

THE SOCIETY AND COLLEGE OF RADIOGRAPHERS

DEVELOPING AND GROWING THE SONOGRAPHER WORKFORCE: EDUCATION AND TRAINING NEEDS

1.0 Introduction

- 1.1 There is a UK wide shortage of sonographers that is leading to severe difficulties for many NHS Trusts and Health Boards in meeting increasing demand, government targets and delivery of the national obstetric and vascular screening programmes. New national protocols relating to, for example, stroke management and the post 'NHS Next Stage Review' imperative to provide for services to be delivered in primary care further increase the problems. These workload pressures mean sonographers are finding it difficult to meet service demand, look after their own safety in the workplace adequately and undertake continuous professional development activities. They are also finding it difficult to develop their careers further. These various factors are contributing to an increase in the numbers of sonographers taking early retirement, reducing their hours of employment or leaving the service completely. Sonographers are known to be at risk of musculo-skeletal injury due to their work and the reported incidence of this is growing. Current numbers of sonographers in training are barely keeping up with wastage and there is little scope for increased training activity even though the demand is evident. This is not a new problem and in 2003 the British Medical Ultrasound Society published a paper 'Extending the Provision of Ultrasound services in the UK' which reviewed ultrasound education provision as part of its remit. This document is available at <http://www.bmus.org/policies-guides/pg-protocol01.asp>
- 1.2 This paper identifies the current (2009) ultrasound educational pathways for the sonographer workforce in the UK, and suggests additional pathways that could be implemented rapidly if supported by Health Departments, Strategic Health Authorities, and Health Boards. Additionally, other options for increasing the ultrasound workforce are identified.

2.0 Current Educational Pathways

- 2.1 The College of Radiographers identified the following educational requirements for ultrasound imaging practice in the UK (The Scope of Practice in Medical Ultrasound, 2009):
- 2.1.1 *Postgraduate certificate (PGC), postgraduate diploma (PGD), MSc accredited by the Consortium for the Accreditation of Sonographic Education (CASE).* (The College of Radiographers is a member organisation of CASE).

Entry criteria to the above are an initial healthcare practitioner related qualification (the norm at present); or a relevant first degree, or equivalent. Because they build on a relevant initial award, they prepare individuals for specialist or advanced level ultrasound practice rather than entry-level practice.

- 2.1.2 **Competency based qualifications** Examples include *Accredited Vascular Scientist* of the Society of Vascular Technology of Great Britain and Ireland (SVT) and *accreditation in adult, paediatric or community echocardiography* as awarded by the British Society of Echocardiography (BSE).
- 2.1.3 *Diploma of Medical Ultrasound of the College of Radiographers (DMU) or Certificate of Medical Ultrasound of the College of Radiographers (CMU)* (These were replaced by postgraduate qualifications in the early 1990s but remain recognised awards).
- 2.2 Of the above, the CASE accredited PgC/PgD/MSc programme is the predominant route to qualified sonographer status and provides for the development of competent sonographers in broad, named fields (e.g. obstetrics and gynaecology, general medical ultrasound, musculoskeletal, etc)

The competency based qualifications awarded by SVT and BSE accredit the individual for specific aspects of ultrasound practice.

3.0 Current Principal Issues

3.1 Costs of Training

3.1.1 Postgraduate certificate/postgraduate diploma training posts are usually advertised as employed status and applicants may be internal or external to training departments. Applicants are traditionally from a healthcare profession background such as radiography or midwifery. Salary should be in accordance with the provisions of Annex U to the Agenda for Change, although this is not followed by all employers and trainee sonographers can be found on pay bands 5, 6 and 7. Therefore the combined course fees and salary for the 18 months to two year training period is approximately £60,000 to £70,000 per individual, with additional travel and subsistence costs where relevant.

Where the trainee is an internal applicant. 'backfill' may be required to ensure service delivery is maintained so adding further salary costs.

3.1.2 Competency based qualifications are generally obtained by existing employees learning in the workplace. Costs are therefore lower, but the scope of accredited practice is well defined and less flexible.

3.2 Lack of Strategy

There is no national approach to or overview of ultrasound education and training in any of the four countries of the UK, although Scotland is taking steps in this direction. In England, funding is mostly left to the local NHS Trust level, with no guarantee that

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the trainee will stay with the NHS Trust that funded and provided the training. In Scotland some but not all Health Boards support training financially and help provide clinical placements. Special projects are also occasionally funded by NHS Education for Scotland. Many employers (including those in the independent sector) will only employ qualified sonographers and so do not contribute to training, supply or funding of this group of staff. Strategic Health Authorities, with one or two notable exceptions, consider themselves unable to address sonographer workforce development on the basis that it is 'post-registration development'.

