

Ultrasound Practice Educator Guidance

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SoR
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1. Introduction

This resource has been developed to support practice educators (PEs) in providing high-quality training and mentorship to ultrasound learners. There is a national shortage of sonographers in the UK, with vacancy rates of between 12.6% to 14.9% being quoted.^{1,2} Additional ultrasound teaching capacity has been explored to increase the number of sonographers entering the UK workforce,³ as clinical placement capacity is one of the limiting factors in workforce expansion.^{4,5} This has led to investment in imaging academies to increase access to ultrasound training. To support this ambition to grow the workforce and increase placement capacity, appropriate clinical support is essential.

As the demand for skilled ultrasound practitioners continues to grow, the role of the PE becomes increasingly vital in fostering a supportive learning environment where learners can become competent and safe, while fully aware of their limitations and scope of practice.⁶ The Health and Care Professions Council (HCPC) states that placements should be in an “environment that is safe and supportive for learners and service users”.⁷ PEs play a pivotal role in supporting learners at different stages in their career to provide safe practice in the clinical department. They support or lead on the development, delivery, evaluation and assessment of ultrasound clinical education in the workplace. It is recognised that a supportive learning environment can improve learner experience, outcomes and attrition, and effective PEs are fundamental in delivering this.^{8–10}

PEs are responsible for providing mentorship and guidance to ultrasound learners from a wide range of clinical backgrounds and at different academic levels during their clinical training and throughout the preceptorship period. This document adds to the existing guidance to assist PEs, with a specific focus on providing support for ultrasound education within the clinical environment. It should be read in conjunction with the College of Radiographers (CoR) [Education and career framework](#) (ECF)¹¹ and NHS England’s [Educator workforce strategy](#).⁶ The document ‘[Potential ways to increase sonographer training capacity: Case studies](#)’ offers additional suggestions on ways to explore capacity challenges in ultrasound clinical education.

1.1 Definitions used in this document

Clinical education, as used within this document, relates to all forms of learning that take place in the clinical environment, and may include simulated learning, volunteer scanning, supervising peer-to-peer or individual scanning lists, developing, coordinating and facilitating education sessions or continuing professional development (CPD) events and associated tasks related to supporting learners within the clinical learning environment.

Ultrasound PEs are responsible for the clinical teaching, monitoring and assessment of a wide range of professionals, including sonographers and sonographer trainees, radiology trainees, obstetricians, gynaecologists and other medical colleagues, physiotherapists, nurses, midwives, vascular scientists, and point of care practitioners from various backgrounds. Education levels also vary, from in-house training or focused courses to professional qualifications up to Master's level. Some PE roles cover a region or an imaging academy. While this document is relevant to them, the main focus is on the local PE role.

- **Lead practice educator:** A registered professional* who takes the lead on the coordination of clinical education and training for learners from a variety of professional backgrounds, underpinned by a qualification and accreditation as a PE or working towards formal qualification and accreditation. Their role will include connecting people, resources and support. This is likely to include liaising with education providers for those undertaking Consortium for the Accreditation of Sonographic Education (CASE) accredited awards, Deanery faculty for medical colleagues, and other stakeholders involved in supporting the ultrasound clinical learning experience. Their role will include oversight, quality assurance and support for clinical education.

The lead PE may also deliver or coordinate training sessions, CPD activities or study days, engage in peer review assessments, and support other PEs by providing coaching or mentoring to them, assisting the development of their skills and competencies. They may be responsible for ensuring that progress reports and feedback are timely and meet expected standards. Some lead PEs will have input into curriculum design or academic programme quality standards review, and/or be accreditors for CASE or other relevant accrediting organisations.

Lead PEs may be responsible for managing funding streams and will usually be involved in funding bids and/or allocation of training budgets. Depending on the departmental structure, the lead PE may also have line management responsibilities, but there needs to be a clear distinction between their PE role and the line management aspect to ensure that a supportive learning environment is maintained for both learners and PEs. Furthermore, the lead PE may work closely with other PEs in their organisation, including those from the wider radiology department and other directorates, to ensure a joined-up approach to education delivery.

- **Practice educator:** “A Practice Educator is a registered practitioner* who supports learners in the workplace at all levels of practice. They lead and facilitate practice education with the support of clinical and academic colleagues... Practice Educators will be supported in their role by the wider [imaging] workforce as it is expected that all practitioners carry responsibility to work with, supervise and provide mentorship to all learners.”¹¹

In addition, the PE is likely to hold responsibility for clinical competency assessments (CASE accredited awards) or competency 'sign off' (medical colleagues). They also support staff through preceptorship periods as they progress from first post competency to enhanced, advanced and consultant practice roles.

In Scotland the definition of a PE is someone who facilitates teaching and learning. A PE will “teach, supervise, assess and support students who are undertaking a formal learning placement”.¹²

- Many other titles may be used for this role, for example clinical supervisor, clinical assessor, clinical educator, clinical tutor, placement learning tutor, practice supervisor, student coordinator or practice education facilitator. However, for the purposes of this document, PE is the term that will be used throughout, in line with the [CoR ECF](#)¹¹ and [Health and Care Professions \(H&CP\) Education Leads Group](#).¹³ Going forward, organisations are encouraged to adopt the titles above (lead PE and PE) where appropriate, to reduce inconsistencies, although it is noted that devolved countries may use different titles, such as practice education facilitator in Wales.

***Note:** A registered professional in sonography could be a sonographer with statutory professional registration, such as HCPC registration, or Professional Standards Authority accredited registration, such as the Register of Clinical Technologists (RCT).

2. Practice education

This section outlines best practices, essential competencies, and effective teaching strategies tailored specifically for the ultrasound workforce. It aims to enhance the educational experience for both learners and educators by providing suggestions for implementation at local or regional levels.

There is a wealth of additional guidance that can be accessed in addition to this ultrasound-specific document. Some of this is specific to groups of professionals, such as the allied health professions (AHPs), though it is acknowledged that the ultrasound workforce is made up of a wide range of professional groups. This guidance includes, but is not limited to:

- Council of Deans of Health. [AHP Educator Career Framework](#)
- Chartered Society of Physiotherapy and Royal College of Occupational Therapists. [AHP principles of practice-based learning](#)
- NHS England. [AHP Practice-Based Learning](#)

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- NHS England. [Educator Workforce Strategy](#)
 - NHS England. [Simulation and immersive technologies](#)
 - NHS Education for Scotland. [Being and becoming an AHP practice educator](#) [Note: for NHS Scotland staff only]
 - NHS Scotland. [AHP Practice Education](#)

2.1 Knowledge, skills and attributes of an ultrasound practice educator

The knowledge, skills and attributes of a PE are provided in the [CoR ECF](#).¹¹ [Cormack et al.](#) published consensus guidelines for interprofessional ultrasound teaching¹⁴ and the [Health and Care Professions Education Leads Group](#) provides guidance on practice education.¹³

