Echo Educators: Regional Echocardiography Practice Educators

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Echocardiography services across the country find themselves challenged by increasing demands on and expectations of an already vulnerable workforce. In the context of ever-increasing demands on the NHS workforce, education and training are increasingly important because of the inextricable link between securing a future workforce, retaining our current workforce across clinical, practice and research roles, and maximising productivity of the current teams to optimise capacity and confidence at every level. Building on significant work undertaken by the British Society of Echocardiography (BSE) and most notably, Professor Rick Steeds, which highlighted a need for increased numbers of people trained in echocardiography, the Echocardiography Training Programme (ETP) was established. It is in support of the collaboration between the National School of Healthcare Science (NSHCS) and BSE that NHS England Workforce Training and Education (NHSE WTE), formerly known as Health Education England (HEE) fund several full-time Practice Educator roles across the country to support the progression of candidates through the new ETP programme. The aim of which is to further embed and extend this work, with a focus on regional proximity.

"The pilot for the Echocardiographer Training Programme was borne out of a failure of the Department of Health and central government to recognise the national shortage of echocardiographers and the failure to perform accurate workforce planning. The aim was to try and meet this shortage by delivering practical training to BSE Accreditation in 18 months, with the close support of dedicated trainers, and targeting new graduate recruits from other disciplines into the profession."

Prof Rick Steeds
Consultant Cardiologist & Deputy Director of Clinical Research, Institute of Cardiovascular Sciences.

The main objectives of the Regional Echocardiography Practice Educator (PE) are clear in so much as they are designed to support trainees on the NSHCS ETP programme. The role is motivated by reducing variability and increasing the quality of training by embedding best practice examples, regionally. It provides a supportive, collaborative and sustainable method across multiple organisations to support a high-quality, system-wide approach to training, and delivers support for trainees in the achievement of the programme objectives.

This project aligns with the core principles of the Richards' Review (2020), 'Diagnostics: Recovery and Renewal – Report of the independent review of diagnostic services for NHS England' which highlighted a need to develop additional training programmes so that echocardiographers can meet predicted demand.[1]

Are we truly building a sustainable workforce, fit for future need?

It is well recognised that there are concerns relating to the capacity of the educator workforce to meet current and future demands. All ETP and educator colleagues across the field of echocardiography (and many dedicated echocardiography colleagues without a recognised formal title) are challenged by service pressures eroding the time available for supervising learners and supporting their wellbeing. It is recognised that the time to develop and maintain the knowledge and skills needed to be an effective educator is squeezed. For some centres, there is simply no recognised or allocated time available for education and training.

The workforce landscape for cardiac physiologists and clinical scientists alike has evolved in the last 10 years with the formation of the modernising scientific careers pathways (PTP, STP, HSST). In my opinion, the very credible ETP programme sits comfortably alongside these in so much as the programme benefits from a similarly well-constructed, coherent and modular learning experience. A programme that has already sought to evolve its syllabus, in line with national feedback. As roles within the field of echocardiography extend away from outdated titles such as "technicians" it is crucial that the learning environments evolve with them, accommodating the move away from more traditional cardiac pathways in which the technician just undertakes the echo and a medical doctor interprets the relevance of its findings. As the learning environment evolves, so too does the need for better coordination of training opportunities. This enables our workforces of the future to appreciate their potential in sub-specialist areas such as valvular heart disease, heart failure, and cardio-oncology, extending beyond this, into crucial areas of research, audit and indeed education itself. The rewards are incredibly exciting, if we get the learning opportunities right.

The NHS Educator Workforce Strategy, March 2023,[2] aimed to set out actions that result in sufficient capacity and quality of educators. Thus, allowing for growth of skills in the healthcare workforce that are needed to deliver care both now and in the future. It has acknowledged strategic priorities that underpin the educator workforce strategy:

1. The educator workforce must be a key consideration in integrating workforce and service planning
2. Establishing and protecting educator time and resources to support the implementation of integrated care board workforce plans

3. Introducing career frameworks for educators of all professions
4. Supporting the development and wellbeing of educators
5. Supporting improvement through defined standards and principles
6. Promoting the NHS aspirations to improve equality, diversity and inclusion
7. Embedding evolving and innovative models of education

Regional practice educator roles have measurable outcomes and benefits that include, but are not limited to, increasing echocardiography workforce to meet local need and supporting the expanding demand in diagnostic requirements across community diagnostic centres (CDCs). Diagnostic capacity is challenged across the country and expansion of the workforce to meet the demands of this new model of working is so fundamentally crucial to areas within which this model has merit. There are natural advantages for the implementation of new best-practice pathways of care relevant to this specialty area, such as the national breathlessness (pre-diagnosis) pathway, and the development of a fit for purpose workforce.

Naturally there is regional variation in the utility of the practice educator roles, but in essence the motivations are the same. As part of the role the practice educator fraternity collaborate and work to a set of key objectives and are invited to provide support for trainees on the ETP pathway. How this is achieved in practical terms is to an extent, relative to the region.

