professional framework for advanced clinical practice as shown in Table 2.

NHS Region	Responding centres	JD received
South	6	20
Midlands and East	4	23
North	2 (NHS Jobs + 1)	4
London	0 (NHS Jobs + 1)	1

Table 1: Geographical spread.

HEE Framework
Role title
Education Level eg. MSc
Key capabilities of ACP: • Clinical practice • Leadership and management • Education • Research
Relevant Code of Conduct aspects
Reference to supervision
Other factors, eg Autonomy of role, clear demonstration of patient-centred care/enhanced experience/improved outcome/partnership working.

Table 2: HEE Framework criteria.

Phase two: Focus groups

Purposive sampling was chosen as the overall sampling strategy, as it is generally used where there are small sample sizes consisting of 30 cases or less. In this instance, the cases refer to the different radiotherapy cancer centres across England, which were purposively selected to gain opinions across a large geographical area. Convenience sampling was then used to recruit participants from the respective radiotherapy departments to participate in the regional focus groups. The following regional areas were identified for focus groups: London, Bristol, Leeds and Leicester. Thirty six participants took part in the focus groups. Table 3 lists the participants by region and indicates whether they were advanced practitioners or consultant practitioners.

Region	Participants [n] and Role
South	Advanced Practitioner n=6 Consultant Therapeutic Radiographer n=4
Midlands and East	Advanced Practitioner n=5 Consultant Therapeutic Radiographer n=1
North	Advanced Practitioner n=5 Consultant Therapeutic Radiographer n=4
London	Advanced Practitioner n=10 Consultant Therapeutic Radiographer n=1

Table 3: Focus group participants.

All focus groups were audio-recorded with the participants' permission and then transcribed. Thematic analysis was used to analyse the qualitative data collected from the focus groups, and the researchers followed Braun and Clarke's[11] approach. The two researchers reviewed the transcripts independently and then agreed the codes. Each transcript was then coded, and collective themes were agreed in the presence of an external academic to enhance credibility. Ethical approval was sought prior to any data collection from the researchers' Higher Education Institution (HEI).

Findings
Phase One: Documentary analysis of AP job descriptions

The documentary analysis has indicated that the majority of JDs were reflective of a highly specialised practitioner role profile, rather than advanced clinical practice under the HEE ACP framework. There is potential to articulate a new ACP role in oncology, with capabilities and responsibilities beyond existing roles.

As such, existing JDs need to be reviewed and updated to reflect the framework (fewer than 24% of the JDs addressed all four ACP domains), and to include independent prescribing, if it is a relevant skill for a particular role (only four JDs considered this as an essential criteria). The JDs required further evidence in terms of setting the standard of patient-centred care, enhancing experience, improving outcomes, and partnership working, as these would be expected of an ACP role matched to the framework. Overall, the JDs indicate that advanced practice roles which are established do not map to the HEE ACP framework.

Phase two: Focus group
Four primary themes were identified:

Theme 1: Ownership of professional identity
Professional identity concerns how participants perceived their roles but also how they were perceived by MDT members and patients. Job titles were a visible label for participants, professional identity and important to them, yet there was a variation of titles and inconsistencies of how these titles were applied within respective clinical departments. Although participants were recognised as advanced or consultant practitioners, this was not always reflected in their job descriptions. Participants preferred not to use complicated titles with difficult terminology when they introduced themselves to patients. Consultant radiographers in particular noted that their title often confused patients, as it implied that they are medically trained. They dealt with this confusion by applying a range of ways in which they communicated with their patients.

> **"I introduce myself as a radiographer. I'm open and honest about that. I don't go into detail about the extra training unless they ask, and they don't often point it out. I am surprised actually that they don't very often wonder where the doctor is at the mark-up session; they're quite happy."**

Participants acknowledged that their title is important when working with other healthcare practitioners, as it provided them with a professional identity and showed their level of competence in terms of decision-making. Participants also shared that their roles were often confused with other professional groups such as nurses. Several participants had found that patients tended to refer to healthcare practitioners as nurses.

> **"I've used my title more in a multi-professional team to try and make it clear that I am not a specialist nurse, otherwise people will treat you like a specialist nurse and expect you to be doing that specific role in radiotherapy. I've had to make it quite clear that that is not my role."**

Theme 2: Desire for standardisation and guidance

Although a recognised national definition for advanced practice across all health professions exists, the interpretation and understanding of the pillars of practice within the definition are not clear. Participants explained that their roles were predominantly focused on the clinical pillar and found it difficult to demonstrate how they engaged in all four pillars of practice. The time to undertake these roles was identified as the most common challenge. Some of the participants were able to acknowledge how they engaged in the four pillars, yet they could not always clearly define their engagement, leading to blurred boundaries of roles.

> **"Where is your practice defined? Is it defined in your job description? Is it once you're titled as advanced practice? Is it detailed in your scheme of work that you will only receive certain types of patients?"**

Concerns over the lack of standardisation and recognition of the additional roles and responsibilities undertaken by advanced practitioners which are often not reflected in their job descriptions or acknowledged by their employers were reported. Some felt that the roles were only developed to address a service need, or for cost saving, without any consideration of the individual development needs. Additional guidance in relation to role implementation, standardisation of roles and role boundaries was recommended. This was important, particularly for new advanced or developing consultant practitioners. Some guidance was sought from the professional body, other advanced practitioners and shared interest groups.

> **"I found it difficult when I came into my role because I had a job description saying what the aim of the role was, but very little guidance as to how we are supposed to achieve that."**

Theme 3: Drivers of role development

Participants identified service need as the reason for the development of their role. The changes in practice and the technological advances were often cited as the reasons for the evolution of the role.

> **"My role was very much based on addressing the service need as we have a shortage of consultant oncologists. This is an ongoing issue and I think it is a national issue as well. They were prioritising the radical patients because of the targets but the palliative patients were waiting longer for treatments."**

Clinical skills overlap was also cited, with participants indicating that they took on roles that were previously undertaken by registrars, allowing them to focus on more complex areas of practice. Moreover, participants identified that their roles were developed and evolved due to their own interest and personal drive by continuing in personal development and training.

> **"I sort of overlap with the registrars who have achieved FRCR part 1 because they are able to prescribe the bone and brain mets."**

> **"My role has not come through a departmental decision; it came about through my own choice and interest, and pushing into a role that interests me. There is a niche market there."**

Theme 4: Education and development

Participants shared educational career progression experiences that were characterised by lack of guidance or no official/standardised pathways. Participants were often frustrated with the challenges associated with career progression.

> **"The fact there is no set pathway is a problem I have found. I do know of roles where the consultant post has been built with the training programme in mind. I came into the role and knew I needed to study for a Masters."**

Participants also raised concerns towards the lack of time to enable them to conduct research and produce publications.

> **"Carving out the time to allow you to actually write papers… You do need time out of your five days a week to allow you to think, to read, to do your own literature reviews and then write things up. I found that there was no time for that."**

Participants agreed on the importance of continuously training and developing skills, even if they were not undertaking a formal accredited course. In addition, record keeping of the respective competencies and clinical skills training that they undertook. There was a recognition of clinical skill and competency development to be underpinned by a theoretical framework and an academic award. Participants acknowledged the importance of other training needs such as research and leadership skills.

> **"I did do a research module and leadership module as part of my MSc…these were really essential modules… they give you those essential foundations really for advanced practice."**

Conclusions
Key findings have demonstrated the need for standardisation in job descriptions, roles and responsibilities, and a key understanding of career progression.

Challenges associated with role development are:
• Lack of career and pathway guidance.
• Lack of clear educational routes.
• Lack of standardised roles.

The professional identity of the AP is acknowledged by independent autonomous working; however, this can only be facilitated if the correct training is undertaken and the necessary support structures are in place to enable career progression.

The overall picture demonstrates that advanced practice roles are well established in therapeutic radiography, however, existing roles do not map to the HEE ACP framework.

Key recommendations
Recommendations for service commissioners
Promote understanding of AP and ACP roles across the workforce and the public, and ensure that titles reflect both professional identity and advanced practice.

Recommendations for employers
Ensure job descriptions and job roles outline the advanced practice roles and capabilities.

Recommendations for education providers

Collaboration and examples of career pathways.

Recommendations for further research

Study the nature of the ACP role through a longitudinal approach, where the role is implemented and evaluated based on the existing multi-professional framework.

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The Needs of Lesbian, Gay and Bisexual People Affected by Cancer

Her Majesty's Treasury Department of Business (2015) estimates that 5-7% of the population in the UK is lesbian, gay or bisexual (LGB)[1]. Reports released by Macmillan (2013) and Cancer Research UK (2008) discuss the increased need of LGB persons affected by cancer and the need to have specialised support services[2,3].

Progress has been made with the recent introduction of gay cancer support groups in England with the formation of organisations such as the LGB Cancer Alliance and Out with Prostate Cancer[4,5]. The cultural context is, however, different in other parts of the United Kingdom (UK) and between urban and rural settings. Homosexuality for men was not decriminalised in Scotland until 1980 and 1982 in Northern Ireland, compared with 1967 in England. These differences in legislative reform may give rise to a difference in social acceptability of LGB persons and a different experience of cancer treatment regionally. It is important to note that as cancer has a peak incidence between ages 65-75 years, and many members of this demographic group will have lived as adults at a time where homosexuality was socially unacceptable at best, or even illegal in many cases.

Person-centred care is becoming the norm in terms of policy, directing the planning and provision of healthcare in many western countries[6,7] and is supported by World Health Organization (WHO) policy[8]. In addition, the Society and College of Radiographers stipulate that radiographers must provide the best compassionate care for patients based on current evidence[9]. The lives and health of LGB people have, in recent times, gained increased attention as societal attitudes change and recognition of likely inequalities has grown. Despite recent legal reform and advancements in UK society, the LGB community still cannot be assured that their healthcare needs are fully recognised and met, and that treatment and care are delivered in non-judgemental ways[10].

This article aims to discuss some of the key aspects of the UK and Irish literature demonstrating the current position and understanding of LGB people's needs when accessing cancer care. The article will also discuss broader guidance and resources available to practitioners when supporting LGB people who access their services. Readers should take note that the needs of LGB people affected by cancer is a new and emerging field of research, with many questions unanswered to date. The focus of this article is to highlight issues pertinent to sexual orientation, not gender identity, which is a separate area of research and should not be confused.

Gay and bisexual men affected by prostate cancer

There is a growing interest within the research literature in establishing if gay and bisexual men have specific needs when experiencing treatment for prostate cancer. Prostate cancer UK has created specific guidance in this area which provides tailored advice from information regarding diagnosis, treatment and aftercare[11]. It is understood that when men are treated for prostate cancer, there are a number of side-effects related to erectile dysfunction, urinary incontinence, bowel toxicity and general pelvic radiation disease that are significant aspects of survivorship. The research selected for this article has reviewed the experiences of gay and bisexual men affected by prostate cancer in an attempt to establish any cultural specific needs they may have in relation to survivorship of prostate cancer.

Doran et al. conducted research in 2018 in the United Kingdom (UK) reporting

Training should be provided for healthcare professionals to enable them to provide information and support that is culturally relevant.

on the needs of gay men with prostate cancer, and their experiences of healthcare provision. In-depth interviews were conducted with 12 gay men who had been diagnosed with prostate cancer employing a phenomenological approach to collect and analyse the data[12]. Findings indicated that the participants wanted, and expected, candid discussions with healthcare professionals, about how prostate cancer could affect their lives, sexual function, and how to access relevant support aimed at gay and bisexual men before and after treatment. This included aspects of engaging in anal sexual practices which were relevant to the participants being included in the research. Participants perceived that their healthcare team had little knowledge about their needs in this regard, and if, or how, their experience differed due to their sexual orientation. This was compounded as the participants felt information that was provided was perceived as being misplaced or informed by heteronormative assumptions, i.e. assuming the men were straight and married.

Doran et al. suggest that consideration should be given to requesting sexual orientation when recording patient information if patients are willing to disclose this[12]. This knowledge would be helpful for practitioners to have in order to be able to deliver more tailored and specific information, avoiding potential heteronormative assumptions, although care must be taken not to assume that all gay or bisexual men engage in particular sexual practices, and that recording of sexual orientation can only serve as a tool to open up discussions about more tailored and person-centred support. In addition, sexual orientation monitoring isn't current practice within the UK at cancer registration, and it may be unacceptable for certain LGB people to answer such questions given the history and social acceptability of homosexuality. Doran et al. conclude that training should be provided for healthcare professionals to enable them to provide information and support that is culturally relevant at all stages of the consultation[12].

McConkey and Holborn conducted further research in 2018 through the use of in-depth interviews with a sample of eight men affected by prostate cancer from the Republic of Ireland[13]. Interviews were recorded and transcribed verbatim following a qualitative methodological approach employing Giorgi's descriptive phenomenological method and analysis. Key aspects emerged, representing the essence of the participants lived experience, including the experience of the healthcare service. When accessing healthcare, issues were found with participants disclosing their sexual orientation and openness of communication with the healthcare team, and highlighted that many LGB people feel the need to come out when accessing healthcare but felt unable to do so. Participants within the McConkey and Holborn study found sources of support and means of coping which came from their partners, family and friends, cancer support groups[13].

However, there is evidence that suggests that LGB people who are older are more likely to live alone and have problems with their family of origin than their heterosexual counterparts, and this may indicate a lack of support for LGB people facing cancer treatment and diagnosis[14].

McConkey and Holborn concluded that gay men with prostate cancer have unmet information and supportive care needs throughout their prostate cancer journey, especially related to the impact of sexual dysfunction and associated rehabilitation, and that this was seen to have a negative impact on their quality of life[13]. Like Doran et al., the research found issues associated with heteronormativity, and that minority stress and stigma were found to influence how gay men interact with the health service, and how they perceive the delivery of care[12]. McConkey and Holborn advocated that healthcare education providers should update prostate cancer education programmes accordingly, and it is not known if this has been taken up widely by education providers of pre-registration curriculum[13]. However, it is known that some post-registration education related to prostate cancer in the UK for radiographers does include some of the diverse needs of gay and bisexual men affected by prostate cancer, and thus demonstrates progress in this area.

Broader needs of LGB people affected by cancer

Despite the recent work that has been conducted examining the experiences of gay and bisexual men, there is little other research conducted within the British Isles that focuses on LGB patients of other disease site groupings, i.e. breast cancer, and there has been no research that has looked at lesbian women's perspectives of care specifically. There is however, some research that has focused on the experiences of care of LGB cancer patients more generally, that have been made up of people who have various forms of cancer and are of different sexualities[15]. This research is pertinent as many of the issues faced by gay and bisexual men with prostate cancer could also be faced by LGB people with other forms of cancer and treatment.

Fish and Williamson present an analysis of the accounts of fifteen British LGB cancer patients, who were diagnosed with different forms of the disease[15]. Data were collected through in-depth individual interviews and analysed using thematic analysis indicating three emerging themes that are discussed within the published paper. The paper includes an examination of what is conceptualised as the 'awkward choreography around disclosure', which is discussed.

Issues faced by gay and bisexual men with prostate cancer could also be faced by LGB people with other forms of cancer and treatment.

Additionally, the opportunities and dilemmas for LGB people to disclose their sexual orientation when in receipt of cancer care is also discussed. Disclosure of sexual orientation can be a daunting task for people, especially if they have had negative responses when coming out in the past. Previous negative experiences in this regard can then present a challenge when having to correct healthcare practitioners' assumptions in clinic or consultations. These dilemmas can lead to awkwardness, particularly if the reaction of healthcare staff is one of silence or negativity after a person has disclosed their sexual orientation. Fish and Williamson describe respondents in their research being left 'making sense of sub-optimal care' which included instances of overt discrimination but more frequently manifested through what was perceived as micro-aggressions, and heteronormative systems and practices from healthcare staff towards LGB cancer patients[15]. The authors also explored participants' accounts of what they describe as 'alienation from usual psychosocial cancer support', whereby they felt unwelcome in heteronormative support spaces.

Fish and Williamson employed Meyer's Stress Theory[16] as a lens to interrogate the data they gathered, and explore the ways in which actual or anticipated prejudice affected their participants' experiences of treatment and support. Minority stress is a condition where chronically high levels of stress can be faced by members of stigmatised minority groups, such as the LGBTQ community. It may be caused by a number of factors, including poor social support and low socioeconomic status, although it is well understood that the causes of minority stress are interpersonal prejudice and discrimination that are felt by the minority community. Having observed signs of minority stress with their participants, Fish and Williamson close their paper with recommendations to enhance LGB affirmative cancer care, which includes recommendations for enhanced training of healthcare professionals and explicit articulation of institutional commitment to LGB equality[15].

Practical guidance for practitioners

A few seminal articles related to the experiences and care needs of LGB people have been published within the peer reviewed literature, however readers should note that there are aspects of the grey literature, documentation from Prostate Cancer UK, and other articles from other UK researchers that are due to be published imminently in these areas.

Prostate Cancer UK has created a resource that can be made available for gay and bisexual men for prostate cancer and can assist by providing culturally targeted guidance that can help with information about side effects from diagnosis to treatment[11,17].

Gay men with prostate cancer have unmet information and supportive care needs throughout their prostate cancer journey.

Information contained in the guide is comprehensive and tailored to gay and bisexual men, for example advice is written in language that is specific to needs of those who are engaging in anal receptive sexual activities. In addition, information is also provided about how men affected by prostate cancer can broach the topic of their sexual orientation with healthcare professionals responsible for their care. The limitation of the materials however, is that they have been created to be specifically focused towards gay and bisexual men with prostate cancer, and there are no known other disease site specific resources for LGB persons affected by other cancers known to be published in the UK, i.e. breast cancer. Other cancer support groups and organisations should give consideration to providing LGB inclusive support information related to other site-specific disease, for example gynaecological cancers.