In addition to knowledge, skills, competency and currency in the areas of clinical practice the PE is teaching, traits that learners value in a PE and that clinical staff deem essential have been studied.^{4,9,15–17} These include:

- approachable
 - awareness
 - caring
 - confidence
 - effective communication skills
 - current (knowledge)
 - empathetic
 - encouraging
 - enthusiasm, enjoyment and passion for their role in supporting learners
 - feedback skills
 - flexible
 - friendly
 - honest and trustworthy
 - knowledge and experience
 - motivated
 - non-judgemental
 - patient
-

-
- professionalism
 - providing clarity
 - respectful
 - sensitive to diversity

2.2 Education, training and accreditation of an ultrasound practice educator

PEs should be supported within their role to complete a qualification that includes elements of learning, teaching, assessment and feedback as a minimum. PEs should “undertake regular training which is appropriate to their role, learners’ needs and the delivery of the learning outcomes of the programme”.⁷ Learners have highlighted the need for PEs to be appropriately trained and conversant with clinical practice documents to support their positive learning experience.⁹ It is recommended that departments consider the expertise needed for the PE role and provide appropriate support and recognition of the role as part of the career pathway for a sonographer.

2.2.1 On-line learning resources

There are a range of resources to support learning and development for PEs. These include, but are not limited to:

Elearning for health (elfh)

- [Educator Training Resources \(ETR\)](#)
- [Practice Educator and Assessor Preparation \(PEAP\)](#)
- [Supporting AHP Students](#)
- [Delivering and Receiving Effective Feedback](#)
- [Giving feedback and handling difficult conversations](#)
- [Giving feedback and taking action](#)

Other resources

- HEE. [Guide to practice-based learning for neurodivergent students](#)
- NHS Leadership Academy. [Courageous Conversations](#)
- TURAS. [AHP Practice Based Learning site](#) [Note: for NHS Scotland staff only]

2.2.2 Practice educator development and recognition

In the [CoR ECF](#),¹¹ accreditation is encouraged for those working in a PE role. Sonographers are strongly recommended to seek accreditation/reaccreditation for the PE role. One way to achieve this is through the [CoR Practice Educator Accreditation Scheme \(PEAS\)](#).¹⁸ This scheme uses twelve PEAS learning outcomes,¹⁸ as taken from the H&CP Practice Education Guidance,¹³ which has been produced by the H&CP Education Leads Group, of which the Society and College of Radiographers (SCoR) is a member, in collaboration with the National Association of Educators in Practice and the Council of Deans of Health. It is therefore against these twelve learning outcomes that the CoR determines and awards PEAS accreditation.

PEAS accreditation offers those involved in facilitating practice-based learning in clinical imaging and oncology the opportunity to be recognised and developed through an accreditation system. It is intended to support on-going quality standards in practice education and encourage CPD in PE roles, aligned to professional body guidelines. [Applicant guidance](#) is available on the [CoR PEAS accreditation webpage](#).

Membership of [SoR|CoR](#) is available to all ultrasound practitioners who meet the requirements of membership or Associated Professional membership.¹⁹

Alternative recognition schemes are available for PEs, external to the professional body, such as the [Advance HE fellowship scheme](#).

2.2.3 Practice educator courses

A range of courses are available for PEs that lead to accreditation with the CoR PEAS. The list is subject to change and inclusion in the list is not endorsement. Further details and current courses can be found on the [CoR website](#).²⁰

CoR-endorsed courses:

- Sheffield Hallam University. [Learning and Teaching for Practice](#) (distance learning module)
- Ulster University. PgCert [Education for Healthcare Professionals](#)
- University of Exeter. [MSc Clinical Education \(PgCert, PgDip and MSc\)](#)
- University of Suffolk. [PgC Practice Education for Health Professionals](#)

Other courses are available for PEs, but not all are endorsed by CoR and do not lead to CoR PEAS accreditation. They can, however, be helpful to support PE accreditation via the CPD route.

2.2.4 Supportive community

The role of the PE is fulfilling and rewarding but does have its challenges. PEs are encouraged to interact with others within their own area of clinical expertise, but also wider professional groups. Cook et al. recognise the ‘emotional labour’ associated with the role and highlight the value of supportive networks for PEs.⁸ The SoR has a [diagnostic imaging PE special interest group](#) where members from a range of backgrounds, including sonographers, can share good practice, discuss challenges and support each other in their roles.

2.3 Ultrasound supervision in the clinical setting

All learners on CASE accredited programmes should be supervised in clinical practice until their final or interim award is ratified formally.²¹ Medico-legally, the responsibility for the clinical examinations and final report completed by the learner remains with the supervising ultrasound practitioner.

Supervisory requirements are likely to change during the learning period, from initial intensive one-to-one or two-to-one support to a more observed practice and guidance to hone the learner’s skills further, as they near the end of their programme of study.

The [Australasian Sonographers Association](#) has a comprehensive document providing guidance for ultrasound support in the clinical setting.¹⁵ It should be noted that learning styles referred to in the guidance are not recommended in pedagogic circles now, as people can change preferences over time and depending on the situation.

3. Best practice guidance for placement support for learners

Practice-based learning should encompass all aspects of ultrasound education, incorporating all relevant areas such as clinical skills, communication, equipment manipulation, image optimisation, ultrasound safety, decontamination, quality assurance and audit, good ergonomic practice and the other pillars of practice (research, education and leadership). Clinical teaching should align with professional body guidance,²² CASE standards,²³ occupational standards,²⁴ relevant national standards and evidence-based practice.

3.1 Ultrasound clinical training lists

Sonographer trainees should be supernumerary within the department during their training sessions, to enable immersion into the learning environment. Protected study time should also be available while studying for their ultrasound qualification. Dedicated training lists are an expectation of

CASE accreditation, to provide protected hands-on clinical experience for learners.²⁵ It is strongly recommended that extended training lists are provided for some sessions, to allow learners to gain hands-on experience in a less pressured environment.^{3,4} These may be within the clinical department, imaging academy or education setting. Ideally most lists should be dedicated training lists during the early stages of the learning process, to support a high-quality learning environment and alleviate pressure on the PE. This can facilitate time for reflection, feedback and on-going support. As the learner builds their confidence it is important to have some normal lists to develop time management skills in the clinical environment.

3.2 Education provision and pedagogy

The learning environment and both clinical and pastoral support provided in the clinical placement can have a fundamental impact on learner progression, satisfaction and wellbeing. A good learning experience can also improve retention. The teaching delivery and level of support should be commensurate with the type of learner, e.g. Bachelor's, Master's level, medical trainee or point of care ultrasound (PoCUS). Ordinarily, structured support mechanisms are provided by the university, but where this is not the case, these should be administered internally and might include learning agreements and progress review meetings to support the learning process.

