



Preceptorship and Capability Development Framework for Sonographers

Produced by the British Medical Ultrasound Society

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Contents

List of tables.....	2
List of figures	3
Foreword	4
1. Preceptorship	10
1.1 Introduction.....	10
1.2 Definition of preceptorship	11
1.3 Sonography and preceptorship	14
1.4 Benefits of a formal preceptorship programme for sonographers.....	15
1.5 Components of a preceptorship programme for newly qualified sonographers	17
1.6 The role of the preceptor	19
1.7 Mechanism for preceptorship.....	20
1.8 Length of preceptorship period.....	20
1.9 Employer responsibilities	21
1.10 Support for individuals moving into higher levels of practice.....	21
1.11 Capability development at the end of preceptorship	21
2. Capability development for established sonographers.....	22
2.1 Introduction.....	22
2.2 Advancing clinical practice and skills development	22
2.3 Responsibilities for capability development and progression	23
2.4 Capability and career progression.....	25
2.5 Career progression	34
3. Conclusion	36
References.....	37
Explanatory notes to the revised Career and Progression Framework for Sonographers	39
Appendix A Career and Progression Framework for Sonographers	41
Appendix B.....	42
Appendix C.....	43
List of contributors and acknowledgements.....	44

List of tables

Table 1: Glossary of terms	6
Table 2: Differences between preceptorship, mentorship and line management	13
Table 3: Benefits of a preceptorship programme	16
Table 4: Suggested actions for each component of a preceptorship programme for newly qualified sonographers	18
Table 5: Responsibilities of stakeholders	24
Table 6: Suggested actions and behaviours aligned to the nine capabilities	27
Table 7: Four pillar activities and practice	35

List of figures

Figure 1: Components of a preceptorship programme..... 17

Figure 2: Stakeholders in capability development 23

Figure 3: Main capability descriptors 26

Foreword

The role of the sonographer has been in existence since the early days of ultrasound technology being used in clinical practice. Those early diagnostic ultrasound pioneers worked in collaboration with physicists and clinicians to harness the diagnostic power of ultrasound. Medical ultrasound examinations are now the second most common imaging test performed in the UK. Management of pregnant individuals is now heavily reliant on findings of ultrasound examinations; few patients with gynaecological symptoms will be managed without ultrasound imaging and scrotal ultrasound imaging will provide reassurance for the majority of men whilst being the first line imaging of choice for testicular tumours.

The range and complexity of ultrasound imaging has significantly changed over the last 25 years as well as the way that these services are delivered. Changes in working patterns, new imaging modalities and interventional procedures in radiology have resulted in increasing use of skills-mix in most ultrasound departments. Indeed this, coupled with workforce shortages of radiologists, has driven the increasing requirement for sonographer role development. The role of the sonographer continues to evolve with many sonographers now undertaking increasingly complex and/or interventional procedures as part of their everyday practice.

The role of the sonographer is changing. There is an ever-increasing demand for ultrasound imaging and a long-recognised shortfall between vacancies and numbers of sonographers available to fill them. Sonographers in the early days of ultrasound imaging fought hard to acquire the skills and provide the evidence that their technical and interpretation skills were equivalent to their medical colleagues. In current practice, independent reporting of ultrasound imaging by sonographers cannot be separated from the technical expertise required to acquire the images. This does not diminish the responsibility that providing a diagnostic report implies but it does highlight that those tasks that were once ground-breaking and avant-garde are now considered to be a core skill and integrated into the training and development of first-post sonographers.

However, if reporting is now an essential skill, what constitutes advanced or consultant practice within the sonography profession? What does the role of a sonographer now look like and how can the profession meet the challenges of increasing demand, changing complexity and supporting lifelong professional development? The British Medical Ultrasound Society was commissioned by Health Education England to provide guidance on how these challenges can be met. HEE in 2019 published the Career and Progression Framework for sonographers. The framework sets out the aspirant profession of sonography from trainee, to first post sonographer through to advanced and consultant levels of practice. This collaborative document was aligned to the visionary “The Future for NHS Ultrasound Service Provision” document also published by HEE the same year. Both publications provide the outline

for the emerging career structure but more detail is required to support individuals and employers to fulfil their own, and their teams' potential. The document published here provides guidance on what can, and should be expected of a sonographer as they develop throughout their career. It identifies that there is scope for advanced and consultant practice for sonographers and how all four pillars can be achieved with the overall aim of improving and enhancing patient care. This document also provides guidance on preceptorship of sonographers, the need for which has not always been well recognised. As the role and responsibilities of the sonographer have changed, it is recognised that a supported transition from trainee to sonographer is essential if we are to build a sustainable, identifiable and professional ultrasound workforce of the future.

The authors and contributors to this framework have worked tirelessly to support the vision of the sonography Career and Progression Framework. Their perception, wisdom, expertise and resolve has been invaluable in producing this document and have ensured that a common understanding of the role of a career sonographer has been defined.

I would like to take this opportunity to thank Dr Peter Cantin who led the development of this publication and all members of the working party; Ms Hazel Edwards, Ms Gill Harrison, Ms Suzanne Beattie Jones, Ms Nicola Davidson, Dr Trish Chudleigh and Dr Rita Phillips. Special thanks to Dr Rita Phillips from the University of the West of England for granting use of her doctoral research findings in preceptorship to inform this document.

Pamela Parker

President
British Medical Ultrasound Society

Table 1: Glossary of terms

Academic level 5	Undergraduate education.
Academic level 6	Education at Bachelor's level.
Academic level 7	Education at Master's level.
Academic level 8	Education at Doctorate level.
Advanced practice sonographer	An experienced sonographer with, or working towards, a Master's degree (and registered with a regulatory council if practising in England). They have a high degree of autonomy and their clinical role encompasses activities associated with all four domains of advanced practice namely; clinical practice, leadership and management, education and research.
Autonomous practice	Independent clinical practice within a defined scope, for which the individual is responsible and does not require supervision.
BMUS	British Medical Ultrasound Society
Capabilities	Extent to which individuals can adapt to change, generate new knowledge and continue to improve their performance.
Career level 5	The career level associated with a newly qualified graduate sonographer undergoing a pre-agreed preceptorship period (equivalent academic level: 6).
Career level 6	The career level associated with a newly qualified postgraduate sonographer or a graduate sonographer who has successfully completed a period of preceptorship and gained a postgraduate qualification thereby becoming an enhanced practice sonographer (equivalent academic level: 7).
Career level 7	The career level associated with an advanced practice sonographer (equivalent academic level: 7).
Career level 8	The career level associated with a consultant sonographer (equivalent academic level: 8).

CASE	Consortium for the Accreditation of Sonographic Education
Competencies	What individuals know or are able to do in terms of knowledge, skills and behaviour.
Competent	Having the necessary ability, knowledge, or skill to do something successfully.
Consultant sonographer	An expert sonographer with, or working towards, a Doctorate. They are leaders in their field and their clinical role encompasses all four domains of advanced practice; clinical practice, leadership and management, education and research at the highest level.
Continuing professional development	The method through which sonographers continue to learn and develop throughout their careers to maintain and improve skills and knowledge in order to practise safely and effectively. Also known as 'lifelong learning'.
CPF	Career and Progression Framework
DoH	Department of Health
DQASS	Down's syndrome screening Quality Assurance Support Service
Enhanced practice sonographer	A qualified sonographer who has successfully completed a period of preceptorship and has usually gained a postgraduate qualification. (Formerly known by the title 'senior sonographer')
FASP	Fetal Anomaly Screening Programme
HCPC	Health and Care Professions Council
HEE	Health Education England
Mandatory training	Compulsory learning, often annual, requiring the healthcare professional to undergo training in areas including basic life support, manual handling and information governance.
NHS	National Health Service

Preceptee	Qualified sonographer in their first post, responsible for their actions but undergoing a pre-agreed period of preceptorship, usually involving postgraduate study.
Preceptor	Named qualified individual who supports, mentors and coaches the preceptee during a pre-agreed period of preceptorship.
Preceptorship	A period of structured transition for the newly qualified 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 life-long learning.
Reflective practice	The ability to reflect on one's actions and/or an event, analyse it and, as a consequence, make adjustments to future actions or behaviours, in a process of continuous adaptation and improvement.
Register of Clinical Technologists	A voluntary register formed in 2000 with the aim to protect the public. It is accredited by the Professional Standards Authority and provides an opportunity for sonographers to voluntarily register if they are ineligible for statutory regulation (See <i>Regulatory Council</i>).
Regulatory council	Council that provides statutory regulation for professionals from specific healthcare backgrounds using protected titles. The Council's primary role is to protect the public. It may remove an individual if found unfit to practise. The three largest UK councils are; the General Medical Council, the Nursing and Midwifery Council and the Health and Care Professions Council. Currently, there is no regulation of, or protected status for, the title 'sonographer' and therefore sonographers remain unregulated.
SCoR	Society and College of Radiographers
*Senior sonographer	*This job title has been superseded. (See <i>Enhanced practice sonographer</i>).