Fish and Lockely have published guidance to healthcare professionals to assist in increasing awareness of LGB issues associated with cancer and provide advice on how professionals can facilitate the disclosure of a person's sexual orientation[18]. The guidance demonstrates that LGB people appreciate it when assumptions are not made about them, their sexual orientation, relationships, living arrangements or support network, and that they value professionals initiating conversations about these important areas of their life. Although not cancer related, specific guidance related to sexual orientation and NHS workers has been produced, which provides specific examples of how professionals can help to facilitate disclosure of a person's sexual orientation in clinic by using gender neutral terms, e.g. partner, and not using language that makes assumptions about the person, e.g. Mrs[19].

The guidance from Fish and Lockely also indicates that LGB people want their partners' and carers' involvement to be welcomed and valued by cancer professionals, and opportunities for this should be sought where possible[18]. When this doesn't happen, it can lead to LGB people feeling that their partners and carers are ignored or disregarded, resulting in negative care experiences. Professionals may want to consider developing materials aimed at the LGB communities, possibly through working with local LGB organisations and demonstrating these on their websites and publicity materials.

Conclusion

LGB people face challenges when accessing cancer care within the UK. These challenges range from discriminatory attitudes from healthcare staff, to a lack of support tailored for LGB people to ensure their needs are being met.

LGB people want their partners' and carers' involvement to be welcomed and valued by cancer professionals.

This article provides some background to the research conducted in the area and demonstrates that there is a growing evidence base that LGB people's needs are not being fully assured. The reader should take note that this is a new and emerging field, and that publication of research is currently ongoing as well as the developing understanding of LGBT issues related to healthcare. This article can only serve as a starting point, but provides an indication of some of the resources that can be employed in current clinical practice to foster a more person-centred approach to healthcare delivery.

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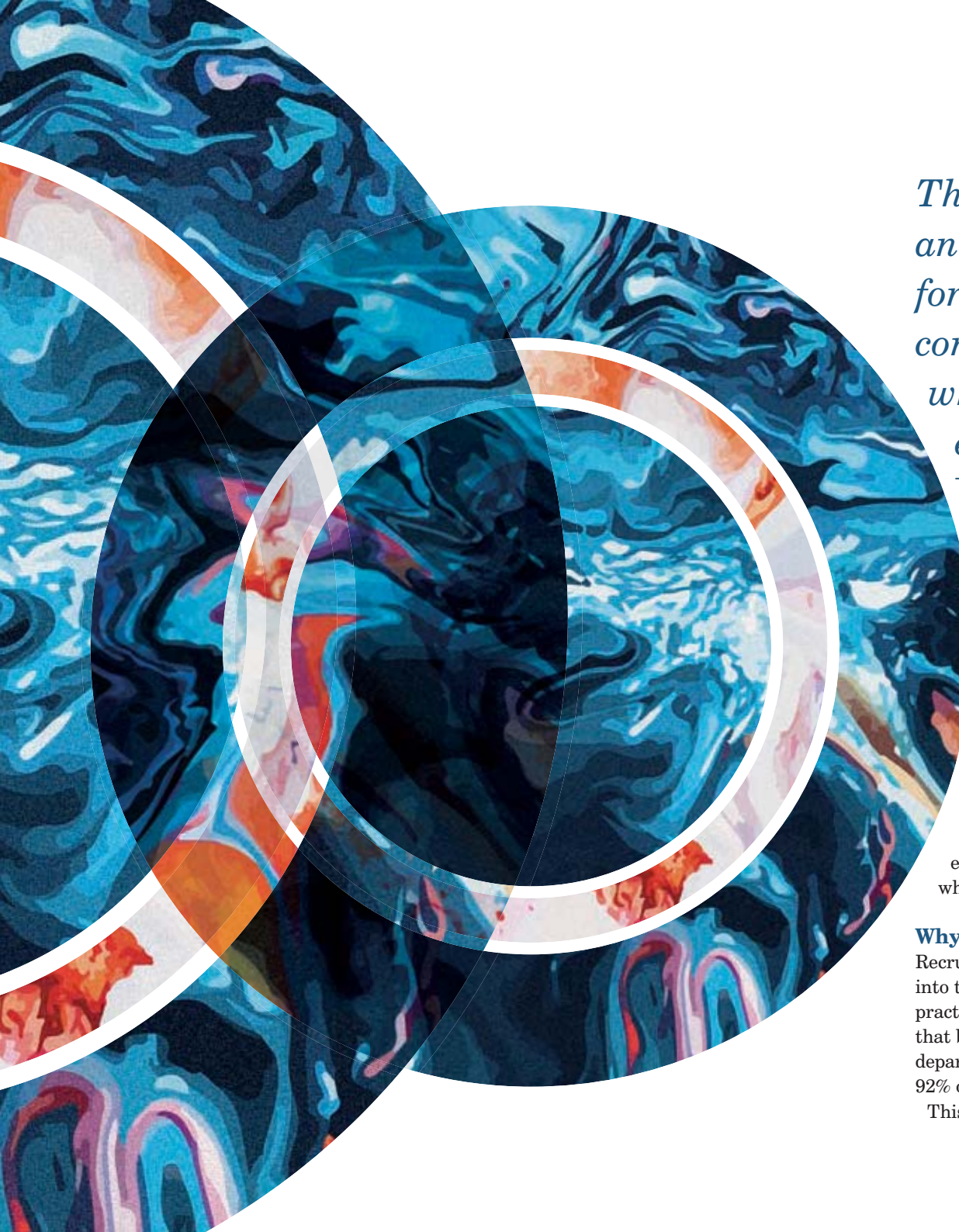
First Steps into Practice: The Value of Preceptorship

In 2008, the Care Quality Commission (CQC) outlined its requirement for healthcare professionals to be appropriately qualified and supported in their roles in order to be a safe practitioners[1]. It is essential that the support is in place from the first day in professional practice and that, as a newly qualified practitioner, appropriate supervision is in place with an ongoing training and development plan embedded within an appraisal framework.

There have been numerous studies on the preparedness of students for their first post[2,3], but it does not matter how prepared the student is if the support for them when they start in their first post is lacking.

Many articles have been published exploring the transition of newly qualified radiographers into their first post[4-6] with conclusions that students struggle with numerous aspects of this transition. Confidence levels may be low as they suddenly find themselves being wholly responsible for their decisions for the first time in their radiography journey. The importance of a structured and practitioner-centred preceptorship has notably been identified in other professions such as nursing and midwifery[7], and so in order to retain and develop newcomers to the profession, we must get it right from day one. This will allow our graduates to become confident, autonomous practitioners who will flourish and help us to deliver the NHS Long Term Plan[8]. If we get it wrong, we not only run the risk of an extra vacancy but also a loss to the profession overall[7].
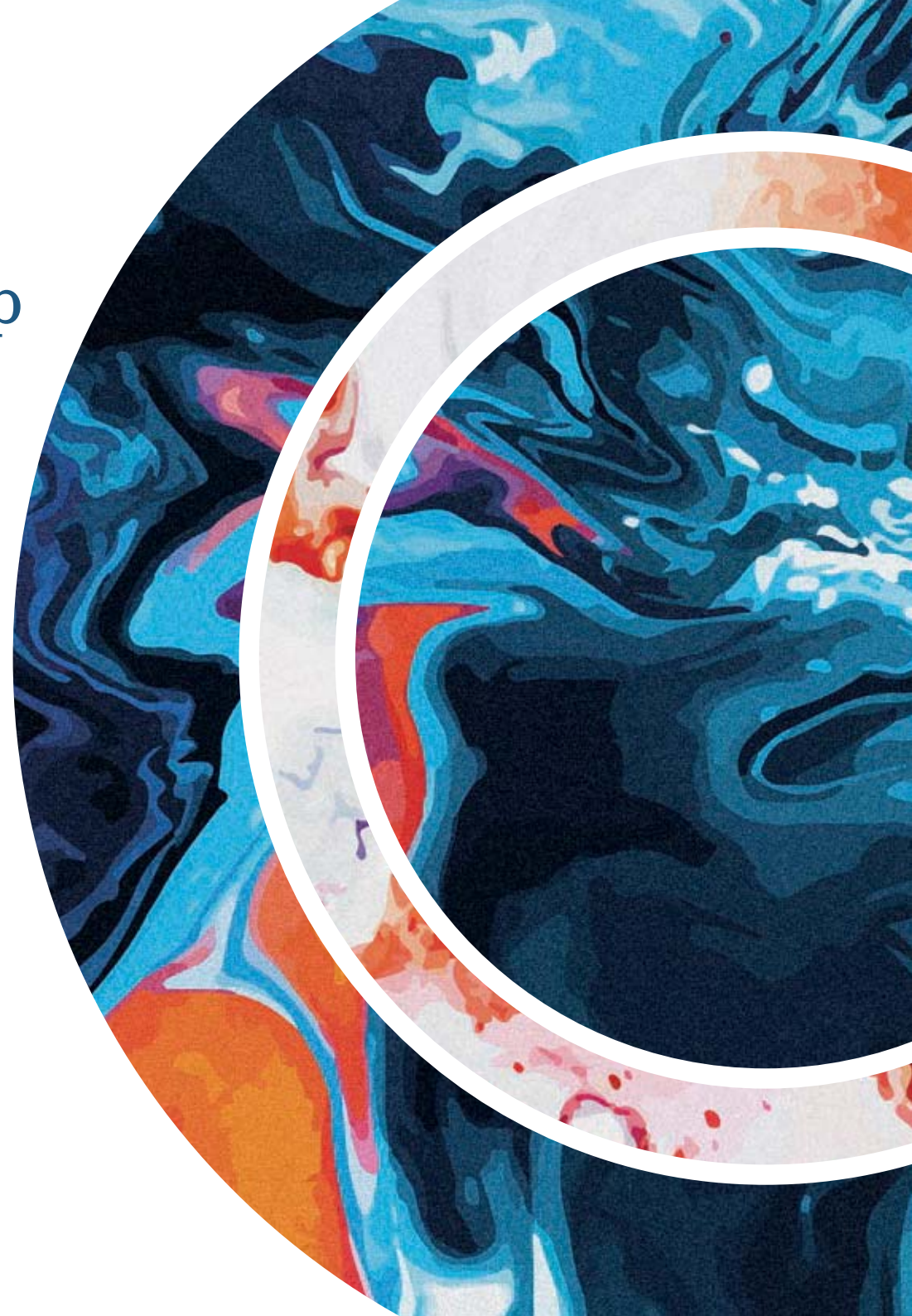
> *The preceptorship process is unique and presents a single opportunity for employers to demonstrate their commitment to their staff as individuals whilst they transition from graduate to experienced team players.*

What is preceptorship?

The Department of Health (2010) defines preceptorship as:

> '*A period of structured transition for the newly registered practitioner during which he or she will be supported by a preceptor to develop their confidence as an autonomous professional, refine skills, values and behaviours and to continue on their journey of lifelong learning*'[9].

This should be a supportive mechanism during which the new starter will integrate into the established team and consolidate their academic learning into clinical practice through reflection on progress. It isn't capability or performance management, which is generally put in place when standards are not being met. It is not an extension to their academic learning, nor is it a process of formal coaching. Due to this, the preceptorship process is unique and presents a single opportunity for employers to demonstrate their commitment to their staff as individuals whilst they transition from graduate to experienced team players.

Why do we have preceptorship?

Recruitment takes place when there are vacancies created by staff leaving, moving into training posts or the development of new posts due to changes in working practices. With the ever increasing demands on imaging services, it is frustrating that by nature of the process, recruitment is a slow journey which often leaves departments short staffed. This is reflected in the recent workforce census where 92% of respondents declared vacant posts within their department[10].

This issue often remains unsolved when the new starter commences in post.

Even if the candidate is an experienced radiographer, they have to familiarise themselves with different equipment, different working practices and different colleagues in order to ensure safe working practices and optimal working. A newly qualified radiographer has additional challenges. They have recently stepped out of a supportive environment where they undertake supervised practice within a structured framework. When commencing their first role, they are expected to be autonomous practitioners, accountable for their own actions and making their own decisions.

There are many expectations to be managed. When the new starter commences in post, the incumbent radiographers are relieved that they now have some help and may just expect the new starter to get on with it. They often have little time and/or energy for supporting others; however, time spent now will save time in the future. There are the expectations of the new starter themselves. They may believe that, as they are now qualified, they should be able to do the job without having to keep asking for support. They may start to doubt themselves and question their choice of profession. Mistakes may be made, which will reduce confidence. This could lead to them leaving, either the job or the profession[7]. Students will consider the preceptorship package on offer when applying for their first post. It is important to them that they get the correct support and are allowed to develop into the competent practitioner that they have trained to become. This transitional phase is required to allow the individual to not only 'find their feet' but to allow them to be exposed to a different level of professional socialisation, which was not as obvious or explicit during their years as a student[11-14].

The same principles apply to qualified radiographers who may be returning to practice, moving into a different modality, starting their first post in the United Kingdom (UK) or simply any radiographer starting in a new post. A structured approach to preceptorship, in such instances, should be tailored for the individual circumstance and practitioner, allowing for fluidity in the process to foster appropriate levels of support and autonomy.

Preceptors are key to ensuring the preceptorship programme is followed and that the new starter feels supported in the early day. The radiographer selected to support the new starter needs to be registered and willing to take on this role. Ideally, this radiographer should have been in post for a minimum of two years, to ensure that they not only have the relevant skills and experience, but also the confidence to facilitate learning by giving feedback and discussing areas for improvement. They should be able to acknowledge their own limitations and seek help when required.

Most importantly, they should be a positive role model, demonstrating Trust values. They are integral to the development of a confident and competent practitioner

When the new starter commences in post, the incumbent radiographers are relieved that they now have some help and may just expect the new starter to get on with it.

delivering safe care to their patients and must be aware of the overall influence that they have over such individuals[15]. In return, they will have increased job satisfaction and feel valued in their contribution to the department. The learning that takes place through undertaking this role will support their own continuing professional development (CPD) and help them to develop leadership skills.

As the new starter develops confidence they will become integrated into the team and they will feel valued and supported. Supportive reflection will help them to develop autonomous practice, taking responsibility for their own learning and will establish continuing professional development. This will lead to increased levels of professionalism resulting in better patient care. The organisation will then benefit from fewer clinical incidents and complaints.

Preceptorship model

There are numerous reports of different ways for delivering preceptorship to newly qualified health professionals[16-18], however, the best method is the one that suits the organisation, the department and the newly registered practitioner. One size does not fit all and trying to use a model developed for another profession may not deliver the required results.

The College of Radiographers' CPD programme was introduced in 2008. This is a profession focused development programme for newly registered practitioners, built around 12 learning activities to be completed within 18 months of starting a first post. Although this is excellent professional development, it is not structured around local practice and the responsibility for in-house preceptorship lies with individual departments and teams.

A structured rotational model requires the new starter to rotate through all areas in the department. This helps to gain knowledge of the whole service and introduces them to modalities which are currently outside of their scope of practice. This could be useful in recruitment into training posts for the harder to fill vacancies, such as mammography and ultrasound, in the future. However, it may be overwhelming and may not fit the learning needs of the individual.

An individualised model is semi-structured and easy to adapt, and can be flexed to meet the learning styles and needs of the new starter. However, lack of structure may not suit everybody.

Regardless of the model chosen, they all encompass the same elements, both implicitly and explicitly. Some of these can be taught, such as equality and diversity and conflict resolution, whilst others cannot, such as interpersonal skills and

team working. In these cases, the preceptor is the role model, demonstrating the expected standards and behaviours, and the new starter should learn from this. The most important aspect of all models is refection and feedback. Without this, the new starter will make very little positive progress. Reflection on their experiences allows them to develop an understanding of any clinical situation, as well as clinical interactions and consequences.

Preceptorship in practice

A model which has been successfully introduced in a north west hospital will be discussed. Preceptorship starts with one to one support with a named preceptor, introduced on their first day in clinical practice. The approach is semi-structured, having a defined set of competencies which the new starter has to meet, but allowing them to reduce or increase the time spent working towards these competencies depending on prior experience. The preceptor will work with the new starter for a minimum of four days a month. After the first week of corporate and local induction, they commence on a rotation through general radiography, mobiles and theatres and ward room co-ordination, with the first week in each area being supernumerary and the following week working independently. Newly qualified radiographers worry about justifying their own requests as well as going to theatre alone. Exposure to these areas early gets these concerns out of the way and allows them to enjoy the learning and development over the coming weeks. Alongside these clinical practice weeks, they will be given individual feedback on their preliminary clinical evaluation skills and invited to sit in with the reporting radiographers. At the end of each week, the preceptor will complete a pro-forma evaluating that area of practice with the preceptee (Figure 1).

