



Direct Entry Undergraduate Ultrasound Programmes (with competency to practise): a briefing from the Society and College of Radiographers

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Summary

There is an increasing demand for ultrasound examinations and a long standing shortage of sonographers in the United Kingdom. The policy of the Society and College of Radiographers is to support the introduction of primary (BSc) degrees in ultrasound as one of the ways of increasing sonographer numbers although there are many complex issues that must first be addressed. This briefing document outlines the key areas that will need to be considered. It is not meant to be prescriptive but does provide a discussion framework for Higher Education Institutions, service providers, Local Education and Training Boards (England) and other regional and national organisations.

1. Introduction

In November 2009 the Society and College of Radiographers published a document entitled 'Developing and Growing the Sonographer Workforce- Education and Training Needs'. This is available on-line to both members and non-members via <http://www.sor.org/learning/document-library/developing-and-growing-sonographer-workforce-education-and-training-needs>

Although first discussed as a possibility at least fourteen years ago the above document again proposed that undergraduate courses for sonography be developed as one of the options to address the continuing sonographer workforce shortage.

Since the publication of the above document, interest in developing direct entry undergraduate ultrasound programmes has been expressed by some Higher Education Institutions (HEI) in the UK and, more recently, by Health Education England's Local Education and Training Boards (LETB). Some of these organisations have sought the advice of the College of Radiographers.

The College recognises that proposals for undergraduate programmes in ultrasound have been controversial historically, and the community of ultrasound practitioners tends to have divided opinions on the issue.

This briefing is aimed at informing early discussions within HEIs, LETBs and other key stakeholder organisations such as employers of sonographers and sonographer placement providers. The briefing reviews the main issues that will need to be addressed or considered and this document should be used as a basis for deliberation by those organisations interested in or thinking about establishing a direct entry undergraduate ultrasound programme. No specific order of importance is attached to the range of issues discussed. Rather, they will all need consideration alongside

pertinent local matters if a successful programme is to be the outcome.

2. Issues

2.1 Direct entry

The term 'direct entry' can cause confusion when applied to sonography. This briefing paper uses the term '*direct entry*' to refer to sonography education and training at undergraduate (primary degree) level only.

It is already possible to enter ultrasound education and training directly at postgraduate level and many do, including those who have previously trained as radiographers or midwives and applicants with a primary degree in a scientific or other relevant field.

2.2 Recruitment pool

The College of Radiographers believes that the opportunity to obtain a primary degree in diagnostic ultrasound will be popular. The evidence for this is, however, largely anecdotal rather than being based on validated surveys. A strong demand for places would be important and would enable HEIs to select well qualified students who have an evident vocation to work as a sonographer. HEIs experience financial pressures to fill vacant places on courses that are expensive to design and run as would be the case for an undergraduate ultrasound programme. This can lead to problems if the numbers of applicants are at the same level or lower than the number of places available as selection options will be much more limited. A feature of the successful direct entry midwifery programme has been the high demand for places allowing the best candidates to be selected.

2.3 Student age

Students will normally be eligible to apply for primary degree ultrasound programmes via UCAS from the age of 18 (17+ in Scotland). There has been concern expressed in the past about the maturity of students in relation to clinical techniques such as endovaginal ultrasound or other aspects of the daily workload such as giving patients the results of their ultrasound scan.

It must be remembered that it is illegal to bring age and sex considerations into selection decisions, and programmes will need to take into account the full diversity of potential students and their support needs. It is certainly true that undergraduate sonography students who may have no prior healthcare experience at all will require a much greater range of support than the current postgraduate cohorts of ultrasound trainees. These same support considerations, however, apply equally to other healthcare students studying for established primary degrees in, for example, midwifery, nursing, radiography and medicine.

2.4 Employability

The College of Radiographers believes that it is inappropriate to enable student cohorts to obtain a primary degree in ultrasound if there were not suitable employment opportunities and employers willing to engage them on graduation.

At present, there is no agreement as to what should be the scope of practice of a newly qualified sonographer who has undertaken a direct entry undergraduate ultrasound programme. The profession needs to address this deficit and set out what it expects a sonographer at 'practitioner' level (in the NHS, those likely to be on the band 5/6 payscale) to be able to do, both in terms of the range of examinations and the examination reporting functions.

Just as there is no professional agreement on the role of the practitioner level sonographer, so there

is no consensus as far as employers are concerned.

Where HEIs decide to develop direct entry undergraduate programmes in ultrasound, they will need to enter into discussions with the profession, their local employers/employer consortia and their likely placement providers to establish and agree the scope of the programme to be developed.

It will also be important to be honest with prospective students as early cohorts will be very much in the vanguard of controversial change.

