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Information paper

Context of Physiotherapists using Point of Care Ultrasound (POCUS) in physiotherapy practice

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Introduction

This information paper aims to provide contextual information to clinicians, educators, service managers and others who have an interest in the use of point of care ultrasound (POCUS) within physiotherapy practice in the UK.

The information in this document sets out the foundation principles for the use of point of care ultrasound (POCUS) imaging by physiotherapists as part of their physiotherapy practice in the UK. The advice in this document applies to all sectors of health and social care provision in the United Kingdom where POCUS activities occur, in both NHS and private services.

This document is 'guidance'. 'Guidance' is information which a physiotherapist has a duty to consider and is expected to take into account as part of their decision making process in practice.

The audience for this document includes

- CSP member registered physiotherapists using POCUS
- Service managers delivering POCUS services

Context

Ultrasound imaging (UI) allows for the real-time imaging of a wide range of tissues, organ systems and pathologies. UI is used by a range of professionals and UI may be used for screening, diagnostic, interventional, treatment monitoring and/or biofeedback purposes across a wide range of clinical settings and contexts. The use of UI is rapidly expanding across a wide range of healthcare applications and increasingly physiotherapists are using this technology as part of their own physiotherapy practice.

There are several terms you may encounter and we have interpreted these as follows:

Point of Care Ultrasound (POCUS): The use of ultrasound imaging by a clinician to inform and/or support the clinical assessment and/or treatment of their patient. The decision to use ultrasound imaging, performance and interpretation of the ultrasound imaging, reporting of the ultrasound imaging

and any subsequent decision-making informed by the ultrasound imaging are all undertaken by that clinician. The remit of the scan is typically narrow and informed by a prior clinical assessment and reasoning.

Career Ultrasound Imaging (CUI): The ultrasound imaging of many or all of the structures in the same anatomical region performed by imaging professionals such as a radiologist or a sonographer. The decision to request ultrasound imaging is taken by a treating and/or assessing clinician who is not the imaging professional. The imaging professional will typically perform a wide ranging scan and holds the autonomy and responsibility for performing, interpreting and reporting the scan findings. Subsequent decision-making informed by the ultrasound imaging is undertaken by the requesting clinician.

Sonography

A sonographer is a person who uses ultrasound equipment to screen and diagnose medical conditions¹. Entry routes to the profession vary.

Regulatory Issues

The title sonographer is not protected, neither is sonography recognised as a statutorily regulated healthcare profession. There is no legal requirement to hold a recognised ultrasound qualification in order to practice as a sonographer in the UK, although most employers require evidence of post-graduate level training, or equivalent, in order to work as a sonographer in the NHS.

As the use of sonography for medical ultrasound has increased in recent years, with practitioners coming from a variety of health care backgrounds, a voluntary register, the Public Voluntary Register of Sonographers (PVRS) was established. Since Feb 2021, this register has been absorbed by the Register of Clinical Technologists (RCT) with a separate category for sonographers.

Professional Issues

A number of professional associations represent practitioners with an interest in medical ultrasound. The Consortium for the Accreditation of Sonographic

¹ <https://nationalcareers.service.gov.uk/job-profiles/sonographer>

Education (CASE) is an organisation that exists to accredit sonography training courses delivered within the UK. The CSP became a member of CASE in 2016. CASE provides comprehensive information relating to Standards for Sonographic Education² which includes Standards of Proficiency for sonographers.

Workplace Issues

Many NHS organisations may require sonographers to have a specified level of qualification in sonography to ensure that, however a practitioner comes into the profession, they hold a recognised academic qualification. The organisation will also have a range of policies and procedures that set out the governance framework and/or pathways that sonographers work within. Sonography is a distinct role that is not part of physiotherapy practice. The physiotherapy workforce should not be used to address any shortfalls in the sonographic workforce.

Point of Care Ultrasound (POCUS) in Physiotherapy Practice

Point of Care Ultrasound (POCUS) can be the terminology used to describe when a practitioner is using sonography as part of their clinical role within their primary professional registration. For example,

- A physiotherapist using POCUS as part of physiotherapy practice in a narrowly defined aspect of practice, such as ultrasound guided injections.
- A physiotherapist using POCUS to provide visual biofeedback on muscle recruitment during patient assessment or treatment.
- A physiotherapist using POCUS to complement their clinical assessment of lung consolidation within respiratory care

Regulatory Issues

'Physiotherapist' is a protected title and the HCPC sets the Standards of Proficiency for Physiotherapists³. These standards apply to all physiotherapists including when they use POCUS as part of their physiotherapy role. HCPC standards do not apply to any role and/or professional which is not within the scope of HCPC regulation.