They will encourage reflection to ensure that they are able to work safely and consolidate their learning as they progress. If any areas of concern are identified by either preceptor or preceptee, be that with clinical practice or socialisation into the department, actions can be put in place so that the problems do not perpetuate and become irresolvable, resulting in the resignation of the preceptee. Once confident in these general areas, the new starter will move into computed tomography (CT), where they will become familiar with protocols and processes, and be signed off for completion of CT head and neck imaging. Once competency in CT has been completed, the new starter will be rostered on the out-of-hours shifts, fulfilling the evening, weekend and night roster pattern. This generally takes between three and six months.
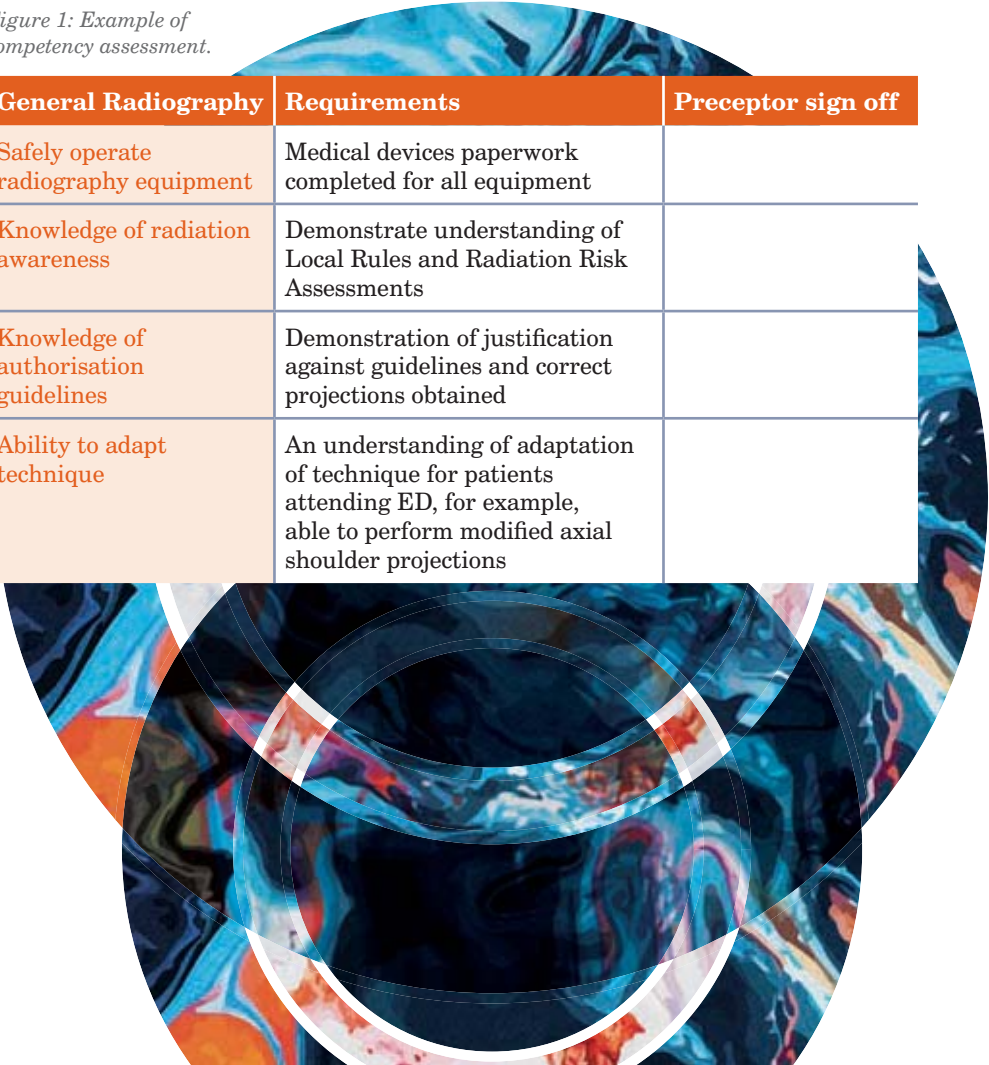
Preceptor support is slowly withdrawn over the next three to six months, with the preceptor checking in with the new starter every couple of weeks until the six month appraisal. At this point, if all preceptor competencies have been achieved, objectives are set around cannulation, fluoroscopy and student supervision, and meetings with the preceptor are informal and at the request of the new starter.

Conclusion

Supporting the newly registered practitioner is paramount in ensuring their professional development and the department's staff retention.

An individualised model is semi-structured and easy to adapt, and can be flexed to meet the learning styles and needs of the new starter.

Figure 1: Example of competency assessment.

General Radiography	Requirements	Preceptor sign off
Safely operate radiography equipment	Medical devices paperwork completed for all equipment	
Knowledge of radiation awareness	Demonstrate understanding of Local Rules and Radiation Risk Assessments	
Knowledge of authorisation guidelines	Demonstration of justification against guidelines and correct projections obtained	
Ability to adapt technique	An understanding of adaptation of technique for patients attending ED, for example, able to perform modified axial shoulder projections	

Development of skills through supernumery practice and reflection guided by the preceptor will help in consolidation of knowledge and progression to confident independent practitioner. A flexible approach enables the new starter to develop at their own speed, and weekly meetings in the early days enable any concerns to be addressed and actions put into place. At the six month appraisal, there should be a perceptible difference between the new starter who attended induction and the radiographer who has completed preceptorship. They should now be demonstrating values and behaviours commensurate with the organisation and confidence in their clinical practice which they can build on as they progress through their career.

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A flexible approach enables the new starter to develop at their own speed, and weekly meetings in the early days enable any concerns to be addressed and actions put into place.

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The Career Sonographer – Myth or Reality?

Sonographer: 'A healthcare professional who undertakes and reports diagnostic, screening or interventional ultrasound examinations. They will hold qualifications equivalent to a Postgraduate Certificate or Diploma in Medical Ultrasound, BSc (Hons) clinical ultrasound or an honours degree apprenticeship that has been accredited by the Consortium for the Accreditation of Sonographic Education (CASE). They are either not medically qualified or hold medical qualifications but are not statutorily registered with the General Medical Council'[1].

This documented definition of a sonographer clearly states the role of the ultrasound practitioner but behind this definition lies a multitude of issues and controversies. On the face of it, in radiology, the sonographer is a well-known role. It is the individual working in a dark room performing the 'jelly scan' as our patients fondly describe these diagnostic tests. The sonographer is the individual 'not on-call' as our radiology peers less fondly describe their colleagues. In reality, the sonographer is the individual whose role has changed significantly over the last 20 years alongside the increasing range and complexity of ultrasound examinations performed[2].

Traditionally, the sonographer has been a radiographer who has undertaken additional post graduate training in ultrasound to become a sonographer. The Society and College of Radiographers (SCoR) has stated that approximately 80% of sonographers have come to the profession via this route[3]. Where the term sonographer actually originated from is lost in the midst of time but it is presumed to have originated within the radiology field as an adjunct to the title of radiographer. As such, it would seem reasonable to assume sonographers' careers are defined by the fact they are healthcare professionals, usually radiographers, performing the 'jelly scan'. However, a sonographer is much more than this and it is time that the profession was defined in its own right.

When patients are asked about sonographers, they are either prone to confuse the term with a stenographer or, more likely one hopes, assume the individual is a qualified healthcare practitioner holding professional registration[4]. In the majority of cases they are not mistaken but increasingly there is a cohort of healthcare practitioners performing diagnostic ultrasound examinations who are not eligible to hold statutory regulation. These practitioners are using the professional term of sonographer but do not hold a primary healthcare degree which is recognised by one of the regulatory bodies such as Health Care Professions Council (HCPC), the Nursing Midwifery Council (NMC) or the General Medical Council (GMC). These individuals may place themselves on the SCoR Public Voluntary Register[1], but this can in no means be mandated.

Given the lack of statutory regulation, the term sonographer is not a protected title[5]; it can be used by anyone wielding an ultrasound transducer in any setting.
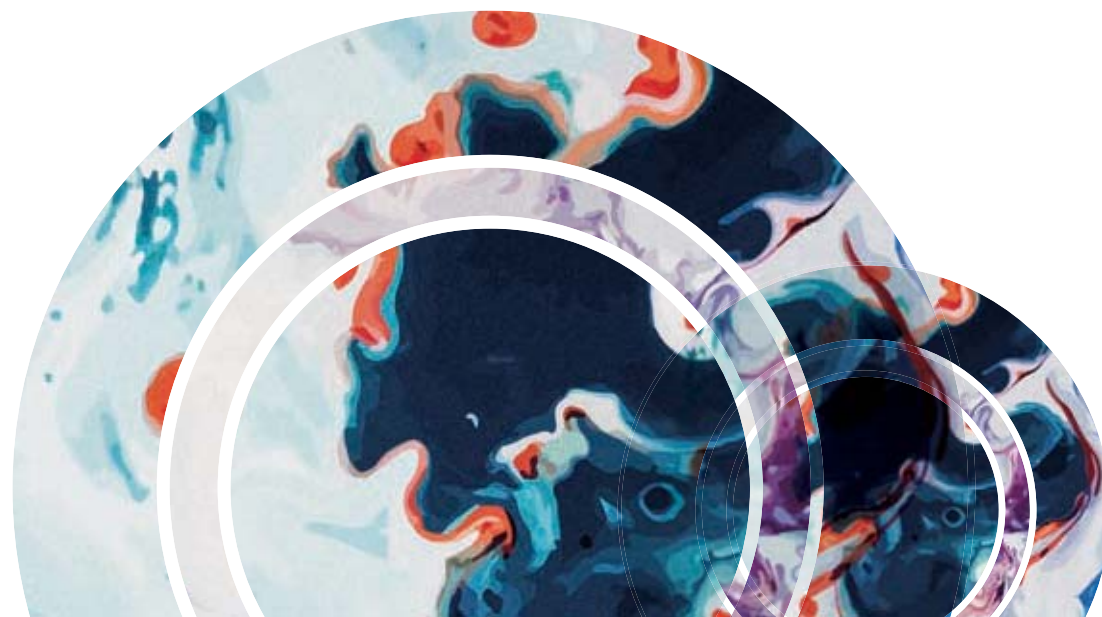
Traditionally, the sonographer has been a radiographer who has undertaken additional postgraduate training in ultrasound to become a sonographer.

It therefore becomes incumbent on the employer to monitor performance and initiate fitness to practice investigations should this be necessary – which, of course, are meaningless if the individual leaves their employment. There is no regulatory body to turn to, to advise or to investigate.

The Society and College of Radiographers and British Medical Ultrasound Society (BMUS), *Guidelines For Professional Ultrasound Practice* document[6] sets out a code of practice to support the use of the professional title of 'sonographer'. The code includes the statement: 'Sonographers are legally and professionally accountable for their own practice...'

With this in mind, it seems untenable that the lack of statutory regulation for sonographers has arisen and that the situation continues[7]. However, to understand how regulation can be achieved, one needs to take a step back and review how the current workforce situation has arisen.

In 2008, the first Migration Advisory Committee (MAC) shortage occupation list was produced. The sixth revision of this was produced in 2013 and the MAC continued to recommend the retention of the job title sonographer on the shortage occupation list. Shortages of sonographers are not unique but clearly a chronic problem in this field of diagnostics. The Centre for Workforce Intelligence was commissioned to review the status of the ultrasound workforce in 2015.
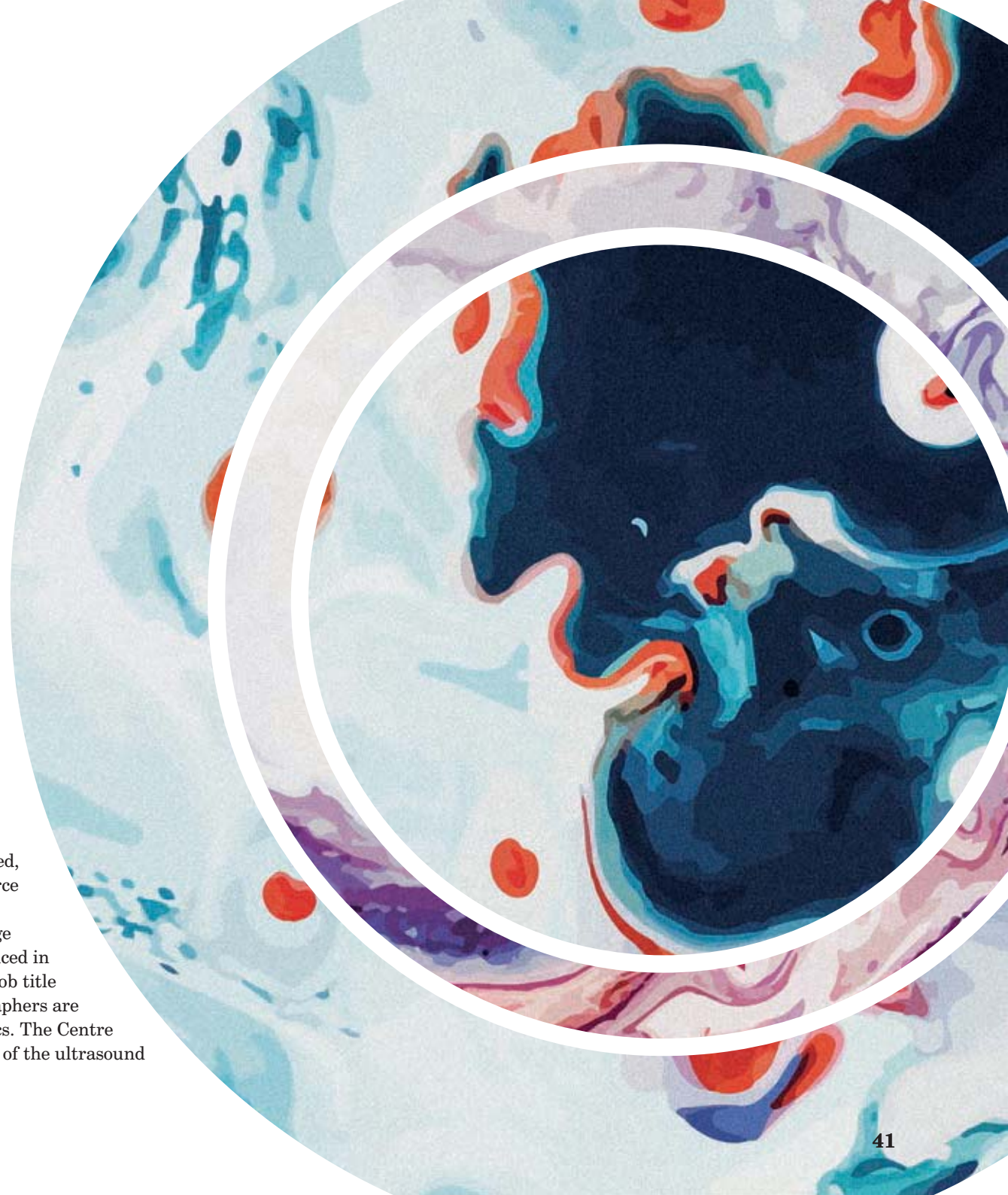
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The subsequent report published in 2017[8], demonstrated a vacancy rate of 14%, with approximately 12% of vacancies being filled with agency or locum sonographers. A more recent survey undertaken by the SCoR demonstrates a small reduction in this to 12.6%[9], but this still remains at a critical level, particularly as demand for diagnostics continues to rise. Whilst there will be local variation in growth, the diagnostic imaging dataset (DID) data provided by the Health and Social Care Information Centre (HSCIC) shows that the number of NHS diagnostic ultrasonography imaging examinations in England increased at a compound annual growth rate (CAGR) of 4.6% in 2015-2016[8,10].

Coupled with increasing demand and a largely static vacancy rate for sonographers is the national shortage of radiologists[11]. The sonographer role has significantly changed over the last decade, as more and more of the traditional radiologists' roles are delegated to their non-medical colleagues. Demand for more complex image interpretation, interventional procedures, pressures of multi-disciplinary team activity and a general change to specialist practice as opposed to a generalist role, have all impacted on the radiologist provision of ultrasound imaging. The growth in demand for diagnostic and interventional radiology has resulted in a significant shortfall of radiologists. Indeed, the Royal College of Radiologist's 2018 census report[11] goes as far as to state the deficiencies are at a critical level.

'For hospitals to keep up with the demand for diagnostic and interventional radiology – and not have to pay for outsourcing, overtime and locum cover – the UK currently needs at least another 1104 radiology consultants. If nothing is done to address the staffing crisis, the gap is predicted to rise to 1867 by 2023, which would leave the workforce 31% understaffed'[11].

In an attempt to address the workforce issues, Health Education England established a sonographer working party in 2015 which subsequently merged with the Integrated Imaging Workforce Working Group (IIWWG) in 2017. The purpose of this group is to develop new training models to ensure there is a sustainable supply of appropriately trained and supported sonographers for the future[12]. The supply routes into the profession have to be expanded if future demand is to be met. With the current supply route being predominately from radiographers, who themselves are faced with holding a shortage occupation status according to the 2013 MAC report, this is clearly not sustainable. As such, alternative routes into sonography have been explored which include an independent undergraduate route and an undergraduate apprenticeship scheme, as well as developing direct entry postgraduate routes for graduates without a traditional healthcare primary degree[13]. Graduates from these route will be trained purely in ultrasound and, therefore, completely and solely fit the remit of a sonographer – but without a regulatory home.

The development of an undergraduate ultrasound degree will result in graduates with a differing skill set from the traditionally postgraduate trained sonographers; the outcome of the two different educational level training schemes cannot be the same despite numbers in the workforce increasing. The impact of this on service provision has to be considered and the role of a graduate sonographer will need careful definition. However, this is not a new conundrum. A paper by Parker & Wolstenhulme in 2012[2] attempted to define the role of a practitioner level sonographer; Agenda for Change band 6[14,15], as opposed to an advanced practitioner level sonographer; Agenda for Change band 7[14,15]. The paper concluded that 'Band 6 Practitioners undertaking ultrasound are a possibility in individual clinical specialisms but these would need to be supported by robust clinical governance'. A further paper by Parker & Harrison in 2014[16] explored the concepts of undergraduate and direct entry training models and the impact of this on the role of the sonographer. It was clear from the data analysed that debate within the ultrasound profession is required to clarify the role of a band 5 or 6 practitioner sonographer. Both papers called for the development of a career progression framework for imaging practitioners which was planned, responded to service need and was developed in conjunction with stakeholders, such as clinical service

providers, and Higher Education Institutions (HEIs).

