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multiprofessional capabilities: Experiences of the first
radiography applicants**

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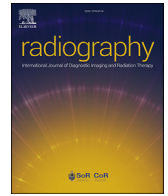
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Recognition of advanced level practice against multiprofessional capabilities: Experiences of the first radiography applicants

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ABSTRACT

Introduction: Advanced practice is well established in the health professions with multiprofessional capabilities in place in England. To recognise achievement of these capabilities an ePortfolio (supported route) was initiated in 2022. This study aimed to review the demographics and experiences of radiographers applying for recognition in the first year of operation.

Methods: The multi method evaluation consisted of quantitative data analysis of information regarding the first three cohorts of radiographers ($n = 40$) participating in the NHS England (NHSE) scheme. Interviews with 12 participants was undertaken with thematic analysis of the transcripts.

Results: Self-rated scores of expertise were significantly higher by therapeutic radiographers ($n = 8$) compared to their 32 diagnostic colleagues ($t = 5.556$; $p < 0.01$). Radiographers saw the ePortfolio as an opportunity to validate their experience and to evidence parity with other professions. Participants felt the process also enabled critical reflection and gave unseen insight into themselves and their roles. The support of experienced educational supervisors was felt to be vital in this process and for successful completion of portfolio.

Conclusions: Several radiographers have now achieved the necessary standards to achieve NHSE recognition. The evaluation exposed that most radiographers did not have the relevant evidence to hand and the ongoing collection of evidence around capabilities and impact is critical to evidencing advanced practice capabilities.

Implications for practice: Radiographers are able to achieve the capabilities expected for multiprofessional practice. Cultural change is required to normalise recording of evidence within practice including case-based discussions, clinical supervision and feedback from colleagues and patients. The support of an experienced educational supervisor aided the critical reflection on practice level.

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Introduction

Advanced practice

Advanced practice is well established across many health care professions and involves the development of higher-level skills and

subject specific competencies rather than the delegation of tasks from medical practitioners. With a long history in radiography, there have been questions^{1–3} as to whether many are working at the level initially envisaged within the 2002 education strategy, published by the College of Radiographers (CoR).⁴ This document described the advanced radiographer practitioner as a professional engaging in activities across the four pillars, or domains, of practice. Importantly their involvement in patient management was expected to be underpinned by postgraduate study “up to and including masters [degree]”.^{4(p4)} It further went on to state that ...

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“They will be reflective, fully accountable practitioners with developed judgement and decision-making skills in their chosen field. They may contribute to research and will evidence its utilisation in practice. Advanced practitioners will give professional leadership in teamwork and be engaged in practice development, quality improvement and the support, teaching, and supervision of colleagues. They will contribute significantly to the clinical management of individual patient’s care.”^{4(p6)}

However, the confusion may have been exacerbated by the subsequent *Education and Professional Development: Moving Ahead* document published in 2003 where advanced practice was now described as an expert clinical role with the other pillars labelled as (optional) supporting functions.^{5,6} Despite the updated guidance in 2010⁷ the requirement to work across the 4-pillars was still implicit rather than explicit. With the expansion of advanced practice roles national guidance was introduced across the four home countries.^{8–11} In England, the *Multiprofessional Framework for Advanced Clinical Practice (MPF)*⁹ defined 38 capabilities across the 4-pillars. These capabilities are an expectation of any non-medical clinician working at an advanced level, regardless of role, speciality, geographical location, or regulatory professional background.

By 2019, according to NHS electronic staff record (ESR) data, 190 diagnostic and 16 therapeutic radiographers in England held the title ‘advanced practitioner’,¹² although many more were likely to be practicing at this level. In more recent years the value of advancing practice roles has been recognised in supporting services to manage the growing cancer and diagnostic workloads, but also provide substantial career development. With the publication of the 2022 updated radiography Education and Career Framework (ECF)¹³ and the 2023 NHS Long Term Workforce Plan¹⁴ there is further emphasis on the expectations of advanced level practice.