3.3 *Workforce Planning and Development Data*

Accurate data relating to the numbers of sonographers employed and the numbers required is not readily available. CASE publishes the numbers of sonographers enrolled on accredited programmes and for the 2007/2008 academic year noted the following:

110 students enrolled on Post Graduate Certificate programmes
110 students enrolled on Post Graduate Diploma programmes
61 students enrolled on MSc programmes

It should be noted that there will be some double counting of students; for example, most of those enrolled for an MSc award will already hold a PgD. Taken overall, these figures suggest an output of around the low 200s into the UK sonographer workforce during 2009 (ignoring the potential for failures and withdrawals from programmes).

The Society of Radiographers undertook a survey in September 2009 to examine sonographer workforce difficulties in more detail. Its findings are published in appendix 1 to this document.

4.0 Potential additional workforce development pathways

There are several additional routes to the development and acquisition of a stable sonographer workforce in the UK, as follows:

4.1 *First degree direct entry, leading to BSc (Hons) Medical Ultrasound*

The establishment of a primary, direct entry degree has the potential to attract a wide range of applicants and there is evidence that there would be strong demand. Such programmes would be delivered by established universities and students may be eligible for bursaries as are diagnostic and therapeutic radiography undergraduates.

Advantages of this development route are:

- Likely to be popular with a wide range of applicants;
- Potential to allow for a large number of graduates (but depends on the availability of clinical placements);

- Direct costs to Trusts and Health Boards are limited and are as for other healthcare students;
- No ‘back-fill’ problems;
- Would fit well with ‘four tier’ career progression structure. Postgraduate level courses would be able to develop advanced and consultant level skills;
- Highly comparable with ‘direct entry’ midwifery approach which has been successful.

Problems that would need to be addressed include:

- Potentially narrow education and training that does not provide a wide range of core imaging skills. The broad general curriculum associated with a BSc (Hons) degree should help to mitigate this, as would ensuring an interprofessional approach to curriculum design and learning.
- Concerns regarding musculo-skeletal injury if this is seen as an inevitable consequence of practising in ultrasound.
- Training places will be required in the NHS Trusts and Health Boards; in the early phase at least, it will be clinically challenging to support a sonographer student without any prior healthcare knowledge through to graduation.
- Direct entry at this level assumes establishment of a ‘practitioner’ level of sonographer but as yet no consensus exists as to what ultrasound examinations can be carried out by this level of practitioner.
- There is, at least, a three year lead-in period as no programmes are approved currently, so this is not a short term solution.
- Sonography is not currently a regulated profession and ‘Sonographer’ is not a protected title. In October 2009 the Chief Executive of the Health Professions Council wrote to the Secretary of State for Health recommending regulation, subject to consideration being given to two points arising from a report for the Department of Health (England) on the extension of professional regulation. It could still be several years before the legislative process is completed, if it proceeds. Although sonographer regulation is desirable, it is not a pre-requisite to the establishment of direct entry first degree programmes in ultrasound and such developments may proceed regardless.
- Employers must be able to demonstrate that they will employ primary degree, direct entry qualified sonographers.
- A preceptorship year as for direct entry midwives is likely to be required (and would assist employers and the existing workforce to develop confidence in this new element of the sonographer workforce).
- In England, Strategic Health Authorities must be willing to support both the programmes themselves and the underlying principles.
- Many in the existing ultrasound workforce will need to be convinced that this is an acceptable way forward.

4.2 Postgraduate direct entry, leading to PGC/PGD/MSc

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In reality, this option exists already but is under-recognised and under-utilised.

Advantages include:

- It is likely to be popular with a wide range of primary degree qualified applicants.
- It has the potential to allow for a large number of graduates (but depends on the availability of clinical placements)
- Direct costs to NHS Trusts and Health Boards are limited.
- No 'back-fill' problems.
- Applicants will be more 'mature' as they will already hold a primary degree, with many holding this in a health or healthcare related subject.
- Such a pathway is available currently. In particular, CASE accredited vascular programmes have students following this pathway.
- The programmes can be accredited following established CASE procedures so giving confidence to employers and the existing ultrasound workforce.

Problems that would need to be addressed include:

- Training places will still be required in the NHS Trusts and Health Boards, and it will be clinically challenging to support students with limited or no healthcare experience through to completion.
- In England, Strategic Health Authorities must be willing to support both the courses themselves and the underlying principles.
- Funding of students is likely to be a problem as some will have considerable debts from their first degrees, and may be ineligible for further support through the bursary system.

