

Celebrating Five Years of Inspiring Education in Vascular Ultrasound Imaging

Specialists from all over the world have been trained in advanced vascular ultrasound techniques through the tailored courses provided by Wessex Diagnostic, UK, for many decades. They enable medical specialists, including vascular scientists, sonographers, radiologists and vascular surgeons, to learn new techniques or develop their existing skills. For the last five years, Canon Medical Systems has equipped the courses with ultrasound systems. Providing delegates with access to state-of-the-art ultrasound technology has enhanced and inspired their learning experience. VISIONS spoke to some of the organizers, tutors, and attendees of the independent courses to find out more.

Answering unmet training needs

The first Wessex Diagnostic vascular ultrasound courses started in the 1980s as: "Blood vessel imaging using ultrasound techniques" in the UK and "Ultrasound Angiography" in Monaco, the latter was organized in conjunction with the British Medical Ultrasound Society (BMUS) and European Federation of Societies for ultrasound in Medicine and Biology (EFSUMB). Wessex Diagnostic now organizes an annual program of vascular ultrasound courses.

"Wessex Diagnostic is a family-run academy. My father, Mr. Keith Humphries, Consultant Clinical Scientist, identified a need for targeted vascular skills development within the sector, at a time when there was nothing similar available," explained Helen Humphries, Programme Director of Wessex

Diagnostic. "The idea behind establishing Wessex Diagnostic was to ensure that there was a training course available that demonstrated the full potential of Doppler ultrasound techniques in arterial and venous disease and in doing so provide practical training of investigation protocols to optimize the diagnostic accuracy of these tests."

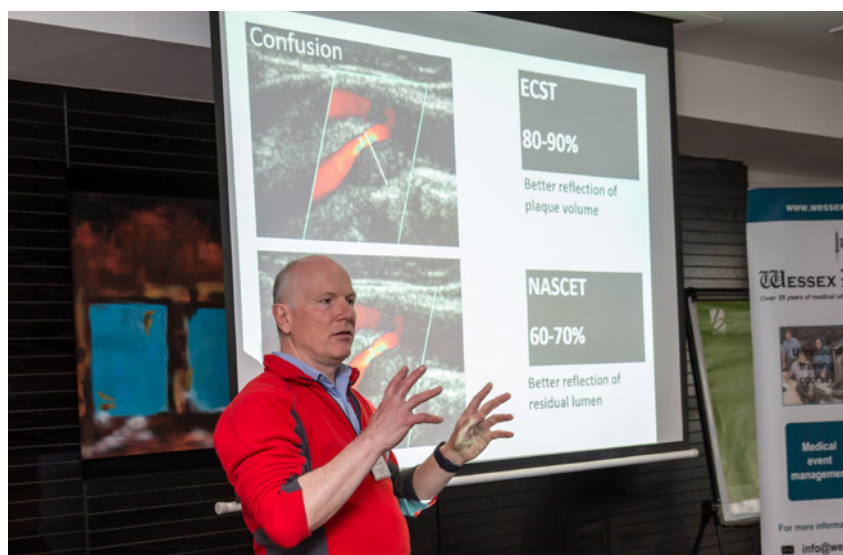
Advanced practical vascular ultrasound

The courses aim to provide a comprehensive insight into the techniques

and latest developments in vascular ultrasound, in a friendly and supportive learning environment. The scanning workshops allow individual scanning time on live models, under the careful supervision of the experienced ultrasound faculty – this opportunity for hands-on scanning is often omitted from other courses.

In addition to specific carotid and venous courses, Wessex Diagnostic also run a endovenous ablation masterclass, vein mapping and an introduction to obstetrics ultrasound.

Tim Hartshorne, Clinical Vascular Scientist at the University Hospitals of Leicester, UK. Teaching the theoretical part.





Matthew Bartlett, Senior Clinical Vascular Scientist and Head of the Vascular Laboratory, Royal Free Hospital, London, UK. Teaching during a practical session.

They also provide on-site courses that are tailored to specific team requirements.

“Our target audiences are medical specialists wanting to learn ultrasound techniques or those wanting to develop their skills, particularly vascular scientists, sonographers, radiologists and vascular surgeons. We have a flexible structure and practical sessions allowing those of a similar skill set and level to learn together,” continued Helen. “For the last five years, the ultrasound systems for the practical workshops

have been provided solely by Canon, which means we have a higher standard of equipment available for our delegates to learn their vascular skills. Canon provides the full range of ultrasound equipment up to the high-end comprehensive systems.”

Canon's contribution

Dianne Hanson, European Clinical Market Manager Ultrasound at Canon Medical Systems Europe, and Sally Davey, Ultrasound Product Manager at Canon Medical Systems UK, were instrumental in consolidating

Canon's involvement in the courses five years ago. Both are trained sonographers with decades of experience at Canon, including specialist ultrasound applications expertise from previous roles.

Canon has, along with other ultrasound manufacturers, provided equipment in support of the Wessex Diagnostic courses, for many years. “Five years ago, we realized that both parties could benefit from a collaboration that would see us being the sole providers,” said Sally Davey.



