2017 Training Data Analysis
Topic: Ultrasound Training

**Background**

Overall there is a perception amongst trainees of a lack of access to sufficient ultrasound training, which has been a persistent theme in trainee feedback over several years. Several Local Educational Training Boards (LETB) have reported lack of resources. The limited resources include lack of consultant trainers, and lack of sufficiently staffed junior doctor rotas to enable protected ultrasound training. In addition, The Society of Radiographers (SCoR) 2014 ‘sonographer workforce survey’ has shown increased shortage of sonographers with vacancy rates of up to 18.1% compared to 10.9% in 2011.

The 2016 report on ultrasound training concluded that further analysis is required to ascertain rate of basic module completion at the end of ST3. It also recommended liaising with high achieving deaneries to ascertain how they could facilitate supervised ultrasound training within the confines of the current pressures due to rota gaps and service provision. For the purposes of this report, we have focused on training in basic ultrasound modules.

**Training Issues/ Questions**

To determine whether the trainees’ perception of training in basic modules has improved over the last 12 months by comparing the TEF (Training Evaluation Form) results from 2016 and 2017.

Identify the regional trends in change in trainees’ perception as reported in TEF 2017.
Ascertain the proportion of trainees who have completed the basic ultrasound modules, at each training grade, as reported in 2016 annual supervisor reports.

**Analysis**

**General Ultrasound training**

Basic ultrasound modules are targeted at ST1-3 trainees and the RCOG matrix mandates that they should be completed by the end of ST3. In the 2017 TEF report, all ST1-2 level trainees have commenced the basic modules, with 39% reporting that they are progressing well, and an additional 8% having completed the modules. Amongst those trainees (at all levels) who encountered difficulty, lack of trainers and lack of time are the most frequently reported limitations in obtaining adequate training. Once basic competencies have been attained, only 38% of trainees (all grades) felt they were able to maintain their skills.

On review of the workforce demographics, there was no correlation between the proportion of Less Than Full Time trainees, nor the size of the LETB and reported satisfaction in USS training.

Encouragingly, analysis of the supervisors’ reports (e-portfolio) from 2016 suggests that 94% of trainees assessed in 2016 have attained basic ultrasound competencies. From a total of 1005 reports, only 40 (4%) trainees had not completed the ‘Basic Early Pregnancy Ultrasound’ module and 21 (2%) had not completed the ‘Basic Ultrasound Assessment of Fetal Size, Liquor & Placenta’ module. Table 1 demonstrates an improvement in basic ultrasound training in the 2015/2016 training year, with the vast majority of ST1 trainees having completed their basic USS modules.
<table>
<thead>
<tr>
<th></th>
<th>Total (n)</th>
<th>ST1 (n)</th>
<th>ST2 (n)</th>
<th>ST3 (n)</th>
<th>ST4 (n)</th>
<th>ST5 (n)</th>
<th>ST6 (n)</th>
<th>ST7 (n)</th>
<th>Other (n)</th>
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</thead>
<tbody>
<tr>
<td>Total reports</td>
<td>1005</td>
<td>31</td>
<td>78</td>
<td>158</td>
<td>150</td>
<td>212</td>
<td>181</td>
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<td>46</td>
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<tr>
<td>Not completed Basic Gyn USS¹</td>
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<td>11</td>
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<td>5</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Not completed Basic Obs USS²</td>
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<td>3</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Proportion of trainees not completed basic USS modules (%)</td>
<td>10</td>
<td>24</td>
<td>13</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>0.6</td>
<td></td>
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</table>

Table 1: Incompletion of basic ultrasound modules, as reported on 2016 Supervisors report. ¹Basic Early Pregnancy Ultrasound. ²Basic Ultrasound Assessment of Fetal Size, Liquor & Placenta

Previous surveys undertaken by the Ultrasound Officer have highlighted that USS simulators were available in a number of LETBs but are often underutilized. Only 12% of trainees indicated that they had simulation training in ultrasound in the 2017 TEF report.