In the background to the national debates and work being supported by HEE, several HEIs in conjunction with their local stakeholders, have developed undergraduate and direct access programmes despite there being no nationally agreed syllabus, learning objectives, career progression framework or, indeed, a mandated statutory regulation process in place. These programmes have been successful in terms of producing qualified ultrasound practitioners, hence there now being an increasing number of non-regulated sonographers within the diagnostic ultrasound workforce in the UK, but the issues of a clear role or career pathway for sonographers remain[12].

With the vacancy shortfall and increasing demand, a new supply route for sonographers must be developed. It makes complete sense to develop a career progression framework and the IIWWG has supported the creation of such a document which was agreed by stakeholders and published in 2019[13]. There are important differences between a novice practitioner (regardless of the entry route into the profession) and the more experienced practitioner, particularly when defining competence[17].

This framework rightly focuses on capability as opposed to competence and for good reason. The role of a professional sonographer is more than a task-based function. There are healthcare practitioners who use ultrasound as a tool, as an adjunct to their primary professional role[6]. Competency is assessed in these cases and there is good evidence of highly competent practitioners using ultrasound in this way[17]. However, the role of the professional career sonographer is different. As described in the SCoR and BMUS codes of practice[6]:

- Sonographers must be committed to the provision of a quality ultrasound service.
- Sonographers will take all reasonable opportunity to maintain and improve their knowledge and professional competency, and that of their peers and students.

The role of the career sonographer is the one that we all aspire to have within our profession; it serves patients and service users, and supports the delivery of excellent diagnostic services. The role of the professional sonographer should be embraced and, as one, the imaging community must do all it can to make the role of the sonographer an independent entity with its own protected title. Our patients deserve this safeguard.

With the advent of the agreed career progression framework alongside the commitment from HEE, the stakeholder professional bodies of BMUS, CASE, RCR and SCoR, and the support from the ultrasound community, the development of the career sonographer is a reality. With the emergence of this defined role will come the evidence required to ensure statutory regulation is mandated.

Sonographer
The professional every imaging department needs in their team.
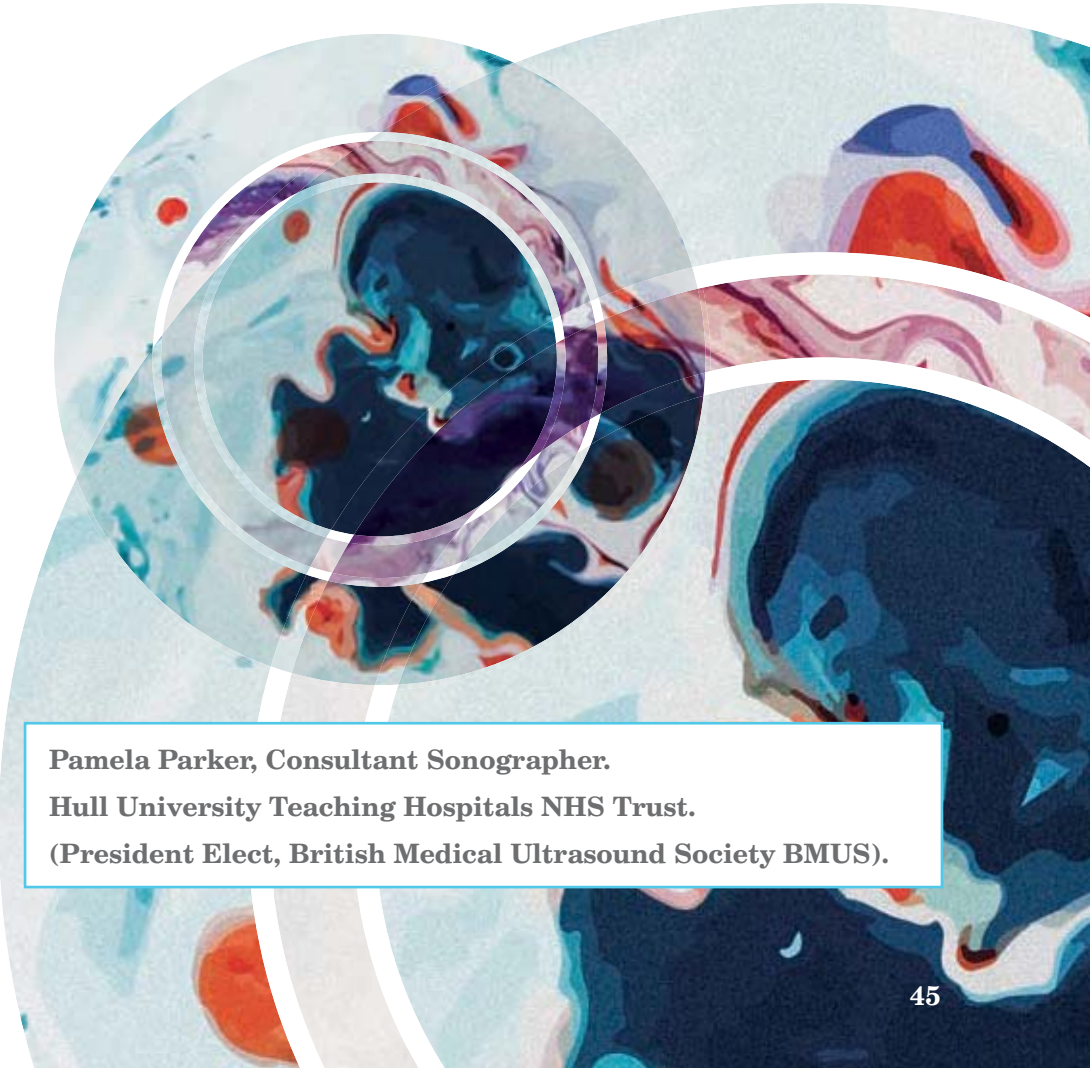
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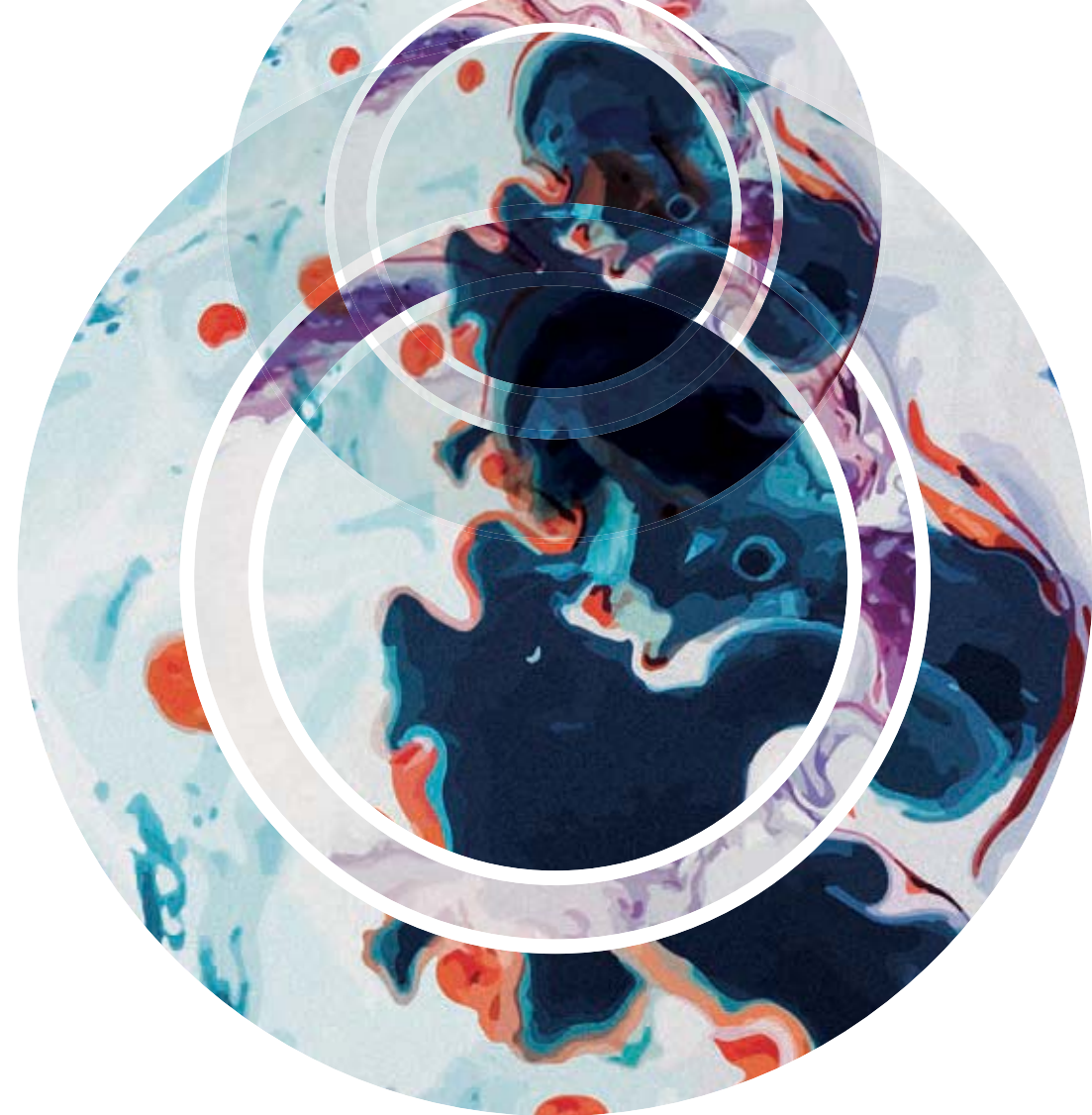
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A Transgender Patient in the Nuclear Medicine Department

In one afternoon session of scanning in nuclear medicine, we saw two patients who left the radiographers and technologists unsure how to approach the pregnancy safety question.

The first patient had anonymously called the department in advance and had asked numerous questions about the waiting room set up: if their friends would see them, whether or not they would need to get changed but would not give any specific details about their impending scan. Without this we couldn't be very specific about the planned scan. The next day, when they attended, the patient approached the desk giving their registered name, but also their preferred name. The patient was registered as male, however attended in a dress with a feminine appearance. The conversation from the previous day then made sense. The examination proceeded without further complication and a good rapport was established between the patient and staff member.

The very next patient attended, assigned a female registry on the computer, however appeared very masculine and the staff members were unsure if it was appropriate to ask about pregnancy. The pre-test check of the radiology information system (RIS) records revealed that a gynaecological ultrasound scan had been performed previously, demonstrating the presence of a uterus. The question was posed and the scan proceeded.

Although the sentiment is non-discriminatory, lack of engagement with LGBT+ issues can leave the healthcare professional ill equipped, naive or awkward in their patient interactions.
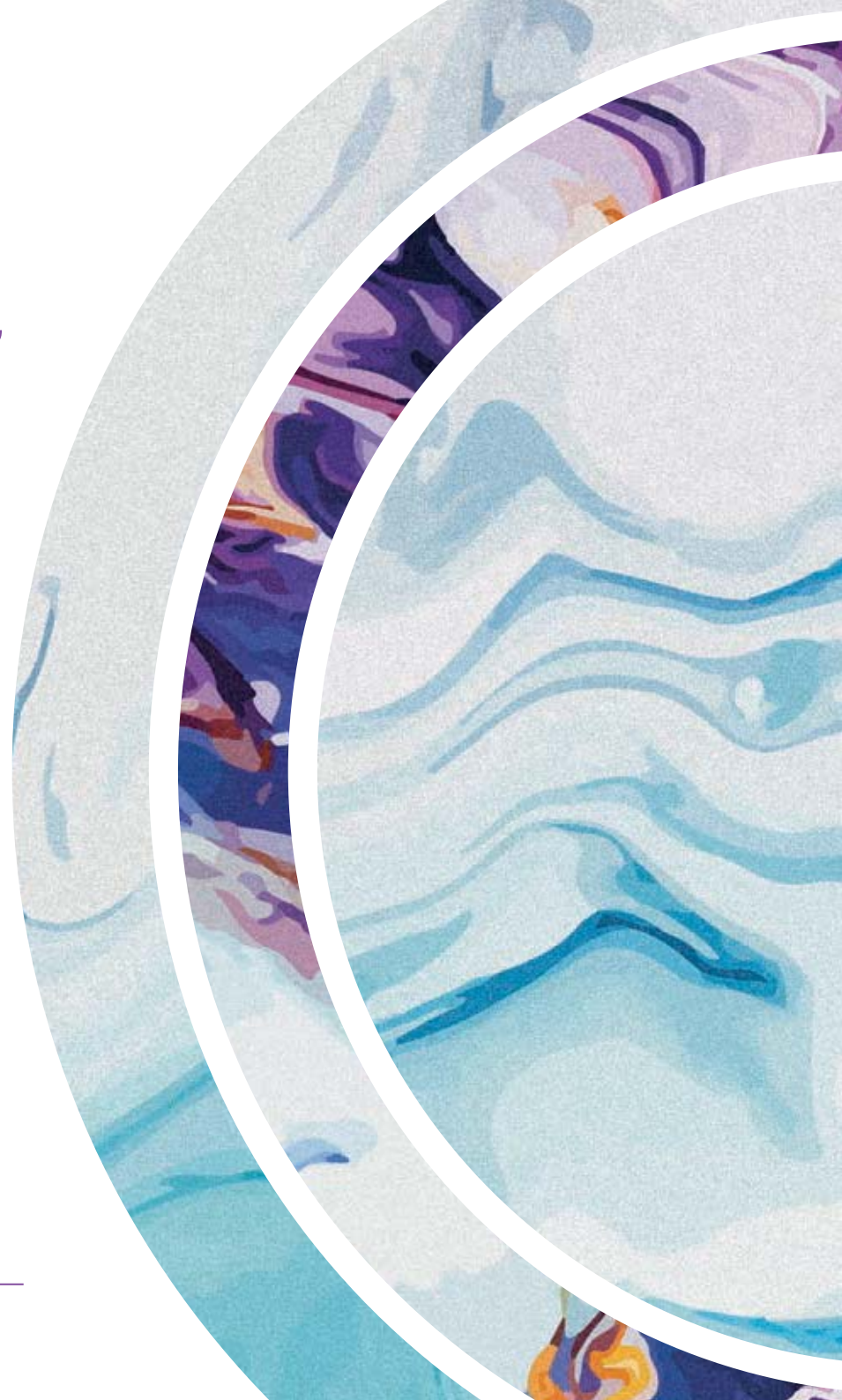
A Stonewall survey of over 5000 LGBT people revealed that three in five LGBT people had experienced anxiety, against a national average of one in six.

What if there hadn't been supporting evidence or the patient hadn't indicated how they wanted to be addressed?

The dilemma appears to be a fresh subject but patients have been lesbian, gay, bisexual, transgender (umbrella term-LGBT+) for years and society is now awakening to the concept that not everyone is male or female. In preparing this information for a conference poster, the journey has taken me into new areas of research, working within LGBT+ networks and allowed me to communicate my findings to a much wider audience, all of whom have been very interested, accommodating and committed to improving services for their patients. It has challenged some of my own understanding and prejudices, hopefully making me a more balanced practitioner. I hope this article stimulates a more sympathetic approach to our patient care, our relationships with our colleagues and consideration when planning new builds and refurbishments. I will concentrate on transgender patients attending for imaging procedures, however many parallels with other patient groups could be drawn and surmised.

Introduction

A Stonewall survey of over 5000 LGBT people revealed that three in five LGBT people had experienced anxiety, against a national average of one in six. A staggering two thirds of LGBT people reported being a victim of hate crime. In particular, 12% of transgender people had attempted suicide and 46% had suicidal thoughts[1].

These data help to paint a picture of some of the anxieties that transgender patients live with and the difficulties that they could face when engaging with healthcare services which are, largely, unknown to them. 'Health outcomes are generally worse for LGBT people than the rest of the population...'[2] because of poor healthcare engagement and late presentation[3].

A common attitude amongst staff is: "It doesn't matter to me if my patient is

SIGE Form (Sex, Identity, Gender, Expression)

1. My preferred name _____

2. My pronoun?   He/him   She/her   They/their   other_____

_____

Your doctor has ordered an x-ray.

We use ionizing radiation in order to obtain the images your doctor has requested. As x-ray technologists, it is our professional duty to protect patients as best as possible from any unnecessary exposure. This includes shielding reproductive tissue whenever possible.

Please complete this form to help us determine how to best protect you during your x-ray today.

If you have any questions or concerns please feel free to speak with the technologist prior to your exam.

3. Where are your reproductive organs currently?

☐ Internal (ovaries, uterus)
☐ External (testes)
☐ I do not have any reproductive organs
☐ I am unsure of the answer
(please speak to the technologist prior to your exam)

******COMPLETE BELOW IF YOU HAVE INDICATED INTERNAL REPRODUCTIVE ORGANS******

Ionizing radiation may be harmful to a fetus, therefor we must ensure that there is no possibility of pregnancy.

When was the start date of your last period? _____

If the start date is more than 10 days ago please answer the following:

How can you be certain that you are not pregnant?

The SIGE form (Sanders and Pedersen).

Figure 1: Sex, Identity, Gender, Expression form[6].

One patient described the Sex, Identity, Gender, Expression form, (SIGE) as "harsh" and pointed out that it would not necessarily help in emergencies.

gay, I treat everyone the same"[4].

Although the sentiment is non-discriminatory, lack of engagement with LGBT+ issues can leave the healthcare professional ill equipped, naive or awkward in their patient interactions. On a basic level, the rights of LGBT+ patients are protected by law and the Society of Radiographer's (SoR) code of conduct[4,5], but aiming higher, this article will concentrate on making a nuclear medicine department as comfortable as possible for LGBT+ patients, focusing on transgender patients, as their existence is often stealthy because of the statistics mentioned earlier. This can be particularly challenging in 'one off' interactions such as attending for a nuclear medicine appointment. There are currently 20+ distinct sub definitions that make up the LGBT+ community and of course all patients will bring unique life experiences[6].