3.2.1 Teaching strategies

Ultrasound practice requires multiple skills. The ultrasound practitioner must understand not only how to use the equipment safely, underpinned with a good grasp of ultrasound physics, but also relevant anatomy, physiology and pathology across a range of clinical areas.²³ The practitioner must have fine motor skills to operate the equipment and gain the best views of the relevant anatomy and pathology. They also make clinical decisions based on their findings, understand the patient pathway, provide a written report and communicate complex information to patients. To support this learning, PEs need to consider multiple teaching strategies and approaches that can be used to meet CASE standards.²³ These include, but are not limited to:

- simulated scanning:^{26,27}
 - » using a real ultrasound system
 - › scanning live patients or peer scanning (consent must be obtained)²⁸
 - › scanning a phantom
 - » virtual reality simulator equipment

» computer or web-based simulation

- scanning patient lists within the placement setting
- arranging visits to other clinics, hospitals and/or areas of imaging, as required dependent on the background of the learner
- problem-based learning
- report writing practice and audit
- peer-to-peer learning such as the pilot/co-pilot model of clinical learning to increase the value of ultrasound training lists and capacity for supporting learners^{29,30}

The holistic nature of learning ultrasound needs to be considered, to assist with the development of a wide range of skills,²³ such as, but not limited to:

- person-centred care and communication
- clinical skills
- image acquisition and equipment manipulation
- anatomy, physiology, pathology and pathophysiology related to ultrasound imaging
- adherence to local protocols and understanding of how local protocols relate to national guidance
- communication skills, informed consent and delivering unexpected findings
- team working and multidisciplinary team (MDT) working
- safety, e.g. equipment safety, decontamination, risk assessment, risk reduction, incident reporting and investigation
- ethical and professional standards
- audit
- ergonomics and safe practice
- theory to practice links
- wider professional issues including patient pathways, alternative investigations, health promotion

3.2.2 Learning opportunities

To support the development of clinical skills, learning opportunities can include:

- Working in a variety of areas to build confidence and access different learning opportunities. This might begin with community diagnostic centres or GP lists, before progressing to outpatient, inpatient and emergency lists, and then, if relevant, specialist clinics. The PE can help to ensure that the learner has had a wide range of experience relevant to the clinical areas being studied; this should include range of normal cases and a wide range of pathology, from common to complex
- Working with appropriate supervision alongside a variety of colleagues across the relevant MDTs, for example sonographers, radiologists, midwife sonographers, physiotherapists, vascular scientists, physicists
- Observational visits to other departments, clinics, imaging modalities and/or hospitals relevant to the areas of clinical practice and background of the learner. This might include other imaging procedures, antenatal clinics, gynaecology outpatient clinics, operating theatres, one-stop clinics
- Observation of interventional procedures
- Attendance at MDT meetings
- Critical evaluation of cases, with supportive feedback
- Reflective practice to evidence progression and learning

Ultrasound learners must also be supported to develop the other three pillars of practice (education; leadership and management; research and development).¹¹ Learning opportunities may include, but are not limited to:

- contributing to peer audits, clinical audits or service evaluation
- developing departmental policies and protocols
- engaging with formative peer assessment
- supporting peer-to-peer learning
- presenting case studies
- engaging with journal club meetings
- attending conferences and providing feedback to peers on the learning from the conference

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- undertaking a research project or engaging as part of a research team
 - presenting case studies, posters, research or other work at conferences, training days, webinars or in-house events

3.2.3 Pastoral support and learner wellbeing

The clinical environment can be challenging for ultrasound learners, so a key role of the PE and clinical team is to ensure that the wellbeing of the learner is supported and the environment provides a positive learning experience. This is equally relevant during the preceptorship period. Pastoral support for learners should be holistic and focus on training and development requirements, as well as wellbeing needs.^{15,31}

There are numerous ways this can be achieved, including:

- recognising and supporting learners to manage stress and build coping strategies
- understanding signs of stress, exhaustion and burnout, to recognise early signs and address issues in a timely manner
- ensuring learners feel valued and encouraging a sense of belonging within the team
- encouraging open dialogue about clinical experiences and associated emotions
- having regular meetings and ‘checking-in’ on learners with a specific focus on wellbeing and emotions
- providing time and a safe space to debrief after difficult cases; normalising discussions about feelings and emotions; encouraging attendance at Schwartz Rounds, if they are available, which can help with this
- signposting to support from, for example, the education provider, student health service, line manager, occupational health or employee assistance programme, where applicable
- encouraging and facilitating CPD and lifelong learning
- promoting diversity, equality, belonging and inclusion within the immediate team and the wider MDT, in line with NHS England’s [equality, diversity, and inclusion improvement plan](#)³²
- encouraging and role modelling a healthy work–life balance

In all cases, it is important to establish clear professional boundaries when delivering pastoral support. PEs should be aware of their scope and know when to signpost accordingly.

3.3 Provision of quality feedback

For any learning experience to have value, the learner should be provided with opportunities to reflect on their own progress, evaluate their strengths and areas for development and be given timely feedback throughout the clinical learning process.

The lead PE and PE have key roles to play in this process and should ensure that appropriate feedback structures are used to provide both formative and summative feedback. It is well recognised that high-quality feedback can be a great motivator for learning and improving, and can reduce attrition and impact learning outcomes and success.^{33–36}

Formative assessment is defined as:³⁷

Assessment with a developmental purpose, designed to help learners learn more effectively by giving them feedback on their performance and how it can be improved and/or maintained.

Summative assessment is:³⁷

Used to indicate the extent of a learner's success in meeting the assessment criteria to gauge the intended learning outcomes of a module or course.

In the case of ultrasound clinical assessments, this includes meeting CASE standards²³ for being able to scan, analyse, interpret and report ultrasound examinations relevant to the scope of practice and educational level.

Challenges to providing appropriate feedback include the fear of upsetting learners or demotivating them. However, if provided in a constructive manner, exploring learners' understanding initially and not overwhelming them with too much information, it can add enormous value to the clinical placement experience. It can be easy for a PE to have a long list of things that could be improved, but focusing on the one or two key issues that will make the biggest difference is more likely to lead to change.³⁸ It is also important to be aware that some learners are extremely self-critical and will tell the PE everything they do badly or what went wrong, so it is imperative to tease out what the learner thinks went well and encourage reflection on all aspects of their performance.

Key elements of effective feedback have been well documented, but it can be challenging in the clinical environment to give good-quality, timely feedback. Lead PEs and PEs need protected time to enable learners to explore and reflect on how well they are doing, providing opportunities to feed forward into their clinical practice. Advance HE³³ suggests that:

Feedback should be for learning, not just evaluation of learning. It should help to close the gap between current performance and the expected standard of work, ... to take into account students' understanding of what they are supposed to be doing.