Sonographer (Generic)	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.
Sonographer (as defined in the CPF)	Qualified sonographer in their first post, responsible for their actions but undergoing a pre-agreed period of preceptorship usually involving postgraduate study (See <i>Preceptee</i>).
Standards of proficiency	Threshold standards necessary to protect the public, which represent the knowledge, skills and abilities a sonographer is expected to have when they start practising.
Transition	The process of an individual moving from one career level of practice to the next.

1. Preceptorship

1.1 Introduction

Diagnostic ultrasound has traditionally been performed through imaging departments by radiologists and radiographers specially trained in the use of diagnostic ultrasound (sonographers). However, sonography as a profession in its own right is evolving rapidly. The use of ultrasound as a diagnostic tool has greatly increased in recent years. It is the second most commonly performed imaging investigation with a 24% increase in the number of (non-obstetric) diagnostic ultrasound examinations performed between 2012 and 2020.¹

Diagnostic ultrasound is now performed by a wide range of healthcare professionals. The non-medical ultrasound workforce can be divided into those whose primary healthcare role is using ultrasound (sonographers) and those who use ultrasound as a tool to assist in their primary healthcare role, for example physiotherapists.^{2,3}

Routes into diagnostic ultrasound training have traditionally been via the postgraduate pathway but there is increasing interest in undergraduate training for sonographers.^{4,5,6,7} In 2018, the Consortium for the Accreditation of Sonographic Education (CASE) published Standards for Sonographic Education.⁸ This was to assist educators and ultrasound programme teams in developing ultrasound education at academic level 6 (BSc) in order to meet the agenda set by Health Education England to widen entry into sonography. The standards also provide educational learning outcomes at academic level 7 (Masters) and level 8 (Doctorate).⁹

Formal preceptorship programmes in diagnostic ultrasound are not yet well embedded within the ultrasound workforce, despite this being a recommendation by the Royal College of Radiologists and Society and College of Radiographers.¹⁰ While formal preceptorship applies to the newly qualified sonographer, it is acknowledged that there is also a requirement for support for sonographers who are new in post or developing into new roles.¹¹ While there are pockets of good practice, there is currently little standardisation or framework to guide the sonography workforce.

It is anticipated that this document will be used to embed newly qualified sonographers more easily into their clinical teams, but also to provide a guide to more established sonographers about how they might progress through the career structure.

This document attempts to draw the distinction between simple task-based competencies, through a deeper view of overall competence to a description of capability. While these terms are closely related, they are not always easy to differentiate from one another. They relate to moving from a predominantly task-based provision of a service (as may be expected from a newly qualified sonographer) to an increasingly holistic view of service provision. The experienced sonographer has greater ability to adapt to changing demands, prioritise effectively and use existing knowledge to manage in unfamiliar situations than their newly qualified colleague. The consultant sonographer usually has a very good idea of how their service is likely to need to evolve in the future and seeks to position it to ensure that it is ready for future demands which may be placed upon it. Task based competencies, wider competency and capability are all necessary within a well-functioning ultrasound unit but all require differing sets of knowledge, skills and experience.

For clarity, the guidance has been set out in two parts. The first part sets out the requirements of preceptorship for the newly qualified sonographer. The second part offers guidance for those looking to transition to higher levels of practice.

The requirement for a high-quality preceptorship period for newly-qualified healthcare professionals is well documented.^{12,13,14} There is also tacit acknowledgement among the sonographic workforce that better support for newly-qualified sonographers is required.¹⁵ However, sonography lags behind other professions in terms of development and implementation of such programmes. This document serves to guide the development of preceptorship programmes for newly qualified sonographers as well as a capability framework to guide more experienced staff in progressing their careers. In recognition of the current dynamic landscape regarding education and regulation for UK sonographers, this document is live and will be updated in response to any national guidance that affects career progression.

1.2 Definition of preceptorship

There are many definitions of preceptorship, but for the purposes of this document, the following (modified) definition from the Department of Health¹² has been used:

'A period of structured transition for the newly qualified 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 life-long learning.'

1.2.1 Preceptorship, coaching and line management

There is inevitably some overlap between the functions of preceptorship, mentorship, coaching and line management. However, it must be stressed that the role of the preceptor is separate and distinct from these other roles. These differences are given in table 2.^{12,16,17} Thus, the preceptorship process must not be used as a substitute for the following processes;¹²

- Mandatory training including induction
- Performance management
- Regulatory body processes to deal with performance issues
- Coaching and mentorship (although these processes may be used to facilitate learning)
- To delay the preceptee accepting professional, ethical and legal accountability for their professional actions

Table 2: Differences between preceptorship, mentorship and line management

	Preceptorship	Mentorship/Coaching	Line Management
Purpose	A structured period to develop confidence as an autonomous professional and to refine skills, values and behaviours ¹⁴	To provide guidance and assist in the development of professional skills	Overall responsibility for staff and departmental performance
Time	Time limited. Generally short lived (usually a period of months)	Frequently not defined but typically long-term relationship (can be for a defined period or continue over a period of years)	Ongoing throughout the individual's employment
Structure	Very clearly structured programme with clear objectives and outcomes (set in advance)	Less structured with objectives set by negotiation between mentor and mentee	Very clearly defined relationship ensuring that organisational standards and objectives are met
Hierarchy and Power	Reasonably well-defined hierarchy. Preceptor acts as a 'critical friend' to enable the preceptee to meet required specific objectives	Less well-defined hierarchical and power balance. The mentor may act as an advisor but future objectives are by negotiation rather than by instruction. In coaching the coach assists the coachee to find their own solutions to achieve specific goals, with no hierarchy	Clearly defined hierarchy and power differential. The line manager is responsible for performance management
Outcomes	Specific objectives expected to be met within a specific timescale, with the goal of transitioning from newly qualified to established practitioner	Outcomes determined by negotiation between the mentor and mentee. Outcomes may change as the relationship evolves	Line manager sets wider specific expectations according to department and organisation goals and norms

1.3 Sonography and preceptorship

There is little published evidence to determine how newly qualified sonographers are supported in the immediate months following qualification. The number of sonographers within the ultrasound workforce is relatively small when compared with other staff groups, for example nursing and medicine. The evidence base around preceptorship is therefore much more advanced for these larger occupational groups. In the development of this guidance, the literature around preceptorship among healthcare professionals in general has been used, as much of the evidence is directly transferable to the sonographic profession.

There is some evidence within the 'grey' literature¹⁸ which examines in detail the experiences of newly qualified sonographers as they make the transition from trainee to qualified sonographer. It suggests that preceptorship programmes for newly qualified sonographers are currently underdeveloped and rather piecemeal when compared with other professions.

While the majority of sonographers in current clinical practice have entered sonography via the postgraduate route, formal preceptorship should be available to all newly qualified sonographers, regardless of education level/route. This also includes sonographers who come into practice via overseas recruitment. Phillips¹⁸ identified three broad themes which newly qualified sonographers encounter. Although there is significant overlap between themes, they can be summarised as follows:

1.3.1 Transition

Evidence across many professional groups indicates that newly qualified healthcare professionals experience considerable stress and 'culture shock' during the transition from student to qualified sonographer, particularly during the first few months of practice.^{18,19,20,21,22,23} While some stress is inevitable in successfully navigating the change from trainee to the additional responsibilities, expectations and accountability of a qualified sonographer, effective preceptorship will help the newly qualified sonographer to cope more effectively with these challenges. This will help to maintain well-being and build resilience among newly qualified sonographers as well as reducing attrition among this cohort of staff.