“I think the main value to the people that attend the course is that it’s not a “tick box and gain a certificate” type course.”

Matthew Bartlett, Senior Clinical Vascular Scientist and Head of the Vascular Laboratory, Royal Free Hospital, London, UK.



Tim Hartshorne, Clinical Vascular Scientist Vascular studies unit at University Hospitals of Leicester, UK. Teaching during a practical session.

“Vascular ultrasound is invariably undertaken in dedicated departments or as part of other clinical specialties, such as neurology and cardiology. Having spent time as clinical sonographers and application specialists in this field, we became familiar with what others require from their equipment – how they want it to perform, how to get the best imaging from it, and how further developments can support and enhance existing services.”

“We were also aware of the need for quality training, supported by practical experience in optimizing scanning techniques and manipulating image settings. An additional benefit is the feedback we receive, from the faculty delivering the training and the delegates receiving it.”

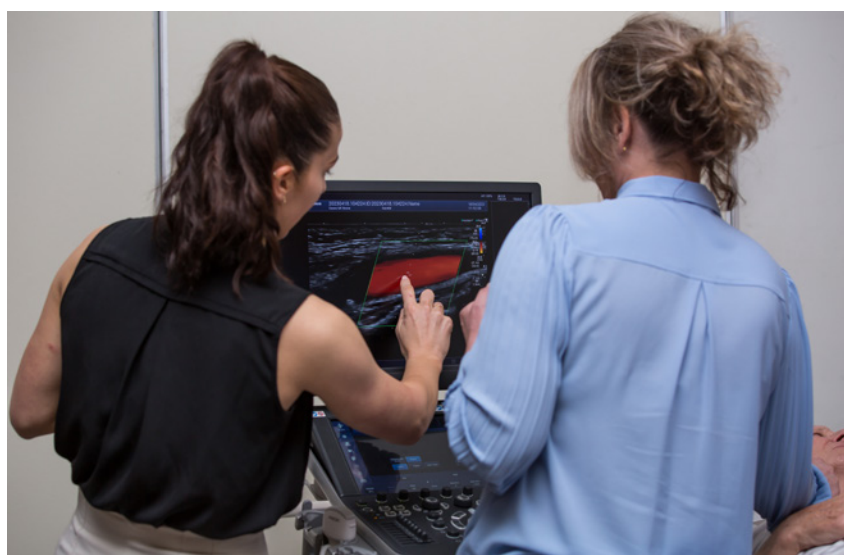
“During the two-day courses, Canon sponsors a dinner for the attendees and tutors. This social element allows people to share their experiences and working

practices in a relaxed environment, which all helps with the, collaborative approach we envisaged from the start. With delegates from all over the UK, Europe and beyond it is the perfect opportunity to look outside our immediate workplaces!”

Each course is held with maximum 30 attendees to ensure a good delegate: faculty ratio that maximizes individual learning in the practical sessions.

“The two-day courses are part theoretical, part practical,” remarked Dianne.

“The theory is first presented by the expert tutors, and then the delegates get the chance for the hands-on implementation of the theory taught them, on a Canon ultrasound system. There are six stations, which means that there are not too many people per station. So, everyone gets the chance to scan by themselves. It’s very important to gain experience actually on the system, to learn to do ultrasound. It is vital to get that hands-on experience in the vascular part. There are different courses, held four times a year; a carotid course, a venous course, and two vascular courses.”



Hannah Lord; Clinical vascular scientist, St. Georges University Hospital London, UK. Teaching during a practical session.



Christina Svensson, Medical Technician/Sonographer at the University Hospital Linköping, Sweden. Delegate of the course during a practical session.

Regarding the dinner for attendees and tutors, there is also a social element which is very important for cross talks, for example. It's very collaborative in the end. The delegates come from all over Europe, and outside.

Access to renown expertise

Expert tutors on the course include Matthew Bartlett, Senior Clinical Vascular Scientist and Head of the Vascular Laboratory, Royal Free Hospital, London, UK, and Mr. Tim Hartshorne Clinical Vascular Scientist at the University Hospitals of Leicester, UK.

Matthew has over 17 years of experience in vascular ultrasound. In addition to teaching at Wessex Diagnostic, he lectures on Ultrasound Physics at City University London, and is actively involved with the UK's Society of Vascular Technology Education Committee, providing national teaching and exam revision workshops to trainee scientists. Matthew is also heavily engaged in research, with an interest in complex hemodynamics and vascular remodeling in dialysis access fistulae.

Tim has worked for many years in the Vascular Studies Unit at University Hospitals of Leicester, and has more than 38 years' of experience in vascular ultrasound. He is actively involved in teaching and training and more recently, have been supporting the National Abdominal Aortic Aneurysm Screening Programme as their Professional Clinical Advisor. He has also co-authored a book on Vascular Ultrasound: How, Why and When (2023) and contributed to many other publications.