2.5 Statutory registration and regulation

There is currently no legal requirement for sonographers to be registered with the Health and Care Professions Council (HCPC). Sonography is not a regulated profession and the titles 'sonographer' and 'ultrasonographer' are not protected in law.

Many employers prefer the sonographers they employ to be registered with a relevant statutory regulator such as the HCPC or the Nursing and Midwifery Council (NMC) but there are also a sizeable number who do not make this a requirement.

Students with a primary degree in ultrasound will not be eligible to register with the HCPC or the NMC. Further advice on this matter is given in the SCoR document 'Ultrasound Training, Employment and Registration' which is available to both members and non-members at <http://www.sor.org/learning/document-library/ultrasound-training-employment-and-registration-0>

The SCoR has applied for sonography to become a regulated profession and 'sonographer' and 'ultrasonographer' to become protected titles. However, despite this being supported by the HCPC (the then Health Professions Council, HPC), there is no likelihood of this happening at present or in the foreseeable future due to current government policy. The following link provides more information on groups aspiring to be regulated by the HCPC: <http://www.hpc-uk.org/aboutregistration/aspirantgroups/>

It is important to understand that there are some restrictions to practice that apply to sonographers who are not statutorily registered. In particular, they will not be able to refer patients directly for examinations involving ionising radiation nor will they be able to administer drugs and contrast agents under Patient Group Directions, or train to become supplementary or independent prescribers.

In its document 'Developing and Growing the Sonographer Workforce- Education and Training Needs', the College of Radiographers has stated that sonographer regulation is not a pre-requisite for the introduction of direct entry primary degrees in ultrasound. Similarly, the College maintains that the lack of statutory regulation for sonographers is not in itself a barrier to employing graduate sonographers. However, the College is equally aware of the fact that individual healthcare organisations may be reluctant to develop posts for, and employ an untested, unregulated workforce.

It remains the policy of the Society and College of Radiographers to achieve statutory regulation for sonography and protection of the titles of 'sonographer' and 'ultrasonographer' if this becomes possible in the future.

2.6 Voluntary registration

The College of Radiographers administers the Public Voluntary Register of Sonographers (PVRS). All sonographers can apply to join the register, including those who are ineligible for statutory registration. See details of the PVRS at:

<https://www.sor.org/practice/ultrasound/register-sonographers>

At the time of publication of this briefing paper, the PVRS is not accredited by the Professional Standards Agency (PSA) and so is not an Assured Voluntary Register. At this stage, the College has

no intention of seeking assured voluntary register status although it will continue to monitor the work of the PSA and re-assess the feasibility of gaining assured status from time to time. See the following link for further information on the work of the PSA in relation to voluntary registers: <http://www.professionalstandards.org.uk/voluntary-registers>

2.7 The current sonographer workforce and direct entry ultrasound programmes

There are some sonographers who are very supportive of primary degree ultrasound programmes, and others who, if not actually opposed, will be, at best, sceptical. There is potential for this to impact on all aspects of the design and delivery of direct entry undergraduate ultrasound programmes, and to be disadvantageous for the students of such programmes. As previously stated, students without previous healthcare experience will require a great deal of support, well beyond that required by current postgraduate ultrasound students.

Much of the student support required will manifest in the clinical departments providing practice placements for direct entry undergraduate ultrasound programmes. Extra time will need to be provided within departments for this support, at a time when it is clear that departments are already working under a great deal of pressure to deliver the necessary clinical service to patients.

2.8 Clinical Placements and Clinical Supervision

The support required for direct entry ultrasound students may not be tenable in many clinical ultrasound departments. It is vital, therefore, that consideration be given to the employment of clinical or placement tutors, or equivalent.

Student capacity in ultrasound departments must also be considered very carefully. The intensive, one-to-one nature of teaching the clinical aspects of ultrasound, the relatively small size of most ultrasound departments (in comparison to clinical imaging departments) and the range of postgraduate teaching commitments for trainee obstetricians, gynaecologists, radiologists, etc, are likely to mean that only a small number of primary ultrasound degree students can be accommodated in any one ultrasound department. This may mean that student sonographers will need to be placed across a large number of departments spanning a wide geographical area, especially if HEIs are to recruit viable cohorts.

In the view of the College of Radiographers, these considerations suggest that only a very limited number of HEIs should consider offering a direct entry ultrasound programme, and that it would be appropriate to limit the overall number of education providers.

2.9 Computerised teaching aids

To reduce the pressures of training on clinical ultrasound departments especially in the early stages of training, consideration should be given to investing in and utilising a range of computerised simulators and training aids. There is growing evidence to suggest that these can be incorporated successfully into the current postgraduate ultrasound courses so there is every reason to believe that these will be applicable to students following undergraduate programmes, although there should be research and evaluation associated with the introduction and use of such tools.

