

The RCOG Ultrasound Training Programme: End of Term Report & Recommendations



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This report was written with help and comment from the RCOG Ultrasound Advisory Committee and Regional Ultrasound Co-ordinators. Comments were obtained from those involved in ultrasound training for the purposes of compiling this report between July and November 2011.

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Background

The RCOG introduced the Ultrasound Curriculum in 2008. It was an important and bold step and required, for the first time, all trainees to have at least a basic theoretical and practical grounding in Ultrasound. The curriculum was welcomed by trainees. Many have now successfully completed the basic ultrasound modules and are undertaking intermediate modules. However, the patchy provision of ultrasound training throughout the UK and recognition that most training is delivered by professionals whose affiliation is not to the RCOG has led to concerns over the curriculum's implementation.

It is frequently assumed that the UK lags behind our European neighbours in the provision of ultrasound training, but this is not necessarily the case. In fact, many trainees in the specialty in other European countries do not benefit from properly structured programs. Most countries do not, in fact, have any form of 'basic' ultrasound curriculum and the teaching that trainees receive is too often 'ad hoc' and dependent on the centre or team to whom they are attached. Interestingly, this means that the RCOG ultrasound curriculum and assessment tools are now being considered carefully by countries outside the UK.

The ultrasound curriculum in the UK is delivered through a network of regional ultrasound co-ordinators who report to the RCOG through the RCOG Ultrasound Officer, the post I was appointed to in September 2009. In every maternity unit in the UK, there is provision for a local ultrasound supervisor, who may be a sonographer, radiologist or Obstetrician-Gynaecologist.

The last two years have seen rapid developments. In May 2010, the RCOG held a National Ultrasound Co-ordinator Conference and out of this developed a joint BMUS, SCoR and RCOG concordat with sonographers published in August 2010 (<http://www.rcog.org.uk/news/rcog-release-ultrasound-training-programme-obstetricians-and-gynaecologists-launched>).

This recognizes the vital contribution to training from sonographers, who have positively and constructively embraced the training program with tremendous energy and constructive comment. The comment below, from the Society and College of Radiographers (SCoR), are instructive:

Sonographers continue to support the delivery of basic training in ultrasound for obstetricians and there is much evidence of good practice. This includes obstetricians and radiologists scanning alongside sonographers and helping to deliver the training, separate training lists, appropriate funding and the provision of extra lists, sometimes outside of core hours where staff are willing and able to cover. Some sonographers have taken on the role of Local Ultrasound Supervisor within the programme.

Further, changes to the Basic modules arising from the discussions at the meeting included the removal of the requirement for second trimester biometry to be 'done independently' and a statement about transvaginal ultrasound in the Early Pregnancy Module (8-12 week).

Trainees and trainers often said that they were uncertain about which RCOG course met the need for basic modules, intermediate modules and ATSMs. During 2010 all ultrasound based

RCOG courses were mapped across to the basic and intermediate modules and corresponding ATSMs. In 2010, agreement was reached with International Society of Ultrasound in Obstetrics and Gynecology (ISUOG) for RCOG trainees to have access to the ISUOG website including all education resources and the journal *Ultrasound in Obstetrics and Gynecology*.

2011 saw a 'Training the Trainers' Day in May. With over 70 attendees, we finessed a template 'training the trainers' ultrasound programme to be delivered regionally in the future. Agreement was reached that all units offering maternity care must offer basic module training, but intermediate modules were only to be delivered in selected centres as agreed by the Regional US Co-ordinators. Developments for 2012/13 include the development of a template for a new basic module-transvaginal ultrasound skills. This is expected to be implemented only when more than 90% of trainees have completed the current Basic Ultrasound Modules. Presentations and resources can be viewed on the login restricted Ultrasound section of the RCOG website.

Further, several very experienced trainers-Obstetrician-Gynaecologists, sonographers and radiologists have volunteered as International Ultrasound Preceptors to teach on RCOG ultrasound training courses outside the UK: for example India, the Middle East and Africa.

