How should accredited specialists be trained to do new procedures?

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ABSTRACT

When and how specialists should receive training to perform newly introduced procedures is a topic which has received relatively scant attention. The demands of clinical governance and the prospect of revalidation make this an issue which clinicians and their specialist organisations cannot ignore. NICE has been advised by specialist clinical advisers to make recommendations about training in its guidance, but wanted both to review the literature and to consider the views of specialists on how this might best be done. All this is about accredited specialists who have completed their specialist training: it is not about 'training for trainees'.

KEYWORDS

Accredited specialists – Training in new procedures

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The NICE Interventional Procedures Programme produces guidance on the efficacy and safety of new interventional procedures, which are most often notified to NICE by clinicians who want to start using them. The evidence used to produce guidance includes both published papers on the procedures, and advice from clinical specialists (Specialist Advisers) in response to a proforma, which includes a specific question about training.

Frequently, Specialist Advisers state that a procedure requires particular skills and/or special training. Based on their advice (and sometimes also on information from the published papers), recommendations or comments about training are often included in NICE Interventional Procedures guidance. Nearly two-thirds of the 274 pieces of guidance published since early 2003 acknowledge a need for special training. In their recommendations, 18 pieces of guidance referred to training standards which had been published or which were being prepared by professional organisations.

There has been extensive debate about the nature and format of training recommendations in the independent committee which considers the evidence and advises NICE. Few precedents or examples exist of how to stipulate training needs for accredited specialists who want to embark on new procedures. The precise types and elements of training are beyond the remit of NICE and must depend on special-

ist organisations to define and set standards. In order to address uncertainties and to guide future strategy, a workshop was held at NICE in November 2008, with representatives of several specialist organisations. The aim was to discover: (i) their views on the usefulness of recommendations on training in NICE guidance; (ii) the ways in which they thought that training might best be offered to accredited specialists; and (iii) possible future collaboration of their organisations with NICE in ensuring that proper training standards might be produced and met.

As a prelude to the workshop, a review of training guidance referred to in NICE Interventional Procedures guidance was undertaken and, in addition, a literature review was done.

Review of training recommendations in existing NICE guidance

NICE Interventional Procedures guidance produced since the start of the programme in 2002 was reviewed to discover how many included recommendations about training. In particular, procedures were identified for which the recommendations referred specifically to training standards which had been published or which were being developed. The relevant professional organisations were contacted with a request to provide a copy of the training standards referred to in the guidance, along with information about

training that they had provided or were planning to provide for accredited specialists in the specified procedures.

Eighteen pieces of NICE Interventional Procedures guidance referred to training standards published or being prepared by professional organisations. Eleven professional organisations responded to the request for details of training and guidance that they had produced. Only one organisation had produced training guidelines and audited their implementation. Two organisations had not produced standards but stated that they were working on processes for training accredited specialists. The majority of responses referred to training modules provided through their members but not to published standards or guidance.

Literature review

A literature search was done using a variety of terms relating to training for experienced clinicians and accredited specialists in ‘new’ interventional procedures. Further searches were done specifically for each of the procedures with recommendations about training in NICE Interventional Procedures guidance. The searches were undertaken in July and August 2008. There was no restriction by country of origin or date of publication. The publications fell into the following main categories:

- 1. Twelve articles measured the efficacy of training ‘interventions’ such as short courses, fellowships, and practical sessions in robotic-assisted surgery. Clinician feedback questionnaires were often used to determine how well the training worked. Short courses of 1–3 days, including laboratory work in addition to lectures, were considered useful but the subsequent support of mentors was important.^{1–12}
- 2. Fifteen articles described new training techniques using a variety of physical or electronic devices (such as tele-monitoring/remote monitoring, physical models, or computer/virtual reality models). The majority of these new training techniques were based around laparoscopic surgery. It was noted that potential barriers to widespread use of these highly technological methods of training included expense and legal/liability issues.^{13–27}
- 3. Three articles identified new opportunities for training by changing organisational structures, two of which related to laparoscopic surgery and one to training in new endovascular techniques.^{28,29} One of these was from the UK and reported on the British Association of Urological Surgeons’ guidelines for training in laparoscopy.³⁰ It provided a consensus document based on review of published studies and on expert opinion.
- 4. Finally, 12 editorial articles reviewed the need for training for experienced surgeons in a new surgical technique, one