"Their professional impact and positive contribution to our local training offer has been eye-opening; and staff satisfaction has also benefited. Our practice educators have enhanced the visibility of our regional training opportunities, nurtured in-house support and provided immense value to our ETP programme ... I'm optimistic that our regional practice educators will become a new staple of our workforce planning for many more years to come."

Shakira Greaves
Education Commissioning Manager (Workforce, Training & Education)

Practice educators look to provide trainees on the ETP and their local training officers opportunities for face to face meetings (virtual in some cases) to identify progression challenges and opportunities, motivated by achievable individualised objectives and learning pathways. It may be as simple as providing a compassionate shoulder to cry on or a pearl of wisdom established in an adjoining Trust. Regional practice educators might provide education or training in the work-based elements of the programme using a variety of resources, including online tutorials, simulator sessions, face to face learning or via the utilisation of the NHS Futures Workspace. Training may be delivered in cooperation with partner organisations within the region but regardless of method, the role is to encourage equality of opportunities across the programme. There is no absolute one size fits all.

In addition to supporting trainees themselves, practice educators aim to provide support and guidance to departments and training officers regarding training in echocardiography, utilising the England wide ETP trainer group, delivering clear leadership, identifying and disseminating exemplars of best practice and training plans. The role seeks to deliver and support the Five Year Forward View ambition 'to adapt to take advantage of opportunities that science and technology offer patients, carers and those who serve them' whilst scoping potential for new capacity for echocardiography training within Trusts. Promotion of the ETP to departments not currently engaged in the training program is key to its onward success, whilst signposting trainee and trainers alike to National School offerings.

"The Practice Educator team have played a pivotal role in the success of the ETP by contributing significantly to both academic teaching and pastoral care aspects for students. These dedicated professionals have brought real-world expertise and practical insights into the work placed training environment, bridging the gap between theoretical knowledge and practical application. In the realm of teaching, the PE team offer valuable hands-on experience, guiding students through the intricacies of the echocardiographic field. Their mentorship fosters a dynamic learning environment, allowing students to apply theoretical concepts to real-world scenarios. Moreover, PE's extend their support beyond academic realms, actively engaging in the pastoral care of students on the programme. They provide a supportive and nurturing environment, addressing the personal and emotional needs of learners. This dual role not only enhances the overall educational experience but also ensures that students are well-prepared for the challenges they may encounter in their professional journeys. The collaborative efforts of PE's within the ETP are the main stay of the programme's success and the holistic development of its students."

Duncan Sleeman
Senior Practice Educator

Like so much within the NHS, long term funding for these programmes are not secure. Funding is naturally vulnerable as priorities change and shift to meet increasing pressures across all services. The ongoing nature of the practice educator is not assured and it's important that centres across the country align with the principles of workforce development and indeed education. Not just for retention of existing workforce but for those to follow. The sustainability of workforce development and education models alike transcend the allocation of titles. There are some fantastic examples of robust training models across the country and those centres should be celebrated equally.

How is your department contributing to workforce development?

Regardless of formal titles, those within the community of echocardiography owe it to educators, our learners who benefit from their support, the patients they care for, and the people and communities they serve, to work together to deliver a sustainable and dynamic educational offering that is fit for purpose moving forward. If you are interested in a role as a practice educator or are interested in becoming an accredited training centre capable of hosting trainees in future years, please reach out to your local NHSE commissioning teams or regional practice educators for more information.

https://nshcs.hee.nhs.uk/programmes/etp/

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Echo Educators: My experience

ABI GOWLAND, *LEAD CARDIAC PHYSIOLOGIST FOR CRITICAL CARE GUY'S AND ST THOMAS' NHS FOUNDATION TRUST*

Abi Gowland

Performing mobile echo on intensive care is inherently challenging: the patients have busy bed spaces and often poor echo windows due to mechanical ventilation, positioning or recent surgery. Here at Guy's and St Thomas' NHS Foundation Trust, we have embraced this challenge, creating a dedicated critical care echo team to provide the echo service across four intensive care units and train critical care doctors at all levels of scanning. As the lead cardiac physiologist for critical care, I perform complex echos; including bubble echo, contrast echo and transoesophageal echo on critical care.

Being an echo educator comes with numerous advantages. Firstly, it allows me to contribute to the development of knowledge and skills in this specialist area. Echo is a time-critical, accessible extension to the clinical examination[1] and is a powerful tool, especially in the critically ill. It has the ability to identify life threatening cardiac causes of shock, guide initial management strategy with volume, inotropes, vasopressors, mechanical cardiovascular support, and can be used as a monitoring tool to assess disease evolution and response to therapy.[2]

By imparting my expertise and experience, I can help advance the echo skills of resident doctors. Increasingly, I hear and see how this will, in turn, make an improvement in patient care. The fulfilment derived from contributing to the teaching of other healthcare professionals serves as a powerful source of motivation to continue in my role as a cardiac physiologist.