The ambitious requirements of this new program coincide with the most significant pressures facing the NHS for at least a decade. Teaching ultrasound is not cost-neutral nor is ultrasound a skill that can easily be learnt without targeted, directed training. Whilst the pressures on sonographers mount, and Obstetrician-Gynaecologists face greater service delivery pressures, there can be no illusion that delivering a comprehensive ultrasound training package in every hospital is easy. Given that the RCOG relies heavily on a non-RCOG professional group to train RCOG trainees, this training programme is unique in the RCOG curriculum. Despite the goodwill shown by many sonographers and radiologists, some degree of targeted resourcing is likely to be required to enable training to be successful.

With this in mind, the strategic direction of ultrasound training is directed by the RCOG to be implemented locally. In this it is advised by the Ultrasound Advisory group. This high level group has wide ranging representation from professional groups involved in ultrasound training: BMUS, SCoR, ISUOG, BMFMS and RCR. Among the members, and indicating how seriously other professionals take this initiative, are the president of BMUS and the Director of Professional Policy of SCoR. This representative group has been helpful in the writing of this report.

Delivering the programme: problems and solutions

Returning to the practical aspects of the program, whilst many regions seem to be far advanced with most trainees 'signed off' for their basic modules, others are further behind. In July 2011, Dr Clare McKenzie, Chair of the Specialist Education Advisory Committee and I wrote to all Heads of School to clarify what is expected for trainees in terms of ST progression and ultrasound module attainment. For those reaching ST5 in 2012, it is expected that their basic modules should be complete, and if this isn't the case then an outcome 3 will be recorded at ARCP.

This statement was felt to be necessary by the majority of regional ultrasound co-ordinators as it emphasized the commitment of the RCOG to the ultrasound programme. Furthermore, the statement meant that ultrasound co-ordinators were able to point to the ultrasound curriculum basic modules as a necessary rather than desirable aspect of the curriculum. There is no doubt however that this has exposed some 'stress-lines' particularly in those regions where ultrasound training has been less successfully delivered.

Local ultrasound supervisors have identified how structural changes might occur in their own units to facilitate training:

If the programme is to go ahead, then our CBU (Clinical Business Unit) will have to enter a Service Level Agreement (SLA) to train with the Radiology CBU which looks after our sonographers. This will require a clear commitment to train, according to the curriculum, and dedicated training slots. Our CBU would have to pay the Radiology CBU to deliver this training. It would be helpful if there was a clear steer from the RCOG about this, so that it could be cascaded down to Trust level. One option might be that our CBU absorb the Sonographers from the Radiology CBU, who do most of the O&G scanning, into our own CBU. This would obviate any invoicing or payments to train as training would then be required as part of the conditions of employment.

Furthermore, in this context, the comments from the SCoR are instructive:

Some hospitals do not have obstetricians or radiologists who actively scan and there are not always strong local links with postgraduate medical education as far as the sonographers are concerned. Ultrasound managers and sonographers are not always fully supported by their NHS Trusts / Boards with respect to delivery of the RCOG training programme and this needs to be addressed if there is to be full and high quality implementation of the training. For some departments there are still no training lists, and no extra time or other resources provided for training with the result that there is continuing conflict with service delivery and the on-going training of new sonographers. The latter are also badly needed with an estimate of at least a 10% shortfall nationally.

The issue of 'additional' resourcing-in this case time-for ultrasound training is of critical importance, where study leave budgets allow:

Torbay, and also I believe Truro, encourage their trainees to take a week's study leave and to attend the ultrasound clinic for intensive training.

Other funding resourcing may be available, in this case from the Deanery. Where this is the case, trainees get trained:

In Exeter we have been fortunate to take advantage of money from the Deanery to the ST1's and 2's, to allow them to attend 10 ultrasound sessions. The money has been used to pay an ultrasonographer to train on a one-to-one basis the Registrar in a specially organised clinic.

Although the burden for training lies largely on sonographers, Obstetrician-Gynaecologists are in many regions very active in training, though they are constrained by their own time availability within their job plans. Some regions have developed innovative solutions:

In South Yorkshire all ST2s & ST3s are in the central unit, where there is maximum opportunities for training and all of them they are expected to complete the basic modules before leaving the unit at the end of ST3. Newly appointed consultants have an agreed SPA (or half) dedicated for ultrasound training. All consultants who scan, have volunteered to do 4 Friday afternoon sessions for 1 to 1 training (total 28 sessions available, 5-6 patients in each session)

In the West of Scotland, despite several challenges occurring simultaneously, a successful model for the provision of training was developed:

From the outset the ethos was that all units would provide training in the basic modules and this would be an essential requirement to maintain deanery accreditation for training and hence allocation of junior staff. This was a major driver for the success of our programme. The programme was launched at a difficult time when Scotland was tasked with introducing Routine Anomaly Scanning and First trimester Screening for Downs Syndrome requiring significant sonographer expansion and training. An added sweetener of offering a nominal sum for training was introduced. 10 sessions were made available to each trainee per module at a cost of £100 per module and the money was reimbursed from study leave budgets. Due to the varying sizes of departments the sessions were offered either in block release of 1 -2 weeks or on a sessional basis.