² <http://www.case-uk.org/standards/>

³ <https://www.hcpc-uk.org/standards/standards-of-proficiency/physiotherapists/>

Professional Issues

The CSP clearly recognises POCUS as being within the scope of physiotherapy practice of the profession as a whole, and recognises a Professional Network Electrophysical Agents and Diagnostic Ultrasound (EPADU) as representing those CSP members with a specialist interest in POCUS. Ultrasound imaging and its application as a diagnostic modality sits within the third pillar of physiotherapy practice of 'therapeutic and diagnostic technologies'

For physiotherapists using POCUS as part of their physiotherapy work, they hold the professional autonomy for determining when a POCUS scan is indicated, and for what purpose it is used. They must also be educated, trained and competent in POCUS for it to form part of their personal scope of practice.

Workplace Issues

Where POCUS is used by physiotherapists in their physiotherapy work, the nature and purpose of POCUS should broadly be outlined within the physiotherapist's job description, and the activity supported by a robust system of continuing professional development and governance. There should be work place policies and procedures in place governing the use of POCUS

The definition of POCUS in physiotherapy practice

POCUS is currently used across a range of different physiotherapy specialisms (e.g. musculoskeletal, rheumatology, pelvic health, lung/critical care, neurology), different settings (e.g. primary and secondary care, education and research) and job roles (including Advanced Practice and First Contact Practitioners).

POCUS use may be required by a physiotherapist working in any of these specialist areas. Individual physiotherapists who develop specialist expertise tend to do so in one area of clinical practice only. Therefore, whilst the POCUS activity of the profession as a whole may appear broad and diverse, the individual activities of any one physiotherapist using POCUS will likely be focused only within their chosen specialist area of practice, and may have a broad or narrow focus of practice.

In order to help physiotherapists understand the extent to which POCUS is accepted within physiotherapy practice and thus may, or may not, support an individual physiotherapist's practice, it is important for the CSP to set an overarching definition of POCUS within physiotherapy practice. That definition is –

***“Point of Care Ultrasound in physiotherapy practice is the use of ultrasound imaging (UI) technology to assist the registered physiotherapist in the screening, diagnosis, intervention and/or treatment of any condition within the practitioner’s area of physiotherapy expertise and competence. POCUS must be used within the overarching framework of providing physiotherapy management of the condition which addresses any element of human movement, performance and function in the widest sense, and at any point within the pathway of care for that condition.*”**

The CSP believes this definition provides physiotherapists with the flexibility to use POCUS across and within a wide range of physiotherapy practice settings. Further development of the extent of the scope of practice within any particular specialism is currently being considered by member subject matter experts.

The scope of an individual physiotherapist’s POCUS practice

The CSP expects individual members to be able to understand, define and describe their own personal scope of POCUS practice such that they can reach their own decision as to whether their use of ultrasound imaging fits within the scope of physiotherapy practice as a whole, or is separate sonography practice.

Unknown and/or potentially serious pathology may be identified on a POCUS scan. Therefore physiotherapists using POCUS should have mechanisms in place to refer patients on to an appropriate medical professional. Where CSP members are working in non-hospital settings such as private practice and/or sports settings, they should ensure that robust onward referral pathways and collaborative MDT working is in place.

A large proportion of 'POCUS in physiotherapy practice' scans will be undertaken on portable devices that are not connected to PACS (picture archiving and communication system). This means

- Other members of the care pathway may be unable to access the ultrasound images or are unaware of them; this can impact continuity of care
- Review of the images is harder to perform.

The use of ultrasound imaging systems that integrate with PACS and the inclusion of written imaging reports into the patient record is therefore encouraged.

Education, Training and Competency

POCUS activity is fully accepted as being within the overall scope of the physiotherapy profession as a whole. It is a skill that is acquired post-registration, and like all activities, the physiotherapist must ensure they are educated, trained and competent in the activity for it to be within their personal scope of practice.

The extent of any training undertaken may be dependent on the individual scope of POCUS practice that the physiotherapist intends to use. For example, where a narrow scope of POCUS practice is intended, the training will be narrowly focused to this specific intended use. Where a broader scope of POCUS use is intended, the training will need to cover a wider range of knowledge and skills to match the specific intended use.

Whether the intended POCUS focus is narrow or broad, all physiotherapists using POCUS must have sufficient education, training and competence relevant to the area of intended practice to:

- Assess a patient's clinical condition
- Undertake a thorough history and examination
- Decide on whether POCUS is required to assist diagnosis and/or decision making
- Understand and apply the relevant physical principles of ultrasound and ultrasound imaging

- Undertake the relevant ultrasound imaging scans and interpret the findings as part of the physiotherapy management of the patient
- Refer to other professionals as necessary with the appropriate expediency.