Accreditation

It was the 2010 professional body guidance⁷ that introduced the concept of accreditation to the UK radiography profession. The scheme enabled radiographers working at advanced and consultant level to be recognised through collation of evidence in an electronic portfolio (ePortfolio). Guidance on accreditation stated more explicitly that those who applied required evidence across all four pillars, although the scheme is currently paused uptake has been limited.¹⁵ The opening of the Health Education England (now part of NHS England (NHSE)) Centre for Advancing Practice (CfAP) in 2021 provided a multiprofessional perspective and aimed to support parity and consistency due to a varying misuse of the title ‘advanced practitioner’. It also has sought to increase understanding of the practice level and standardise education and training to ensure patient and practitioner safety. Individuals can now be recognised as an advanced practitioner in England through completion of a full master’s programme accredited by the CfAP or through the ePortfolio (supported) route. Both routes award a digital badge as evidence of their achievement of the required standard.

The ePortfolio (supported) route is designed for experienced individuals with non-accredited masters level study or whose education has been partly, or in rare cases wholly, underpinned by experiential learning. This route is therefore only available to those already working at, or beyond, the advanced practice level. Following an expression of interest and the confirmed support of their employer, if accepted, the individual is allocated an educational supervisor from a Higher Education Institute (HEI) commissioned by NHSE with expertise in advanced practice. A learning needs analysis (LNA) stage is designed to consider the level and range of evidence required (Box 1). Any identified gaps in

Box 1

The essential evidence required within the CfAP ePortfolio¹⁶

Essential evidence

- Completed LNA form.
- Critical narrative* of a minimum 3500 words up to a maximum of 5000 words.
- At least two critical reflective *case studies** related to the clinical practice pillar (minimum 800 words each).
- At least two critical *reflective accounts** related to the other pillars (minimum of 800 words each).
- A confirmed record of subject specific competency and capability Current job description (on headed paper).
- Current curriculum vitae.
- At least two pieces of feedback from a colleague.
- At least two pieces of feedback from a patient, service user or carer.
- Range of evidence demonstrating all 38 capabilities across the four pillars (peer reviewed if required)

Note: * written at UK Further and Higher Education Qualification (FHEQ) level 7 – postgraduate.

learning must be able to be completed within the 12-month time frame for the portfolio otherwise the individual is excluded at this stage with a personal development plan.

This evaluation aimed to understand the motivations for radiographers seeking recognition through the CfAP, identify the support needed at the different stages and establish any associated challenges and enablers to completion of the portfolio.

Methods

This was a mixed method study comprising document analysis and semi-structured interviews related to radiography applicants to the NHSE CfAP ePortfolio scheme. In the first year 40 radiographers, across three cohorts, had been accepted through the LNA review process and onto the scheme. Institutional ethical approval was gained prior to the study commencing (E1096). Data was collected and stored in line with national data protection requirements on a secure platform only accessible to the research team.

The document analysis comprised information extracted from the LNA forms in relation to post-registration experience and qualifications, speciality, and role title. The LNA also required individuals to self-rate their level of expected evidence (0 – little or no knowledge or skill to 4– considerable knowledge, skill, and experience ... and would feel confident in teaching and supervising others in relation to this area of practice) across number of outcomes across the 4-pillars against statements based on the MPF capabilities. These self-ratings were collated in Microsoft Excel for review together with any identified additional learning needs. Statistical comparisons between diagnostic and therapeutic discipline self-ratings overall and by pillar were undertaken in SPSS (v27.0) using independent T-tests.

Semi-structured interviews exploring prior accreditation at the advanced practice level (if any), drivers for applying, experience of the LNA process and the ePortfolio so far was undertaken. The initial approach regarding the interview phase was made on email by the relevant educational supervisor with an attached participant information scheme. The contact details of those who expressed an interest in participating were then shared with the members of the research team who would undertake the interview. This was to ensure bias was minimised as the interviewers were not known to the participants. Written consent obtained prior to interview,

which was conducted by 2 experienced radiographers, one of whom was from their discipline and undertook the questioning and the other acting as a scribe. A topic guide, developed based on researcher experience and a broad review of the literature, was used to give the interviews a consistent structure with ad-hoc probing questions used when needed. All interviews were conducted on Microsoft Teams and, with the participant permission, recorded and transcribed. The transcripts were sent to participants to check for accuracy and downloaded to a secure NHS platform only accessible to the researchers. The transcriptions were checked for accuracy of transcription with any grammatical or typographical errors confirmed against the recording. The thematic analysis was undertaken by a single researcher with code checking within the research team. Key themes were derived from the coding and representative quotes extracted for illustration and these are reported using a participant number (P) to ensure anonymity.