Feedback needs to be:

1. **Confidential:** Find a quiet location to discuss the case, out of range of patients or other colleagues. Learners need to feel safe when receiving feedback.
2. **Explicit:** Ask the learner if they are ready to discuss the case and get some feedback. Literature suggests that learners are often unaware of when they have been given feedback.³³
3. **Timely:** Provide feedback as soon as possible after the examination or activity.
4. **Specific:** Provide evidence of what the PE observed, giving examples such as "When you were trying to get the view of the pancreas, I noticed that your hand was vertical. It might help to angle caudally to get a better view", and then explain why you have suggested any recommendations.
5. **Clear and focused on actions and potential implications:** Avoid comments that are vague or linked to the learner's personality. For example, instead of "I didn't like the way you communicated with the patient", it is more helpful to say something like "When you said X, I noticed that the patient flinched. I wonder if you can think of a different way to communicate that?", or "I got the impression that the patient was nervous. Is there a way that you could phrase that, taking into account how the patient might be feeling?"
6. **Linked to national guidance and professional standards:** Providing benchmarking against national expectations can help the learner to determine where they are now and where they need to be.
7. **Action focused:** The learner needs to be clear about what they can continue to do well and what they need to do to progress in areas where there is room for improvement. Providing opportunities to feed forward into developing their clinical skills is important.
8. **Delivered sensitively:** It is important to give feedback in a sensitive and compassionate manner to encourage a supportive learning environment.
9. **Reinforcing the positive behaviours:** This can encourage and motivate learners when they know what they are doing well.

For example, a conversation with a learner might go as follows:

- “Would it be helpful to debrief now on that scan?”
- “Can you tell me three things you did well during that examination?”
- Sometimes learners find this challenging, so an offer of feedback may be provided:
 - » “Would you like some feedback from me? When you did X / said Y, I noticed the patient visibly relax. How did you feel at that point?”
 - » You can ask a question such as “What did you notice when you turned the patient onto their left side?” or “Which equipment settings do you think you used well for assessing the endometrium?”
- Then move on to asking “Is there anything you would do differently next time?”
- Finally, ask “Would you like a suggestion from me?”

4. Career development opportunities

Becoming a PE is a potential career development opportunity for sonographers at a local, regional or national level within clinical departments, company-wide for an independent sector provider, at a regional or imaging academy level, or nationally. Suggestions are provided to support those wanting to progress in this area of practice, with reference to published guidance and information.

4.1 Starting out as a practice educator

The ECF¹¹ and NHS Scotland³⁹ have guidance for those who want to become a PE. This includes:

- “identifying learning and development opportunities.”³⁹ This could be as part of a workplace appraisal, personal development plan, undertaking CPD opportunities, shadowing other PEs within the workplace or completing elearning modules
- on-the-job learning, by supporting learners in the department or clinic, offering tutorials or teaching sessions and providing advice and support where appropriate
- completing an education programme to further develop skills as a clinical educator
- connecting with local education providers to determine whether any opportunities are available to assist and develop your skills

4.2 Progression as a practice educator

The PE has potential to develop their expertise and skills by engaging with imaging academies and/or education providers providing CASE accredited programmes or focused courses. There are roles for PEs that can be explored within these settings, such as clinical skills teaching, or becoming a visiting or associate lecturer, independent external clinical assessor or end-point assessor for apprenticeship programmes. External examining roles may also be within the scope of the PE or lead PE. CASE accreditation is another area that an ultrasound PE could consider engaging with. CASE has roles for accreditors, but also clinical advisory roles to support the accrediting team.⁴⁰

Research and audit can be integrated into the PE role, alongside upskilling other colleagues, to assist them to meet the four pillars of practice to enhance their career. Further information can be found in a range of documents, including the [CoR ECF](#),¹¹ the [Preceptorship and Capability Development Framework for Sonographers](#),⁴¹ the [AHP Educator Career Framework](#),⁴² and the [Professional Development Framework for Educators](#).⁴³

4.3 Practice educator support

The PE is key to providing appropriate support and feedback to learners, to ensure successful progress to meet competencies and develop clinical competency. To provide that support, PEs need to be championed in their role, as highlighted by O'Connor et al.¹⁰

PEs need:

- to feel that the role is valued and respected
- support from other colleagues, within both the PE's immediate team, to recognise the value of the work they do and the time needed to do this well, but also the wider MDT
- allocated time for the role
- mental health first aider training or equivalent, to ensure the PEs have the skills needed to signpost learners to additional support as required
- awareness of and training to enable support for learners with additional or complex requirements
- support to develop coaching and mentoring skills if applicable
- conflict management skills training
- debriefing skills training

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- safeguarding and Prevent training⁴⁴
 - diversity, equality, belonging and inclusion training, to provide individual support for a wide range of learners and adapt the learning to any specific requirements
 - time and financial support to attend education and training events and expand their own CPD
 - access to a [health and wellbeing champion](#) or similar, to support their own needs
 - training and support from the education providers in relation to the monitoring, formative and summative assessment processes, timelines, documentation requirements and when additional assistance is required. For CASE accredited programmes there is an expectation that as part of the on-going accreditation, PEs will be provided with regular updates and training²⁵
 - good communication with the education providers, including on curriculum content, timetables and submission deadlines. Where possible, subject to learner consent, give feedback on learner progress, additional support needs and recommendations to enable them to access learning appropriate to their requirements

4.4 Suggested template job description for a practice educator role

The job description below can be adapted to suit local requirements, but provides some guidance to support local role development. This will be in addition to local requirements for a job description for a practising sonographer and additional information from the ECF.¹¹ This job description is written for a practice educator (PE) working with a lead PE in post. If there is no lead PE role, some elements from the two job descriptions may need to be combined.

Job purpose:

The Practice Educator for Ultrasound will support the high-quality ultrasound training of sonographers and other healthcare professionals across the [Trust/Health Board/Integrated Care Board/Region]. This role is essential in ensuring high standards of ultrasound practice through continuous education, training and mentorship of learners. The post holder will provide practical hands-on ultrasound training for a range of professionals including sonographers, doctors at different levels of training and other healthcare professionals. The Practice Educator will also collaborate with the Lead Practice Educator and/or with educational providers to facilitate high-quality clinical placements and ensure a robust learning environment.