4.3 *Distance Learning*

Distance learning programmes should be considered as options for delivering both direct entry first degrees and higher degrees to develop the sonographer workforce and in the past have been used by some universities to deliver sonographer education and training at higher degree level. It will still be necessary for all students to have a clinical placement(s) for the duration of the programme. These could be commissioned alongside more traditionally delivered programmes that may themselves utilise a wide variety of innovative learning methods.

4.4 *Radiology Academies, and Computer Based Simulators and Learning Aids*

In England, there is also potential for universities to link with the three Radiology Academies in the delivery of ultrasound education. Facilities in the academies would be particularly helpful in the early stages of sonographer training, and in developing reporting skills.

It would also be important to exploit innovative learning technologies to assist in skills development and to ease some of the training burden on clinical departments,

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particularly those related to equipment and probe handling and hand-eye co-ordination. Such technology is in development currently.

4.5 *'Focused' ultrasound courses*

These are courses that prepare a trainee for a fairly narrow scope of ultrasound practice, for example first trimester examinations, early pregnancy assessment, third trimester techniques, carotid ultrasound, gynaecological brachytherapy. Increased use of these should be considered as they offer the opportunity to diversify and grow the workforce undertaking ultrasound examinations while ensuring that practice is aligned to a set standard of competence and award/academic credit. (See Appendix 2 for the College of Radiographers position statement on 'focused' courses).

Advantages of focused courses are:

- They can be delivered in a relatively short timescale, typically three to six months.
- Assist in meeting demand with limited training costs.
- The courses can be specially designed, or could form part of a wider CASE accredited PGC/PGD.
- They extend an individual's existing scope of practice in other imaging or treatment techniques or other professional activities (e.g. midwife undertaking first trimester scans; radiographer undertaking carotid artery scanning; physiotherapist scanning shoulder joints)
- CASE now accredits focused courses to standards similar to full programmes.

There are disadvantages, including:

- Narrow experience in a limited area of practice may lead to missed pathology in adjacent organs/structures; for example, an adnexal mass missed on first trimester examination as the individual scanning was trained to examine only the uterus and fetus.

4.6 *Overseas recruitment and registration*

Sonography is listed (2009-2010) as a shortage specialty by the UK Government Migratory Advisory Committee (MAC) making it easier for NHS organisations to employ sonographers who are not from within the European Union/European Economic Area where there is already legislation covering the free movement of workers. The problem for UK employers is that as sonography is not regulated it can be difficult for them to judge the suitability of overseas applicants. Although the academic equivalence of an applicant's educational qualifications can be assessed via UK Naric (<http://www.naric.org.uk>) this is not helpful as far as an applicant's clinical competence is concerned. The education and training arrangements in other countries can be very different to the UK; for example, sonographers in some countries are

trained to carry out the ultrasound examinations but are not required to report them. This 'third party' reporting scenario is not considered good practice in the UK.

Registration with one of the UK's statutory healthcare professions regulators is often asked for by employers but for many overseas sonographers practising in the UK this is not possible and is not a legal requirement at present. The SCoR has specific information relating to this issue which can be found in appendix 3. Some European Union/European Economic Area and overseas sonographers may be able to register but this will be via another professional route such as radiography, nursing or midwifery.

The Society and College of Radiographers maintains the Public Voluntary Register of Sonographers (PVRS) and sonographers practising in the UK, whether from the UK or overseas, are encouraged to apply. Acceptance on to this voluntary register does not in itself constitute an endorsement of employment suitability and this responsibility must remain with the individual employer. The Society and College of Radiographers stance on registration and the PVRS is articulated in its 'Scope of Practice in Medical Ultrasound' document published in 2009.

4.7 *Assistant Practitioners*

The SCoR supports the use of assistant practitioners in ultrasound although their role is necessarily limited as good ultrasound practice requires the person performing the ultrasound examination to issue and take responsibility for the report. Ultrasound examinations currently considered suitable for assistant practitioners are given below (see also The Scope of Practice of Assistant Practitioners in Ultrasound, published in 2008 by the Society of Radiographers):

- single measurements, single conditions or routine screening examinations; for example, obstetric dating scans* where the task is limited to making a single measurement followed by recording the associated gestational age that has been automatically calculated by the machine software from standard data charts/tables.
- abdominal aortic aneurysm screening where a single organ is scanned and measurements taken and recorded.
- calculating bladder volumes and ankle brachial pressure indices using dedicated or specialised single purpose equipment and automatic calculation software.
- routine surveillance examinations to monitor anatomical dimensions where a baseline scan has been performed by a registered healthcare practitioner
- routine daily quality control of imaging equipment.