Some of the information shared in this article came from personal communications with transgender individuals and their families who are known to the author.

The pregnancy question

Using ionising radiation requires special measures to protect unborn children and new mothers who breastfeed. The bottom line is, whether or not the question is appropriate, i.e. is the patient capable of conceiving a baby, regardless of their sexual orientation? The new wording in the Ionising Radiation (Medical Exposure) Regulations, IR(ME)R 2017 says 'individuals of childbearing potential' rather than females[7].

Hospital Radiology Information Systems (RIS) will give a birth gender, however the patient has a legal right to have that changed after transition and start a new medical record. Therefore, the gender marker is not reliable unless a patient has had previous examinations displaying the presence of ovaries and uterus, e.g. gynaecological ultrasound, magnetic resonance imaging pelvic scan.

A generic pregnancy pre-test question has been distributed known as SIGE – sex, identity, gender, expression[6] (Figure 1). This explains why we need to know about pregnancy and tries to categorise patients into internal (ovaries/uterus) and external (testes) sexual organs. This is useful but does require the patient to have privacy to fill the SIGE in without being overlooked. Another feature of gender dysphoria is that any discussion about sexual organs is likely to be uncomfortable and have negative connotations for the patient.

One patient described the SIGE as 'harsh' and pointed out that it would not necessarily help in emergencies. A simplified alternative was suggested; one single question: 'If you have internal reproductive organs (uterus and ovaries), is there a possibility of pregnancy?'.

They also point out that the last menstrual period (LMP) date would be irrelevant as the medications alter or stop menstrual cycles.

Similarly, asking the right question doesn't guarantee an accurate answer, even if it written down and signed. If a parent stands within earshot of their 13-year-old daughter, a negative answer is more likely than risking a showdown in the department when a father discovers that his child has suddenly grown up.

Hospitals are starting to introduce LGBT+ friends' networks. These are for all staff who want to champion their patient's needs.

What is it that we are trying to achieve? To protect the unborn child and mother, or just demonstrate due diligence?

Staff training and awareness

Maintaining a diverse staff group can be helpful with LGBT+ patients for supporting awareness and positive attitudes. With that said, this would not necessarily be visible to patients and therefore does little to put them at ease.

'[Healthcare professionals] want to be able to provide the best care for their patients...but they may not be able to because they do not sufficiently understand LGBT patients' health needs'[8]. A knowledge of terminology helps[6].

In a survey of 1800 healthcare workers, '57% of staff [also] said they do not consider sexual orientation to be relevant to a patient's health needs'[9].

Hospitals are starting to introduce LGBT+ friends' networks. These are for all staff who want to champion their patient's needs. Often rainbow lanyards and badges are provided. A common misconception is that these are only for LGBT+ staff members and wearing one is displaying your own sexual preference. They are for allies too, although I have had to explain this to some baffled colleagues.

Training could start with undergraduates when developing 'cultural competence'. The programme developers explain that 'it calls for practitioners to not only identify their cultural assumptions, values and beliefs, but to also challenge them and in doing so be able to recognise that others may view the world through different cultural lenses'[10].

What is said behind closed doors also affects what is portrayed to the public.

Some helpful definitions

As with any language, trends and popularity change so it is unlikely that everyone will keep completely up to date. Understanding a few terms can help though. Getting used to addressing people in the polite forms such as their preferred name; 'they', 'them' can help you out when you are unsure.

- Trans/ Transgender – A person whose birth gender is different from that with which they feel most comfortable.
  - Trans male – A person assigned as a female at birth but now lives as a man (FTM – female to male).
  - Trans female – A person assigned as a male at birth but now lives as a woman (MTF – male to female).
  - Cross dresser – Not part of the LBGT+ group. Likes to dress in the opposite manner to their birth gender.
  - Gender fluid – A person who does not fit into male or female gender identities.
  - Gender dysphoria – Used to describe feelings of distress when there is incongruity of birth sex and gender identity.
  - Gender neutral – Used to describe something that doesn't have male or female gender limitations.
  - Non-binary – Used to describe people who do not fit into male or female gender identities.
  - Title/ Pronoun – Mr., Mrs., Master, Miss replaced by Mx. Alternative gender neutral options to He/ She include Hir/ Ze/ Zim/ but commonly 'They'.
  - Preferred name – A person's new chosen name, not necessarily the same as their legal name.
  - Binders – undergarment clothing worn to shape, compress or hide breast tissue. Mostly elastic, nylon, or spandex but could contain metal zips.
  - Packers – worn by FTM people to pack the front of trousers or underpants. Doesn't normally contain metal.
  - 'Outed' – when a LGBT person's gender identity or sexual preference is exposed without their permission or desire[1,11].

Clinical environment

Perhaps it should be stated that LGBT+ patients have many similar requirements of a healthcare environment such as being clean, accessible and modern, however some elements take on new importance. Consider using health promotion posters that contain same-sex couples in the photos.

Privacy and discretion: One individual highlighted that lack of privacy and discretion is amplified for the transgender patient. A discussion over a reception desk is likely to be heard by others, especially if the answers given by the patient are unexpected[12].

Furthermore, disposable paper cubicle curtains do not conceal any sounds or conversations.

Toilets and changing rooms: The provision of gender specific (separate male and female) toilets and changing cubicles are likely to cause extra anxiety as it would be essentially 'outing' a patient in public if they needed to use them. Providing unisex or gender neutral facilities allows their use to go unnoticed and putting sanitary bins in the male toilets too demonstrates greater awareness. Some transgender people wear additional clothing devices to minimize breast shape and size or simulate genital shape in order to maintain congruity with the gender stereotype. Having visible clothing, such as bindings or bra fillers in a basket, might cause a similar 'outing' problem. It is unlikely that a patient will publicly seek to clarify what needs to be removed for a scan or examination.

Chaperoning

The author asked: "Who would be the most appropriate chaperone?" for a transgender patient. The response was that it came down to personal preference. For a transgender child, their parent might be best, however it could depend on how supportive the parent is of the transitioning process. It might be sensible to record on the documentation for all patients who was present.

Particularly intimate examinations such as sentinel node breast and vulval injections would need extra sensitivity because of the reasons described under 'pregnancy question'. Sadly, it is reported that greater than half of transgender individuals have been sexually assaulted or raped by a partner[3]. Anxiety levels

could be affected. Statistics like this help to start the process of understanding why transgender patients find accessing healthcare difficult and will avoid it until entirely necessary or life threatening.

Learning points
- Adopting a few good habits such as changing letter titles and pronouns, asking how patients wish to be addressed[13] and offering an extra blanket as a cover, or a private consultation room are simple solutions.
- Recognising a diverse community and some of the daily issues that affect them helps the nuclear medicine practitioner to provide high quality healthcare[4]. A potentially higher level of missed appointments needs extra care and empathy.
- Acquiring and sharing knowledge helps to develop staff understanding and confidence. The bonus of being more acutely aware of privacy standards and being better communicators is that all patients benefit, and the reputation of the profession is raised. Similar isolations could be felt by refugees, trafficked, illiterate, impoverished and other vulnerable patients.
- Challenging inequalities within the workplace will also promote better working conditions, and encourage recruitment and retention of all staff. Many hospitals now have LGBT+ networks for support and advice.

Conclusions
There is no magic formula and you won't always get it right first time. As with all patients, sometimes expectations and what we can deliver is not the same, but a willingness to try to help goes a long way. Remember that outing someone in public could be as serious as endangering their safety. Not all members of the community and indeed the patient's family will be supportive, we must make our clinics and department safe places for all our patients to heal and thrive.

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Training for Treatment, Cancer Prehabilitation and Beyond

Prehabilitation enables people with cancer to prepare for treatment through promoting healthy behaviours and through needs-based prescribing of exercise, nutrition and psychological interventions. The aims of prehabilitation are to empower patients to maximise resilience to treatment and improve long-term health[1].

What is prehabilitation?

Many of the men presenting for enlistment during the Second World War were deemed unfit for service, due to poor physical and mental conditioning. A consequence of chronic poverty, malnutrition and lack of education. This situation was an issue of national security and required a plan and action. The outcome was the development of an eight week programme, comprising physical and nutritional interventions coupled with education. The result was that 12,000 men completed the so called 'Prehabilitation centres', with 85% showing improvement. The subsequent publication, in 1946, was the first reference to prehabilitation in the literature[2].

More recent prehabilitation (prehab) references are from the sports medicine community in the 1980s. The focus now however, rather than bringing potential recruits up to standard, was planning to support athletes remaining healthy and injury free. It was a switch in emphasis from rehabilitation (rehab), returning people to health after injury, to prehab ensuring people remain healthy.

To better understand prehab, it is worth considering briefly what it means in a sporting domain, a field where the term is more commonly employed. As well as consider the associated terms of rehab and preconditioning.

The aim of prehab is to maintain health and avoid injury; it is a proactive approach.

Preconditioning looks to prepare for the rigours of an event through exercise, diet and recovery. It is a specific preparation phase.

While rehab focuses on a return to health and facilitation of recovery from injury, it is by definition reactive.

The turn of the century saw an interest in establishing a plan to prepare for treatment, applying the theory and knowledge of prehab and preconditioning in a surgical setting. Having a training and diet plan a number of weeks prior to surgery yielded reduced complications and improved outcomes[3].

Planning for success

Proper planning prevents poor performance; The '5Ps of success' is a well-known and adopted practice promoting the importance of planning to increase the likelihood of a successful outcome.

Team Great Britain (GB) cycling and Team Sky, led by Sir Dave Brailsford, took planning for success to the next level and having the end objective in mind. Brailsford applied many quality improvement techniques and most famously a theory of marginal gains. This approach looks at all aspects influencing performance, including those facets often overlooked. Shining a light on these neglected, often simple areas, such as riders having their own pillow and mattress rather than whatever the hotel provides. Making a number of small incremental changes to achieve a significant aggregated advantage or improvement.

While rehab focuses on a return to health and facilitation of recovery from injury, it is by definition reactive.

Planning is a specific stage of the radiotherapy process. This planning process is heavily technically focused and looks to make marginal gains through optimising the dosimetry. How do we individualise the process or experience for the person, rather than just their anatomy and physiology, to increase the chance of a successful outcome?

Prehab and oncology

Prehab offers the opportunity to make treatment and care person specific by shining a light on the underutilised areas of radiotherapy, for example preparing or optimising the patient for treatment. There has been growing interest and adoption of prehab principles as a means of preparing people for the requirements of cancer therapies.

Prehabilitation prepares people for cancer treatment by optimising their physical and mental health through exercise, nutrition, and psychological interventions. It is a means of improving treatment effectiveness and cancer survival.

This approach, despite evidence, has some critics who argue it still remains too medically focused, i.e. on the acute effects of diagnosis and treatment outcomes[4] and perhaps fails to appreciate the benefits of supporting people to live with and beyond their treatment for cancer.

Advances in treatment coupled with early diagnosis now means that cancer can, to an extent, be considered a chronic condition for many more people. This positive advancement makes it essential that services consider what life after treatment may look and feel like for people. To do this requires what Chaney calls 'safeguarding life goals'[5]. Starting with the end in mind allows a shared plan to be developed, including a rehabilitation programme to return a person to health and support them in establishing their 'new normal' or modified life after treatment and its acute effects. This approach is the difference between people surviving cancer or living with and beyond.
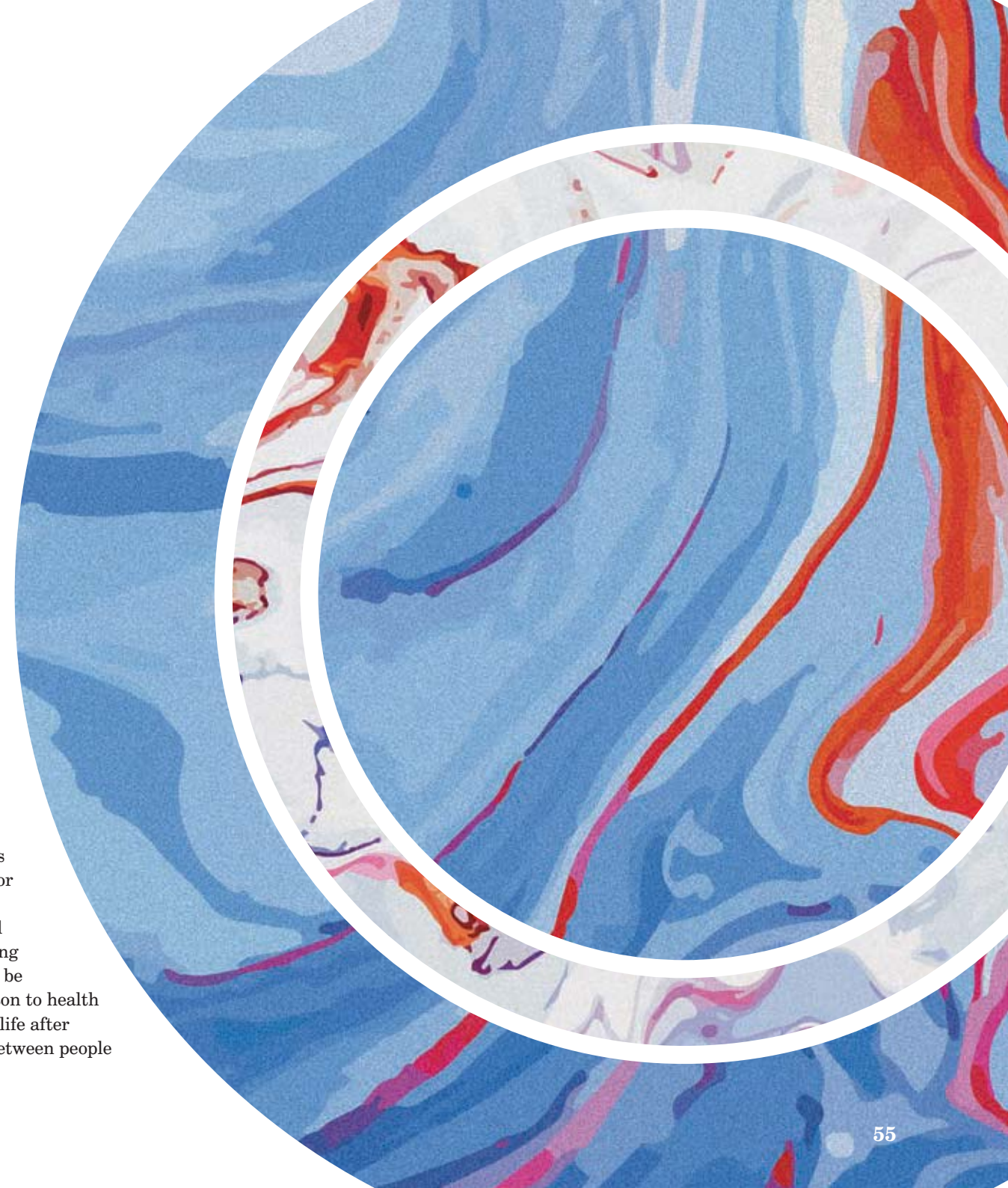
In addition to survival outcomes, it is also important to consider other outcomes or measures of success when setting objectives. While more difficult to measure, qualitative research and outcomes have the potential to add real value and quality to increased survival.

Macmillan[6] has done significant work to develop a more holistic notion of prehabilitation in oncology. It defines prehab as empowering individuals with cancer to enhance their physical and mental health and wellbeing to increase resilience and support individuals to live life as fully as they can.

The Prehabilitation Model[7] developed by Macmillan describes three distinct phases:

1. Pre-assessment – establishes a baseline, identifies risk and develops a plan.
2. Prehab intervention – physical activity is always present, with psychological and dietary support often seen.
3. Follow-up – reviews progress and establishes follow-up.

Professor Mahajan states that prehab offers valuable opportunities; empowerment, resilience and potential for long-term health impact[7].

The benefits of prehabilitation programmes are clear. They can improve physical and psychological health, reduce treatment–related morbidity and hospital lengths of stay. The evidence base supports prehab from a clinical view point and is also financially attractive.

So how, as a system including both organisations and practitioners, do we continue a transition from medically focused to patient-centred? Personalised care is one of five major practical changes set out in the NHS Long Term Plan[8]. This approach gives the patient choice and focuses care on what is important to them.

Identifying an individual's objectives allows a plan to be developed to increase the likelihood of a successful outcome that will not be limited to surviving five years or other conventional medicalised outcomes. Social prescribing may play a role in this adapted approach. NHS England describes social prescribing as focusing on what matters to the individual and takes an holistic approach to health and wellbeing[9]. Social prescribing or community referral enables health professionals to refer people to non-clinical services such as healthy eating advice and cookery classes or sports and exercise groups.

To some this could be seen simply as signposting, although it has the pragmatic solution to add real value to survival and quality of life in a time and resource constrained environment.