1.3.2 Role development

This theme describes how newly qualified sonographers define or redefine themselves (dependent upon their professional background) as accountable, autonomous sonographers. It includes negotiating and accepting a new scope of practice, clarifying their role and integrating into the existing sonographic team. Other challenges may include developing abilities and skills in areas that rely on experiential learning such as clinical decision making, effective management of their clinical workload, time management and recognition of their individual limits of competence.

1.3.3 Maintaining competence and credibility

This theme describes the gradual transition from an ‘advanced beginner’ to a ‘competent sonographer’. Competency is gradually reached when the individual views their actions in the context of longer-range goals or plans. Rather than demonstrating simple task-based competence, the new sonographer is able to prioritise tasks, considering which are most important and which can be delayed or ignored.²⁴ The competent practitioner begins to transfer learning from one situation to other, less familiar situations.²⁵ Development of this wider form of competency enhances the newly qualified sonographer’s ability to manage unfamiliar situations and helps them to establish trust and credibility among their colleagues, referrers and service-users. This theme also describes the sonographer’s developing professional identity and this is reflected in the way that they relate to patients and colleagues.¹⁸

1.4 Benefits of a formal preceptorship programme for sonographers

‘The aim of preceptorship is to enhance the competence and confidence of newly registered practitioners as autonomous professionals.’¹²

A high-quality and formalised preceptorship programme is generally recognised as being essential in giving the best possible start to newly qualified healthcare professionals.¹⁴ High-quality preceptorship confers benefits to the newly qualified practitioner, their preceptor(s) and wider sonographic team, patients, their employing organisation and the NHS as a whole. The benefits of an effective preceptorship programme are given in table 3.^{13,26}

Table 3: Benefits of a preceptorship programme

Stakeholder	Benefit
Preceptee	<ul style="list-style-type: none"> • Increased confidence and competence • Feeling valued by employer • Development of specific competences relating to preceptee's role within the profession and organisation • Time and opportunity to reflect and receive constructive feedback • Minimisation of 'culture shock' • Personalisation of professional development including those elements of practice gained only by experiential learning. e.g. time management, multidisciplinary team working • Embedding lifelong learning and the need for continuing professional development at the beginning of the preceptee's career
Preceptor and the wider sonographic team	<ul style="list-style-type: none"> • Opportunity and responsibility to further develop the practice of preceptees according to the individual professional needs of that preceptee • Opportunity for personal and professional development of the preceptor • Increasing the vertical structure of the team's experience, expertise and responsibilities
Patients/Service Users	<ul style="list-style-type: none"> • Being cared for by competent, confident and reflective sonographers • An open and transparent culture with patient care at its centre
Organisational and NHS	<ul style="list-style-type: none"> • An open and honest culture with professionally competent staff who are able to recognise and act on good and suboptimal episodes of patient care • Delivery of high-quality care by sonographers • Ability to 'talent-spot' outstanding members of staff as well as providing additional support to those finding their transition more difficult • Better recruitment and retention of staff. Reduced attrition rates of newly qualified sonographers and reduction in sickness absence • Improve career development opportunities

1.5 Components of a preceptorship programme for newly qualified sonographers

Although there is little literature to inform a preceptorship programme which is specifically aimed at sonographers, evidence does suggest that four components should be included for newly qualified sonographers (Figure 1). There is likely to be significant overlap within these themes, but each is important in ensuring that newly qualified sonographers are well supported in their journey toward confidence and enhanced competency.

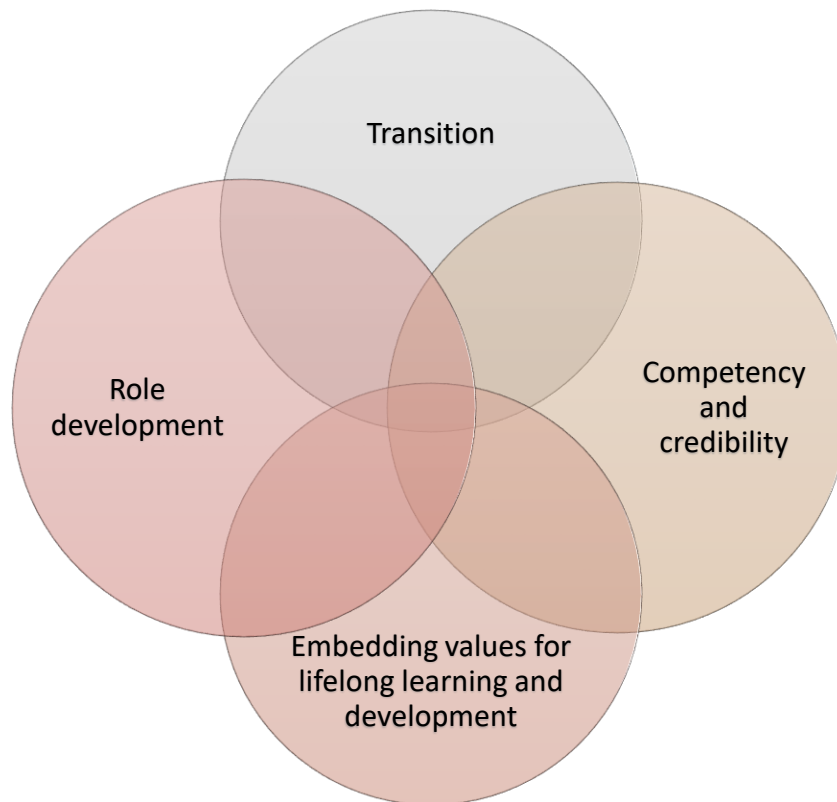


Figure 1: Components of a preceptorship programme

The employer and preceptor should ensure that these components are all addressed prior to completion of a preceptorship programmes. Suggested considerations to ensure successful preceptorship completion are given in table 4.

Table 4: Suggested actions for each component of a preceptorship programme for newly qualified sonographers

Component	Actions
Transition	<ul style="list-style-type: none"> • Provide personal and professional support to minimise the effect of 'culture shock' • Provide time and support for critical reflection • Provide support in adaption to new role • Facilitate the development of professional and clinical competence • Provide the preceptee with a 'critical friend'
Role development	<ul style="list-style-type: none"> • Provide clarity on professional expectations of the preceptee • Ensure that job role is well understood and identify areas where further support may be required. Facilitate access to such support. • Signpost opportunities for additional professional and clinical development • Ensure an accessible point of contact during times of personal or professional difficulty • Ensure that the preceptee is aware of, and adheres to their scope of practice
Competency and credibility	<ul style="list-style-type: none"> • Ensure developing clinical competency by setting realistic goals with measurable outcomes • Ensure developing professional/communication competencies with patients and colleagues using SMART objectives • Facilitate introductions and effective team working between the preceptee and their colleagues, both within the department and within the wider multidisciplinary team
Embedding values for lifelong learning	<ul style="list-style-type: none"> • Ensure a clear understanding of professional accountability and code of conduct • Ensure that the preceptee is aware of, and proactive in identifying and taking opportunities for continuing professional development • Developing an awareness of the wider picture, moving from a task-orientated approach to a more holistic approach in which tasks are seen within the wider organisational and patient context

1.6 The role of the preceptor

The preceptor is the person assigned to the preceptee during the preceptorship period and acts as a guide and 'critical friend' to the preceptee. The role of the preceptor is therefore crucial to the efficacy of any preceptorship programme. Negative or unnecessarily critical preceptors have an adverse impact on the effects of the entire programme. Unsurprisingly, there is a correlation between the quality of the preceptorship programme and its efficacy. The selection of preceptors is therefore very important in ensuring effectiveness of the preceptorship programme.