* In England, the combined test has been recommended as the first trimester screening test for Down's syndrome. This involves measurement of the nuchal translucency and is not considered an appropriate procedure for assistant practitioners.

4.8 Local Initiatives

There are a small number of local or regional initiatives that merit investigation and replication where appropriate. Examples are:

- The work done by the West Midlands SHA to increase the number of sonographers in that SHA (following a proposal from the West Midlands Perinatal Institute, West Midlands SHA Workforce Deanery has funded sonographer training, supporting a co-ordinated regional approach that will provide 18 additional training places over three years).
- The Essex Cardiac and Stroke Network have provided funding (July 2009) to increase the number of sonographers able to carry out carotid Doppler examinations.

However, by their nature, these are local approaches to workforce development and the funding may only be available for a short period of time. It is also the case that sonographers developed through such initiatives may move to other NHS Trusts and Health Boards outside of the original funding area.

5.0 CONCLUSION

- 5.1 There is a shortage of appropriately qualified sonographers and an ever increasing demand for ultrasound examinations. The shortage is impacting on the ability of the services to meet demand, government targets and the requirements of national screening programmes. It is also affecting sonographers adversely in terms of workplace stress, musculo-skeletal injury and career development opportunities.
- 5.2 The long established model of postgraduate education leading to a CASE accredited award is not able to supply the necessary number of sonographers to meet the demand, in large part because of the lack of concerted regional or national planning and lack of associated funding.
- 5.3 Overseas recruitment offers limited opportunity to augment the sonographer workforce.
- 5.4 There is a policy and strategy vacuum which very small local initiatives have no hope of filling.
- 5.5 National impetus and action is required to put into effect a multi-dimensional approach to growing the ultrasound workforce.
- 5.6 This paper sets out a range of possible solutions that, if adopted, would secure the sonographer workforce for the short, medium and longer term.

6.0 RECOMMENDATIONS

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6.1 Short Term (immediately):

- CASE accredited postgraduate diplomas and certificates to continue as now. Strategic Health Authorities and Health Boards to procure and fund these programmes for a three to four year period and to assist where they are able in the provision of clinical placements. It is estimated that such CASE approved programmes already have capacity to increase the numbers of trainees by between 20 and 50%.
- Employers, strategic health authorities and health departments to commission and fund CASE accredited short 'focused' ultrasound courses to develop appropriate ultrasound skills in relevant members of the current healthcare workforce.
- Explore links with Radiology Academies to assist in the delivery of courses.

6.2 Medium Term (1 – 3 years):

- Commission postgraduate entry programmes, requiring them to accept a much wider range of applicants than has traditionally been the case. Such programmes would be very similar to the existing CASE accredited programmes and would be of 18 months duration; a preceptorship year should be considered for those completing these programmes who do not hold a primary health or healthcare related degree. Students would normally be supernumerary to NHS Trust or Health Board employees and attractive financial support arrangements would have to be part of commissioning and development process.

6.0 Longer Term (3 – 5 years):

- Commission direct entry (BSc Hons) programmes with a preceptorship year to follow.

References

Directory of Courses, Consortium for the Accreditation of Sonographic Education (2009)

Extending the Provision of Ultrasound Services. J Bates , C Deane , D Lindsell.
British Medical Ultrasound Society (2003)

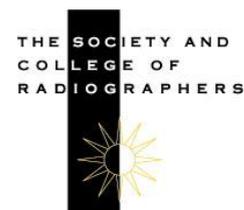
The Scope of Practice in Medical Ultrasound. SCoR (2009)

The Scope of Practice of Assistant Practitioners in Ultrasound. SCoR (2008)

The Role of Assistant Practitioners in Abdominal Aortic Aneurysm Screening. SCoR (2008)

UK Government Migratory Advisory Committee (MAC) www.homeoffice.gov.uk/mac

Appendix 1



Analysis of ultrasound workforce survey

October 2009

Executive Summary

In September 2009, the Society of Radiographers (SoR) surveyed NHS ultrasound departments in the UK about the recruitment, training and retention of the ultrasound workforce. 45 managers answered a range of questions about their workforce on behalf of their departments in an online questionnaire. This document presents an analysis of the survey and the following bullet points highlight the main findings from the 45 departments responding to the survey:

- In the NHS year 2008/09, the number of examinations per department had increased on average by 1,848 (7.9%) since the previous year.
- Assistant practitioners are employed in 6 (13.3%) of the ultrasound departments.
- Seven (12.3%) of the available sonographer training posts are unfilled.
- The average department is currently employing one Whole Time Equivalent (WTE) qualified sonographer for around every 4,250 examinations per year. Two thirds of departments expect to employ more qualified sonographers over the next two years.
- The number of qualified sonographer vacancies as a percentage of the total number of qualified sonographers is 10.1% (headcount) and 11.7% (WTE). Twelve (26.7%) departments state that the vacancies in their department have lasted on average for more than six months.
- One third of the qualified sonographers are due to retire in the next ten years.
- 106 (28.3%) of the qualified sonographers suffer from Musculo-Skeletal Disorders.

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1. Introduction

This document presents an analysis of an online survey in September 2009 of NHS ultrasound departments in the UK. The aim of the survey was to gather information on the recruitment, training and retention of the ultrasound workforce. Department managers were asked about staffing levels in their departments and associated information.

The SoR emailed as many managers in NHS ultrasound departments as possible asking them to participate in the survey. The survey was also circulated to SoR representatives in ultrasound departments and publicised in the monthly e-zine Top Talk. 45 complete responses were received from across the UK. We estimate that this is over 20% of ultrasound departments in the UK and, therefore, forms a useful sample.

2. Profile of departments responding to survey

In the NHS year 2008/09, the number of examinations in the 45 departments responding to the survey ranged widely from 1,463 to 98,000 and had increased on average by 1,848 (7.9%) since the previous year. Most departments stated that the nominal time per examination had not changed over that year.

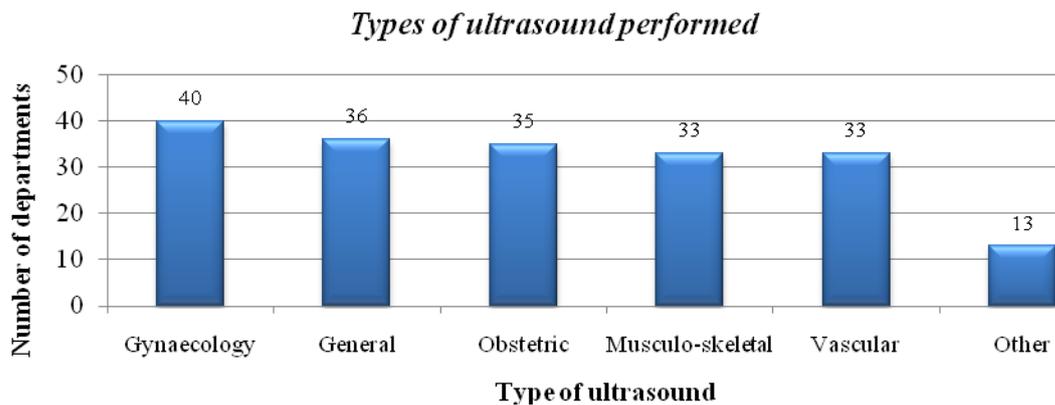
The table and graph below illustrate that responses were received from ultrasound departments across the UK, each generally performing more than one type of ultrasound.

Geographical spread of departments responding to survey

Country / Region	Number of departments responding	Percentage of all departments responding
• East of England	3	6.7%
• East Midlands	1	2.2%
• London	4	8.9%
• North East	6	13.3%
• North West	4	8.9%
• Northern Ireland	2	4.4%
• Scotland	5	11.1%
• South East	6	13.3%
• South West	6	13.3%
• Wales	1	2.2%
• West Midlands	4	8.9%

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Country / Region	Number of departments responding	Percentage of all departments responding
<ul style="list-style-type: none"> Yorkshire and the Humber 	3	6.7%



3. Assistant practitioners

Assistant practitioners are employed in six (13.3%) of the ultrasound departments responding to the survey. One of these departments dominates the statistics in the table below as it employs 16 of the 30 assistant practitioners recorded in the survey.

Assistant practitioners in ultrasound

	Total from 6 responding departments employing assistant practitioners
<ul style="list-style-type: none"> Number of assistant practitioners employed in ultrasound (headcount) 	30
<ul style="list-style-type: none"> Number of assistant practitioners employed in ultrasound (WTE) 	24
<ul style="list-style-type: none"> Number of assistant practitioners actively scanning (headcount)¹ 	0

4. Sonographer training posts

¹ Assistant Practitioners in ultrasound have their role defined in the document: 'The Scope of Practice of Assistant Practitioners in Ultrasound'. This is available online to SCoR members at <http://doc-lib.sor.org/>.

