

## HEE's Sonography Options Appraisal

### Sonography/Ultrasound Workforce

#### Your Details

1. Name - Dr Giles Maskell
2. Role - President
3. Organisation - The Royal College of Radiologists
4. Email address - [consultations@rcr.ac.uk](mailto:consultations@rcr.ac.uk)

### **Approach 1: Including a pathway for sonography registration within radiography undergraduate programmes with a view to professional registration by the Health and Care Professions Council (HCPC)**

#### Proposal

1. Health professionals who become sonographers qualify first in other professions (mainly though not exclusively in radiography) and subsequently undertake post-registration training in sonography via CASE accredited programmes. In certain respects, sonographers and radiographers are part of the same workforce "pool".
2. This approach proposes to build sonography training as an optional pathway within undergraduate radiography programmes, creating more flexible career opportunities and enabling sonography skills and knowledge development to begin at an earlier stage than at present. This option would:-
  - Create a wider and more flexible workforce pool
  - Reduce the requirement to undertake post-registration training (though this option would remain) enable those graduating to enter employment directly in sonography or radiography

#### Please answer each of the following questions:-

**5. Do you support the creation of a sonography specialism within radiography undergraduate programmes?**

Yes

**6. Would you employ those who had successfully completed such a programme?**

*Not applicable to the RCR*

**7. As a service provider, how would you use this model?**

*Not applicable to the RCR*

**8. How would this model fit with any models you may be developing for sonography?**

*The RCR does not consider that there is only one model of sonography delivery for patients. It can and should be delivered by a number of healthcare professionals e.g. radiologists, radiographers, sonographers, midwives etc.*

**9. What do see as the advantages/disadvantages of this model?**

*Advantages would include*

- *greatly increase sonography education among radiographers during their undergraduate course*
- *improve recruitment to sonography*
- *shorten the amount of post graduate training required before independent practice*
- *the radiographers would be registered by the HCPC*
- *provide better understanding of the complementary roles of ultrasound , x-rays, CT, MRI, nuclear medicine*
- *foster team-working and networking with others in imaging e.g. radiographers, radiologists*

*Disadvantages would include*

- *there still would be a considerable amount of post-qualification sonography training and supervision required in scanning patients, log book collection and assessment, feedback on discrepancies , participation in audit*
- *minimum of 2 years statutory post-registration experience in an approved post to acquire patient management skills e.g. breaking bad news, coping with distressed patients/relatives, prioritisation, time management, effective liaison with others when communicating urgent reports, coping under stress/interruptions, personal resilience, knowing when to seek advice and help, adverse incident and near miss reporting*

**10. How could you help to deliver the required clinical training?**

*Not applicable to the RCR*

**11. How could your services help to deliver this model?**

*Not applicable to the RCR*

## **Approach 2: Support the development of a direct entry sonography undergraduate degree**

### **Proposal**

1. As in approach 1, those who specialise in sonography are health professionals from other backgrounds (mainly radiography, but also healthcare science, nursing or midwifery) who take a CASE accredited post-registration programme and who are regulated through their existing professional registration, e.g. with the HCPC or NMC. There is currently no accredited pre-registration (BSc) route directly into sonography [1].
2. Under this approach, HEE would support the development of bespoke undergraduate programmes in sonography. Under current arrangements, such programmes would not confer statutory professional registration, though graduates would be eligible to seek registration on the Society and College of Radiographers' (SCoR) voluntary register.

### **Please answer each of the following questions:-**

#### **[1] Birmingham City University is currently developing an undergraduate degree in medical ultrasound**

12. **Do you support the creation of a new direct entry sonography undergraduate degree?**

*Other*

*The RCR considers that an Undergraduate BSc course alone would be inadequate for safe independent sonography practice. For patient safety and public assurance all healthcare professionals who image patients should be statutorily registered and should have adequate individual indemnity cover and if employed, the employer should have adequate corporate indemnity cover.*

#### **Sonography poses particular risks for patients**

- *it is operator dependent*
- *the discussions between sonographer and patient add greatly to the quality of the ultrasound report as so much relevant information is absent from referrers.*
- *The focal tenderness etc. when a sonographer presses a particular area is highly relevant as are the subsequent discussions with the patient that arise from this discomfort.*
- *Patients expect feedback from the sonographer on the nature of the findings and what will happen next*