This formula has worked for our Deanery and by August 2011 all trainees (bar one) from ST3 and above had completed their basic modules. The difficulty thereafter however has been providing maintenance of those skills and is a challenge we have yet to address fully.

Delivering the programme: where are we now?

For the purposes of this report, I shall be considering trainee completion of the two basic ultrasound modules: Basic Early Pregnancy Ultrasound (8-12 weeks) and Basic ultrasound assessment of fetal size, liquor and the placenta. It is worthy of note that a training programme barely three years old has resulted in the completion of basic modules for over half of our trainees. More so as the training is in many cases undertaken by sonographers and radiologists without explicit arrangements for resourcing being made. The comments from a regional co-ordinator (East of England) below reflect some of the challenges:

In my own unit, all training is “ad-hoc” within other timetabled sessions, including antenatal clinic, delivery suite, and early pregnancy assessment unit. This requires adequate manpower to allow teaching and training within such environments. We also provide a week-long, intensive hands-on basic obstetric ultrasound course once a year. We advertise this to local and regional trainees before advertising more widely. A combination of the ad-hoc training and this course has meant that all our ST2 trainees have achieved their basic modules within the last year.

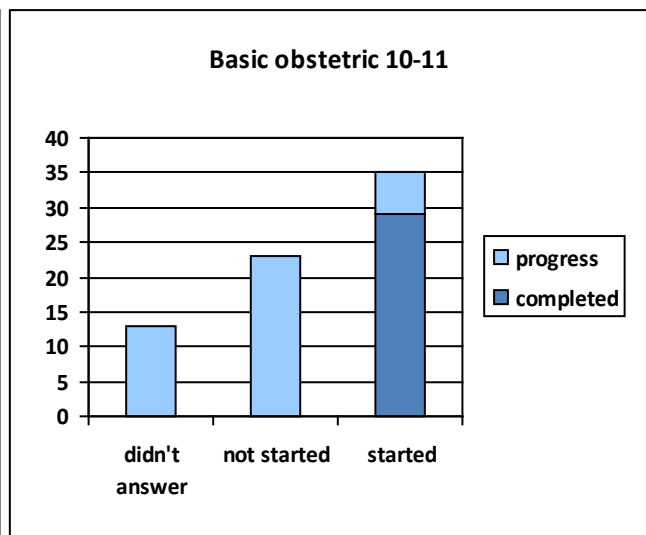
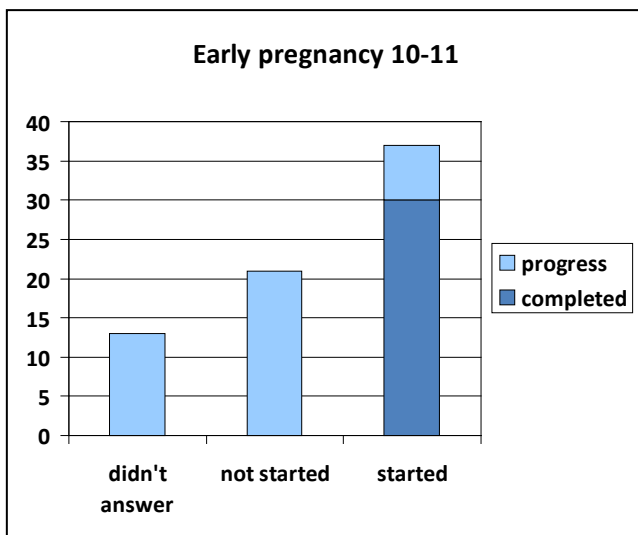
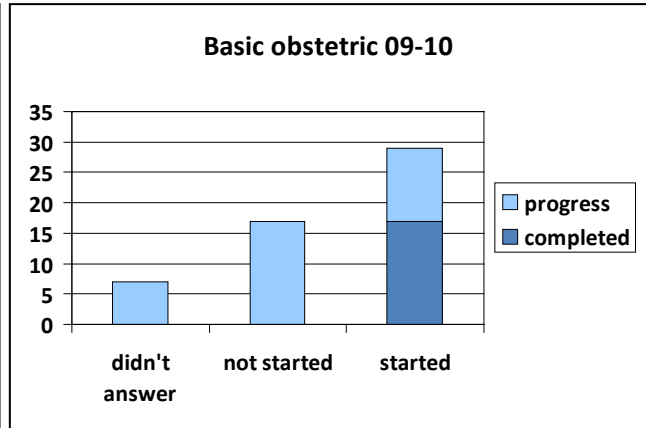
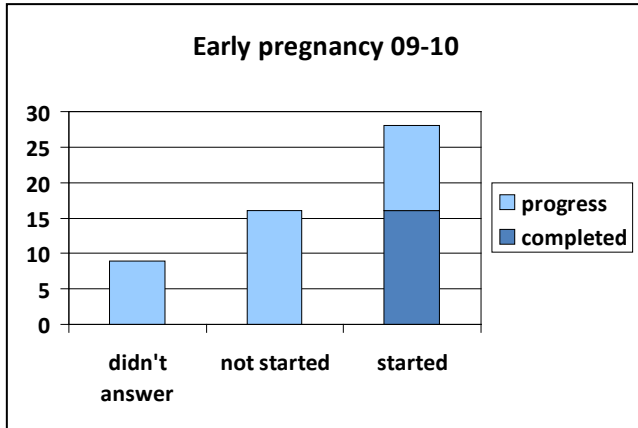
In other units it has been more difficult to deliver. Practical difficulties include a shortage of consultants who are able to scan, an (understandable) lack of willingness of sonographers to train (they have their own targets, and trainees to train), and shortages in junior rotas which mean training gets curtailed.