The CSP expects that all members practicing POCUS as part of physiotherapy practice seek to demonstrate that their education and training in POCUS maps to CASE standards⁴ or a CASE equivalent standard which is at –

**Level 6/ Level 10 (Sco) Bachelor’s Degree level or
Level 7/ Level 11 (Sco) Master’s Degree where such programmes exist.**

The CSP recognises that in some areas of POCUS practice, Level 7/11 programmes do not yet exist, and in these cases members are not expected to cease practice and should instead demonstrate their personal competence using existing CPD frameworks

The following are **core** requirements that all educational programmes should include

- The component elements of ultrasound imaging practice that the individual will subsequently use in their ‘POCUS in physiotherapy practice’. Including technical considerations, ultrasound physics, image optimisation, management of artefacts at a level relevant to the subsequent POCUS scope of practice.
- Directly observed scanning (by the individual) with a suitably experienced and qualified mentor. This must include scanning of patient groups which reflect the subsequent POCUS scope of practice.

The following are **optimal** requirements of any educational programme:

- The programme is Higher Education Institution (HEI) based and with external scrutiny of the course via a body such as CASE

⁴ <http://www.case-uk.org/>

- Competency should be successfully demonstrated in a formal capacity across all elements of ultrasound imaging relevant to the subsequent POCUS scope of practice.

Members should be able to provide evidence that their training in POCUS enables them to demonstrate they:

- Have acquired the knowledge and skills to practise POCUS safely.
- Understand the principles of POCUS and how to apply these safely within their relevant scope of practice and patient user groups.
- Have undertaken elements of supervised practice, overseen by an appropriately qualified POCUS or UI practitioner that enables them to develop their knowledge and skills.
- Have undertaken theoretical and learning-in-practice components of learning that should be tailored in content, delivery and assessment to achieve knowledge and practice that maintains patient safety in the physiotherapist's individual area of practice of POCUS.
- Can demonstrate clinical-reasoning and decision-making, and information-sharing with patients, promoting consideration of the appropriateness to offer, or not to offer, POCUS in line with patient need and preference.
- Have successfully passed the assessment requirements of any period of training and have been deemed by an examiner/supervisor to have reached a competent level of practice

Members may be asked to demonstrate their capabilities in POCUS use in range of situations. For example –

- As part of a bi-annual HCPC re-registration audit process
- If their practice is challenged through an HCPC fitness to practise hearing
- If their practice is challenged through a workplace patient incident investigation
- If their practice is challenged by a clinical negligence allegation

Therefore, the CSP recommends that all members are able, if required, to provide a portfolio of learning that demonstrates that their education and training maps to CASE, or CASE equivalent, standards, and that they can demonstrate ongoing competence in POCUS use through a range of continuing professional development activities.

Maintaining competency

The following are examples of activities that maybe used to provide evidence of maintaining your POCUS competency:

- Reflection on scanning technique and subsequent image interpretation / clinical integration via:
 - Review of recorded images and subsequent decision making with (i) a suitably experienced colleague and/or (ii) other imaging modalities or surgical findings and/or (iii) subsequent clinical outcome
 - Double scanning list / bedside peer scanning: where an individual undertakes patient scans in parallel with a suitably experienced colleague
- Ongoing learning and maintenance of up to date knowledge via:
 - Short-courses via professional organisations or private providers
 - Conference attendance, engaging with current evidence via peer-reviewed journal publications, etc.

A 'suitably experienced colleague' should be an individual who (regardless of their profession) has extensive experience of ultrasound imaging of the anatomical region and type of patient presentation that aligns with the relevant POCUS scope of practice.

POCUS and Professional Liability Insurance (PLI)

HCPC registrants are required to hold adequate indemnity to practice in order to maintain their registration. Indemnity may be provided by an employer, a professional organisation or another commercial insurer.

When physiotherapists are working under a 'contract of employment' where POCUS is an expected part of their physiotherapy role, their employer is vicariously liable for POCUS acts and omissions undertaken as part of their employment.

When physiotherapists are self-employed or contractors where POCUS is an expected part of their physiotherapy role, the physiotherapist is required to hold their own indemnity for their own work. Physiotherapists who are members of the CSP have PLI as a benefit of membership to cover their own work, subject to policy terms and conditions.

Where POCUS is used as part of physiotherapy practice, subject to policy terms and conditions, it is covered by the CSP PLI scheme.

The CSP PLI scheme only covers eligible CSP members for undertaking activities within the scope of physiotherapy practice and it does not provide cover for people working as sonographers.

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