The attributes of preceptors which correlate with good outcomes include personal, professional and clinical attributes. Personal attributes include preceptors who are calm, confident, non-judgemental, caring and patient. Clinical and professional attributes include a willingness to share knowledge, skills and experience, an ability to identify learning needs together with skills in leadership, communication and decision-making.²⁷ The following role descriptors are suggested when appointing and orientating preceptors.¹³

Preceptors should:

- Understand the framework and requirements under which the preceptorship period is undertaken and ensure that this is understood by the preceptee
- Ensure that mandatory training is completed and that the preceptee has easy access to department policies and procedures and can confirm understanding of these
- Ensure that the preceptee understands their statutory roles and responsibilities including their ethical, legal and regulatory accountability of their professional actions
- Encourage the preceptee to apply for appropriate voluntary registration if not statutorily registered
- Introduce and facilitate good communication between the preceptees, their colleagues and the wider multidisciplinary team
- Assist in developing reflective practice skills and the identification of learning needs, with regular review of achievements
- Use coaching skills to develop confidence in the preceptee during the transition period from student to newly qualified practitioner to autonomous practitioner
- Signpost the preceptee to educational and development opportunities and act as an advocate to ensure that the preceptee is able to access these opportunities
- Liaise with department management and professional leads to report progress of the preceptee
- Act as a 'critical friend' to the preceptee, providing personal support while giving honest, timely and constructive feedback
- Act as a professional role model²⁸

1.7 Mechanism for preceptorship

The preceptorship period should be a formal programme with clear expectations of both the preceptor, preceptee and the employing organisation. There should be a written agreement between the preceptor and preceptee to provide clarity of roles and responsibilities within the preceptorship timeframe. A suggested agreement template is given in appendix B.

There must be regular formal review meetings with the aim of setting and agreeing objectives, updating of a personal development plan and agreement on timeframes. Progression (and failure to progress) criteria should be explicitly described together with minimal and maximal timescales.

Evidence to demonstrate that objectives have been met may include observation of practice, case studies, audit of ultrasound image and report quality, personal reflective diaries, review of clinical incidents and formal taught sessions.²⁹ This evidence should be kept together in a professional portfolio to use both as a learning tool and to demonstrate evidence of satisfactory progression through the preceptorship period.

Because of the differing range, scope and complexity of ultrasound practice in different units, it is difficult to be prescriptive in describing in detail what a preceptee would be expected to achieve during the preceptorship period. It is accepted that preceptorship programmes across different ultrasound units will vary in length and content. However, employers should seek to ensure that the underlying core components are included within the programme.

1.8 Length of preceptorship period

There have been differing suggestions on the necessary length of the preceptorship period for newly qualified sonographers. The Society and College of Radiographers and Royal College of Radiologists suggest a preceptorship period of six months.¹⁰ Among the sonographic profession, the length of a preceptorship period is mixed, ranging from a period of 3 to 12 months.³⁰

Because of significant differences in service needs within individual ultrasound units, different educational routes into ultrasound practice, and different preceptee characteristics, it is inappropriate to be prescriptive in determining the length of a preceptorship period. While a preceptorship should be objective led, it is also important to recognise that the preceptorship period has a defined endpoint which is agreed by the preceptor and preceptee. Based upon current guidance and literature, it is suggested that the length of preceptorship should be between 6 and 12 months.

1.9 Employer responsibilities

A well-structured and comprehensive preceptorship programme for newly qualified sonographers carries significant benefits for all stakeholders. A preceptorship programme requires employer 'buy-in' in order to be successful. Requirements upon employers include:

- Support in managing ultrasound lists, for example by extending appointment times or by ensuring that the preceptee has ready access to an experienced sonographer when needed
- Protected time to allow regular meetings between preceptee and preceptor
- Support and training for the preceptor, if required, to ensure that they are adequately prepared for the role
- Regular and frequent (ideally at least weekly) clinical sessions where the preceptee and preceptor work together
- Formal review of progress at specified time intervals
- Management support, particularly where a preceptee is not progressing as expected

1.10 Support for individuals moving into higher levels of practice

This document outlines the expected levels of support that should be given to first-post sonographers. Appropriate support should also be available to those established sonographers who are moving into higher levels of practice. Roles that may be considered as higher level practice will be dependent, of course, on the sonographer's current scope and environment but will be new for them and may include acting as an advanced or consultant practitioner in a new area, performing new clinical techniques, or leading a new service. Both time and support are needed for adjustment into such roles regardless of the experience of the individual. It is difficult to be prescriptive in setting out the amount or type of support that may be necessary. It is, however, recommended that support is negotiated and agreed at a local level and at the start of their transition into the new appointment, which may comprise either a period of preceptorship or a period of mentorship, or a combination of these approaches according to local need and availability.

1.11 Capability development at the end of preceptorship

It is acknowledged that established sonographers beyond preceptorship also require guidance on how to develop their practice in a comprehensive, structured way. In particular, sonographers must be given the opportunity to gain and develop the requisite qualifications, skills and experience in order to advance through the sonography Career and Progression Framework. The following section of this document considers this group of practitioners.

2. Capability development for established sonographers

2.1 Introduction

Clinical and non-clinical development of sonographers is vital to ensure high-quality provision of diagnostic ultrasound services and also to secure sustainable development and progression of those services. It remains imperative to invest in sonographic staff to ensure that they have the necessary knowledge, skills and opportunity to maximise their potential and practise at the highest level possible within an individual scope of practice.^{31,32,33} As well as the clear benefits to patients, this also increases staff satisfaction and potentially reduces staff attrition. The need for a consistent national scope of practice for sonographers is being increasingly recognised³³, to ensure that effective service improvements can be replicated and embedded more widely.

Delivery of diagnostic imaging is changing. External influences and health emergencies all have the potential to impact service delivery, demand and capacity, which has knock-on effects for other services and health priorities.^{31,34,35} Adaption of imaging services to the changing healthcare landscape is being encouraged and supported nationally^{32,33,35} but local leadership is also required to ensure that ultrasound units are sufficiently agile to continue to deliver services which are safe, responsive and progressive. It is essential that sonographers have the knowledge and skills to successfully navigate these changes. Development of a wider set of skills in leadership, education and research are therefore important, particularly when accessing advanced and consultant levels of practice.

In order to respond to these challenges, ultrasound practitioners require a framework to guide and support their future clinical and non-clinical development throughout their professional life.

2.2 Advancing clinical practice and skills development

- Development of clinical skills has already been well described within the Career and Progression Framework for sonographers.⁹ This describes the progressing scope and complexity of clinical practice as sonographers progress through the career structure. It is expected that independent reporting of ultrasound examinations will be supported by postgraduate (academic level 7) education.
- With maturing clinical knowledge and experience, it becomes increasingly important to recognise the value of other (non-clinical) skills when considering progression to the higher levels of the Career and Progression Framework. These skills are well described in the Advanced Clinical Practice Framework and include elements of leadership, education and research in addition to clinical skills.¹¹ There is evidence that these skills are relatively underdeveloped within a large proportion of the current sonographic workforce^{36,37}, but these facets of practice are essential to support continued development of high-quality ultrasound

services at both local and national level. It is essential that the importance of these capabilities is recognised, promoted and supported.

2.3 Responsibilities for capability development and progression

Capability development is complex as responsibility is shared between numerous stakeholders. The ultimate goal is to provide safe, progressive and sustainable diagnostic ultrasound services for patients. This requires effective collaboration between stake-holders.