Main duties and responsibilities:

Educational leadership:

-
- Provide leadership in relation to ultrasound clinical education at a local or regional level
 - Assist in the development, implementation and evaluation of ultrasound clinical education and training within the [Trust/Health Board/Integrated Care Board/Region]
 - Organise and deliver clinical training sessions, workshops and seminars to enhance clinical skills and knowledge for learners from a range of backgrounds, such as BSc and MSc sonography courses, point of care ultrasound (PoCUS) and medical education
 - Engage with recruitment, selection and induction of ultrasound trainees and promote equality, diversity and inclusion
 - Provide mentorship and support to support learners and staff to achieve their CPD goals
 - Facilitate and support staff induction and preceptorship programmes across the organisation
 - Work collaboratively with education providers to inform curriculum design and development
 - Utilise and critically appraise technology and simulation systems to support ultrasound clinical education and progress monitoring

Teaching and clinical progress monitoring:

- Provide clinical expertise and knowledge, supervision, support and assessment for learners on placement, ensuring a positive learning experience while promoting reflective practice and continuous improvement
 - Foster a supportive patient-focused learning environment that encourages learner engagement, accountability and success
 - Ensure effective integration of clinical practice and academic learning through reflective practice, clinical teaching and formative assessment, seminars and other relevant methods to support knowledge, skills and behaviours in line with local policies, professional statutory regulatory body, professional codes of conduct and education provider requirements
 - Work collaboratively with learners and education providers to ensure that appropriate support and assistance is available for learners, including pastoral support, additional learning needs support and wellbeing
 - Maintain awareness of developments within ultrasound clinical practice and clinical education and the impact and potential for supporting learners
 - Support colleagues within the [Trust/Health Board/Integrated Care Board/Region] to maintain and record their CPD and share the learning
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Quality assurance:

- Conduct regular reviews and audits of clinical teaching, learning, assessment and supervision to ensure continuous improvement
- Support staff training, mentoring, coaching and/or development for those involved in supporting learners and delivering education, where needed
- Liaise with the lead PE **and/or** education providers and other stakeholders to provide feedback on learner progress, cause for concerns, and course and syllabus relevance to current clinical practice
- Lead or input into organisation-wide ultrasound clinical audits, feedback and development

Research:

- Regularly review policies relating to clinical education, staff development and CPD against departmental needs and professional best practice guidelines and update as necessary
- Engage in research activities relevant to ultrasound education and practice
- Encourage and support learner involvement in service improvement and/or research projects and dissemination

Professional development and networking:

- Remain current with developments in ultrasound technology, education and clinical practice, integrating new knowledge into clinical teaching
- Contribute to professional development opportunities for staff and learners across multiprofessional groups
- **If relevant to role** – Assist existing ultrasound practitioners to develop their skills and competencies to progress in their career, in conjunction with their line manager, lead PE, appraisal objectives and the service needs
- Participate in relevant external activities to enhance ultrasound education

Qualifications:

- **Education:**
 - » Postgraduate qualification in ultrasound (Master's degree desirable)
 - » Master's-level qualification in learning and teaching/education qualification (desirable)
 - » Practice educator accreditation or a willingness to work towards this

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- » Leadership skills/qualification (desirable)
 - **Experience:**
 - » Current experience in ultrasound clinical practice
 - » Experience teaching clinical ultrasound skills
 - » Experience of mentoring ultrasound learners from a range of clinical backgrounds
 - » Involvement in developing clinical teaching strategies for a range of learners
 - **Skills:** (See ECF¹¹ for additional knowledge, skills and attributes)
 - » Excellent teaching, mentoring and communication skills
 - » Ability to work collaboratively with diverse stakeholders
 - » Demonstrate good judgement and analytical skills
 - » Be creative and innovative in coordinating and facilitating work-based learning
 - » Effectively apply the appropriate evidence-based learning and teaching theories and strategies suitable for a range of learners and situations
 - » Deliver practice-based teaching sessions using a range of methods
 - » Demonstrate proficiency in using educational technology and simulation tools relevant to ultrasound practice (desirable)
 - » Demonstrate a high degree of empathy in order to communicate feedback and difficult information in a sensitive, timely and compassionate manner
 - » Motivate and engage learners in the clinical practice setting
 - » Facilitate reflection in and on practice
 - » Offer expert professional development advice to staff
 - **Other:**
 - » Current registration with the Health and Care Professions Council (HCPC) or equivalent body such as the Register of Clinical Technologists (RCT)
 - » Commitment to CPD and lifelong learning.
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4.5 Suggested template job description for a lead practice educator role

The job description below can be adapted to suit local requirements, but provides some guidance to support local role development. Some elements from the PE job description template may also apply.

Job purpose:

The Lead Practice Educator (PE) for Ultrasound is a pivotal role, responsible for leading the development, delivery and evaluation of high-quality ultrasound education and clinical training. This role ensures that all educational activities meet the standards set by the Consortium for the Accreditation of Sonographic Education (CASE) and other organisations such as the Royal College of Obstetricians and Gynaecologists (RCOG) and Royal College of Radiologists (RCR) [amend to suit local requirements] and supports the professional development of sonographers and other healthcare professionals in ultrasound.

Main duties and responsibilities:

Educational leadership:

- Develop and maintain strong partnerships with internal and external stakeholders to lead on ultrasound clinical education at a local, regional or national level
- Develop, implement and manage ultrasound clinical education, training and policy development within the [Trust/Health Board/Integrated Care Board/Region]
- Identify and manage funding streams or liaise with the budget holders for educational development, to support ultrasound education and training
- Liaise with education providers, other stakeholders and PEs to ensure the clinical education and training aligns with the appropriate stages of academic learning and, where relevant, CASE and other educational standards
- Oversee recruitment, selection and induction of ultrasound trainees and support for existing multiprofessional staff to promote equality, diversity and inclusion
- Work collaboratively to input into curriculum development and educational provision with education providers and other stakeholders both internal and external to the organisation
- Ensure all PEs are appropriately supported, and regularly review clinical teaching and learner experience and on-going CPD needs
- Provide leadership across the [Trust/Health Board/Integrated Care Board/Region] to reflect current best pedagogic and clinical practice in addition to technological advances and simulation developments in ultrasound
- Lead on and monitor the effectiveness of induction and preceptorship programmes for new

staff, to facilitate their integration into the department, and support existing staff transitioning to new roles or developing their clinical skills and career progression in line with local needs

- Lead on the critical appraisal, implementation and evaluation of innovations in clinical teaching, technology and simulation systems to support ultrasound clinical education and progress monitoring
- Engage with widening participation and career planning activities to showcase the opportunities and entry routes into ultrasound practice

Teaching and clinical progress monitoring:

- Provide clinical expertise, teaching, supervision, support and assessment for learners on placement and PEs supporting them, ensuring a positive learning experience while promoting reflective practice, person-centred care and continuous improvement
- Deliver and support the provision of high-quality clinical teaching, tutorial support and feedback to learners from a range of backgrounds, such as BSc and MSc sonography courses, point of care ultrasound (PoCUS) and medical education. Utilise a range of learning and teaching methods to deliver this
- Foster a supportive, inclusive learning environment that encourages learner engagement and accountability for developing knowledge, skills and behaviours in line with local policies, professional statutory regulatory body, professional codes of conduct and education provider requirements
- Ensure effective integration of clinical practice and academic learning through reflective practice, clinical teaching and formative assessment, seminars and other relevant methods
- Provide constructive and motivational feedback using a range of mechanisms to learners and PEs
- Work collaboratively with learners, education providers, multiprofessional teams and PEs to ensure appropriate support and assistance is available for learners, including pastoral support, additional learning needs support and wellbeing
- Monitor and support PEs and learners to ensure they meet required competencies and that learning outcomes are met or support plans are implemented
- Ensure the education team maintain awareness of developments within ultrasound clinical practice and clinical education, and monitor the impact and potential for supporting learners
- Lead on supporting colleagues within the [Trust/Health Board/Integrated Care Board/Region] to maintain and record their CPD and share the learning with the wider teams