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Just over half the departments responding to the survey have sonographer training posts, with 7 out of the 57 available training posts unfilled.

Sonographer training posts

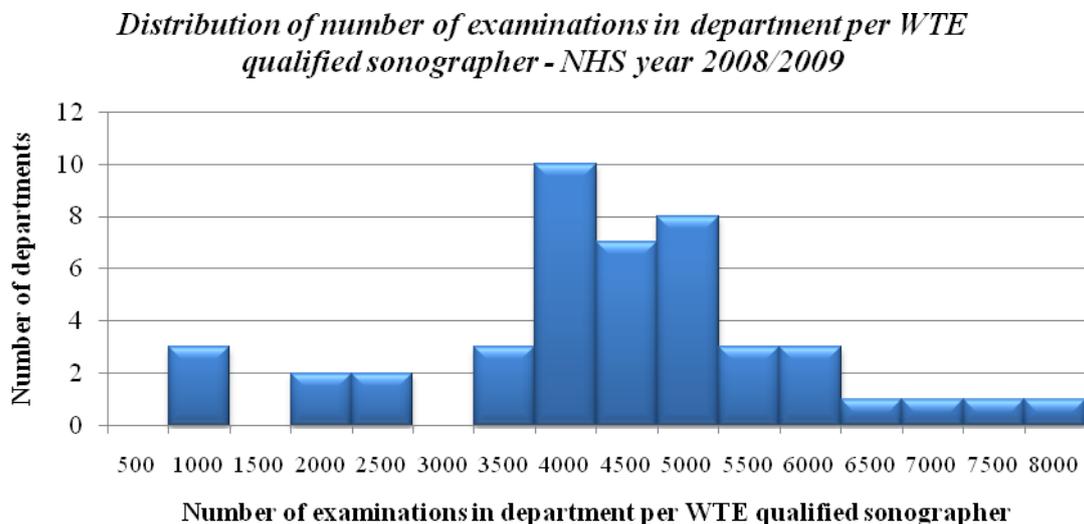
	Total from all 26 responding departments with training posts
• Number of sonographer training posts (headcount)	57
• Number of these sonographer training posts currently not filled (headcount)	7
• Percentage of sonographer training posts not filled	12.3%

5. Qualified sonographers

5.1 Staffing levels

The number of qualified sonographers employed in each department ranged widely from 1 (0.4 WTE) to 25 (16.6 WTE). The overall headcount across the 45 departments was 375 (271.9 WTE) qualified sonographers. Two thirds of departments responding to the survey expect to employ more qualified sonographers over the next two years, with only 2 departments believing that their number of qualified sonographers will diminish.

The graph below shows examinations carried out in a year per WTE qualified sonographer in each department. The figures do not allow for vacancy rates or for examinations carried out by radiologists, so the figures do not represent the number of examinations that can be carried out by each qualified sonographer each year. However, it does demonstrate that the average department is currently employing one WTE qualified sonographer for around every 4,250 examinations per year.



5.2 Vacancies

Slightly under half of the departments responding to the survey currently have vacancies, with 12 of these departments stating that the vacancies in their department had lasted on average for more

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than six months. The number of vacancies as a percentage of the total number of qualified sonographers in all responding departments is 10.1% (headcount) and 11.7% (WTE).

Total number of qualified sonographer vacancies in responding departments

	Qualified sonographer vacancies	Percentage of total number of qualified sonographers in responding departments
• Headcount	38	10.1%
• Whole Time Equivalent (WTE)	31.7	11.7%

5.3 Overseas recruitment

Eight departments (17.8%) had recruited sonographers from overseas in the past two years from various countries (see the table below). Six departments (13.3%) thought they were likely to recruit from overseas in the next two years.

Countries recruited from in the last two years

Country	Number of departments recruiting from that country
• Australia	2
• Canada	1
• Egypt	1
• India	2
• South Africa	5
• Venezuela	1

5.4 Retirement

One third of the qualified sonographers in the departments responding to the survey are due to retire within the next ten years.

Forecast retirement of qualified sonographers over next ten years

How many qualified sonographers are due to retire ...	Total headcount	Percentage of total number of qualified sonographers in responding departments
• within the next 1 – 2 years	21	5.6%
• within the next 3 – 5 years	32	8.5%
• within the next 6 – 10 years	72	19.2%
• TOTAL in the next 10 years	125	33.3%

5.5 Musculo-Skeletal Disorders (MSDs)

Only seven departments responding to the survey report no MSDs among the staff groups concerned. Overall 28.3% of the qualified sonographers from the responding departments suffer from MSDs.