of which was from the UK. The majority of papers was from the US and Canada, and discussed the role of training, proctoring and credentialing in order to manage the high complication rates in the early stages of development of new techniques in surgery. They presented lessons and suggestions aimed largely at avoiding the need for legislation or regulation specifying which clinicians should be permitted to undertake particular new procedures. There was no consensus among the various articles on how best this could be achieved.^{31–42}

Workshop

Invitations for the NICE workshop were sent to 142 specialist organisations and a variety of other potentially interested parties. Nominees of 15 specialist organisations (*i.e.* surgeons and other clinical specialists) attended and, in addition, there were individuals representing manufacturers, hospitals and patients (Table 1).

The agenda included presentations by three specialists and by the Medical Director of a hospital Trust (identified in Table 1 by an asterisk). This was followed by group and general discussion, after which there was consensus on the following points:

Table 1 Organisations represented at the NICE workshop

British Association of Day Surgery
British Association of Oral and Maxillofacial Surgeons
British Association of Urological Surgeons*
British Cardiovascular Intervention Society
British Orthopaedic Association
British Pain Society
British Society of Gastroenterology
British Society of Interventional Radiology*
British Society of Urogynaecology
Edwards Lifesciences Ltd
Heart Rhythm UK
Medical Director (a neurosurgeon)*
Medicines and Health products Regulatory Agency
National Patient Safety Agency
Patient Representatives on the Interventional Procedures Advisory Committee
Royal College of Radiologists
Society of Cardiothoracic Surgeons of Great Britain and Ireland
The Vascular Society of Great Britain and Ireland*

Asterisks indicate organisations from which representatives gave invited presentations.

1. NICE and specialist organisations should collaborate in identifying new procedures associated with particular risks if undertaken by insufficiently trained clinicians. Specialist organisations should define the necessary skills and the components of training, and they should produce training standards. NICE should recommend adherence to those standards in its Interventional Procedures guidance.
2. It is the role of specialist organisations (not NICE) to develop strategies for the provision of training and to regulate the standard of training courses. Competency assessment tools developed for trainees by the Postgraduate Medical Education and Training Board (PMETB) could be adapted by specialist organisations for use in the assessment of competency of accredited clinicians.
3. There should be recognition that manufacturers have made a significant contribution to training for new procedures and will continue to do so.
4. Consideration should be given to the development of a supporting framework that covers accreditation and insurance for mentors; recognition of centres providing training; and funding of time required for the training of accredited specialists. The framework should recognise that new procedures frequently require training of a team rather than just individuals. Trust managers, medical defence bodies and professional organisations would all have an interest in this.
5. Audit and outcomes data could be used to inform review of NICE guidance, foster properly monitored dissemination and provide a basis for clinicians to audit their results, in the context of some kind of 'benchmark'. The collection of audit and outcomes data is likely to be in tune with development of Continuing Medical Education for accredited clinicians and the imminent introduction of a revalidation process because it is one of the mechanisms by which clinicians can demonstrate their competence.
6. Specialist Advisers to NICE, nominated by the specialist organisations, should be asked in more detail about the need for special training requirements during the development of guidance for new procedures.

Conclusions

This workshop has shown that there is considerable interest in ensuring that specialists are able to obtain the necessary training to undertake new procedures, but that this requires significant planning and support. There is willingness on the

part of specialist organisations to take a lead: indeed, only they have the knowledge to advise on the particular skills and experience required. The Department of Health, hospital trusts, and manufacturers all have parts to play. NICE has been encouraged to continue making recommendations about when special training is necessary and to collaborate with specialist organisations. A more formal system of training for accredited specialists is likely to be necessary to satisfy the demands of governance and revalidation.

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