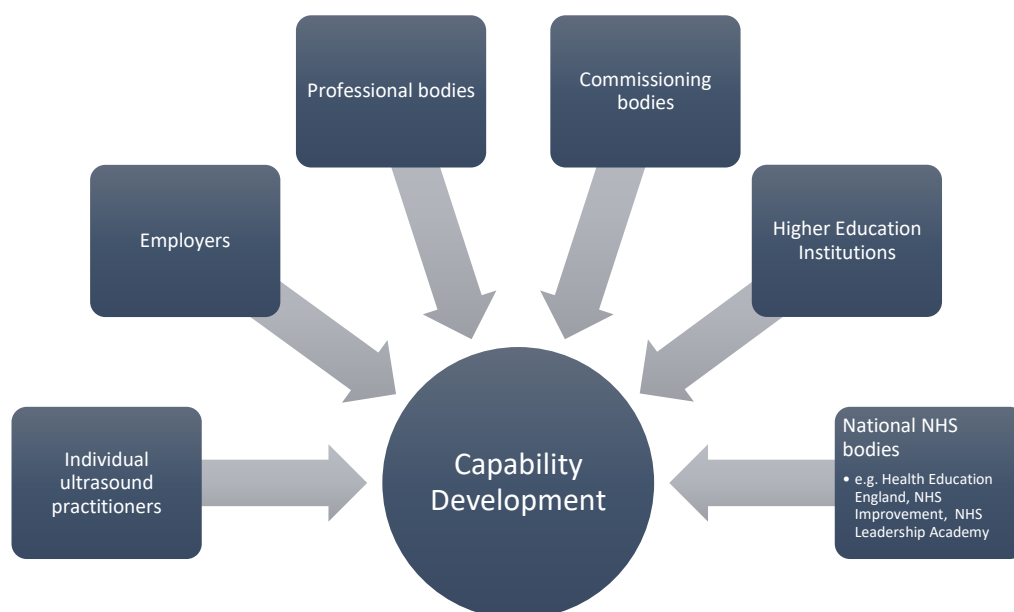


Figure 2: Stakeholders in capability development

Table 5: Responsibilities of stakeholders

Stakeholder	Responsibilities
Individual Sonographer	<ul style="list-style-type: none"> • Recognise gaps in skills and knowledge • Seek coaching and/or mentorship where appropriate • Maintain an up-to-date record of continuing professional development • Recognise and utilise opportunities for experiential learning and experience within the workplace • Actively seek opportunities for further formal and informal learning
Employers	<ul style="list-style-type: none"> • Recognise the importance of developing skills and capabilities within the sonographic workforce • Set aside time, opportunity and funding (where appropriate) for staff development and ensure fair remuneration • Ensure that sonographer scope of practice is well-defined with adequate governance safeguards • Accept vicarious liability for individual practitioners operating within an agreed scope of practice
Professional Bodies	<ul style="list-style-type: none"> • Promote development of capability among their members • Collaborate with all stakeholders to promote consensus around capability development • Offer appropriate guidance for sonographers wishing to develop their scope of practice • Provide suitable educational opportunities for sonographers through webinars, study days, conferences and signposting to external opportunities
Commissioning Bodies	<ul style="list-style-type: none"> • Recognise the importance of staff development in ensuring the safety and sustainability of diagnostic ultrasound services • Ensure that these factors are considered during the commissioning process • Monitor the standards of the service provided to safeguard patients and seek to ensure that appropriately skilled staff are providing the service
Higher Education Institutions	<ul style="list-style-type: none"> • Be responsive to local educational needs • Be responsive to local and national workforce needs • Work with local employers to develop suitable educational opportunities in line with national priorities
National NHS bodies	<ul style="list-style-type: none"> • Collaborate with all other stakeholders to produce high-quality national guidance • Co-ordinate planning and support for implementation of this national guidance

2.4 Capability and career progression

The opportunity for individual career progression is essential for recruitment, retention and stability of the sonographic workforce. Opportunities for career progression enhance job satisfaction and help to achieve long-term sustainability of the workforce. This requires a structured approach which ensures that requirements for career progression are clearly defined, but also ensures that opportunities for capability development are provided to individual sonographers where appropriate.

In considering the requirements for sonographer career progression, it becomes important to draw the distinction between competency and capability, particularly in relation to advanced and consultant level practice. While discrete threshold competencies are vitally important in terms of entry to the sonographic profession, they do not work so well when considering the greater level of complexity involved in advanced and consultant practitioner roles.³⁶

It must therefore be stressed that expected scope of practice becomes both broader and deeper with advancement through the Career and Progression Framework with inclusion of skills other than those needed for direct patient care. Capability may be defined in this context as the 'extent to which individuals can adapt to change, generate new knowledge and continue to improve their performance'.¹¹

Developing the capability of sonographers requires progress in a number of areas involving many different skill sets. The capabilities have been divided into nine categories which have been mapped from existing capabilities and standards of proficiency within three contemporary publications;

- The CASE Standards for Sonographic Education⁸
- The Sonographer Career and Progression Framework⁹
- The Multi-Professional Framework for Advanced Clinical Practice in England¹¹

The following capability tables provide direction by using a simple framework of nine descriptors. Their aim is to assist clinical departments and individual sonographers to determine the expectations of practice at each career level and help them to identify where they are now. It is anticipated that sonographers and managers may adapt and apply these generic examples locally to fit their needs. The descriptors are given below in figure 3:

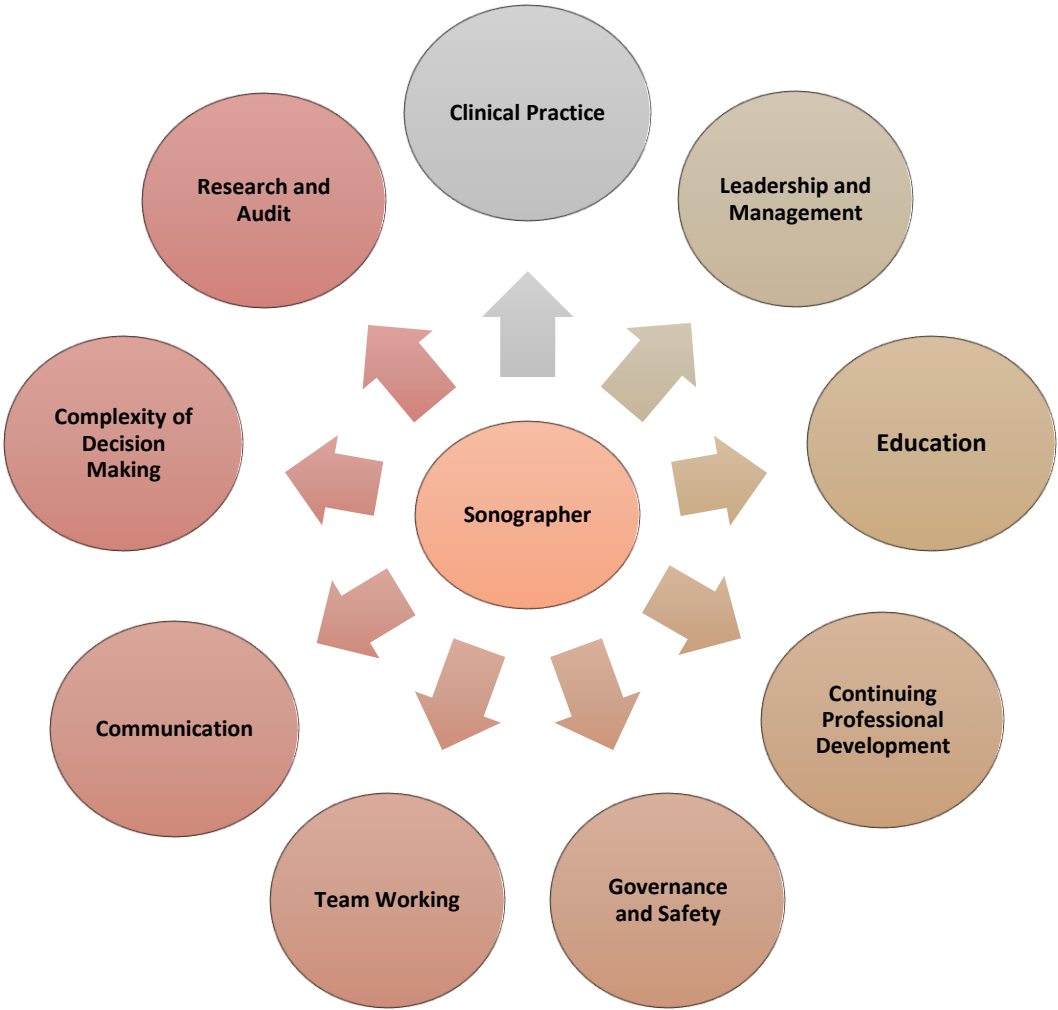


Figure 3: Main capability descriptors

Preceptorship and Capability Development Framework for Sonographers

Table 6: Suggested actions and behaviours aligned to the nine capabilities

Capability	Sonographer (preceptee)	Enhanced practice sonographer	Advanced practice sonographer	Consultant sonographer
Clinical Practice including clinical report writing	<ul style="list-style-type: none"> • Perform scans and interpret and analyse findings within a defined scope of practice • Produce a provisional clinical report aligned with local protocols. (Initially 100% of reports to be reviewed and approved by senior colleague, using <u>BMUS peer review tool</u> (or equivalent), reducing as capability develops.) Learning points from peer review to inform development needs • Practise independently and safely, but with supervision available throughout the preceptorship period • Practise within legal and ethical boundaries of the profession • Perform supervised FASP ultrasound examinations while studying for associated PgC • Recognise the limitations of practice and the need to consult senior colleagues • No lone working e.g. out of hours or in satellite units 	<ul style="list-style-type: none"> • Act as a role model to sonographers during the preceptorship period • Undertake, interpret and analyse ultrasound scan findings. Indirect, appropriate supervision will be available as required • Produce independently a clinical report as directed by local protocols. (Initially 10% of reports to be reviewed and approved by senior colleague, using <u>BMUS peer review tool</u> or equivalent, reducing as capability develops.) Learning points from peer review to inform development needs • Record second opinions safely and accurately • Obtain DQASS number, following successful completion of appropriate capability development period at career level 5 or 6, for those undertaking FASP examinations • Ability to work safely in isolation on occasions e.g. lone working out of hours or in satellite units 	<ul style="list-style-type: none"> • Act as a clinical role model • Independently perform a wide range of examinations, including more complex and acute cases from a broad range of referral sources • May be involved in other aspects of clinical care e.g. interventional procedures, sonographer-led discharge • Provide clinical expertise, supervision, peer review and guidance to less experienced colleagues • Independently provide interpretative reports giving a differential diagnosis of complex findings • Provide guidance on further patient management within the report, where relevant 	<ul style="list-style-type: none"> • Act as an expert clinical role model • Independently manage a complex caseload • Will be involved in other aspects of clinical care e.g. interventional procedures, sonographer-led discharge, follow-up scans and counselling • Provide expertise, supervision, peer review and guidance to medical and non-medical colleagues • Independently produce interpretative reports giving a differential diagnosis of complex findings • Provide guidance on further patient management within the report, where relevant • Advise, support and develop other staff to ensure that actionable reports are produced

Preceptorship and Capability Development Framework for Sonographers

Capability	Sonographer (preceptee)	Enhanced practice sonographer	Advanced practice sonographer	Consultant sonographer
Leadership and Management	<ul style="list-style-type: none"> • Practise responsibly, honestly, and professionally • Understand duty of candour • Demonstrate high levels of self-awareness and ability to self-manage • May have leadership skills already from a former role or position • Focus on basic leadership qualities for self-development and achieving local goals • May access a formal leadership course such as Edward Jenner programme 	<ul style="list-style-type: none"> • Act as a role model to sonographers during the preceptorship period • Manage own workload effectively and consistently • Focus on leadership qualities for further self-development and achieving organisational goals • May start to develop external connections and input into consultations • May access a formal course such as Edward Jenner programme and, if eligible, the <u>NHS Stepping Up Programme – Leadership Academy</u> 	<ul style="list-style-type: none"> • Act as a role model to the wider ultrasound team, regional teams and other healthcare professionals • Develop further leadership skills. Formal education could be via NHS courses including <u>Mary Seacole programme</u>, <u>Rosalind Franklin programme</u>, <u>Elizabeth Garrett Anderson programme</u> and, if eligible, the <u>NHS Stepping Up programme</u> • Demonstrate team leadership, resilience and determination by managing complex situations • Initiate and develop effective relationships, fostering clarity of roles within teams to encourage productive working • Spot and encourage potential in others • Identify, develop and trial new ways of working through collaboration with others including service users • May have involvement in professional organisations at a regional and/or national level 	<ul style="list-style-type: none"> • Act as a role model locally, regionally and nationally • Develop potential in others and empower colleagues and service users • Lead transformation and innovative service delivery through collaboration with others • Influence and lead less experienced clinicians and researchers through building capability and creating a culture of creativity and enquiry • May seek further development of leadership skills through relevant formal education • Form partnerships both internally and externally and influence progress and direction • Will have active strategic involvement in professional organisations at a national and/or international level and undertake extensive consultancy work

Preceptorship and Capability Development Framework for Sonographers

Capability	Sonographer (preceptee)	Enhanced practice sonographer	Advanced practice sonographer	Consultant sonographer
Education	<ul style="list-style-type: none"> • Work with preceptor to identify specific clinical skills gaps and seek appropriate training to rectify • Engage in self-directed learning to expand and consolidate existing knowledge 	<ul style="list-style-type: none"> • Engage in self-directed learning to develop knowledge and skills associated with advanced practice • Has a role in supporting training and development of sonographers • May support, mentor and/or coach others 	<ul style="list-style-type: none"> • Critically assess and address own learning needs • Engage in self-directed learning to maintain and develop further knowledge and skills associated with advanced practice • May engage in self-directed learning to become expert in a focused area • Identify knowledge and skills gaps within the team and develop strategies to support to rectify • Has a significant role in teaching other healthcare professionals within the organisation and developing external teaching, learning and assessment • May be an associate/honorary/visiting lecturer with an academic institution • May be involved as a practice educator within ultrasound academies • Act as supervisor, coach and mentor • May review CPD evidence for regulatory bodies 	<ul style="list-style-type: none"> • Act as a role model, educator, supervisor, coach and mentor • Identify skills gaps within the team and self. Use appropriate methods to ensure that further training is provided to rectify these gaps • Has a significant role in teaching a wide range of professionals, in and outside of organisation • May be an external examiner, academic and/or clinical assessor for educational institutions and/or professional organisations • Lead development and review of learning locally, nationally and internationally • Critically evaluate the need for lifelong learning in medical ultrasound practice and engage in teaching, learning and assessment at a higher level

Preceptorship and Capability Development Framework for Sonographers

Capability	Sonographer (preceptee)	Enhanced practice sonographer	Advanced practice sonographer	Consultant sonographer
			<ul style="list-style-type: none"> • May write or review journal articles 	
Continuing Professional Development	<ul style="list-style-type: none"> • Critically reflect on self to demonstrate continuing professional development within clinical practice, linked to preceptorship and capability development goals • Demonstrate understanding of life-long learning • Begin to keep a CPD record 	<ul style="list-style-type: none"> • Critically reflect on self to demonstrate continuing professional development within clinical practice and participate in developing some of the wider skills associated with advanced practice • Demonstrate commitment to life-long learning • Develop and maintain a CPD portfolio 	<ul style="list-style-type: none"> • Critically reflect on self to demonstrate continuing professional development within all four pillars of advanced practice • Assist others in recognising CPD opportunities 	<ul style="list-style-type: none"> • Critically reflect on self to demonstrate continuing professional development within all four pillars of consultant practice • May have duties with government offices, regulatory councils, academic institutions and/or research groups • Empower others by providing CPD opportunities
Governance and Safety	<ul style="list-style-type: none"> • Able to work safely to protect oneself, patients and service users • Has knowledge and understanding of and adheres to local protocols, schemes of work and governance frameworks • Able to recognise when to report an incident and be able to complete an incident form effectively 	<ul style="list-style-type: none"> • Able to work safely to protect oneself, colleagues and patients • Able to identify gaps or errors in local protocols and schemes of work, and flag appropriately • Able to adapt to unexpected events • Able to complete incident forms effectively 	<ul style="list-style-type: none"> • Maintain contemporary knowledge of national practice recommendations relevant to their scope • Able to identify and manage suboptimal governance and amend local documents to reflect changes in practice • Empower individuals to participate in decisions about their care • Disseminate effectively local changes in governance 	<ul style="list-style-type: none"> • Lead by example regarding good governance and safety • Develop and implement robust governance systems • May influence governance and safety strategies at a regional or national level

Preceptorship and Capability Development Framework for Sonographers

Capability	Sonographer (preceptee)	Enhanced practice sonographer	Advanced practice sonographer	Consultant sonographer
Team Working	<ul style="list-style-type: none"> • Manage own workload effectively • Act as a reliable team member • Aware of limitations and responsibilities within the team 	<ul style="list-style-type: none"> • Able to manage own workload and is supportive of others within the immediate team • Able to practise flexibly and responsively across the team • Integrate effectively with multi-professional teams. 	<ul style="list-style-type: none"> • Guide and influence effectively teams at a local and/or regional level • Inspire and motivate team members to achieve their full potential • Recognise and report appropriately suboptimal team performance • Integrate effectively with other health professions and external stakeholders and organisations. e.g. nurses, surgeons, GPs, police, social care and academics 	<ul style="list-style-type: none"> • Able to build and sustain a wide range of effective professional relationships at locally and at national/international level • Empower others to engage with and lead teams • Take responsibility for identifying and managing suboptimal team performance
Communication including multidisciplinary	<ul style="list-style-type: none"> • Communicate to gain appropriate valid, informed consent for routine ultrasound examinations • Provide information about normal findings to patients, if within • Liaise with referring clinicians with appropriate supervision as required • Consider strategies to overcome barriers to effective communication 	<ul style="list-style-type: none"> • Communicate to gain appropriate valid, informed consent for ultrasound examinations in a range of settings • Provide information about normal findings and a range of abnormal findings to patients, within local scope of practice • Liaise independently and confidently with referring clinicians • Communicate with a range of people on different matters, including using communication to build relationships 	<ul style="list-style-type: none"> • Communicate effectively and in a timely manner with patients, referrers and a range of other professionals to ensure appropriate onward referral of patients where necessary. • Communicate effectively with internal and external agencies to assure quality of service • Adapts communication in response to others' culture, background and preferred way of communicating 	<ul style="list-style-type: none"> • Practise and encourage effective communication between all stakeholders • Develop and maintain partnerships • Anticipate barriers to communication and take action to mitigate • Adept at seeking out different styles and methods of communication to assist longer term needs and aims of individuals and organisations