Quality assurance:

- Oversee the assessment and evaluation processes across the [Trust/Health Board/Integrated Care Board/Region] to ensure academic integrity, consistency of learning and assessment to meet clinical standards
- Conduct regular reviews and audits of clinical teaching, learning, assessment and supervision to ensure continuous improvement
- Lead on the implementation of staff training, mentoring, coaching and development for those involved in supporting learners and delivering education
- Work collaboratively with PEs and other colleagues to ensure timely and appropriate liaison with education providers and other stakeholders to provide feedback on learner progress, cause for concerns, course and syllabus relevance to current clinical practice
- Lead organisation-wide ultrasound clinical audits, feedback and development

Research:

- Engage in research and development activities to advance the field of ultrasound education and practice
- Disseminate research, audit and service improvement findings through publications, conferences and professional networks
- Encourage and support PE and learner involvement in service improvement and/or research projects and dissemination through education, coaching and mentorship
- Ensure that regular review of policies relating to clinical education, staff development and CPD are undertaken, mapping against departmental needs and professional best practice guidelines and updating as necessary
- Review the impact of research and service development projects in relation to ultrasound education, preceptorship, role satisfaction and attrition

Professional development and networking:

- Remain current with developments in ultrasound technology, education and clinical practice, leading on the integration of new knowledge into clinical teaching
 - Support PEs to continuously improve clinical teaching, progress monitoring and assessment of learners
 - Offer expert professional development advice across all levels of practice
 - Organise and contribute to professional development opportunities for staff and learners across multiprofessional groups
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- Take a lead on promoting education, training and support to assist existing ultrasound practitioners to develop their skills and competencies to progress in their career, in conjunction with their line manager, appraisal objectives and service needs
 - Participate in relevant external activities, work with professional bodies and organisations to enhance ultrasound education

Qualifications:

- **Education:**

- » Minimum of Master's degree in ultrasound
- » Master's-level learning and teaching/education qualification
- » PE accreditation
- » Leadership skills/qualification
- » Mentoring and coaching skills/qualification

- **Experience:**

- » Extensive current experience in ultrasound education and clinical practice
- » Proficiency in developing teaching and assessment strategies in the clinical ultrasound setting
- » Experience in leading and managing clinical ultrasound education across a wide range of clinical backgrounds
- » Expertise in developing and innovating to implement effective clinical teaching strategies for a range of learners
- » Teaching experience in an academic and/or imaging academy setting (desirable)
- » High level of awareness of professional body and other education and preceptorship guidance, alongside experience of implementation, evaluation and innovation across a range of ultrasound professionals

- **Skills:** (See ECF¹¹ for additional knowledge, skills and attributes)

- » Excellent teaching, mentoring and communication skills across multidisciplinary teams
- » Strong organisational and leadership abilities, with evidence of collaboration across and within teams
- » Demonstrate good judgement, influencing and analytical skills

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- » Proficiency in using, evaluating and implementing educational technology and simulation tools relevant to ultrasound practice
 - » Effectively apply and evaluate the appropriate evidence-based learning and teaching theories and strategies suitable for a range of learners and situations
 - » Deliver practice-based teaching sessions using a range of methods and across a range of different educational levels to learners and PEs
 - » Demonstrate a high degree of empathy in order to communicate feedback and difficult information in a sensitive, timely and compassionate manner, while being able to educate and support others to deliver high levels of compassionate care
 - » Motivate and engage learners and clinical colleagues in the practice setting to achieve high standards of patient care and outcomes
 - » Facilitate, encourage and support reflection in and on practice within the wider team
 - » Offer expert professional development advice to staff on all elements of practice-based learning, assessment, support and troubleshooting

- **Other:**

- » Current registration with the Health and Care Professions Council (HCPC) or equivalent body such as the Register of Clinical Technologists (RCT)
- » Commitment to CPD and lifelong learning and the pursuit of high-quality practice-based learning

4.6 Suggested job plan for practice educators

The job plan is based on the NHS guidance.⁴⁵ Activities for sonographer PEs should be linked to the job description and the NHS categories. These might include, but are not limited to, the following:

Specified direct clinical care (DCC)

- Undertake clinical and clinically related activity, including clinical training lists with learners
- Provide clinical expertise and knowledge, supervision, support, and assessment for learners on placement, ensuring a positive learning experience while promoting reflective practice and continuous improvement
- Participate in multidisciplinary team meetings

Specified supporting professional activities (SPA)

- Support the development, implementation, review and reporting of multidisciplinary ultrasound education initiatives supporting collective learning in clinical areas linked to quality enhancement and cross-sector working
- Organise and deliver clinical training sessions, workshops and seminars to enhance clinical skills and knowledge for learners from a range of backgrounds
- Engage in strategic partnership working to identify and support staff from across the career framework
- Contribute to quality assurance and governance in relation to education, CPD and revalidation
- Support staff induction and preceptorship programmes
- Remain current with developments in ultrasound technology, education and clinical practice, integrating new knowledge into clinical teaching
- Contribute to professional development opportunities for staff and learners across multiprofessional groups
- Assist existing ultrasound practitioners to develop their skills and competencies to progress in their career, in conjunction with their line manager, appraisal objectives and the service needs

Additional responsibilities (AR)

- Collaborate and actively contribute to meetings and working groups at a regional and/or national level, both internal and external to the organisation

External duties (ED)

- Guest lecturer
- Conference presentations (oral and poster presentations)
- CASE accreditor
- Collaboration with regional colleagues, NHS and higher education institution leaders and managers to develop specific education resources that are commensurate with the post holder's expertise and are linked to national priorities, sharing good practice and innovation
- Engage in research activities relevant to ultrasound education and practice
- Encourage and support learner involvement in research projects

Time / Day	Monday	Tuesday	Wednesday	Thursday	Friday
8.30–12.30	DCC	DCC	DCC	DCC	DCC
12.30–13.30	Break				
13.30–17.00	DCC	SPA	SPA	SPA	AR and/or ED

DCC = direct clinical care; SPA = supporting professional activities; AR = additional responsibilities;
ED = external duties

5. Conclusion

The PE role is essential for supporting a good learning experience for all ultrasound learners. This document provides some guidance on the recruitment, career development and progression from PE to lead PE. As with any education role, it is important to consider how the role fits within the MDT to support learning across professional groups for safer patient care. Individual learners will require different levels of support depending on their experience, background and level of award being studied. Open dialogue with the learner and the education provider will be key to providing the best learning opportunities for successful completion of a programme of study and for reducing attrition.