Results

The majority of applicants engaged in the NHSE ePortfolio (supported) route were diagnostic radiographers (n = 32) working across a range of different specialities within an imaging context (Table 1). The therapeutic radiographers (n = 8) were all working in different oncology settings (Table 1). There was representation from all of the English NHS regions with the largest numbers from the East of England (n = 7) and North East Yorkshire (n = 6).

Individuals were working in advanced (n = 34), trainee consultant (n = 1) or consultant practitioner (n = 5) roles, although role titles varied and included Reporting Radiographer, Advanced Practitioner, Lead superintendent, Sonographer, Principal Radiographer, and Service Manager. Half of applicants held a master's degree at the time of the LNA review and one had completed a doctorate. Thirteen had completed some postgraduate qualifications, although six held no post-registration award, all from the diagnostic discipline. Although most of the evidence for the portfolio was based on either previous academic study or experiential learning a small number of gaps were noted, particularly around formalising learning in leadership or patient education. The LNA self-assessment scores were overall relatively high, although confidence was lowest in the education and research pillars (Table 2). Therapeutic radiographers self-rated scores were significantly higher than their diagnostic radiographer counterparts overall (t = 5.556; p < 0.01) and in relation to each of the pillars (Table 2).

Table 1
Discipline and speciality of the ePortfolio applicants.

Discipline	Speciality	Cohort			Total
		1	2	3	
Diagnostic Radiography	Breast	–	2	–	2
	Fluoroscopy/Urology	–	1	–	1
	Gastro-intestinal	2	1	–	3
	Interventional	3	–	–	3
	Nuclear Medicine	2	1	–	2
	Ultrasound	7	2	1	9
	X-ray	6	–	2	10
	X-ray/Bone densitometry	–	–	1	1
	X-ray/Interventional	1	–	–	1
Therapeutic Radiography	Brachytherapy	1	–	–	1
	Breast	–	1	–	1
	Head & Neck	1	–	–	1
	Lung	1	–	–	1
	IGRT	1	–	–	1
	Palliative	1	1	–	2
	Urology	1	–	–	1
Total		27	8	4	40

Table 2
Self-rating across the defined outcomes based on the Multiprofessional framework capabilities.⁹

Pillar	Discipline				Overall score		Comparison
	Diagnostic		Therapeutic		Mean	Range	T-test (p)
	Mean	Range	Mean	Range			
Clinical	3.5	1–4	3.9	3–4	3.6	1–4	3.755 (<0.01)
Leadership	3.1	0–4	3.6	2–4	3.2	0–4	3.129 (<0.01)
Education	3.0	1–4	3.4	2–4	3.1	1–4	2.466 (<0.05)
Research	3.0	1–4	3.3	2–4	3.1	1–4	2.135 (<0.05)

A total of 12 interviews were conducted (diagnostic n = 8; therapeutic n = 4). Most had already submitted their portfolio for review (n = 9). The remainder were in the process of collecting their evidence and building their supporting narrative.

Although a small number of applicants had been informed about the scheme through the advanced practice lead within their organisation, most information had come from social media, colleagues, or special interest groups. Many had applied to gain recognition for their level of practice.

“I’ve called myself an advanced practitioner for several years. I wanted to ensure that I maintained the highest standards and could evidence that.” P7

“I’ve been classed like many other radiographers as an advanced practitioner with a historic job plan and job description. I really want this to validate my position so that I could be formally classed as an advanced practitioner” P14

This was considered particularly important where the clinical role was not underpinned by academic qualifications, for example in the field of interventional procedures where historically there has been limited postgraduate education provision.

“Everything that I have been taught has been in-house. I do an awful lot ... but there’s nothing behind me to recognise that if I moved elsewhere.” P2

With the emerging levels of practice some acknowledged the need to evidence their level within the profession.

“it’s about differentiating between enhanced and advanced level practice. To get the recognition for those who are consistently and competently working across the four pillars of advanced practice, and that this is important for the service that we provide.” P7

Whereas for some it was also about comparison with other professions.

“I needed to make sure that my qualifications were recognised on par with theirs [other ACPs]” P23

“Especially being a radiographer ... it’s a bit more clear of your training and your route ...

With the HEE [CfAP scheme] covering all kinds of specialities, nurses, AHP staff, I felt more comfortable with that.” P37.