Preceptorship and Capability Development Framework for Sonographers

Capability	Sonographer (preceptee)	Enhanced practice sonographer	Advanced practice sonographer	Consultant sonographer
		<ul style="list-style-type: none"> • Manage barriers to effective communication 	<ul style="list-style-type: none"> • Provides information to patients regarding complex abnormal findings, within agreed scope of practice • Communicate with a range of people on different matters, including using communication to build relationships and manage expectations • Use networks to share research ideas and develop collaboration • May lead a patient advocacy group 	<ul style="list-style-type: none"> • Facilitate and lead research networks to develop ideas and support transfer of knowledge
Complexity of Decision making	<ul style="list-style-type: none"> • Follow local protocols and agreed patient pathways • Select correct ultrasound equipment and adapt machine settings • Know when and how to seek a second opinion 	<ul style="list-style-type: none"> • Handle independently and effectively commonly encountered healthcare situations • Develop skills to assimilate more challenging situations while supported by experienced colleagues • Start to assimilate information from other healthcare sources and apply to practice 	<ul style="list-style-type: none"> • Practise with a high degree of autonomy and clinical decision-making responsibility • Influence management strategies in complex cases • Transfer and adapt research knowledge and skills to different clinical areas and/or topics. • Assimilate complex information and develop ideas for application to practice • Identify weaknesses and implement improvements in complex clinical, managerial or educational pathways 	<ul style="list-style-type: none"> • Consistently practise with a very high degree of autonomy and complex clinical decision-making responsibility • Act as a source of expertise for complex clinical cases • Assimilate complex information from multiple sources and apply to practice • Conceive, design, develop and adapt solutions through critical analysis, evaluation and synthesis • Work with others to pioneer new methods and patient pathways

Preceptorship and Capability Development Framework for Sonographers

Capability	Sonographer (preceptee)	Enhanced practice sonographer	Advanced practice sonographer	Consultant sonographer
Research and Audit	<ul style="list-style-type: none"> • Undertake self-audit • May be involved in collection of research data • Can differentiate between research, audit and service evaluation 	<ul style="list-style-type: none"> • Able to organise and engage with audit and peer-review • Contribute to research projects and service evaluation • Has a working knowledge of research within their area of practice • May identify service improvements • May disseminate audit and service evaluation results locally 	<ul style="list-style-type: none"> • Engage with research and adhere to good practice research guidance. • Critically analyse audit and peer-review findings and implement change accordingly • Identify gaps in the evidence base and alert appropriate individuals or organisations • Design and contribute to research projects and service evaluation • Manage risk in the conduct of research to maintain and improve research quality • Able to comply with ethical considerations associated with research • Disseminate results at a local and/or regional level 	<ul style="list-style-type: none"> • Lead research and act as a role model • Identify gaps in the evidence base and seek methods to address them • Obtain funding for research • Work in partnership with others to develop, take forward and evaluate direction, policies and strategies • Able to apply research knowledge and skill in unpredictable and complex research areas and contexts • Provide research leadership and take overall responsibility, making judgements in complex environments • Disseminate results widely using a range of methods including publications and presentations

2.5 Career progression

The activities and methods for demonstrating capability and advancing through the career and progression pathway are wide ranging. It is important to note that determining the scope of practice for the individual is driven by the needs of the service, department and patient, rather than by simple personal aspiration. It is beyond the scope of this document to prescribe a finite list of valid tasks and actions to progress through career levels. It is also inevitable that there will be some overlap between levels of practice, as well as variation in interpretation of levels of practice. The following list does however outline common, frequently accessible examples for sonographers to consider, which will enable them to gather evidence in support of their progression to the next career level. Sonographers may demonstrate their ability to work at specific levels via a combination of prior experience, academic qualification, portfolio evidence, and credentialing or accreditation as an advanced or consultant practitioner such as that described by the Society and College of Radiographers.

It is important to recognise that recognised academic qualifications are also key to progression through the Career and Progression Framework, particularly for those entering the profession at the current time or in the future. It is expected that further postgraduate (academic level 7) education and training which meets CASE standards will be provided to facilitate progression from Sonographer to Enhanced Practice Sonographer level. A master's level award which covers all four pillars of advanced practice is necessary for Advanced Practitioner status.¹¹ Consultant Practitioners should hold an appropriate master's degree and preferably be working toward a doctoral award or equivalent.

Because of the considerable overlap in (non-academic) activities that may assist sonographers in developing their skills to progress to the next career level, the following suggested activities have been grouped under the broad headings of clinical practice, leadership, education and research. Activities could include some or all of the following, depending on level of practice:

Table 7: Four pillar activities and practice

Clinical Practice	Leadership and Management
<ul style="list-style-type: none"> Shadowing more experienced staff members Shadowing colleagues from other professions Following patients through a clinical pathway Observing or inputting into reporting sessions with other practitioners Regular, scheduled review of own scans and reports with mentor/senior staff member Observation of more complex ultrasound cases, beyond current scope of practice Attendance at or leading/co-chairing MDT/clinical review meetings Consultancy and/or peer review for external organisations e.g. national screening programmes, other NHS Trusts etc. 	<ul style="list-style-type: none"> Providing independent advice for reviews and independent inquiries Acting as an expert witness in medico-legal or fitness to practise cases Acting in an advisory capacity to the committee or sub-group of a specialist organisation such as CASE, BMUS or SCoR Liaising with the multi-profession team to implement specific service improvement projects. Liaising with key stakeholders including patient groups, primary care services and equipment manufacturers Liaising with independent service providers to support training and maintain standards of care Actively engage in regular quality assurance checks Involvement in local or national AHP networks Consultancy advice to companies, NHS Trusts and other external organisations Assessor for external accrediting agencies Clinical governance lead
Education	Research
<ul style="list-style-type: none"> Evidence of broad personal reading to increase both breadth and depth of subject knowledge Keeping a reflective journal Attending additional formal courses or conferences relevant to area of practice Volunteering to develop simple or complex educational material for a local or regional organisation Fulfilling the role of invited speaker at a study day or congress Acting as external examiner or assessor for a university Reviewing journal articles prior to publication Advisor and/or lecturer with an educational institution or course provider Input into, or leading local, national or international training courses Advising, leading or supporting clinical ultrasound within imaging academies or wider imaging networks Practice educator/lead for employing institution 	<ul style="list-style-type: none"> Audit of image quality and ultrasound findings for own work Audit of team performance Evaluation of new patient pathway or equipment Collaborating with local researchers Presenting or publishing local research, audit or case studies Lead researcher for individual research projects Research lead in department, network or employing institution Active role in existing research teams, for example by helping to develop research protocols or by supporting and implementing research protocols into own individual area of work Research mentor in formal research mentoring schemes such as <u>Formal Radiography Research Mentoring (FoRRM)</u>

3. Conclusion

Implementation of a comprehensive preceptorship and capability development programme specifically for sonographers is overdue and vital for recruiting, retaining and growing an essential healthcare workforce that is already in short supply.

Such a programme will help to establish greater standardisation of scope of practice, which in turn benefits all key stakeholders including sonographers, employers and patients. With a clear development pathway to follow, sonographers are more likely to provide uniform high-quality care as they advance through the Career and Progression Framework. Furthermore, they are more likely to fulfil their potential and enjoy greater job satisfaction. Employers are more likely to retain their employees and patients will benefit from the knowledge and skills of a confident and competent sonographic workforce.