So how do we achieve this?
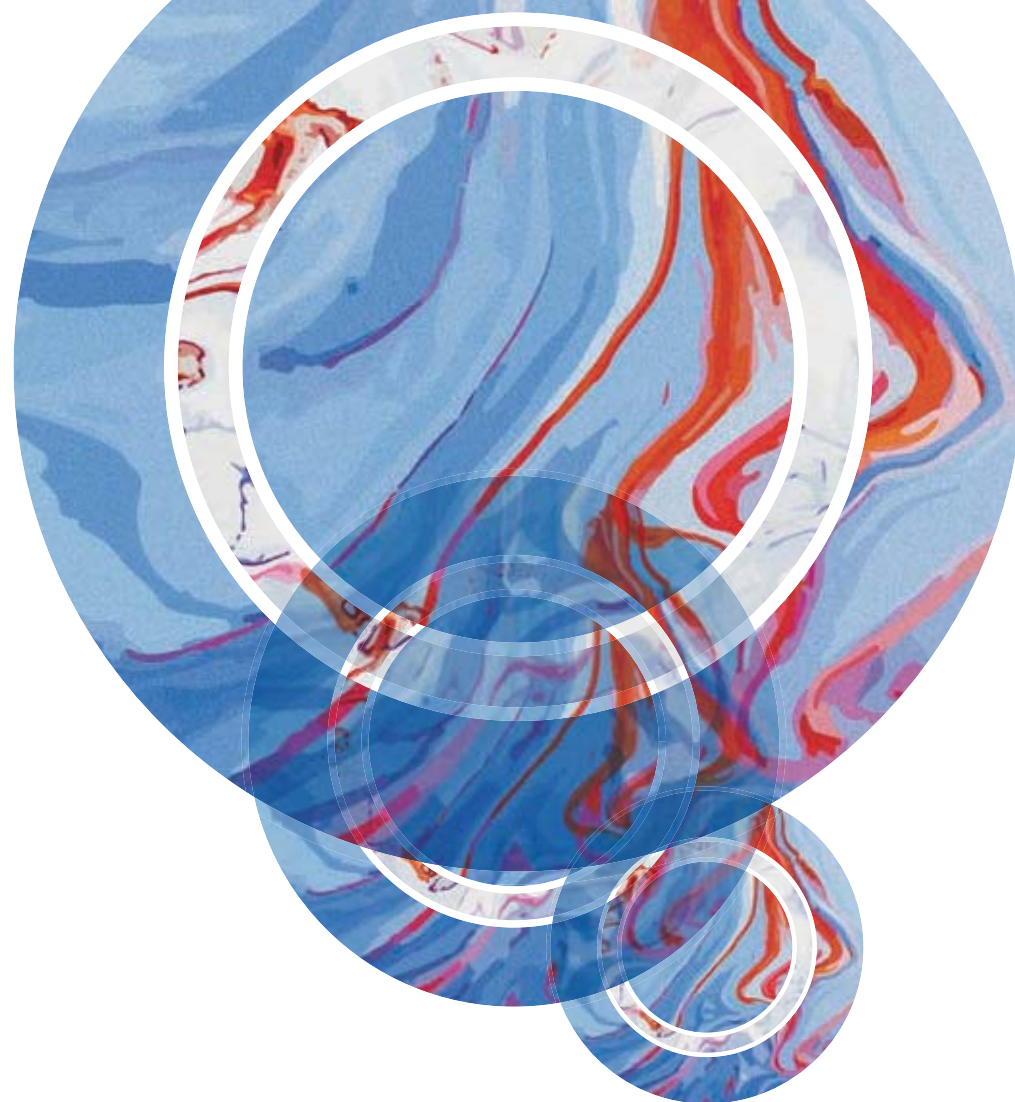
[Prehabilitation programmes] can improve physical and psychological health, reduce treatment–related morbidity and hospital lengths of stay.

Strategy

Giles and Cummings[10], in their *British Medical Journal* 'Editorial', acknowledge that prehabilation is 'a great idea in theory', while warning that it is, 'somewhat trickier in practice'.

A significant barrier is that there is no clear indication of how a prehab service could be established and funded. This said, good practice examples do exist such as PreHab4Cancer[11]. Such services can act as templates, to be adapted, to support development of services. I would encourage colleagues to 'pinch with pride' in terms of adopting good practice examples.

Workforce shortages[12] to deliver what is seen as core cancer care will delay the delivery of prehab in the short to medium term. A chronic reduction in central funding has had a negative impact on the provision and scope of service. This said, every organisation – Trust, local authority and third sector provider, has assets that would support a system wide approach to prehabilitation.

The solution is about alignment of resources, including professionals and the individual, to bring about a transformation to live with and beyond cancer. We need to look beyond the narrow confines of healthcare, and include behavioural support as a standard ingredient of care coupled with social prescribing. If we see people with better baseline health, it translates to better health outcomes. Don Berwick, discussing the transformation of the National Health Service (NHS), refers to a triple aim of better care, better health and lower costs. I suggest a slight reordering, as it is better health that supports better care and improved outcomes, and as a consequence lower costs. There is also an argument to spend more resource upstream or incentivise true collaboration by regulators assessing performance across a system, rather than on an organisation by organisation basis, although that is a whole other story.

Currently, very few if any services incorporate 'true' prehab into their pathway, as prehab by definition would occur upstream prior to a person being identified as a patient or service user. Achieving true prehab would require a revolutionary upgrade. It would require proactive identification of at risk populations prior to developing cancer.

There are challenges to implementing a comprehensive prehab package; I would
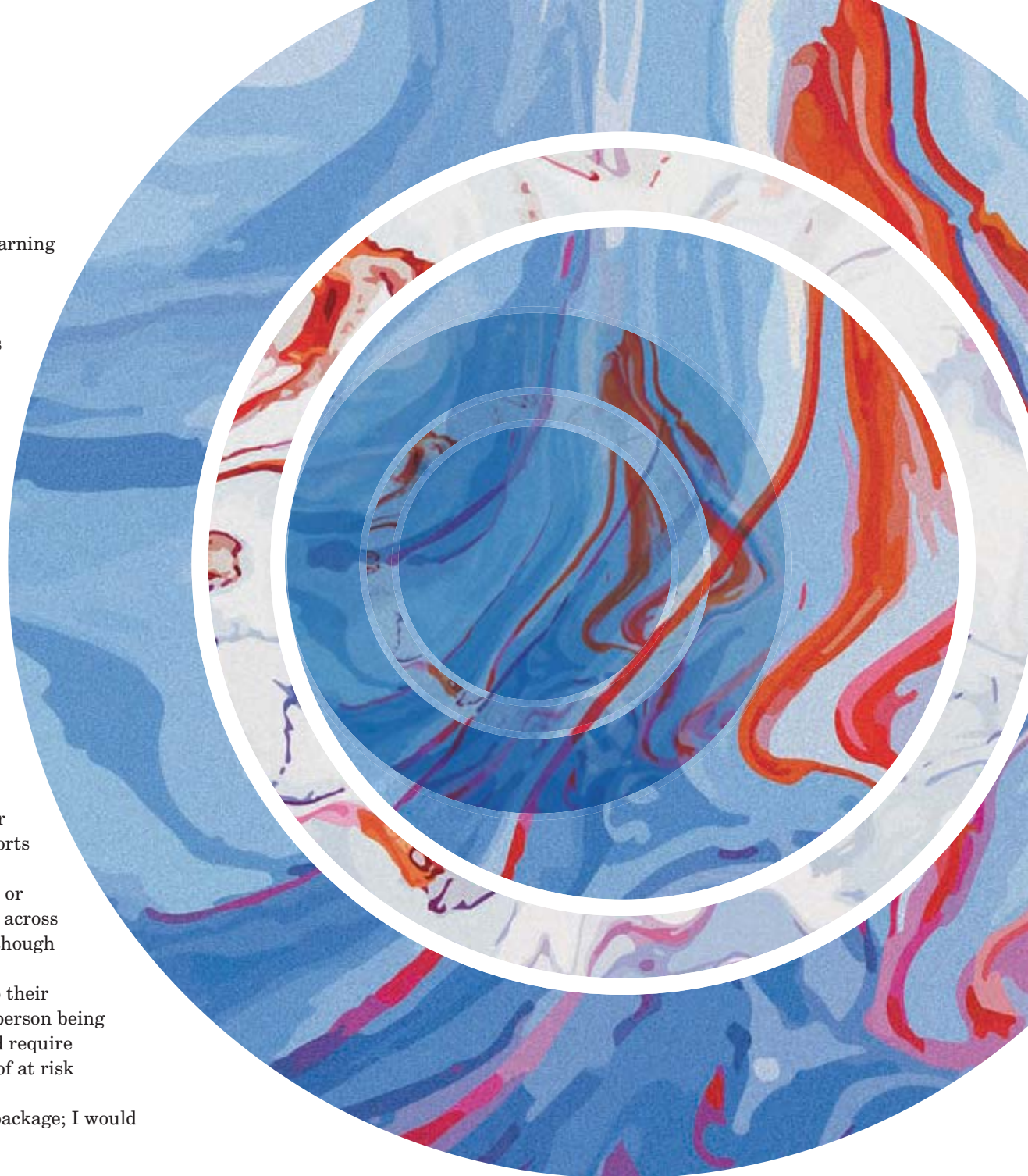
therefore encourage organisations and practitioners to begin to incorporate elements of prehab prior to starting the traditional treatment pathway.

A pragmatic approach avoids allowing perfect being the enemy of good, as a good service implemented today offers real benefit now.

Where to focus effort and attention

It is very important to identify the quick wins that will deliver the best impact.

Thomas Eddison foretold that 'the doctor of the future will give no medication, but will interest his patients in the care of the human frame, diet and …prevention of disease'. The focus on exercise, diet and smoking cessation may be especially pertinent in conditions and diseases that have an aetiological element in environment and lifestyle and a cohort where 70% of patients have comorbidities[7]. The NHS, historically, has been reactive. One could go as far as saying it is a national treatment service, rather than a health service. Prehab by definition is a more proactive approach.

Perhaps this reactive paradigm partly explains the raised eyebrows when NHSx, the government unit setting policy and developing best practice for technology, advertised for a director of Skunkworks. A Skunkworks approach looks to quickly adopt innovative approaches to improve performance. With appropriate measures, could this approach be adopted across the wider NHS for certain elements within the remit of 'first do no harm'? This tactic may answer the call of The Five Year Forward view[13] of 'a radical upgrade in prevention', a call repeated by the Health Secretary in 2019, stating that pledged prevention remains a key priority.

Physical activity

The Chartered Society of Physiotherapists launched a campaign in 2019 under

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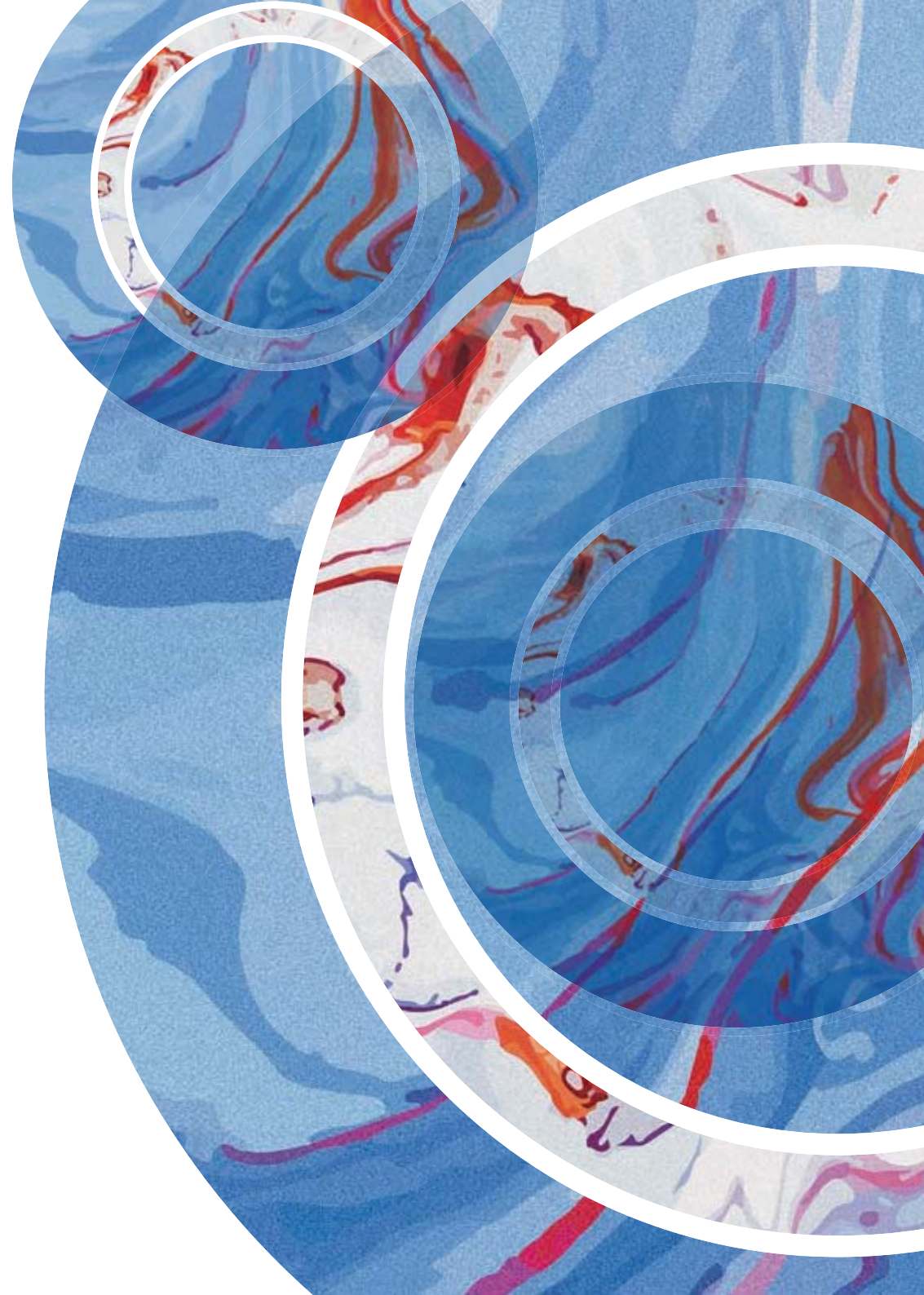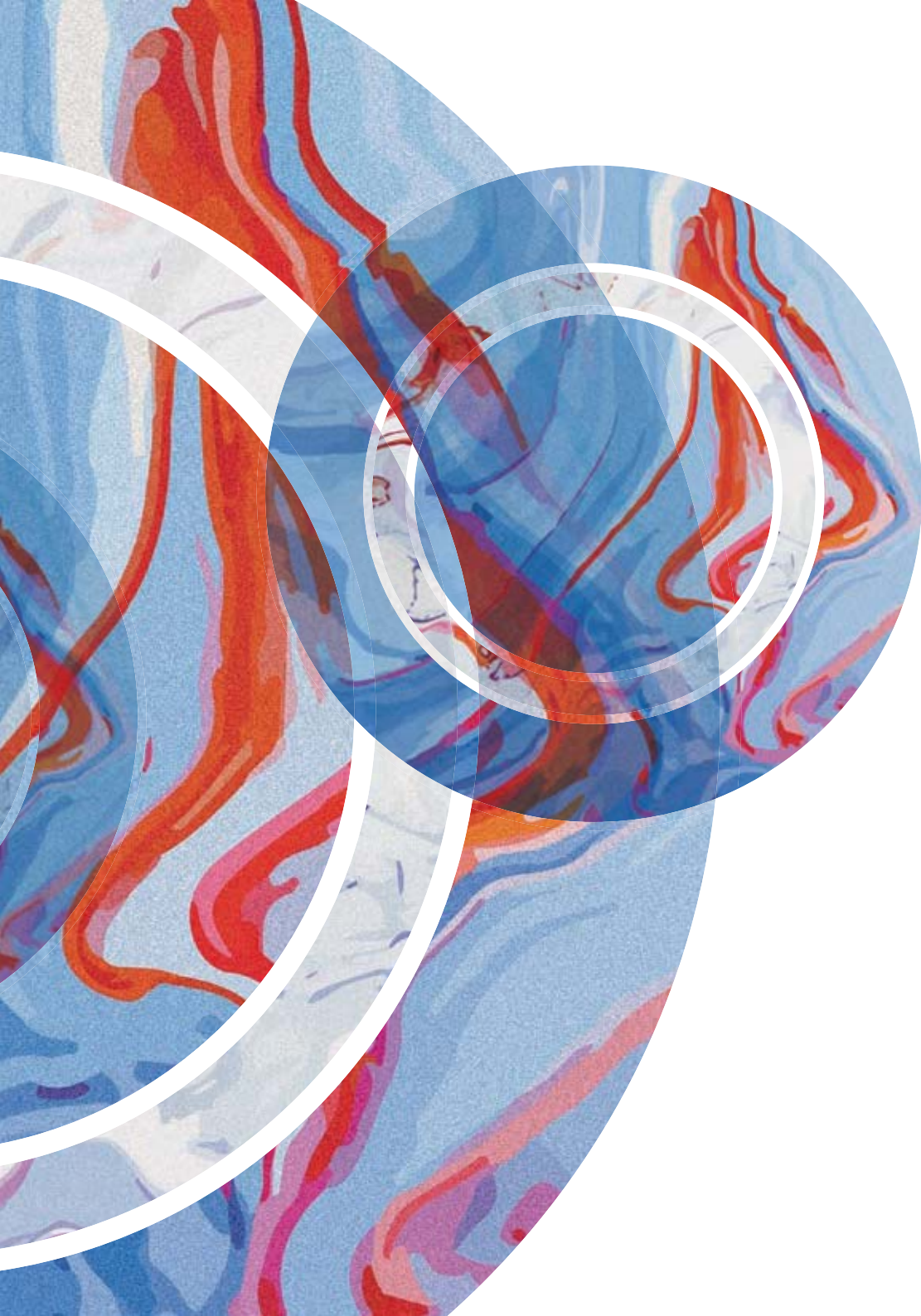
the banner of 'Love Activity Hate Exercise', this approach acknowledges that some people are not fans of exercise and aims to alter individuals' perceptions and relationship with physical activity.

Exercise need not mean lacing up your trainers, heading to the gym or getting a sweat on. The emerging evidence is that several short periods of activity, or 'exercise snacking' during the day can have significant benefits[14]. An exercise snacking approach acknowledges all activity such as brisk walking or making a conscious decision to use the stairs rather than the lift.