In England, the Radiology Academies in Leeds, Norwich and Plymouth have a reasonable range of ultrasound training tools, and HEIs may find it useful to develop links with the Academies.

2.10 'Narrowness' of direct entry undergraduate ultrasound programmes

A criticism levelled against the development of primary degree entry sonography programmes is that they will provide a narrow education and training. The College of Radiographers refutes this and believes strongly that the principles of degree level education should apply, with a wide curriculum

enabling students to develop a range of high level transferable skills as well as an appropriate range of clinical skills.

Should a BSc (Hons) in Medical Ultrasound become a reality, then it would seem sensible for that qualification to be sufficiently broad based to give flexibility similar to that in the current degrees in diagnostic and therapeutic radiography. Just as a diagnostic radiographer is able to develop in other imaging fields and other areas of employment after qualification so too will an individual whose initial educational pathway and qualification is in sonography.

2.11 Funding and contracts for the education provision

The College of Radiographers takes the view that, prior to the development of direct entry undergraduate programmes in ultrasound, there must be clearly articulated and supported service needs, properly expressed as posts and job descriptions appropriate for graduate practitioner sonographers, and in a funded contract with an HEI to provide the required degree programme. At present, both healthcare employers and imaging services across the UK have yet to get to this point despite long-standing concern over the sonographer workforce shortage.

Funding arrangements for student sonographers will also need to be clarified, and there are likely to be country specific (England, Scotland, Northern Ireland and Wales specific) considerations as well as regional or local employer/placement specific considerations. Arrangements may span the spectrum of Higher Education Funding Council for England (HEFCE) norms, bursaries as for many current healthcare students and sponsorships by employers, etc. The nature of the funding arrangements for students is less important than there being clarity for all concerned.

2.12 The Universities and Colleges Admission Service (UCAS)

Primary degree applications should be processed by the University and Colleges Admissions Service (UCAS) that prospective students and HEIs are already familiar with. Offers made under the UCAS application system have to be honoured. Admissions tutors in universities are used to judging the numbers of offers against the training places available in courses such as diagnostic or therapeutic radiography but a primary degree in ultrasound will be a move into new territory and may lead to difficulties in recruiting the size of cohort required, at least in the early years.

2.13 Work related musculo-skeletal disorders (WRMSD)

Sonographers are known to be at a higher risk of WRMSD. It will therefore be essential to ensure that good scanning practices and the correct mindset with regards to the avoidance of WRMSD are adopted by students and trainers from the outset. This must include the spectrum of scanning practices, patient management, and room and equipment design. Other professions (eg dentistry) have similar problems with regards to WRMSD and have a pro-active approach with regards to the avoidance of these problems.

2.14 Postgraduate education in ultrasound

There are implications for current postgraduate (M-level) ultrasound programmes if direct entry undergraduate ultrasound education programmes become established.

It is right that, on qualifying with a primary degree in ultrasound, a student should expect to be able to use M-level courses in ultrasound to develop and progress towards advanced practice and consultant sonographer roles. It follows that healthcare professionals already qualified in other fields (eg radiography or midwifery) and who wish to undertake ultrasound training, may find that the majority of the currently available M-level courses become less and less appropriate for their needs over time. This may mean that a radiographer who wishes to train as a sonographer has no option but to obtain a second primary degree level qualification or seek out an appropriate M-level course from an ever diminishing number. Over time, it may become more difficult for an established

healthcare professional such as a radiographer or a midwife to train in ultrasound. A similar situation occurs where a qualified nurse wishes to undergo midwifery training. Midwifery courses for qualified nurses now span 18 months, are at primary degree level, and can be difficult to access.

2.15 The Consortium for the Accreditation of Sonographic Education (CASE)

Current ultrasound education is at M-level and is accredited by the Consortium for the Accreditation of Sonographic Education (CASE). Member Organisations of CASE will need to consider whether direct entry undergraduate ultrasound programmes should also be accredited by CASE.

Should sonographer regulation ever be achieved, such programmes would need to be approved by the designated regulatory body.

3. Summary

Direct entry undergraduate ultrasound programmes are possible but require a range of highly taxing and difficult issues to be addressed and resolved prior to being established. Of particular importance are:

- The need for employers to be clear that they have roles at band 5/6 for sonographers (there is no evidence of this at present);
- The clinical placement and clinical education patterns and processes;
- Acceptance that statutory regulation may not be achievable in either the medium or long term.

The College of Radiographers is supportive of direct entry undergraduate ultrasound programmes but is of the clear view that the considerable range and complexity of issues associated with the introduction of such programmes must be dealt with effectively before they become available.

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