References

1. Society of Radiographers. Ultrasound Workforce UK Census 2019; 2019. Available at: <https://www.sor.org/learning-advice/professional-body-guidance-and-publications/documents-and-publications/policy-guidance-document-library/ultrasound-workforce-uk-census-2019> (Accessed 28 October 2024).
2. NHS England. Non-Obstetric Ultrasound (NOUS) National Deep Dive. National Imaging Transformation Programme meeting presentation slides; November 2022.
3. Harrison G, Beardmore C. Ultrasound clinical teaching capacity in England: A scoping exercise. *Radiography* 2020;26(1):3-8. Available at: <https://doi.org/10.1016/j.radi.2019.09.005> (Accessed 17 December 2024).
4. Dickson DM, Kay M. Postgraduate Medical Ultrasound learner and practice educator perceptions and experiences of academy model clinical ultrasound training in Scotland. *Radiography* 2024;1(30) Suppl 2:26-33. Available at: <https://doi.org/10.1016/j.radi.2024.09.056> (Accessed 17 December 2024).
5. Kraus B, Harrison G, Santos R, Vils Pedersen MR. Ultrasound education across European Federation of Radiographers Societies (EFRS) countries: Similarities and differences. *Radiography (Lond)* 2024 May;30(3):715-22. Available at: <https://doi.org/10.1016/j.radi.2024.01.024> (Accessed 17 December 2024).
6. NHS England. Educator Workforce Strategy; 2023. Available at: <https://www.england.nhs.uk/long-read/educator-workforce-strategy/> (Accessed 23 December 2024).
7. Health and Care Professions Council. Standards of education and training; 2017. Available at: <https://www.hcpc-uk.org/standards/standards-relevant-to-education-and-training/set/#:~:text=5.4%20Practice%2Dbased%20learning%20must,learning%20outcomes%20of%20the%20programme> (Accessed 17 November 2024).
8. Cook L, Gregory M, Butt T, Shakespeare J. Practice education in England: A national scoping review; 2023. Available at: <https://www.socialworkengland.org.uk/media/aegbjz1d/practice-education-in-england.pdf> (Accessed 23 December 2024).
9. Khine R, Harrison G, Flinton D. What makes a good clinical practice experience in radiography and sonography? An exploration of qualified clinical staff and student perceptions. *Radiography* 2024;30(1):66-72. Available at: <https://doi.org/10.1016/j.radi.2023.09.013> (Accessed 17 December 2024).
10. O'Connor M, Lunney A, Rainford L, Grehan J. Recruitment and retention of radiography clinical practice educators. *Radiography (Lond)*. 2023 May;29(3):629-34. Available at: <https://doi.org/10.1016/j.radi.2023.04.004> (Accessed 17 December 2024).

-
11. College of Radiographers. Education and Career Framework for the Radiography Workforce. 4th ed; 2022. Available: [https://www.sor.org/learning-advice/professional-body-guidance-and-publications/documents-and-publications/policy-guidance-document-library/education-and-career-framework-for-the-radiogr-\(1\)](https://www.sor.org/learning-advice/professional-body-guidance-and-publications/documents-and-publications/policy-guidance-document-library/education-and-career-framework-for-the-radiogr-(1)) (Accessed 22 July 2024).
 12. NHS Education for Scotland. AHP Practice Education; 2023. Available at: <https://www.nes.scot.nhs.uk/our-work/ahp-practice-education/> (Accessed 22 July 2024).
 13. Health and Care Professions (H&CP) Education Leads Group. Practice Education Guidance; 2016. Available at: <https://www.collegeofradiographers.ac.uk/CMSPages/GetFile.aspx?guid=33714703-f6be-448a-89af-67d8886021af&versionhistoryid=40444> (Accessed 24 July 2024).
 14. Cormack CJ, Childs J, Kent F. Competencies required by sonographers teaching ultrasound interprofessionally: a Delphi consensus study. BMC Med Educ 2024 Sep 5;24(1):970. Available at: <https://doi.org/10.1186/s12909-024-05933-x> (Accessed 17 December 2024).
 15. Australasian Sonographers Association. ASA guideline: A sonographer's guide to clinical supervision; 2015. Available: https://www.sonographers.org/publicassets/62af4f20-2a85-ea11-90fb-0050568796d8/Clinical_Supervision_Guidelines.pdf (Accessed 7 November 2024).
 16. Francis A, Hills C, MacDonald-Wicks L, Johnston C, James D, Surjan Y, Warren-Forward H. Characteristics of an ideal practice educator: Perspectives from practice educators in diagnostic radiography, nuclear medicine, nutrition and dietetics, occupational therapy and physiotherapy and radiation therapy. Radiography 2016;22(4):287-94. Available at: <https://doi.org/10.1016/j.radi.2016.04.001> (Accessed 17 December 2024).
 17. Perram A, Hills C, Johnston C, MacDonald-Wicks L, Surjan Y, James D, Warren-Forward H. Characteristics of an ideal practice educator: Perspectives from undergraduate students in diagnostic radiography, nuclear medicine, nutrition and dietetics, occupational therapy, physiotherapy and radiation therapy. Radiography 2016;22(4):295-305. Available at: <https://doi.org/10.1016/j.radi.2016.04.007> (Accessed 17 December 2024).
 18. College of Radiographers. Practice Educator Accreditation Scheme. Guidance for Applicants; 2022. Available at: <https://www.collegeofradiographers.ac.uk/getattachment/Education/Accreditation/Practice-Educator/Applicant-documents/PEAS-guidance-for-applicants-updated-March-2020/PEAS-Applicant-Guidance-July-2022-v2.pdf?lang=en-GB&ext=.pdf> (Accessed 24 June 2024).
 19. Society and College of Radiographers. Join us; 2020. Available at: <https://www.sor.org/join> (Accessed 17 December 2024).
 20. College of Radiographers. Directory of post-registration courses; 2024. Available at: <https://www.collegeofradiographers.ac.uk/education/post-registration-courses> (Accessed 23 December 2024).
-