In fact, the biggest benefits may come from social movements that practitioners can advocate or prescribe, such as Parkrun. Parkrun's mission is simple, 'create a healthier and happier planet'. There is also 5k Your Way, Move Against Cancer, a movement that combines the benefits of exercise, peer support and lived experience.

Although preconditioning is a discreet phase starting with diagnosis and ending with the commencement of treatment, there are benefits to continuing physical activity during and beyond treatment.

Traditionally, people have been advised and encouraged to rest during cancer treatment. Evidence suggests this approach is misguided, although evidence isn't yet being translated into practice. During treatment remains a fertile ground to continue physical activity.

The Centre for Active Design is clear that 'the built environment can have a crucial and positive impact on public health'[15] and can reverse the design trends that have contributed to declining physical activity.

During the planning and design of Clatterbridge Cancer Centre, Liverpool, my colleagues and I were keen to make doing the right thing easy in terms of physical activity, similar to a human factors approach. The design team used evidence-based design to facilitate evidence-based practice. This was as simple as ensuring the stairs are prominent and attractive. Stair use increases metabolism, improves cardiovascular health and strength[16-18]. The design team also adopted a 'human scale' approach; this supports individuals in making informed choices about their exercise tolerance as the stairs and floor levels are visible.

Given the limited resource, we need to make best use of existing services and work across organisational boundaries to encourage physical activity. The signposting model may have limitations, although it is a pragmatic, effective approach in a time and resource pressured environment. It also offers the opportunity for incremental improvement. Patients expect, trust and act on information and guidance provided by radiographers.

Whatever area is the focus, the message remains the same – do something.

In addition to survival outcomes, it is also important to consider other outcomes or measures of success when setting objectives.

Incremental progress for patient benefit now!

So what are some of the marginal gains to be incorporated to realise these benefits?

The 2015 report from the British Independent Cancer Taskforce highlights the value of digital technologies to deliver information to improve patient experience and enhance recovery. Engaging with digital applications correlates with better medical knowledge, which can facilitate patient-clinician interactions and increase shared decision-making approaches[19]. Digital applications are valuable tools to empower people to take increased responsibility for their treatment and health, while still feeling supported.

Conclusion

A true focus on prevention would see a prehab programme developed and delivered to the population as a whole. A more pragmatic approach would see targeted intervention with cohorts at risk of developing specific cancers identified as part of a screening programme.

The current drive to introduce prehab for individuals diagnosed with cancer promises significant benefits, although more accurately would be called a preconditioning package. It is not preventative, it is in preparation for treatment. Although this preconditioning approach is easier, challenges still exist and services need to be both ambitious and realistic. Ambitious to deliver the 'radical upgrade' required and realistic to ensure that 'perfect isn't the enemy of good' and we start to deliver incremental improvements for people now.

These incremental improvements can be achieved, in the interim, by signposting or social prescribing to social movements and engaging with digital health apps. This can act as a foundation to implement and develop comprehensive prehab programmes delivered by a systems approach.

I will leave you with the words of Indira Gandhi, "have a bias towards action – let's see something happen now. You can break that big plan into small steps and take the first step right away".

Energy and effort is still required to support people during and importantly, post-treatment. Rehab should expand to incorporate the late effects from treatment to better support individuals to live with and beyond cancer, and establish their 'new normal'. This will truly realise the benefit of improved survival outcomes by pairing outcome data with quality of life measures and perhaps achieve the ultimate aim of prehabilitation; to support an individual to prepare for and complete treatment and get on with returning to their 'new normal' and to live life.

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Patient Engagement, Always Events® and the Future

A visit to a diagnostic imaging and radiotherapy department can be a frequent and essential part of our patients care and experience, but does this experience matter to our patients? How often do we ask about those experiences, measure them and act upon the responses? We are all familiar with the NHS Friends and Family Test[1] which gives people the opportunity to provide feedback on NHS services, but does this capture the real life experiences of patients within our imaging departments?

Radiography, nursing and medicine all share features that are inherent in caring compassionately for patients; however there are unique characteristics within diagnostic imaging and radiotherapy environments that set them apart[2]. Interactions between radiographers and patients may only last for a short time in a setting that can be very task focused. Our departments are highly technical environments, with staff focusing on radiation safety, positioning of the patient or following imaging protocols. There are also physical barriers such as lead screens and control rooms, which can further distance the radiographer and add to the solitude experienced by an already anxious patient[2]. This potential lack of physical and emotional contact makes it more difficult for our patients to recognise the high quality of care that they actually receive[3]. They may feel like a body part or a number on a conveyor belt; part of a process where they are told what to do, where to stand and what to wear. So how might we address this?

As professionals, we have a responsibility to ensure that we provide a high quality experience, where patients' safety and advocacy is also met[4]. Within our profession, there is guidance and legislation available which offers examples of shared decision-making and best practice in patient-centred care, such as *Values-based Practice in Diagnostic and Therapeutic Radiography: A training Template*[5] and *Practitioner Partnerships within Imaging and Radiotherapy: Guiding Principles*[6]. Only when we truly engage with our patients, listen to them and try to understand what matters to them, will we be able to implement changes that will impact positively upon their experiences within our departments. Meeting everyone's expectations is challenging but should not be considered impossible.

What is patient experience?

Patient experience is what the process of receiving care 'feels' like for our patients[7]. The encounters our patients, their families and carers have when they visit our departments is a key measure of the quality of services we provide, alongside clinical excellence and safety. They often have prior experiences or expectations which can further be influenced by the way we greet them, answer the telephone or explain a procedure. Our interactions and environment will impact upon each patient's experience, and each interaction will be unique. It is, therefore, quite a daunting responsibility to try to ensure we meet everyone's needs and they feel supported, safe and cared for. What does the service we provide and the care we give 'really feel like' for our patients?[7]

Future patient experiences begin with understanding the needs of our patients. We start to understand them and ourselves better by asking what matters most to them and making changes that lead to sustainable improvements.

Why is patient experience important and why should we improve it?

Improving experience is about working with the people who use our services to make those services better[7].

In busy departments, we often struggle to find the time to talk to or really listen to our patients. We implement organisational or national policies and procedures to help us develop services but we do not know if this is what our patients find important[8]. Patients judge their experience by the way they are treated; being kept informed and being listened to are as important to them as the effectiveness of their treatments and safety[8]. The *Francis Report* highlighted the consequences of showing indifference to the voices of patients[9]. By involving patients and engaging with staff who work within the system, we can use informed and lived experience to implement change and influence improvements to make services and individual experiences better.

The introduction of the National Health Service (NHS) Five Year Forward View encourages engagement with patients in new ways. Power has been shifted to patients and the public, directly involving them in decision-making and shaping the future of our healthcare services[10]. When patients have the opportunity to make informed decisions about their care and treatment, their experience can be improved with the potential for better health outcomes.

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The Forward View had an impact upon the 2018-20 Strategy of the Society and College of Radiographers (SCoR)[11], where the patient's voice became central to a shared vision of embracing a collaborative partnership. To encourage implementation of this strategy in radiography practice, a task and finish group within the College of Radiographers (CoR) co-created a set of guiding principles known as the 4Ps (Patient, Public and Practitioner Partnership (PPPP)). These guidelines have core values which are written in the patient's voice, and are divided into key areas of radiographic practice[12]. It is hoped that these guidelines will help to establish conditions where high patient satisfaction can flourish.

How can we capture what matters to our patients?

Capturing feedback from patients, service users, family and carers, can be done in a variety of ways such as written questionnaires, face-to-face conversations and online surveys. One example of a quality improvement methodology known as Always Events® has been developed by NHS England (in collaboration with Picker Institute Europe and the Institute for Healthcare Improvement (IHI)).

Always Events® are defined as 'those aspects of the care experience that should always occur when patients, their family members or other care partners and service users interact with healthcare professionals and the healthcare system'[13].

Always Events® were inspired by Dr Kate Granger. It mattered to Kate that she knew the names of those who were caring for her and that this happened every time. This resulted in 'Hello my name is' becoming a key part of all introductions to our patients. This concept is also reflected in 'What Matters to You?' which highlights the importance of patient involvement and feeling part of the care they receive.

Always Events® is a quality improvement methodology which begins by recruiting a co-design team to act upon what really matters to them. This puts the patients at the heart of what we do and ensures that ideas generated work, are sustained and can be shared across the organisation. If Always Events® are designed right, staff are committed to deliver, as they want to help to make things better. They are involved and engaged right from the start of the process and it is this concept that leads to sustainability of the changes made. Staff want to make a difference and will respond to and make changes by focusing on the right things. Managers and staff assume they know what the fix will be, but when we talk to patients, it can be a very different story.

A co-design team should involve the voice of the people using your service. It is an ongoing dialogue with patients, with staff listening to and responding to this conversation: this is true co-design.

By talking, learning and sharing our values and experiences with each other, this collaboration and really listening to our patients' experience is a powerful motivator for action.
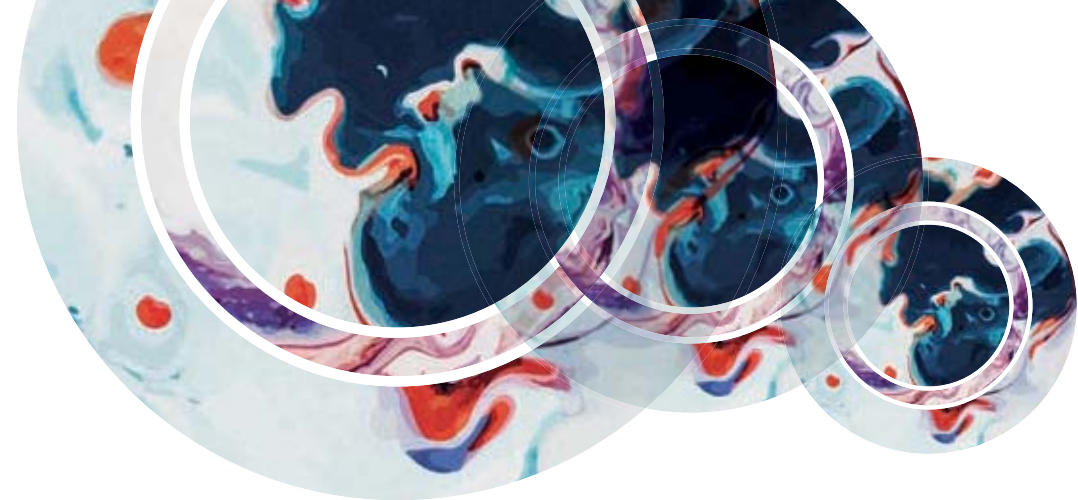
An Always Event® is not 'doing to' or 'doing for'...it is 'doing with'. This quality improvement methodology can be used alongside a range of other approaches. Always Events® engage our staff and patients in effective and meaningful ways, by helping us to understand the needs and expectations of our patients, and promotes innovative, cheap, simple and effective ways of delivering our service. These changes are informed and sustainable, and have a positive effect on provoking service improvements. Never underestimate the huge difference you can make for your patients by simply involving them.

By talking, learning and sharing our values and experiences with each other, this collaboration and really listening to our patients' experience is a powerful motivator for action. It challenges our assumptions and reminds us about what we are trying to achieve. Always Events® are a way to bring the values of the NHS and our patients to life.

Following the Always Events® toolkit (available online), we can implement changes that ensure that 'what matters to our patients' is central to quality improvements, and delivers positive patient experiences and sustainable improvement for everyone. Patients often come up with the ideas that can simply and cheaply improve our service and their experience. It is a win, win methodology

Our experience with Always Events®

Northwest Radiography Research Team (NoRRT) is a research group based at Warrington and Halton Hospitals. A key part of its strategy was to pursue projects that explored patient experience. We began by asking patients the simple question 'What Matters to You?' and it was their responses that really started us thinking. Patients were keen to give us feedback, but we were struggling to know what to do with their comments.

It was at this point in November 2017, that we attended our first Always Events® workshop, where we quickly realised that this quality improvement tool was exactly what we were looking for. It was a proven methodology using co-design with a patient-centred approach. After attending an Always Events® cohort in Leeds in early 2018, we returned enthused and inspired to begin our patient experience journey.

Radiology at Warrington and Halton Hospitals became the pilot site for Always Events® and by working collaboratively we identified what was important to our patients. They said that they wanted to be kept informed of their waiting time when they arrived in radiology. As a result of this project, patients are being verbally informed when they check in, of how long they can be expected to wait for their x-ray examination. A flipchart is positioned on the reception desk providing a visual display of the current waiting time and the receptionists can alter this according to the workflow.
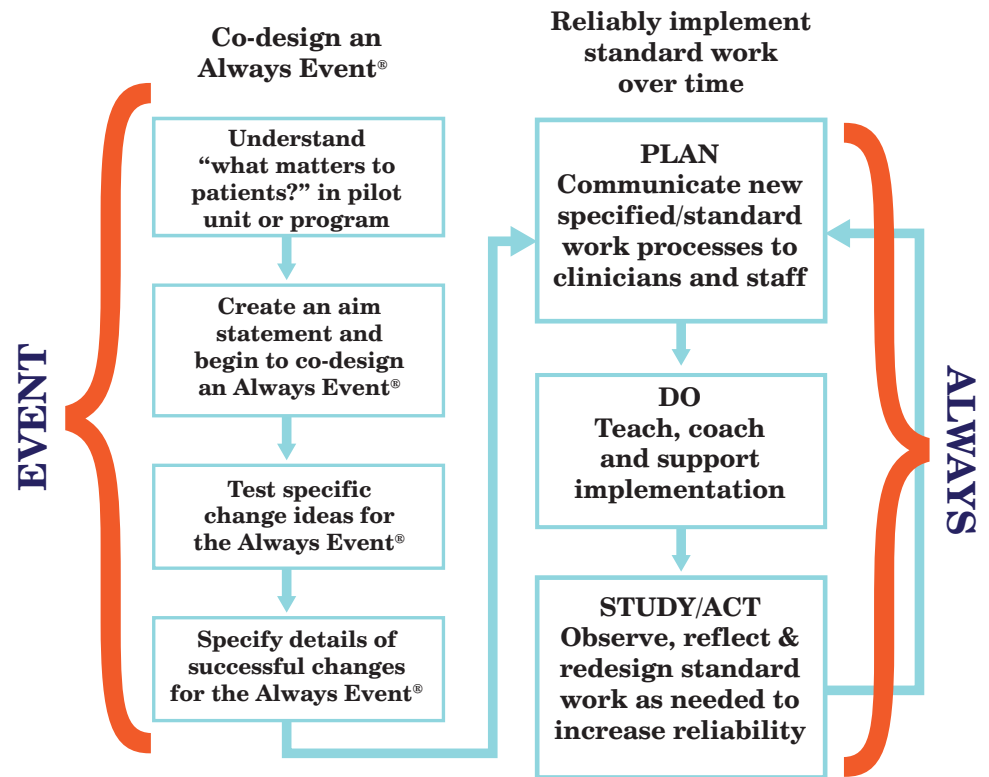

Figure 1: Always Events Methodology.
Graphics courtesy of NHS England Always Events®[13].

The team has experienced a decline in the number of complaints relating to delays.

The outcomes and progress of Always Events® was shared with our patients and throughout the Trust. We placed a poster in our waiting area which showed our patients 'here's what you told us and here's what we're doing...tell us what you think?' Our patients felt that we have not just listened to them but acted to make positive improvements.

Throughout the process, we closely followed the 'toolkit' and were fully supported by the NHS England Always Events® team. It has been a very positive experience for everyone involved.

At this point it is essential to stress the importance of support and leadership at executive board level to ensure sustainability. Engagement with our patients helps connect with the board, particularly through patient stories and reminds our staff of our deeper core purpose; helping us to remember why we do this job! We can use their stories as a powerful motivator as to why we need to make changes or to demonstrate how improvements have impacted positively on our patients' experience. Frequently it is the small things that have the biggest impact. Always Events® are built on compassion and trust... staff can really speak about how they feel and what they do. Hierarchical barriers are broken down as everyone works together to deliver the best care possible. Always Events® are a 'must do' that lead to 'how do', and can be part of the expectations of the organisation's quality process.

The future of patient experience in diagnostic imaging and radiotherapy departments

Looking to the future, how can radiographers ensure they are meeting the expectations of professional regulations and codes of conduct linked to patient experience? One way of achieving this is by using the Quality Standard Improvement (QSI) framework, which is a tool radiographers can utilise to provide evidence demonstrating that the quality of care we give our patients is addressed and achieved. Any gaps or potential innovations in the quality of patient experience can be evidenced through QSI. A whole domain is focused on patient experience; however it is important that this domain is not considered in isolation as all domains have areas that impact upon the quality of care to patients[4].

It is important to encourage a positive research culture within our departments, as reviewing existing and developing new clinical practices will lead to improved services. Supporting research undertaken by our colleagues ensures that our profession progresses and innovates, resulting in a quality service for our patients.

Future patient experiences begin with understanding the needs of our patients.


Figure 2: You Said, We did poster.

We start to understand them and ourselves better by asking what matters most to them and making changes that lead to sustainable improvements.

To ensure patient experience improvements are embedded within the organisation, there needs to be strong leadership and responsibility for managing patient experience. This can be achieved through engagement between senior management, staff and our patients, which will facilitate what good patient experience looks like, and how it can be progressed and supported.

Utilising Always Events® methodology provides us with the opportunity to shape our future services and development within our diagnostic imaging and radiotherapy departments. Small changes can lead to great improvements.