Together, the fellows and I work as a team, bouncing views and opinions off each other to ensure accuracy and care in our work. This two-way learning approach not only benefits the fellow but also enhances my own knowledge of critical care physiology. In turn, the enthusiasm the echo fellows bring to a day of scanning renews my enthusiasm to deepen my understanding of cardiovascular physiology and echo. This collaborative approach not only boosts the learning experience, but also fosters a sense of camaraderie within the team.

However, this role is not without its challenges. One particular challenge is ensuring the demanding clinical workload is covered whilst providing continuous guidance and training. Ways in which this is overcome are appropriate triaging, good communication with the critical care units, and protected learning time. We have instituted bi-monthly echo theory sessions which are increasingly attended by echo-interested doctors from across the hospital. As more and more healthcare professionals pick up an echo probe, we as physiologists can have a unique role in shaping their skill set in our hospitals and maintaining clinical governance around the use of point-of-care echo.

In conclusion, my experience as an echo educator has been hugely rewarding and has been enriching both personally and professionally. It has permitted me to play a crucial role in influencing healthcare professionals while continuously expanding my knowledge and experience.

References

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Echo Educators: Education and training roles in echocardiography

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Background

The demand for qualified echocardiographers has risen exponentially to meet workforce needs and help to recover from the impact of the pandemic. Diagnostics Waiting Times and Activity (DM01) data indicate progress on this front - the diagnostic test with the largest decrease in the proportion of patients waiting six weeks or more was echocardiography, down from 41% in Nov'22 to 34% in Nov'23, a -7% point change.

The challenges of filling existing and expanded workforce vacancies have been partially addressed by the Health Education England (HEE) funded echocardiography training programme (ETP). Departments can apply for and host students for the 18-month programme, with the aim of producing accredited echocardiographers with a post-graduate certificate qualification in a short time-frame.

ETP students are trained alongside the numerous other trainees in the department, such as registrars and other physiologists, and the coordination of such training requires dedicated oversight. As a department, we benefit from substantive roles specifically to oversee the national cardiac science training programmes (Education Lead), as well as a dedicated Quality Assurance (QA) and Training Lead in echocardiography. In my role as Education Lead, I am responsible for accreditation, funding application, recruitment, and strategic planning of all schemes including the ETP. Together with my colleague Marta (recently appointed QA and Training Lead) we oversee the student's / trainee's progression in echocardiography. The two roles are complementary, relying on regular, clear communication to embark, maintain, and support training and progression.

NHS England (NHSE) has funded two major initiatives to support training officers and their departments: 1) funding supplied to each individual department of 0.1 WTE Band 8a per trainee to support the training officer to have the time to perform the role (currently 2023/24 only and likely to be received in early February); and 2) the recruitment of Regional Training Leads. The collaboration with and support of these regional leads will, I'm sure, help us to further develop innovative training programmes within echocardiography. As with other national programmes, challenges can exist in dissemination of funds from NHSE to the individual department level, and the timing of transfer means money is only available for a short period before the end of the financial year. Innovative spending is therefore required! Our department also benefitted from the opportunity to bid for an HEE funded echocardiography simulator in 2022, something that has become integral to our training programme, especially in the early stages. Allowing the trainees to practice probe manipulation in a relaxed, non-time pressured environment has been useful for building confidence before starting to scan real patients.

QA is a central tenet of a well-functioning clinical physiology department, and is a requirement for British Society of Echocardiography (BSE) departmental accreditation. Having structured, regular feedback is incredibly useful for course corrections and improvements for echocardiographers. Here, a traffic light score (based on percentage compliance) is given to a scan, with scores confirmed by a second marker when falling below expected standards (less than a green rating or 80% score). The QA process drives an environment of constant improvement, and feedback is always delivered considerately and constructively. Each month a QA report is disseminated within the team including the QA champions with the highest scores! Marta is responsible for the quarterly QA team audits with various themes of focus, defining areas that require improvement and that can be the focus of future targeted training.

Benefits

The obvious benefit of having substantive roles in education, training and QA is the protected time to develop and implement an effective education and training strategy. This allows 'joined-up thinking', from the funding applications through to recruitment of an accredited, high-quality echocardiography workforce, directly benefitting service users with improved patient care.

A further benefit is the presence of named advocates for education, training and quality within the department. Taking a holistic approach to training and progression ensures trainees' wellbeing is central to the training process, and they are supported at all stages to reach their potential.

Considerations

Put simply, cost is the major consideration. These roles are Band 8a with high levels of responsibility, numbers of direct reports, and multiple key performance indicators. To undertake appropriate governance, quality assurance and support multiple training pathways, investment is required. Barts Health has recognised the importance of designated roles to facilitate a comprehensive programme of training and development situated within a high-quality echocardiography department. There is always opportunity for improvement in our processes and approach to training and education, and having substantive roles in these key areas provides the space in which to generate solutions.

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