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Notes for Appendix A: Introduction to the Career and Progression Framework

Guidance for Sonographers and Employers

The Career and Progression Framework (CPF) was designed to guide the development of professionals entering sonography education within the UK, to both begin a career in sonography and also to progress through the different career levels. In the absence of statutory registration of sonographers in the UK, CASE provides oversight to ensure minimum education standards are met by education providers. Minimum requirements for someone in the UK training to become a sonographer should be CASE accredited at academic level 6 (Bachelor's level) and/or academic level 7 (Master's level).

Entry routes into sonography for those who have studied and practised ultrasound outside the UK should be CASE equivalent i.e. the education and learning outcomes should meet CASE learning outcomes for the relevant academic level of study. When considering routes for progression, establishing equivalence between UK and overseas qualifications is also important.

The academic level of the award e.g. equivalent to certificate [CertHE] (level 4) or diploma in higher education [DipHE] (level 5), Honours degree [BSc (Hons)] (level 6), post graduate/master's level award [PgC PgD, Master's degree] (level 7) can be checked with the UK national agency for international qualifications and skills (UK ENIC). These can be compared with the level of award in England, Wales and Northern Ireland. Scotland has a different credit and qualifications framework.

While sonographer independent reporting is standard practice in the UK, it remains less common in other countries. Overseas qualified sonographers commonly have clinical experience in a breadth of applications (for example: general medical, gynaecology, obstetrics, vascular, and musculoskeletal ultrasound). However, this range of clinical experience may not translate into competency to 'independently... interpret, analyse and report ultrasound scan findings' at a level to meet CASE standards.

Employment in the UK

A CASE accredited qualification provides a known standard of education awarded by an institution that meets agreed learning outcomes. For sonographers without a CASE accredited award, employers may seek to determine that the employee or prospective employee holds an educational award and relevant experiential learning that is equivalent to meet the relevant CASE learning outcomes for education level 6, 7 or 8. Evidence of equivalence may be sought from:

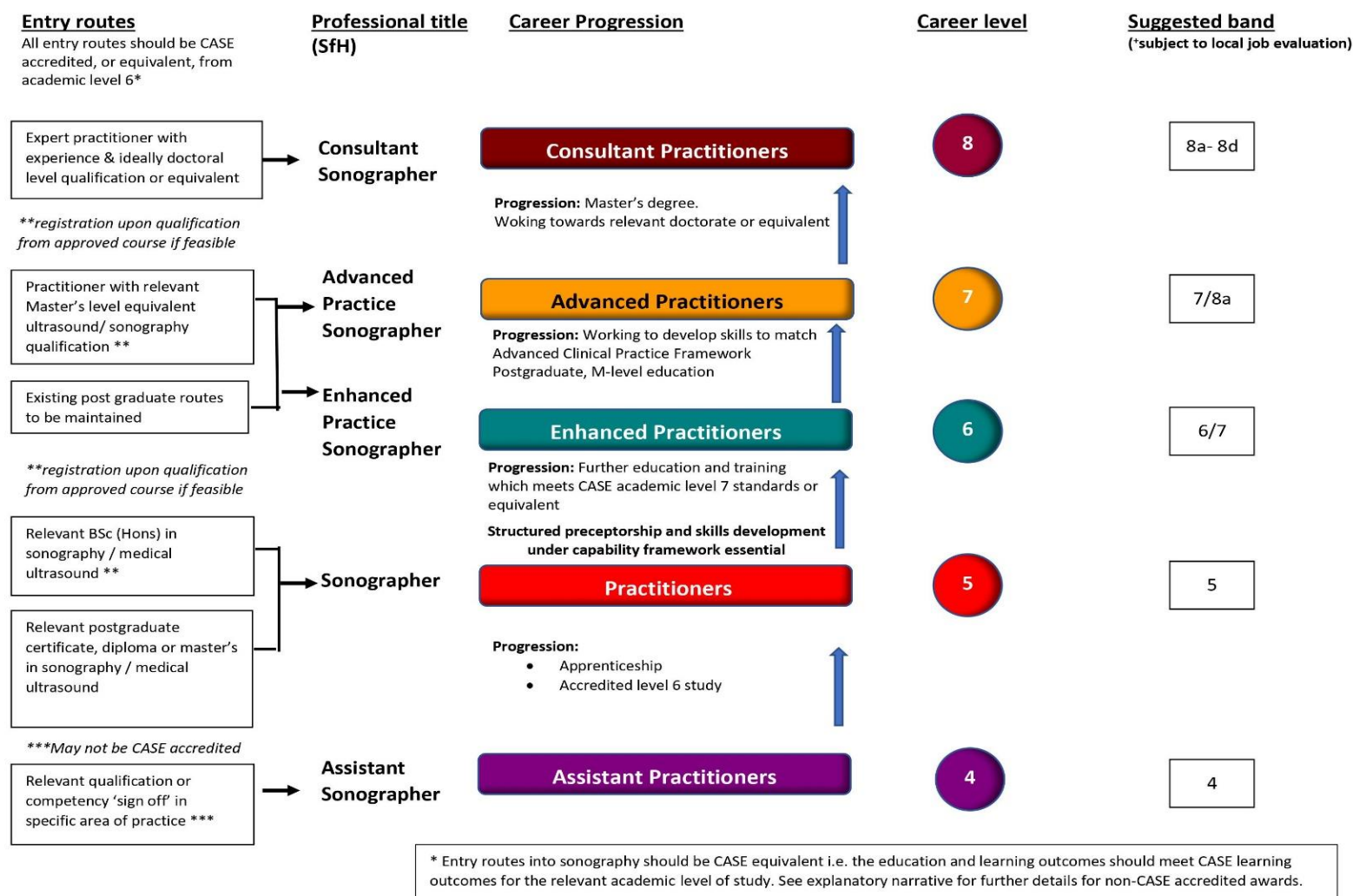
- UK ENIC which is able to establish academic level equivalence of non-UK qualifications to UK qualifications,
- Review of the learning outcomes and syllabus from the programme of study completed by the employee or prospective employee. Support may be needed from the local education institutions to map qualifications to CASE learning outcomes,
- The employee providing a portfolio of evidence of practice,
- And/or by probational employment whilst the employer and employee progress through a capability-based preceptorship programme, as outlined in the BMUS Preceptorship and Capability Development Framework for Sonographers (2022).

It is important for employees and employers to ensure the knowledge, skills and competence of sonographers are appropriate for UK practice. This applies to any sonographer with or without a CASE accredited award and regardless of the country of qualification. It is for employers to consider routes for career progression, including establishing equivalence between UK and overseas qualifications wherever possible. However, it is expected that employers seeking to employ any individual, or support sonographers through career progression, without CASE accredited education would require evidence from the prospective employee to determine the individual meets the standards which ensure that patient safety is safeguarded.

Appendix A

Career and Progression Framework Summary

Outline Career and Progression Framework – Final V4. Updated March 2023



Appendix B

Suggested template agreement between preceptor and preceptee

As a preceptor, I will: <ol style="list-style-type: none">1. Facilitate the transition from trainee to newly qualified practitioner2. Offer support during this transition and during the early months in post3. Provide constructive feedback on aspects of performance, both in areas of excellence and those requiring further development4. Facilitate consolidation of newly acquired knowledge and skills5. Facilitate gaining additional knowledge and skills6. Provide practical experience and guidance7. Maintain the standards, competencies and objectives as set by the employer and support the preceptee in maintaining these	
As a preceptee, I will: <ol style="list-style-type: none">1. Practice in accordance with the Health and Care Professions Council professional code of conduct2. Be proactive in arranging meetings with my preceptor3. Together with my preceptor, identify specific learning needs and develop an action plan to address these4. Maintain the standards, competencies and behaviours as set by my employer5. Ensure I work within my own limitations and seek help and advice when unsure6. Promote excellent services to patients and other service users7. Work closely with my preceptor to ensure that a schedule is agreed and completed8. Understand that I am legally, professionally and ethically accountable for my own actions	
Preceptee Signature	Date
Preceptor Signature	Date

Appendix C

Template for recording of preceptorship meetings

Date of Meeting			
What has been going well?			
Which areas require further support and development?			
Action plan agreed between Preceptor and Preceptee			
Preceptee Signature		Date	
Preceptor Signature		Date	

Project lead

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Contributors

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