"I have used many different machines over the years, but I think Canon's is fantastic with its exceptional resolution, it is very ergonomic and easy to work with."

Christina Svensson, Medical Technician/Sonographer at the University Hospital Linköping, Sweden. Delegate of the course.

"I think the main value to the people that attend the course is that it's not a "tick box and gain a certificate" type course," remarked Matthew. "Delegates leave with a grounded understanding that they can take back to their workplace and learn how to improve and really use an ultrasound machine to the maximum, really get the most out of it and use it safely and appropriately."

"From my experience, it's very useful to have one system on the course, rather than multiple different systems or a machine type, because it means participants can focus. It's very consistent from that point of view," he added.

"It means that within a session the delegates can get accustomed to using all the key functions. We receive many delegates who say: "Yes, I use ultrasound all the time in my clinics." And then you start teaching them and they say: "Oh wow! I didn't know ultrasound could be this good. I didn't know this was possible."

And it's partly because the training and education isn't there and partly because people are using less capable machines. On the course, they are sitting down at a high-end machine for the first time and receive the combination of being shown how to use the machine properly, use all of the features, and actually see what a good optimal system can do. I think even people that use ultrasound regularly in their clinics are often really surprised."

"In addition, we also cover reporting in the course," said Matthew. "With guidance on how to report, and also when reporting can become ambiguous, or even unhelpful."

"Having access to a number of different tutors and demonstrations on the course helps a lot to ensure that the delegates can get views and perspectives from three or four different experts in the field," said Tim. "They



Delegate of the course during the theoretical session.

then get the benefit of learning from a range of tips, tricks and techniques that the various experts use. And so that instead of just relying on one individual, they get the benefits of multiple demonstrators."

"I think the course is also realistic in terms of what we demonstrate ultrasound can do, because we can discuss some of the areas of potential pitfalls and where errors can be made and how to avoid those, and also importantly perhaps limitations where maybe complementary

imaging or alternative imaging may be required," Tim added. "So I think it's very realistic, very practical. We have the scope to explain the essential functions and controls of the machine and there is the capacity to spend a bit of additional time with delegates who may need a little bit more support. The practical groups are organized according to experience level. We can tailor the demonstration and hands-on, to the level of skill and knowledge that the delegates have. That benefits everyone."



"For the last five years, the ultrasound systems have been provided by Canon Medical, which means we have a higher standard of equipment available for our delegates to learn their vascular skills."

*Helen Humphries, Programme Director
Wessex Diagnostic, UK.*



Left to right: Anne Farrell; Clinical Vascular Scientist Vascular laboratory University Hospital of South Manchester; tutor, Laura Devonshire, Vascular sonographer Russells Hall Hospital Dudley; tutor, Tim Hartshorne; Clinical Vascular Scientist Vascular studies unit at University Hospitals of Leicester; tutor, Sally Davey; Ultrasound Product Manager at Canon Medical Systems UK, Helen Humphries; Programme Director Wessex Diagnostic, Matthew Bartlett; Senior Clinical Vascular Scientist and Head of the Vascular Laboratory, Royal Free Hospital, London; tutor, Dianne Hanson; European Clinical Market Manager at Canon Medical Systems Europe, Hannah Lord; Clinical vascular scientist, St Georges University Hospital London; tutor, Lisa Wright; Ultrasound Clinical Product Specialist at Canon Medical Systems UK.

Delighted delegates

Christina Svensson is a Medical Technician/Sonographer, and recently graduated PhD, at the University Hospital Linköping, Sweden. She recently attended the two day Wessex Diagnostic course in Birmingham. Mikael Brusberg from Canon Medical Systems Sweden, together with some other delegates from Sweden, joined her on her trip to Birmingham.

Wessex offers two free spots per course for Canon representatives to improve their skills and knowledge in the vascular ultrasound field, therefore Mikael took the chance to attend this time's course.

"I have worked at the University Hospital for many, many years, actually since 1987" Christina explained. "I work in a clinic in the Clinical Physiology Department, in which we carry out a lot of other exams like lung function tests, stress tests with treadmills, and ECG, but the majority of my work is focused on vascular ultrasound. My role also includes research

work, for example into inflammatory diseases, such as arteritis, and the use of vascular ultrasound to ascertain if the disease is active or not."

"What I found valuable on the course was learning about how others work with the Canon ultrasound systems and see the other's exam protocols, the workflow, and the machine's settings. The course was very nice when you get inside in different pathologies and diseases. And you can change group if you want to see more about specific things."

"We have two Canon ultrasound machines in the department," she continued. "I have used many different machines over the years, but I think Canon is fantastic with its exceptional resolution, it is very ergonomic and easy to work with. I love it. I particularly like the SMI (Superb Microvascular Imaging) tool and there are also very nice transducers. We have all the available transducers on our machine. The hockey stick probe is fantastic." //

Programme 2023

The next two-day courses are:

October 10-11

Carotid and Vascular
Ultrasound Course (14 CPD)
Manchester, UK

November 18

Venous Ultrasound Imaging
Course (7 CPD)
London UK



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