The potential for future regulation of advanced practice was also acknowledged.

“[I] suspect at some point in the near future, the title of advanced clinical practitioner is going to become protected and therefore [I am] going to need either the professional

qualification or the e-Portfolio route to support that, so I wanted to protect myself” P23

A small number of radiographers had previously been accredited by the professional body but considered the current route to be more challenging.

“the HEE [now NHSE] one has more resources. It is more formal and there is the backing of an academic person.” P24

“It [CoR scheme] didn't seem as structured and didn't have any assistance.” P14

The LNA process was felt to be “rigorous”, but some found it “a little bit difficult and confusing” and “initially ... didn't know what it was asking for”. The supervisor was able to guide the LNA, particularly in recognising the “radiography aspect of [the] role” as the exemplar templates were felt not to be wholly applicable to the radiography applicants.

“She [educational supervisor] helped me understand better how different parts of my role fitted into different answers better than I would have done on my own.” P11

“The learning needs analysis was a good process to get to understand the level of detail that you're going to need and the evidence required” P7

Several themes were identified which conveyed the challenges encountered to date and the support offered within this accreditation route.

For many there was no protected time within the workplace to with many having to collate the large volume of evidence from scratch.

“I guess time was the biggest challenge.” P7

“incredibly daunting and ... a huge, huge piece of work.” P34

For some the translation of the MPF capabilities and expectations was the greatest challenge

“it was more wording than anything” P32

“Oftentimes I'd read a capability on one day and I thought it meant one thing, and then on another day I read the same capability and I'd take something else from it. So I guess just understanding what the capabilities are actually referring to was a challenge.” P7

“[I had] to think laterally how what I've done maps against those capabilities. P18

Whilst there was acknowledgement that “the capabilities have to be broad because they're relevant across multiple professions”, there was often issues in understanding the relevance to radiographic roles.

“I was too niche rather than thinking more of a radiographic background.” P2

But there was agreement that the LNA review and collating the evidence had enabled some to reflect that their development in some areas had been solely experiential.

“I hadn't actually undertaken any formal leadership training at that point. So that was something I was able to address through the process.” P7

The structures around the ePortfolio (supported) route were found to be particularly helpful with many acknowledging the guidance provided by the CfAP.

“There's some really useful lectures and webinars about how to use the portfolio; the guidance webinars are really useful.” P7

“a lot more sort of external support available, not only through your supervisor but through the AP notice board, which had a lot of information and was very useful.” P14

Importantly, the support of the educational supervisor was felt to be critical in the process.

“[The supervisor] helped to evaluate the large amount of evidence I had and whittle it down to the ones that were most relevant. They helped me to think laterally how what I've done maps against those capabilities.” P18

For the small number who had at the time of interview had completed the portfolio felt it enabled them to consider their future career direction, whether to explore potential consultant practice or additional external opportunities.

“... now can see there's so many more avenues for me to explore after this.” P32

At the time of manuscript submission seventeen radiographers have received their digital badge through the NHSE ePortfolio (supported) route.

Discussion

At a national and organisational level there is increased interest in advancing practice, both as a solution to capacity and workforce challenges and to aid staff retention.^{14,17–19} But along with this, is a focus on governance of such practice and the need for assurance of the capabilities of individuals, both within and across professions.²⁰ Although regulation of advanced practice remains a future potential, in the meantime reinforcement of a national standard and accreditation schemes provides transferable recognition of the abilities of an individual but also, for radiographers in particular, validation that they are capable of operating at the same level as other professions. Importantly, this recognition demonstrates the requirements across the 4-pillars and the 38 capabilities outlined in the 2017 MPF,⁹ but also echoes the expectations of the profession specific career framework.²¹

Within this study accreditation was viewed by the participants to be a voluntary exercise, initiated by the individual, rather than the expectation of an employer, but this may change over time with increased scrutiny and demand for parity. Employers, regulators, and key government agencies such as the Care Quality Commission (CQC) are focused on patient safety,^{22–25} and programme accreditation and individual recognition through a robust mechanism supports this in practice. The personal drive evidenced within this study was linked with limited protected time in the workplace to collate the evidence, despite having overt employer support including confirmation that they were working in an advanced

practice role. This perhaps indicates the limited understanding of the scheme, but also highlights that most radiographers did not have evidence of their capabilities to hand and had to develop the portfolio content and the narrative during the registered period. This may reflect the lack of a reflective culture within the profession whereas continuing professional development (CPD), clinical supervision and feedback process are perhaps more normalised in the nursing and therapies professions.^{26–29}