- *Unlike x-rays, CT , MRI, nuclear medicine scans , where all the imaging data is digitally recorded for other healthcare professionals to review, only a tiny portion of ultrasound examinations are stored digitally*
- *considerable reliance is therefore placed on the report of the sonographer much more than on the report other imaging modalities, as all the images may be reviewed at any time subsequent to the examination*
- *there is no opportunity for others to review all of the ultrasound examination subsequently if the clinical context or subsequent illness of the patients does not fit with the sonographer's report*

*The RCR considers that sonographers who qualify after a three year undergraduate course would still require a considerable amount of post-qualification sonography training and supervision. Sonographers would also require a minimum of two years statutory post-registration experience in an approved post to acquire patient management skills.*

**13. Would you employ those who had successfully completed such a programme?**

*Not applicable to the RCR*

**14. As a service provider, how would you use the undergraduate model?**

*Not applicable to the RCR*

**15. How would this model fit with any models you may be developing for sonography?**

*Not applicable to the RCR*

**16. How would this model fit into your overall service model?**

*Not applicable to the RCR*

**17. What do you see as the advantages/disadvantages of this model?**

*Advantages:*

- *Increases potential source of sonographers*
- *Undergraduate training focused on ultrasound rather than on subjects / depth of detail required in general radiography training*
- *Supervised service delivery for patients within 3 years but this should not be independent practice given risks and consequences for patients*

*Disadvantages: see detailed answer to question 12*

**18. How could your services help to deliver this model?**

*Not applicable to the RCR*

**19. How could you help to deliver the required clinical training?**

*Not applicable to the RCR*

**20. Would you expect the course to be CASE accredited?**

Yes

**21. Would you be willing to participate in a pilot without CASE accreditation?**

*Not applicable to the RCR*

### **Approach 3: Support the development of a direct entry sonography postgraduate route at Masters Level for those with a first degree**

#### **Proposal**

- 1. This approach would enable those with a relevant (e.g. science or health-based) first degree to undertake postgraduate training at masters level, to provide a broad programme of training and professional development across ultrasound specialisms. The training would be CASE accredited.**
- 2. Under current arrangements, such training would not confer statutory professional registration, though it is anticipated that graduates would be eligible to seek registration on the Society and College of Radiographers' (SCoR) voluntary register. By way of example, Cumbria University has recently launched a two-year full-time MSc along these lines.**

**Please answer each of the following questions:-**

**22. Do you support the development of relevant masters-level training for those with a relevant first degree?**

*Other*

*The RCR considers that a two year MSc course alone would be inadequate for safe independent sonography practice. For patient safety and public assurance all healthcare professionals who image patients should be statutorily registered and should have adequate individual indemnity cover and if employed, the employer should have adequate corporate indemnity cover.*

*All concerns on this have been addressed in full in question 12.*

*The RCR considers that Sonographers who qualify after a two year MSc course would still require a considerable amount of post-qualification sonography training and supervision. Sonographers would also require a minimum of two years statutory post-registration training experience in an*

*approved post to acquire patient management skills.*

**23 Would you employ those who had successfully completed such a programme?**

*Not applicable to the RCR*

**24 As a service provider, how would you use this model?**

*Not applicable to the RCR*

**25 How would this model fit with any models you may be developing for sonography?**

*Not applicable to the RCR*

**26 What do you see as the advantages/disadvantages of this model?**

Advantages:

- *Increases potential source of sonographers*
- *Track record of successful qualification with a BSc in a science or healthcare subject*
- *Training focused on ultrasound rather than on subjects / depth of detail required in general radiography training*
- *Supervised service delivery for patients within 2 years but this should not be independent practice given risks and consequences for patients detailed above*

Disadvantages

*For all concerns see detailed answer in question 12.*

- *A BSc in a science subject e.g. Chemistry, Mathematics, Physics or Geology would not give the same platform for ultrasound training as a BSc in Sports Studies, or Physiology, or Pharmacology*

**27 How could your services help to deliver this model?**

*Not applicable to the RCR*

**28 How could you help to deliver the required clinical training?**

*Not applicable to the RCR*

**Approach 4: Continue to support undergraduate training in radiography or other relevant profession followed by postgraduate training in sonography (main current model)**