The role of regional co-ordinator is challenging. There is no time allocation nor funding for this role, nor for solutions that may be deliverable with regional funding. I find it frustrating and disheartening to receive emails from both trainees and trainers who find it difficult to access or deliver training in their units, since I do not have a simple solution to many of their problems.

Separate e-questionnaire surveys conducted by the RCOG in 2009 and by BMFMS, BSGI and ISUOG in 2010/2011 give an incomplete assessment of uptake and completion of basic modular training. A survey by the British Society of Gynaecological Imaging (BSGI) Jan-March 2011 of 313 respondents in half of the Deaneries showed that only 10% of trainees had no ultrasound training, though because of difficulties organizing practical training over 80% had concerns about the amount of training that they are receiving:

Sixty per cent (194) had attended a local basic theory course, 42% (133) a local practical course and 23% (64) a local specialty training day. The remainder either had no training (n=35, 10%) or attended other courses. Thirty seven per cent of responded reported that their departments have organized a teaching program and 48% have been asked to produce evidence of ultrasound training progress at the annual ARCP. A total of 240 trainees (82%) had concerns about the amount of training they receive. Only 115 trainees (39%) received either once a week (15%) or once a month (24%) 1:1 protected training.

In general, however, more trainees are taking up training, and more are completing the basic modules. Encouragingly, the bar charts below from the North Western Deanery suggest improvements in the uptake and completion of training from 2009/10 to 2010/11:



Delivering the programme: ST5 completion by July 2012

Given the requirement that all ST5s should have completed their basic ultrasound modules by July 2012 or receive an ARCP outcome 3, I have conducted a ‘gap analysis’ of ST5s and their module completion. The data on trainees completing their basic modules is not collected centrally, nor in many cases regionally. The information is in most cases available only to local ultrasound supervisors (LUS) in individual units.

Emails were sent to all regional co-ordinators September-November 2011, with follow-up emails and telephone calls to those that had not responded until May 2012.

It is likely that no more than a handful of ST5 trainees will not have completed the basic modules by July 2012.

