

POINT OF CARE ULTRASOUND (POCUS) TRAINING, IN LOW RESOURCE SETTINGS (GHANA), FOCUSING ON SUSTAINABILITY.

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Introduction

The World Health Organisation acknowledges ultrasound as an important tool globally [1], and that low resource settings are ideal for POCUS [1]. but recognises the need for education and training [2]. POCUS is increasingly popular with physicians but training for high quality POCUS implementation remains a challenge, mostly due to cost and expert trainer availability [3].

The aim of training in low-resource settings should ensure sustainability and not rely on expensive visits by overseas instructors. Many projects have attempted to train large numbers of practitioners in short time periods and not include education of future trainers [4].

The University of Salford (UoS) in conjunction with Worldwide Radiology (WWR) started a POCUS training project in 2020 in Ghana with sustainability as a core priority. Ultrasound specialists from the UK and Netherlands did go out to train in the first three years but the aim was to train local doctors to be trainers.

2023 is the 3rd year of delivery and in 2022, the second year of delivery, alongside the POCUS training, we started a "Train the Trainer" initiative and three doctors who had completed the full course from the first cohort were selected to become trainers/assessors within our project with the hope of ensuring sustainability of the training and the clinical relevance to practice.



Method

In the second year of delivery, we started a "Train the Trainer" aspect and selected three doctors from the first cohort to become trainers and assessors within our project.

These doctors had completed all the POCUS coursework, assessments and presentations and had reached an expected standard of scanning ability.

The course has two Face to Face blocks on site in Ghana and we used these to train the trainers.

The first block is in June and covers the basic knowledge and scanning ability for POCUS and the three potential trainers delivered some teaching sessions and helped with practical training. They were observed and feedback was given by representatives from UoS and WWR.

The second block in October is longer and the three trainers received some teaching on mentorship, training, failing to fail, assessing and giving feedback. One University of Salford staff member who has lots of experience in assessing and teaching within the ultrasound programme was on site in Ghana to train and moderate the new trainers. The three trainers delivered and received teaching on subjects represented in the table below. At the end of the block the university moderator gave the trainers feedback on their technique and the final conclusions were discussed.



Block one	Block two
Trainers delivered -	Trainers received teaching on -
Teaching sessions	Mentorship
Leading tutorials	Training and assessing
Practical scanning techniques	Failure to fail
	Giving feedback
	Observed doing -
	Performing a formative assessment
	Performing a summative assessment
	Giving feedback to students

Discussion and conclusion

Despite challenges faced including access to equipment, the success of the joint project after only three years has enabled six medical doctors who are experts in their own field, not only to gain a skill with POCUS scanning but also to be enabled to function as trainers on behalf of the project.

The training given does only recognise them as trainers within our project, but the training skills gained will help them in other areas.

The project should now be sustainable and the need for overseas personnel to travel to Ghana should be reduced. Remote support can be given but most of the training can be delivered by Ghanaians.

Ghana and the sub regions will benefit in the long term as these trainers will also play leading roles in various capacities at different levels.

Results

All three doctors were moderated to assess clinically and there was no discrepancy between the decisions of the University moderator and the three new trainers. No assessment technique issues were highlighted

These three trainers are now being used in year three to deliver teaching sessions, tutorials, formative and summative assessments.

They are involved in the organisation of the project including interviewing new participants, overseeing logistics of the course and timetabling etc.

They are supporting another three doctors who will be trained and moderated as assessors and who can be used in the future as part of the team.

There will then be six moderated trainers who can work within the UoS and WWR joint project and POCUS education.

References

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