

IN PRACTICE

A24

**AN INTRODUCTION TO POINT OF CARE
ULTRASOUND COURSE FOR EARLY YEARS
RESIDENT DOCTORS**

Raymond Effah¹, Ramnauth Ramkrishna¹, James O'Brien¹,
Phoebe Rivers¹, Oscar Atkinson; ¹*Queen Alexandra Hospital,
Portsmouth, United Kingdom*

Correspondence: raymond.effah2@porthosp.nhs.uk
[10.54531/KOGG7534](https://doi.org/10.54531/KOGG7534)

Introduction: Point-of-care ultrasound (POCUS) is increasingly becoming an integral component of healthcare due to its capability for swift diagnosis, aiding management plans and improving accuracy and decreasing complications of bedside procedures. POCUS training has advanced over recent years with many centres now offering accredited courses and implementing structured training to improve clinician's ultrasound skills. According to the literature, frequent barriers to accreditation include lack of supervisors and lack of time to complete supervised scans [1], by running a "Introduction to POCUS" course it was our aim to reduce these barriers.

Methods: We organised a monthly "Introduction to POCUS" session for resident doctors to teach how to use ultrasound using simulation via Bodyworks Eve and SonoSim. Residents were taught how to use an ultrasound probe, perform ultrasound guided cannulation and were shown different pathologies involving heart, lung, and abdomen.

Results: Several sessions were held between 2022 and 2024 for interested resident doctors. In total 45 participants attended. The majority were FY1 and FY2 doctors (97%), with most having no previous ultrasound experience (67%). Participants were asked to rate their confidence in carrying out bladder scanning, ultrasound guided cannulation, and diagnosing DVTs and lung/abdomen pathology. 33 doctors completed both the survey before and after the session, with all showing statistically significant improvements ($p < 0.01$) in all measured parameters using the paired t-test. Interestingly, doctors cited access to probes, supervision, and their lack of practical knowledge were the main barriers to being able to use or learn ultrasound.

Discussion: Our study has shown that early exposure to ultrasound may be beneficial for doctors in improving their clinical practice and development of new skills. All participants that participated believed they were more likely to use ultrasound in their clinical practice going forward. The use of ultrasound guided cannulation may also reduce the burden on departments such as vascular access or the anaesthetics, that may be asked to assist during difficult cannulation. We are hoping to reduce the barriers to accessing ultrasound and practising the skills residents have learned over the next coming months by implementing more informal monthly sessions where doctors will be given access to use the simulation equipment. Lastly, we will arrange future accreditation courses in focussed acute medical ultrasound, to allow them to take the first steps to becoming accredited.

Ethics Statement: As the submitting author, I can confirm that all relevant ethical standards of research and dissemination have been met. Additionally, I can confirm that the necessary ethical approval has been obtained, where applicable.

REFERENCES

1. Tan MZ, Brunswicker A, Bamber H, Cranfield A, Bouloukas E, Latif S. Improving lung point-of-care ultrasound (pocus) training and accreditation - A multidisciplinary, multi-centre and multi-pronged approach to development and delivery using the Action Learning Process. *BMC Medical Education*. 2024 Jul 2;24(1). doi: 10.1186/s12909-024-05653-2.