**Gynaecological basic ultrasound training**

Majority of regions (11/16) have shown an improvement in trainee satisfaction, with a national average rise in score by 4 points, to 50.5. LETBs of Northern Ireland, Northern and Wessex were ranked as the top three regions in the UK. The regions demonstrating significant improvement in trainee satisfaction, with a rise in score ≥8 (double that of national average) include East Midlands, Northern and Yorkshire & The Humber.

The three lowest scoring LETBs in the trainees survey are Wales, North Western and Yorkshire & The Humber. However, as previously highlighted, Yorkshire & The Humber have shown significant improvement this year compared to 2016. Regions that have shown the most decline in trainee satisfaction (decline in score ≤ -4) are East of England, Wales and Scotland.

**Obstetrical basic ultrasound training**
There is a positive trend in the national average score by 3 points to 58.2, with 11/16 LETBs outperforming last year, one remaining the same and 4 LETBs demonstrating a decline in trainee satisfaction. The top performing regions are Northern Ireland, Severn and Scotland. The regions demonstrating significant improvement with a rise in score ≥6 (double that of national average) include East Midlands, Northern, Wessex, West Midlands and Yorkshire & The Humber. Northern LETB must be particularly commended for their outstanding improvement in score by 11 points to 62.6.

There is a decline in trainee satisfaction in Scotland with a fall in score by 6 points, however, Scotland still ranked in the top 3 within this category.

**Regional differences**

Northern Ireland LETB has consistently outperformed in all ultrasound indicators over the last two years.

East Midlands, Northern and Yorkshire & Humber LETBs have shown a strong upward trend in trainee satisfaction in both basic obstetric & gynaecology ultrasound training modules. This may suggest impact of LETBs making proactive changes following TEF feedback.

**Conclusions**

Overall trend in both Basic Obstetric and Gynaecology ultrasound training is positive with both areas showing improvement in trainee satisfaction compared to 2016 survey. Analysis of eportfolio reports demonstrates 96% completion of basic ultrasound modules. However, the TEF report scores are just above 50\(^{th}\) centile, and therefore sustained efforts are necessary to ensure ongoing improved trainee satisfaction. Without immediate nor cost effective solutions for junior doctor rota gaps and the need for more consultant trainers, it is essential to maximise the utilisation of our resources.
Recommendations

**Recommendation 1:**
In order to improve attainment of basic ultrasound skills, LETBs could consider providing half-day protected sessions on ultrasound simulation in years 1 and 2, which are supervised by trainers. RCOG Ultrasound Officer, in collaboration with trainee representatives, can develop a template guide for delivery of these training sessions. This will give trainees an opportunity for supervised learning and also enable basic OSATS to be undertaken.

**Recommendation 2:**
Ultrasound simulators could be made accessible to trainees close to clinical areas to improve greater utilisation after they have attended a supervised simulation training session. However, it is important to recognise that simulation training should not be a replacement nor a pre-requisite for supervised USS training in a clinical setting.

**Recommendation 3:**
Increase awareness amongst trainers to access StratOG module ‘Train the Trainers: Ultrasound’ in order to familiarise them with the curriculum and assessment tools. RCOG could consider running an interactive “Ultrasound Train the Trainers” course for consultants, senior trainees (ST6+), sonographers and allied specialties to improve their teaching skills specific to the RCOG ultrasound curriculum requirements and motivate them as trainers.

**Recommendation 4:**
Trainers and trainees from regions demonstrating outstanding performance and improvement can share their experience and practice. Each region highlighted in the report as performing well or showing significant improvement can be asked to complete a brief
survey on their USS training structure and delivery. This can be shared in ‘Training News’ and disseminated in USS network meeting.

**Suggestion for GMC survey program specific questions (PSQs)**

Nil

**Suggestions for changes to TEF questions**

Nil

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