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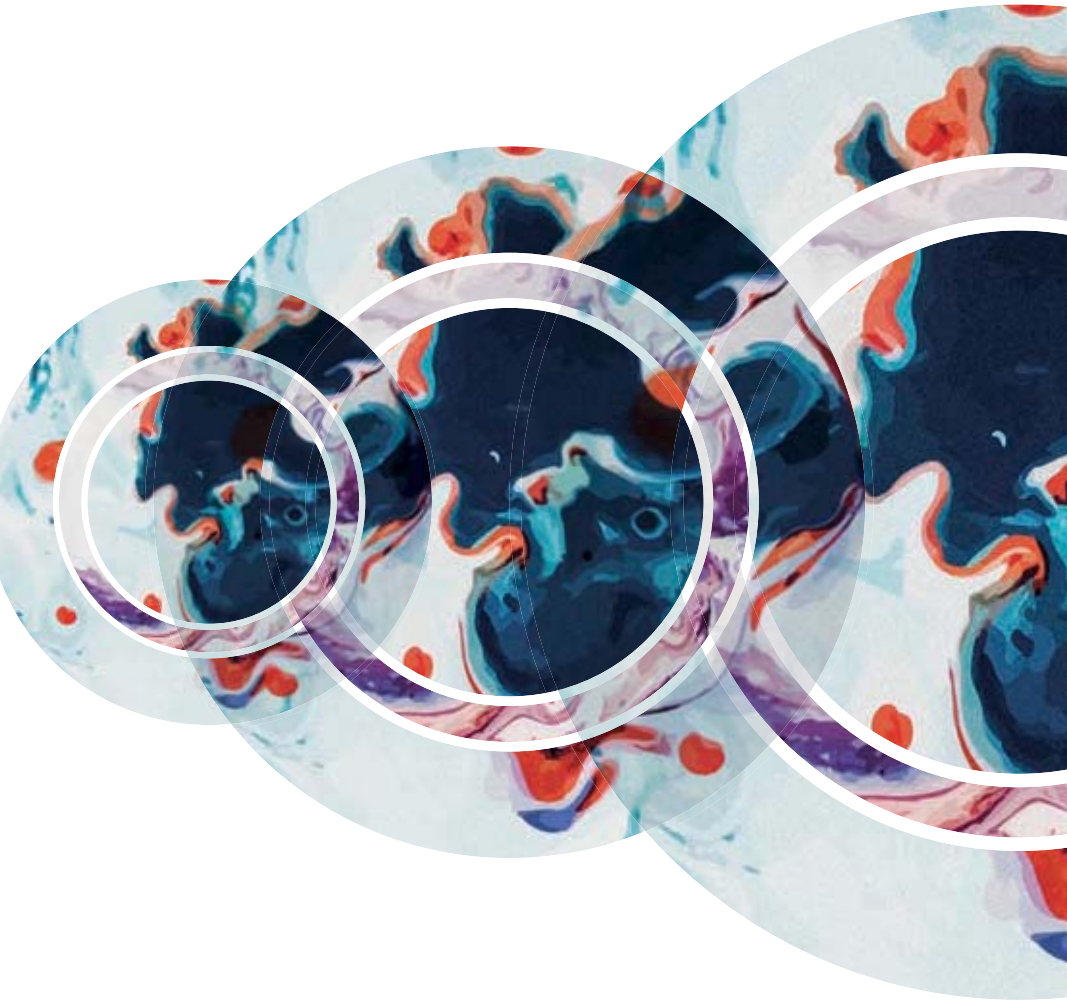
Louise Harding (Clinical Tutor and Reporting Radiographer) and Paula Park (Clinical Lead and Reporting Radiographer.

Senior Clinical Leadership in the National Health Service (NHS): Why are Allied Health Professions (AHPs) So Important?

The NHS Long Term Plan (2019)[1] highlights the importance of visible senior clinical leadership in enabling and assuring the delivery of high quality care both within organisations and in the new health and wider care system architecture. The Interim NHS People Plan (2019)[2] also recognises the important role leaders play.

The evidence is clear that where leaders focus on developing, engaging and supporting their staff to improve services for people and populations, the quality, financial and performance metrics also improve. Those organisations rated by the Care Quality Commission as 'good' and 'outstanding' in their use of resources ratings also have 'good' and 'outstanding' well-led ratings, demonstrating the strong relationship between leadership, greater productivity and more engaged staff.

This Interim NHS People Plan[2] also addresses how the NHS will develop and spread a positive, inclusive, person-centred leadership culture across the NHS, recognising the important steps already taken following the publication of Developing People, Improving Care (2016)[3]: an evidence-based national framework to guide action on improvement skill-building, leadership development and talent management for people in NHS-funded roles. However, to go further faster, recognising the need for widespread culture change if the commitments in the NHS Long Term Plan are to be realised, integrating care and improving population health, more must be done to foster multi-professional, cross-sector leadership. The need to foster the best leadership culture and capabilities has never been greater to support staff, to support new ways of working and to deliver great care for people and populations. But to do this we need leaders who reflect the services being delivered.

What is striking when you look at the pool of potential NHS leaders of the future is just how few senior leaders have a clinical background. And, specifically, how few have an allied health professions background. In 2017, *Realising the potential of allied health professions*[4], a Kings Fund blog, highlighted the lack of AHP representation at board and/or senior leadership across NHS organisations, despite growing evidence of the transformative potential of the workforce described in *AHPs into Action* (2016)[5], the national strategy. This isn't a simple equity argument, diverse clinical leadership and teams deliver greater efficient and effective care.

The data from the national audit of intermediate care suggest that a greater number of professions in an intermediate care team, skill mix, not head count, deliver better patient outcomes.

At the NHS Providers conference in November 2018, the former Secretary of State for Health and Social Care spoke about the challenges of leading in a senior role in the NHS but also recognised the opportunity and impact that clinicians as senior leaders can make. He reported, at the time, that only 54% of managers in hospitals in the NHS are clinicians, compared to 74% in Canada and the United States, and 94% in Sweden. And, only a third of chief executives in the NHS are clinicians.

So, how can we increase the numbers of clinical professionals taking up the most senior leadership roles in the NHS?

In response to the 2018 recommendations of the former Secretary of State for Health and Social Care, to ensure more clinicians from all professional backgrounds take on strategic leadership roles, *Clinical Leadership – a framework for action* (2019)[6] was published. It further highlights the available and growing evidence which suggests that professionally diverse teams[7,8] and clinicians at board level[9,10] increase the likelihood of meeting these challenges; for the first time offering a guide for senior leaders on developing professional diversity at board level. The framework recognises that at the most senior levels of healthcare organisations, leaders face increasingly complex strategic and operational problems arising from the demands of an ageing population, shortages in key workforce groups and ongoing financial constraint. And, that these challenges demand effective team-based working within and across traditional organisational and sector boundaries, innovation and experimentation to find new ways of delivering care, and collaborative and compassionate leadership to enable health and care staff to do their best work.

AHPs are the third largest clinical workforce in the NHS, offering a significant contribution to quality, productivity and health and care system sustainability and transformation.

What is striking when you look at the pool of potential NHS leaders of the future is just how few senior leaders have a clinical background.

Prompted by this growing evidence base, acknowledgment and demand for professional diverse leadership, NHS Improvement commissioned Kingston and St George's University to carry out an academic evaluation to seek answers to two key questions[11]:

1. What organisational leadership governance structures exist for allied health professional (AHP) service provision and what is the impact of them for the quality and productivity of care delivery in NHS provider organisations in England?
2. What are the characteristics, key skills and attributes of effective AHP leaders, and how are these gained through professional development during an AHP's career?

The evaluation found AHP leadership governance structures varied widely across the NHS in England. However, initial findings gave an indication that establishing formal AHP leadership at a strategic senior level in an organisation, can enhance the visibility and influence of the AHP workforce on the organisation's priorities and make the AHP contribution, and improvement activity, more visible.

The results from this academic evaluation provided the evidence base for three pivotal subsequent publications from NHS Improvement, recognising there was more to be done to sustain, support, facilitate and grow AHP leadership and ensure this workforce could meet the increasing demand for professionally diverse senior leadership akin to the professionally diverse teams required to meet the commitments outlined in the NHS Long Term Plan.

The first publication, *Leadership of allied health professionals in trusts in England: What exists and what matters?* (2018)[12], recommended that organisations appoint a senior AHP lead with a strategic focus – a chief AHP. With a direct commitment to support organisations, Directors of Nursing and the board, to act where current arrangements are insufficient, so that Trusts optimise their AHP workforce and the unique contribution they offer to quality, productivity and system sustainability.

The second publication, *Investing in chief allied health professionals: Insights from trust executives* (2019)[13], provides rich insight from Trust boards about what they expect their AHP leaders to contribute to the Trust: the knowledge, skills and experience, characteristics and behaviours they seek when appointing an AHP leader.

The third publication, *Developing allied health professional leaders: A guide for trust boards and clinicians* (2019)[14] combined executive insights with findings from conversations with Chief AHPs about their own career paths, and identified common elements that contribute to the key skills and attributes of effective AHP leaders. It also sets out AHP leadership career development opportunities and possibilities.

AHPs comprise the third largest clinical workforce in the NHS, offering a significant contribution to quality, productivity and health and care system sustainability and transformation. The breadth of AHPs' skills and reach across people's lives and organisations make them ideally placed to lead and support transformative change. Never before has there been such a need to harness AHPs' leadership potential for transforming healthcare. However, fragmented leadership and historical recruitment practice, based on profession rather than skills, often leads to missed opportunities for their collective potential to be realised. To achieve the sustained cultural shift identified and necessary to achieve multi-professional systems-based, cross-sector leadership in all elements of care delivery, in provider and commissioning organisations, social care, the voluntary and independent sectors, AHP leadership is a necessary and crucial part of health and wider care service delivery.

If you would like to know more about the work we are doing and the support offers available in the national AHP leadership team in England then please get in touch – jo.fillingham@nhs.net

I would like to acknowledge the work of Caroline Poole, Deputy Clinical Director and Head of Allied Health Professions (Improving Care) and Stuart Palma, Head of Allied Health Professions (Professional Leadership), NHS England and NHS Improvement, who have been instrumental in driving and leading the national AHP leadership work.

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Personalised Care – Rethinking Medicine for the 21st Century

The issues facing 21st century healthcare systems are very well documented; the rise of lifestyle related long-term conditions, ageing populations and the rising cost of health and social care, are between them increasing the strain on resources.

To date, the solution has been through methods of improving efficiency, cutting costs and where possible, increasing capacity to deal with the rise in the use of healthcare services.

However, these approaches have limitations and have a finite limit – there is a limit to how far costs can be cut or services made more efficient before it begins to have an impact on the workload and job satisfaction of doctors, on patient outcomes and safety.

In one report, it was estimated that 27% of general practitioner (GP) appointments could potentially be avoided if there was more coordinated working between GPs and hospitals, wider use of other primary care staff, better use of technology to streamline administrative burdens, and wider system changes[1].

As a determinant of health, medical care alone is insufficient for ensuring better health outcomes.

Medical care is estimated to account for only 10-20% of the modifiable contributors to healthy outcomes for a population[2]. The other 80 to 90% are sometimes broadly called the wider determinants of health, also known as social determinants, a diverse range of social, economic and environmental factors that have a significant impact on people's health. One study showed that loneliness was a key predictor of poor health and early morbidity, and a significant factor in early mortality[3].

In addition, a key factor of health outcomes is that the solutions are predominately non-medical. Issues such as stress, anxiety, smoking, alcohol, obesity, poor sleep, debt, loneliness, lack of exercise and low health literacy, all require a non-clinical approach but if not addressed have a significant impact on health and wellbeing.

The use and perception of healthcare services is further compounded by the public view of medicine; on average, people routinely overestimate the benefits of medication and underestimate the risks[4], this is true of healthcare professionals as well.

This leads to unwarranted use of a range of interventions with low efficacy; for example, long-term use of opioids for persistent pain, overuse of antibiotics in self-limiting conditions.

These issues require a significant rethinking of medicine and the skills and competencies needed to enable the healthcare workforce to respond to these issues.

The response to this has been a steady uptake in a range of interventions. These interventions have now been brought together into a single comprehensive model, The Universal Model of Personalised Care[5]. Personalised care brings together social care concepts of personalisation and choic, and healthcare concepts of person-centred care.

The six components of the model are:

1. Shared decision-making.
2. Personalised care and support planning.
3. Enabling choice, including legal rights to choice.
4. Social prescribing and community-based support.
5. Supported self-management.
6. Personal health budgets and integrated personal budgets.

On average, people routinely overestimate the benefits of medication and underestimate the risks.

Personalised Care Operating Model NHS

WHOLE POPULATION
when someone's health status changes

30% OF POPULATION
People with long term physical and mental health conditions

Cohorts proactively identified on basis of local priorities and needs

Shared Decision Making and Patient Choice

People are supported to a) understand the care, treatment and support options available and the risks, benefits and consequences of those options, and b) make a decision about a preferred course of action, based on their personal preferences and, where relevant, utilising legal rights to choice.

(All tiers.)

Personalised Care and Support Planning

People have proactive, personalised conversations which focus on what matters to them, delivered through a six-stage process and paying attention to their clinical needs as well as their wider health and wellbeing.

Review
A key aspect of the personalised care and support planning cycle. Check what is working and not working and adjust the plan (and budget where applicable).

Optimal Medical Pathway

Social Prescribing and Community-based Support

Enables all local agencies to refer people to a 'link worker' to connect them into community-based support, building on what matters to the Person, and making the most of community and informal support. (All tiers)

Supported Self Management

Support people to develop the knowledge, skills and confidence (patient activation) to manage their health and wellbeing through interventions such as health coaching, peer support and self-management education. (Targeted and Specialist)

Personal Health Budgets and Integrated Personal Budgets

An amount of money to support a person's identified health and wellbeing needs, planned and agreed between them and their local CCG. May lead to integrated personal budgets for those with both health and social care needs. (Initially Specialist)

LEADERSHIP, CO-PRODUCTION AND CHANGE ENABLER

WORKFORCE ENABLER

FINANCE ENABLER

COMMISSIONING AND PAYMENT ENABLER

These come together into a single operating model shown above[5]

Personalised care is a core part of the NHS Long Term Plan and The NHS Long Term Plan for Cancer[6] states that 'by 2021, where appropriate, every person diagnosed with cancer will have access to personalised care'.

Shared decision-making (SDM) ensures that people are supported to be as involved in the decision-making process as they would wish.

To enable this shift, it is important that the following actions take place:

- Upskill clinical teams in the use of health coaching and behavioural models and the role of patient activation in tailoring resources to those with low confidence, knowledge and skills.
- Routine use of shared decision-making in high impact situations so that people are supported to a) understand the care, treatment and support options available and the risks, benefits and consequences of those options, and b) make a decision about a preferred course of action, based on their personal preferences.
- For people with more complex care needs use personalised care and support planning so that people have a proactive, personalised conversation which focuses on what matters to them which includes both a clinical care plan and wider social and self-management support needs. Personalised Care and support planning (based on holistic needs assessments) ensures people's physical, practical, emotional and social needs are identified and addressed at the earliest opportunity.
- Support self-management so that people develop the confidence, knowledge and skills to manage their health and wellbeing through interventions such as health coaching, peer support and self-management education.
- Have effective ways to link people to community-based support (social prescribing) such as support groups, lunch clubs, walking and exercise groups using dedicated roles in primary care.

This shift from 'what's the matter with you?' to 'what matters to you' is the key element of personalised care and is encapsulated in the shared decision-making (SDM) and care and support planning process.

We know from the national GP survey[7] that people want to be more involved in decisions about their health and care. Analysis of the 2019 survey found that:

- 40% of people weren't as involved as they wanted to be in decisions.
- 59% felt they didn't have enough support to manage their condition.
- 60% felt that they didn't adequately discuss what was important to them to manage their condition.
- 40% didn't feel they had a fully agreed plan to manage their condition.

SDM ensures that people are supported to be as involved in the decision-making process as they would wish. SDM means people are supported to understand the care, treatment and support options available and the risks, benefits and consequences of those options.

They are supported to make a decision about a preferred course of action, based on evidence-based, good quality information and their personal preferences. It is, therefore, a process in which clinicians and individuals work together to select tests, treatments, management or support packages, based on evidence and the individual's informed preferences. SDM is relevant in any non-life-threatening situation when a health or care decision needs to be made and a range of options (including doing nothing) is available. SDM ensures that individuals are supported to make decisions based on their personal preferences and are, therefore, more likely to adhere to evidence-based treatment regimes, more likely to have improved outcomes and less likely to regret the decisions that are made. By paying attention to individuals' informed preferences we can support people to achieve outcomes that matter to them.

These shared decisions and individual preferences help to develop a comprehensive and personalised care and support plan.

This personalised care and support plan becomes key in ensuring support, and treatment is tailored to the individual, and fully takes into account the person's wider psychological, social and emotional support issues. For example, for some people remaining in work may be a key priority in helping the person maintain a sense of meaning in their lives.

As discussed earlier, these issues have a significant impact on treatment outcomes and an individual's ability to tolerate treatment. If not addressed, these issues will increase people's perception of symptom burden and will significantly exacerbate pain thresholds and fatigue, both during treatment and remission.

Personalised care and support ensure that all of those involved in a person's care are aware of these different issues.

If all of those involved in a person's care have training in personalised care and an understanding of personalised care, they are more likely to be able to identify the wider social issues that have an impact on care.

One of the main barriers to clinicians and technical staff not wanting to enquire into wider issues, is the concern that they do not have the skills or resources to address what may arise.

New roles in primary care networks such as social prescribing link workers provide an easy single point of access to refer people to. Link workers can spend time with people to explore different support options. These may range from support groups through to gardening clubs or exercise classes specifically tailored to people with a long-term health condition.

By implementing personalised care, we have an opportunity to improve health outcomes and people's quality of life. In addition, taking this approach has helped to reduce clinical workloads and improve job satisfaction. Regardless of the level of patient contact we might have, we can all participate in the shift of moving from purely focusing on what is the matter with people to what really matters to them.

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