US Training Status	Deanery	Update
No concerns	London (North East) Northern Northern Ireland Scotland East Scotland South East Scotland West Wales Yorkshire and Humber West Midlands London (Central) East of England	Nil
Likely no concern - Deanery believes almost all trainees will complete	Wessex East Midlands South South West Peninsula Scotland North Oxford Severn	one may not complete one may not complete Thinks all will complete but not certain One at risk of not completing
Possible concern – insufficient information / remedial action being implemented	London (North West) London (South) North Western Mersey	US co-ordinators have not responded fully “ “ “

Other issues identified

- It has been highlighted that for those trainees whose CCT has been brought forward to take account of previous LAT training, it is important that the ARCP panel take into account all clinical training which should include ultrasound training.
- Some trainees will be returning from maternity leave and/or OOPE may not have completed

Recommendations for the practical implementation of ultrasound training

That the RCOG considers recommending to Heads of School and regional ultrasound coordinators adopting specific resourcing solutions for a period of three years whilst the ultrasound programme becomes established. These measures are based on those that are already formally and informally operating in several Regions of the UK. These will specifically allow resourcing of ultrasound training outside the normal clinical environment of delivery unit, wards and clinic.

- a. Advising that Trusts advertising for and appointing to Consultant Obstetrician posts should actively consider including 0.5-1 SPA for ultrasound teaching and trainee ultrasound quality control, where a candidate is appropriately qualified.
- b. That where Trusts are finding difficulty in providing dedicated ultrasound training to trainees, ring-fenced funding is provided for basic ultrasound training -
 - i. By attending specialist intensive 'hands on' courses.
 - ii. Alternatively, sonographers are funded by to train doctors out of normal clinical time (as per the West Midlands or South West model). This model is in fact employed by several regions and has the advantage of one or more sonographers being directly involved in the training of several trainees without juggling with the pressures of a busy clinical service. Depending on the Region, funding has been found from study leave budgets and/or 'one off' payments by the Schools, SHA and/or Trust.

These solutions have been developed independently of any central direction in response to the needs of the trainees. One or more of these will be applicable depending on local arrangements in individual units. Rather than the RCOG prescribe a specific model I believe that the decisions for how to deliver training can be taken locally with the RCOG proposing alternatives that have been shown to work elsewhere.

Summary

1. The RCOG programme of basic and intermediate ultrasound modular training as introduced in 2008 was ambitious, long overdue and welcomed by most trainees.
2. The programme's aim is an educational one in improving the competence of trainees to safely undertake basic ultrasound by introducing formalized training, assessment and accreditation. In so doing, this should improve the safety and health of women and reduce the incidence of incorrect ultrasound findings and accompanying medicolegal and media sequelae. In this, the programme can be viewed as an essential adjunct to the aims of patient safety and governance.
3. Sonographers and Radiologists have since 2010 participated and shaped the discussions about training and its implementation and lend the programme their full support. Many local ultrasound supervisors in Hospital Trusts are in fact sonographers. The programme has met with a generally positive response from Consultants.
4. Implementation of the programme was patchy in 2008 and 2009. Substantial improvements in basic module uptake and completion have been seen in 2010, and particularly in 2011. It remains the case that some regions have not been able to implement the programme fully, although numbers of trainees affected are believed to be small.
5. At the national meetings of regional co-ordinators and local ultrasound supervisors in May 2010 and 2011, the majority of regional ultrasound co-ordinators (all RCOG members) believe that the programme can be delivered. Regional ultrasound co-ordinators and the Ultrasound Advisory Committee have expressed the strong view that some degree of resourcing is required for the success of the programme.
6. The curriculum, basic and intermediate modular structure and assessment tools such as OSATs are working well and are popular. Some revisions to the 2008 curriculum were made and others are pending, including the development of a foundation transvaginal module. Apart from removing the requirement for second/third trimester biometry to be undertaken independently, none of the other amendments have been substantive.
7. The intermediate modules have been and continue to be delivered through many different models. There is a clear agreement and understanding that the intermediate modules can and should not be delivered in all units: only those with specialist expertise +/- larger throughput with dedicated trainers can effectively deliver them. Trainees have accessed training for the intermediate modules in many different ways in some cases as part of their programme of training, but also taking time out of the programme and through clinical fellowships.
8. The 'gap analysis' as to where ST5 trainees are in their basic ultrasound training started in September-November 2011 and was repeated in April/May 2012 where earlier communications with Ultrasound Co-ordinators suggested concern. It now appears likely

that no more than a handful of ST5s will not have completed their ultrasound basic modules by July 2012.