## Proposal

1. **This approach is the main current route into sonography. It enables health professionals to become sonographers by qualifying first in other professions (mainly though not exclusively in radiography) and subsequently undertaking post-registration training in sonography via CASE accredited programmes.**
2. **Under current arrangements, professional registration would be conferred through the original health profession (e.g. via NMC or HCPC), and it is anticipated that graduates would be eligible to seek registration on the Society and College of Radiographers' (SCoR) voluntary register.**

**29 Do you support the continuation of the current approach?**

Yes

**30 Would you employ those who had successfully completed such a programme?**

*Not applicable to the RCR*

**31 As a service provider, how would you use this model?**

*Not applicable to the RCR*

**32 How would this model fit with any models you may be developing for sonography?**

*Not applicable to the RCR*

**33 What do you see as the advantages/disadvantages of this model?**

### Advantages:

- *Proven track record of high quality sonographers*
- *HCPC registered and accountable under law with potential for restriction or termination of right to practice*
- *Good understanding of how ultrasound fits in wider context of rest of Imaging*
- *Skilled in dealing with patients from their work as radiographers*
- *Experience of healthcare team-working*
- *Good understanding of patient care pathways*
- *Track record of delivery of imaging for patients*
- *Experience of negative feedback, incident reporting when things go wrong*

### Disadvantages

- *No increase in potential source of sonographers*
- *Training on many subjects / depth of detail not required for sonography*
- *Long training period overall, when one factors in BSc in radiography, postgraduate general radiographic experience, and sonography training*
- *Need mentoring and supervision for 1 year post sonography training*

**34 How could your services help to deliver this model?**

*Not applicable to the RCR*

**35 How could you help to deliver the required clinical training?**

*Not applicable to the RCR*

**Additional approach: To support the development of the support/associate workforce to undertake roles under the direction of a registered clinical practitioner, such as radiographer, nurse, midwife, medic**

**1. Most of the provision of ultrasound services is undertaken by qualified sonographers or by health professionals who have undertaken specific training to support a main role (e.g. radiology, midwifery). Most of the latter undertake CASE- accredited modules. There are, however, examples of practice where support staff e.g. Assistant/Associate Practitioners) deliver specific ultrasound services under the direction of a more senior health professional experienced in ultrasound.**

**Proposal**

- 2. Service providers to identify the potential roles to support the delivery of ultrasound procedures by support/associate staff under the direction of a suitably registered clinical practitioner, undertaking training programmes that are CASE-accredited.**

**36 Do you support this approach?**

No

**37 In what ways would you like to see it developed?**

**38 Are these potential roles more applicable in some areas than others, e.g. cardiac physiology?**

**39 As a service provider, how would you use this model?**



*Not applicable to the RCR*

**40 How would this model fit with any models you may be developing for sonography?**

*Not applicable to the RCR*

**41 What do you see as the advantages/disadvantages of this model?**

*The disadvantage of this is that the level of supervision needed would remove any "efficiency".*

**42 How could your services help to deliver this model?**

*Not applicable to the RCR*

**43 How could you help to deliver the required clinical training?**

*Not applicable to the RCR*

## **Other Approaches**

**Please answer the following additional questions:-**

**44 What are your views about other potential approaches, including short-term solutions to address urgent shortages?**

*Banding for NHS sonographers should be improved as this a major cause of loss from the NHS to agency and private sector where they play no role whatsoever in training/ supervising/ mentoring or in developing NHS services e.g. inter-disciplinary care pathway re-design to improve efficiency and patient care*

*Many careered radiographers would welcome substitution of a few large volume scanning lists with their mental and musculoskeletal stresses by training lists. This should be actively encouraged and may prevent premature retirement/part-time working with further depletion of the sonography workforce. There should be central funding for such training lists.*

*International recruitment should be considered and for the safety of patients a good understanding of English is required for practice.*

*Overall, The Royal College of Radiologists ranking of the options is*

- 1. Current model of training, i.e. continue to support undergraduate training in radiography or other relevant profession followed by postgraduate training in sonography*
- 2. Including a pathway for sonography registration within radiography undergraduate programmes*
- 3. Support the development of a direct entry sonography postgraduate route at Masters Level for those with a first degree*

4. *Support the development of a direct entry sonography undergraduate degree*

**45 Can you give any examples of local solutions you are, or have been using to address workforce challenges?**

*HEE North East multi-professional Sonography Simulation and Training Centre*