However, there is a positive note from one of the seven MSD-free departments: *“Since we have gone to an extended working day working with a tandem arrangement for the sonographers, they are now scanning less patients per day, mostly now scanning every other patient on the list and also only scanning 4 days a week WTE, MSK problems have disappeared.”*

Prevalence of MSDs

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Staff group	Number with MSDs	Percentage of total number of that staff group in responding departments
<ul style="list-style-type: none"> Assistant practitioners working in ultrasound 	0	0
<ul style="list-style-type: none"> Training sonographers 	3	6.0%
<ul style="list-style-type: none"> Qualified sonographers 	106	28.3%

6. Comments

Managers responding on behalf of their departments had the opportunity to submit general comments relating to the recruitment, training and retention of the ultrasound workforce. A number of themes were raised by more than one manager and are listed in the table below. The most frequent issues cited were the difficulty recruiting staff and concern over MSDs.

Analysis of free text comments from respondents

Theme raised by more than one respondent	Number of respondents	Illustrative comment
<ul style="list-style-type: none"> Difficulty recruiting staff 	12	<i>"We have advertised a Lead Practitioner post several times over the last 2 years with no applicants."</i>
<ul style="list-style-type: none"> MSDs are a problem 	7	<i>"RSI is a major issue and will only get worse due to staff shortages and increasing workloads."</i>
<ul style="list-style-type: none"> No staffing problems 	5	<i>"We have no problem in any area. The staff are happy, fulfilled and well supported. We have a very low turnover. Usually posts become vacant due to retirement."</i>
<ul style="list-style-type: none"> Waiting time targets increase pressure 	5	<i>"Waiting time targets make it difficult to accommodate training posts"</i>
<ul style="list-style-type: none"> Retention not a problem 	5	<i>"We have no problems with retention in the"</i>

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Theme raised by more than one respondent	Number of respondents	Illustrative comment
		<i>department"</i>
<ul style="list-style-type: none"> No progression beyond band 7 	4	<i>"For the responsibility and skills a sonographer has to have the banding is wrong. The trainee sonographer should be at Band 7, qualified sonographer at Band 8a."</i>
<ul style="list-style-type: none"> Lack of funding for training for sonographers 	4	<i>"Funding for training is an issue"</i>
<ul style="list-style-type: none"> Backfill for radiographers to train as sonographers 	4	<i>"Unable to get backfill for the post, to the detriment of the x-ray side of the department."</i>
<ul style="list-style-type: none"> Supporting training puts pressure on department 	3	<i>"The ultrasound lists are too busy to be able to spend adequate amounts of time training people to a good standard whilst trying to maintain waiting lists."</i>
<ul style="list-style-type: none"> Consider direct entry access to the profession by degree & preceptorship 	3	<i>"I believe that a direct entry ultrasound degree should be offered with a 4th year preceptorship in clinical practice at band 5/6 and the PGDip awarded at the end of this year (providing requirements are met)."</i>
<ul style="list-style-type: none"> Agency sonographers paid more 	2	<i>"Agency sonographers are paid more hence staff moral down."</i>
<ul style="list-style-type: none"> Not valued as a professional group 	2	<i>"Not valued as a professional group even though most times they work and report to the standard required of a radiologist, obstetrician and or a gynaecologist."</i>
<ul style="list-style-type: none"> Scanning also undertaken by radiologists 	2	<i>"A significant amount of scanning is also undertaken by the radiologists."</i>

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APPENDIX 2

'FOCUSED' ULTRASOUND EXAMINATIONS-THE SOCIETY AND COLLEGE OF RADIOGRAPHER'S POSITION.

There is an ever increasing demand for the provision of ultrasound examinations at the 'point of care' where ultrasound is being used as a 'tool' to support a particular care or treatment pathway. Examples are numerous and include lithotripsy, gynaecological brachytherapy and transcranial Doppler.

There is a shortage of qualified sonographers in the United Kingdom at present and there are not enough qualified staff available to train for or participate in examinations such as those listed above. The minimum qualification to become recognised as a sonographer, as recommended by the Consortium for the Accreditation of Sonographic Education (CASE) is a postgraduate certificate or diploma in medical ultrasound or equivalent.

In view of the shortage of sonographers and in order that care and treatment pathways are not compromised local arrangements to provide these types of examination may need to be established, utilising staff who do not hold CASE accredited postgraduate certificates and diplomas.