It is maybe unsurprising that many of the applicants to the first three cohorts of the CfAP recognition scheme sought validation of their skills, with the range of postgraduate qualifications being broad. Importantly, almost half of individuals did not hold a master's degree, the expectation for practice at this level, and therefore evidencing their experiential learning was felt to be crucial. This finding is consistent with previous research, although it is acknowledged that earlier studies have questioned whether all individuals with the 'advanced' title are operating at this level.^{1–3,30} With the formalisation of the enhanced level within the career structure²¹ it is important to note that many saw completion of the ePortfolio as a way of ensuring their advanced status was maintained and/or recognised, and this is likely to be more important in the future.

A key difference to the previous radiography specific scheme, which was paused in 2021, is that this CfAP route includes the allocation of an educational supervisor, usually an experienced academic with a background in advancing practice and master's level education delivery and scrutiny. It is this support which appears to have enabled many of the radiographers to recognise their breadth of skills. The perceived challenge of the multiprofessional language for the capability statements saw radiographers unable to identify such skills as relevant to their role without guidance. These findings replicate the work of Strudwick who acknowledges the difference in approach across health professions with diagnostic radiographers being task focussed (competency), rather than a more holistic perspective using a range of skills (capability).²⁷

Although the overall confidence in their self-perceived knowledge and skills was relatively high it was lowest in the education and research areas. The lower confidence in research is perhaps not unexpected, particularly given the accepted poor research culture within the radiography profession, with limited collaboration, and evidence base.^{31–34} However the lower confidence in the delivery of education was perhaps unexpected. It should be recognised that education provision in the context of advanced practice is not just of peers and other staff, but also includes patient focussed interventions. Perhaps for the diagnostic discipline the brief interactions were perceived to limit the opportunity in practice, and this is a critical finding which is important in the development of the workforce at this level.

The ePortfolio route is due to close in 2027¹ as academic programmes are expected to gain accreditation, thereby providing a single route to achievement of the digital badge. This provides a time limited window for employers and individuals to seek confirmation of the experiential skills and knowledge against the national framework. Importantly it also provides a challenge to postgraduate programmes which support development in the radiography role as they will be required to evidence the provision of education and assessment of skills across the breadth of the capabilities within the MPF.

Several limitations must be acknowledged. The study only examined individuals who had been accepted onto the ePortfolio (supported) route following the LNA, therefore the data does not

include information on the number and scope of radiographers who had been rejected at the initial scrutiny stage. In addition, it is acknowledged that a small number of applicants had withdrawn from the scheme but none of these consented to the interview phase and therefore no indication of the reasons for non-completion are available. The timing of the interviews meant that some applicants had only recently begun developing their portfolio whereas others had been engaged in the programme for almost one year.

Conclusion

The NHSE ePortfolio (supported) route is valued highly by practitioners who have been involved in the process, however this appears not to be replicated at the service manager level, perhaps related to a lack of awareness. For many radiographers the opportunity to validate their knowledge and experience to evidence parity with other professions was a key factor in applying for recognition via this route. Despite their initial reticence around the terminology several radiographers have now achieved the necessary standards.

Participants felt the process enabled critical reflection, adding value, and giving unseen insight into themselves/their roles. The support of experienced educational supervisors was felt to be vital in this process and for successful completion of portfolio. This does however require a cadre of individuals with the necessary experience and knowledge to act as supervisors, an additional challenge within the profession.

For the radiography profession a cultural change is required to normalise the ongoing collection of evidence around capabilities and impact, particularly in the diagnostic discipline. CPD is more than the attendance at study days and conferences and requires the reflection on learning and application to practice. Clinical supervision and feedback from peers and patients is critical to evidence the capabilities necessary for advanced level practice and this presents both a challenge and opportunity for the future.

Conflict of interest statement

BS and MC are both educational supervisors for the ePortfolio (supported) route. The interviews were conducted by KW, RC and EC to ensure the independence of data collection and the study.

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¹ NHSE will continue to review the demand and the wider advancing practice agenda prior to any confirmed closing dates

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