-
21. Consortium for the Accreditation of Sonographic Education. CASE Position Statement: Independent Scanning Prior to Award Ratification; 2021. Available at: <https://www.case-uk.org/advice-useful-links/position-statements/independent-scanning/#:~:text=Issued%20December%202021,by%20the%20university%20examination%20board>. (Accessed 7 November 2024).
 22. Society of Radiographers and Royal College of Radiologists. Standards for the provision of an ultrasound service; 2014. Available at: https://www.sor.org/getmedia/50c6af60-6f84-445a-be51-4bd82bb9e090/bfcr1417_standards_ultrasound.pdf_1 (Accessed 12 November 2024).
 23. Consortium for the Accreditation of Sonographic Education. Standards for Sonographic Education; 2022. Available at: <https://www.case-uk.org/standards/> (Accessed 12 November 2024).
 24. Skills for Health. CI.C.2019 Perform, interpret and report on ultrasound examinations; 2019. Available at: <https://tools.skillsforhealth.org.uk/competence-details/html/4302/> (Accessed 12 November 2024).
 25. Consortium for the Accreditation of Sonographic Education. CASE Validation and Accreditation Handbook; 2020. Available at: <https://www.case-uk.org/handbook/> (Accessed 11 November 2024).
 26. Dietrich CF, Lucius C, Nielsen MB, Burmester E, Westerway SC, Chu CY, et al. The ultrasound use of simulators, current view, and perspectives: Requirements and technical aspects (WFUMB state of the art paper). Endosc Ultrasound 2023;12(1):38-49. Available at: <https://doi.org/10.4103/EUS-D-22-00197> (Accessed 23 December 2024).
 27. Lucius C, Nielsen MB, Blaivas M, Burmester E, Westerway SC, Chu CY, et al. The use of simulation in medical ultrasound: Current perspectives on applications and practical implementation (WFUMB state-of-the-art paper). Endosc Ultrasound 2023;12(3):311-18. Available at: <https://doi.org/10.1097/eus.0000000000000022> (Accessed 23 December 2024).
 28. British Medical Ultrasound Society. Guidelines for the management of safety when using volunteers & patients for practical training and live demonstration in ultrasound scanning and consent; 2018. Available at: https://www.bmus.org/static/uploads/resources/Glines_for_the_mgmnt_of_safety_when_using_volunteers_patients_NOV_2018.pdf (Accessed 23 December 2024).
 29. Harrison G. Pilot/co-pilot method of learning ultrasound clinical skills; 2019. In: Royal College of Physicians and NHS England. Never too busy to learn. Guidance to support clinicians' learning and development within busy clinical workplaces; 2019. Available at: https://downloads2.dodsmonitoring.com/downloads/Misc_Files/RCP%20Never%20too%20busy%20to%20learn%20report%20final.pdf (Accessed 23 December 2024).
-

-
30. Chartered Society of Physiotherapy and the Royal College of Occupational Therapists. AHP principles of practice-based learning: Working together to develop our future workforce; 2023. Available: <https://www.sor.org/learning-advice/professional-body-guidance-and-publications/documents-and-publications/policy-guidance-document-library/ahp-principles-of-practice-based-learning> (Accessed 7 November 2024).
 31. Greater Manchester Health and Social Care Partnership. Greater Manchester Pastoral Support Toolkit; 2019. Available at: <https://mft.nhs.uk/app/uploads/2020/03/GM-Final-Pastoral-Support-Toolkit-Final-Version-Dec-19.pdf> (Accessed 23 December 2024).
 32. NHS England. NHS equality, diversity, and inclusion improvement plan; 2023. Available at: <https://www.england.nhs.uk/long-read/nhs-equality-diversity-and-inclusion-improvement-plan/> (Accessed 24 December 2024)
 33. Advance HE. HEA Feedback toolkit; 2013. Available at: <https://www.advance-he.ac.uk/knowledge-hub/hea-feedback-toolkit> (Accessed 17 December 2024).
 34. Elkington S. Essential Frameworks for Enhancing Success: Transforming Assessment in Higher Education; 2020. Advance HE. Available at: <https://www.advance-he.ac.uk/knowledge-hub/essential-frameworks-enhancing-student-success-transforming-assessment> (Accessed 17 December 2024).
 35. Harrison G, Benato R, Callaghan T, Hunter J, Huntjens B, Myers L, et al. Promoting success: developing and implementing a formative assessment toolkit; 2020. In: Baughan P. On Your Marks: Learner-focused Feedback Practices and Feedback Literacy; 2020. Advance HE. Available at: <https://www.advance-he.ac.uk/knowledge-hub/your-marks-learner-focused-feedback-practices-and-feedback-literacy> (Accessed 17 November 2024).
 36. Nelson C, Sivasubramaniam S. Encouraging students to close the feedback loop through iterations of feedback, reflection and dialogue; 2020. In: Baughan P. On Your Marks: Learner-focused Feedback Practices and Feedback Literacy; 2020. Advance HE. Available at: <https://www.advance-he.ac.uk/knowledge-hub/your-marks-learner-focused-feedback-practices-and-feedback-literacy> (Accessed 17 December 2024).
 37. Quality Assurance Agency for Higher Education. UK Quality Code for Higher Education – Advice and Guidance: Assessment; 2018. Available at: <https://www.qaa.ac.uk/the-quality-code/2018/advice-and-guidance-18/assessment> (Accessed 17 December 2024).
 38. Burgess A, Mellis C. Feedback and assessment for clinical placements: achieving the right balance. *Adv Med Educ Pract* 2015;6:373-81. Available at: <https://doi.org/10.2147/AMEP.S77890> (Accessed 17 December 2024).
 39. NHS Scotland. AHP Practice Education; 2023. Available at: <https://www.nes.scot.nhs.uk/our-work/ahp-practice-education/> (Accessed 24 December 2024).
-

-
40. Consortium for the Accreditation of Sonographic Education. CASE Accreditors; 2024. Available at: <https://www.case-uk.org/for-accreditors/> (Accessed 20 January 2025).
 41. British Medical Ultrasound Society. Preceptorship and Capability Development Framework for Sonographers; 2023. Available at: https://www.bmus.org/media/resources/files/PC_with_CPF_app_A_and_explanatory_notes_FINAL_Mar2023.pdf (Accessed 24 December 2024).
 42. Council of Deans of Health. AHP Educator Career Framework; 2023. Available at: <https://www.councilofdeans.org.uk/wp-content/uploads/2023/04/Allied-Health-Professions-Educator-Framework.pdf> (Accessed 24 December 2024).
 43. Health Education England. Professional Development Framework for Educators; 2022. Available at: https://london.hee.nhs.uk/sites/default/files/professional_development_framework_for_educators_2022.pdf (Accessed 24 December 2024).
 44. Office for Students. Counter-terrorism - the Prevent duty; 2024. Available at: <https://www.officeforstudents.org.uk/for-providers/student-protection-and-support/counter-terrorism-the-prevent-duty/> (Accessed 23 December 2024).
 45. NHS England and NHS Improvement. Job planning the clinical workforce – allied health professionals. A best practice guide; 2019. Available at: <https://www.england.nhs.uk/wp-content/uploads/2021/05/aps-job-planning-best-practice-guide-2019.pdf> (Accessed 14 January 2024).

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