The National Ultrasound Steering Group (a sub-group of the National Imaging Board) published 'Ultrasound Clinical Governance' in October 2008. This document gives advice on clinical governance issues and states that ultrasound can pose a significant clinical risk if examinations are undertaken by untrained or poorly trained individuals, the equipment is poorly specified or poorly maintained and if it is undertaken in the absence of clinical audit of performance. It is important that the introduction of new services is evidence based and that expensive ultrasound equipment is properly utilised.

The following should specifically apply and reference should also be made to the above document.

- i) Those performing the examinations should have followed an 'in-house' course approved by the Trust/Board management and delivered by appropriately qualified individuals. Such courses should carry CASE or College of Radiographer's approval or endorsement. If a suitable CASE accredited 'focused' ultrasound course is available and accessible to the student this should be used in preference to a course designed 'in-house'
- ii) Examinations must take place within a recognised care management framework.
- iii) There should be written protocols and schemes of work in place and the delegation of responsibility clearly articulated
- iv) The members of staff involved must be assessed before scanning unsupervised to ensure they are competent to perform the task
- v) The safety aspects associated with diagnostic ultrasound exposure should be included in the training and due consideration given to the reduction of risk of musculo-skeletal injury to the person performing the examination
- vi) There should be audit of performance and opportunities updating, both on a regular basis.

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- vii) The staff involved should be aware that their training may not be transferable to other departments
- viii) The frequency with which the specific ultrasound examinations are carried out should be such that competency can be maintained.

¹ CASE is a consortium comprising The British Medical Ultrasound Society, The British Society of Echocardiography, The College of Radiographers, The Institute of Physics and Engineering in Medicine, The Royal College of Midwives and the Society of Vascular Technology for Great Britain and Ireland.

² Ultrasound Clinical Governance, National Ultrasound Steering Group. October 2008

<http://www.18weeks.nhs.uk/Content.aspx?path=/achieve-and-sustain/Diagnostics/Imaging>

APPENDIX 3

REGISTRATION

Ref: 'The Scope of Practice in Medical Ultrasound' published by the Society and College of Radiographers, 2009.

Registration can be considered from two perspectives:

i) Registration with a statutory regulatory body, for example the Health Professions Council (e.g. radiographers, clinical scientists) or Nursing and Midwifery Council (e.g. midwife sonographers, nurse sonographers). All sonographers with an approved UK award in radiography as their initial qualification are expected to be registered with the Health Professions Council. Sonographers who trained in the UK and whose route into ultrasound practice was not via radiography should be registered with the HPC or other statutory health regulatory body, if this is possible.

In 2008 The SCoR formally applied to the Health Professions Council (HPC) for sonography to become a regulated profession and 'sonographer' to become a protected title. In October 2009 the Chief Executive of the Health Professions Council wrote to the Secretary of State for Health recommending regulation, subject to consideration being given to two points relating to a report for the Department of Health on the extension of professional regulation. It could still be several years before the legislative process is completed, however.

ii) Registration with the College of Radiographers through accreditation of level of practice and via the Public Voluntary Register of Sonographers which was opened in 2007 in connection with the above application to the HPC. All qualified sonographers, including those registered with UK statutory regulatory bodies, should register with the Public Voluntary Register of Sonographers which is maintained by the College of Radiographers. This was set up jointly by the College of Radiographers and the United Kingdom Association of Sonographers to support the application in 2008 for 'sonographer' to become a legally protected title, and 'sonography' a statutorily regulated profession. This voluntary register is also open to those sonographers who are involved in fields such as teaching, management and research.

In most cases, sonographers will be able to register with one of the statutory healthcare regulators as in (i) above. However, it should be noted that there is no current legal requirement for a sonographer

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to be registered with a statutory regulatory body. Hence, there is no statutory requirement for an employer to make this a pre-requisite for employment. Where employers insist on registration this will mean that they will not be able to recruit sonographers who may be able to demonstrate they are suitably qualified and competent but, through no fault of their own, cannot be registered at present.

Sonographers from overseas may be eligible to register with the HPC (e.g. as a radiographer or a clinical scientist) or other regulatory body such as the NMC (e.g. a midwife). Whether they are register or not to practice ultrasound in the UK they would be expected to demonstrate to a potential employer that they have met the standards equivalent to those of a CASE accredited PGC, PGD or MSc qualified sonographer. Individual NHS Trusts, Health Boards and other employers should have mechanisms in place to ensure that these standards are being met.