

Anaesthesia practitioners in the UK: the high road, not yet taken

It is clear that unless changes are made to the way in which anaesthesia is practiced in the UK, there will be insufficient personnel available to take care of the patient workload. In 1997, the UK-based audit commission published a document on *Anaesthesia and Pain Service in England and Wales* [1]. In paragraphs 154–5 they state ‘the most serious challenge for the future is increasing the number of patients who need treatment and the diminishing availability of trainee doctors to carry the burden of front-line treatment ...’. This report goes on to say that some of the problems may be solved if we ‘... reduce demands for more doctors ... [by] allowing non-medically qualified staff to maintain anaesthesia under the indirect supervision of doctors who move between two or more operating theatres’. At the time, this view was not supported by the Association of Anaesthetists of Great Britain and Ireland (AAGBI) nor the UK NHS executives [2,3]. The situation has deteriorated in the intervening period, and it is now clear that some form of non-physician qualified staff are inevitably going to end up administering anaesthesia under supervision in the UK, as in Europe and in the US. Now, both the Association of Anaesthetists and the Royal College of Anaesthetists (RCA) are supportive of such a strategy. Their overall 2006 position has been summarized by Greaves [4].

The background and training of the proposed physician extender has not been decided. It is the purpose of this editorial to review the American model and compare and contrast certified registered nurse anaesthetists (CRNAs) and anaesthesia assistants (AAs) (called ‘anaesthetic practitioner or AP’ by the AAGBI and RCA). We are of the opinion that AAs, see <http://www.anesthesiaassistant.com>, provide a more satisfactory model for patient care in the future for the UK than CRNAs. This is not, however, specifically a problem of the UK and has general relevance throughout Europe as expected demand for anaesthesia services increases. The problems of the current

situation in the UK are demonstrated in a recent editorial [5]. This editorial highlights and illustrates problems but provides few solutions.

The AAGBI and the RCA have suggested that the most appropriate model to structure the future delivery of anaesthesia care is to adopt the American AA model and provide appropriate training for APs. In the UK, anaesthesia has traditionally been an entirely physician based and provided service (unlike the US). We feel that there is a compelling need to clearly distinguish between the roles of APs and CRNAs to clarify further debate. The threat of CRNAs making an appearance in the UK is causing considerable rancour [5]. There are substantial differences between AA and CRNA training and practice in the US. These are as follows:

1. The AA programme was initiated in 1969 by *anaesthesiologists* at Emory University in Atlanta and Case Western University in Cleveland. These programmes have always had a consistent *medical* background vs. *nursing* CRNA programmes. In recent years, other AA programmes have started in the US, but they are relatively small in number compared with CRNA programmes.
2. The AA programme results in a 2-yr Master of Medical Science degree. The entry requirements are very strict and require an excellent science background, and candidates are generally of a high enough standard to permit entry to medical school. During the course of their programme, they are expected to do 2500 h of supervised anaesthesia.
3. The AA training programme is entirely *medically* supervised and thus is more in keeping with the present structure of UK training in anaesthesia vs. the *nursing*-based CRNA courses.
4. AAs may not work independently. Physician anaesthesiologists are required to be present for all key portions of the case (including induction and emergence). The recommended level of supervision for physician to AA is one-to-two (although some may choose to exceed this level). The situation for CRNAs is somewhat different. They may work under the supervision of a physician who is *not* a

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- trained anaesthesiologist (for instance, the operative surgeon).
5. AAs can currently work in 16 states in the US by licence regulation, certification or through physician delegation. CRNAs may obtain licenses to practice throughout the US.
 6. There is a professional organization for AAs, the American Academy of Anesthesiology Assistants, and there is a national certification process. Successful completion of the certifying examination is required, and there is an ongoing assessment and examination process. Continuing certification is a requirement for continued employment. CRNAs must also be board certified and require regular recertification.
 7. The most contentious issue is the fact that CRNAs are actively seeking independence from physician supervision. Under certain circumstances in the US, they have achieved this. AAs do not seek such independence.

There are two reasons why we feel that the AA model represents a better plan for anaesthetic practice in the UK (and other countries through Europe) than the CRNA model. Firstly, AAs are trained by anaesthesiologists in accredited universities. Secondly, there is a long history of friction between CRNAs and anaesthesiologists in the US. It is clear that CRNAs will continue to seek the right of independent practice. They are continually trying to 'eat our lunch'. They are also suffering from 'job creep'. There are cases of nurse anaesthetists with doctorates introducing themselves to patients as 'Hello, I'm Dr. X, your nurse anaesthesiologist'.

It is unclear what will happen in the UK to the operating department assistant (ODA) or anaesthetic nurse if anaesthesia is being administered by another caregiver supervised by a physician. It is likely that the ODA or anaesthetic nurse role will cease to exist in cases where a non-physician practitioner is involved in patient care. It is likely that the anaesthesia practitioner will prepare the room using a case cart system and having carried out the preoperative assessment, will make the anaesthesia plan in conjunction with the attending consultant. They may also be involved in postoperative follow-up and management of analgesia, etc.

For anaesthesia practitioners to become established in the UK requires considerable attention to pay scale. Throughout the US, there is a shortage of both AAs and CRNAs. Graduates can expect to earn in excess of \$100 000 on completion of their course. (There is no unemployment for anaesthetists!) At current rates, this is similar to starting consultant salary in the NHS. What should the pay of a fully trained practitioner be in the UK? A salary in the region of £40 000 appears reasonable.

In order for a practitioner programme to be established and functional, there must be a nationally recognized accredited training programme with a national examination (as in the US). Greaves [4] suggests that the final assessment of training should include nationally standardized NCQ and OSCE run by the RCA. What should the entry criteria be for such a programme? We feel strongly that the minimum requirement to enter an anaesthesia training programme should be a Bachelors Degree in Science. We would also suggest that a transition period be allowed in which suitable ODAs and anaesthetic nurses who have significant 'on-the-job' experience but do not necessarily have a Bachelors Degree in Science could undertake such training.

Who should do the training in the UK now that the NHS university project has folded? If our model is followed, we suggest that the training should probably be carried out in a (initially) small number of universities and teaching hospitals with close links to a university campus. This training should also include rotations to district general hospitals where practitioners may be most useful if the service provision of senior house officers and specialist registrars are reduced. This could potentially give rise to impressive cost savings. It would also add consistency to provision of overall service since the resident staff change every 6 months would be avoided. It may also be possible for practitioners to supervise sedative procedures outside the operating theatre. The distressing increase in morbidity and mortality in this setting is a great cause of concern for all practitioners. The introduction of anaesthesia practitioners with one-to-two supervision rate by consultants will also free up a significant amount of consultant time. With the future role of the district general hospital in doubt on the emergence of independent sector treatment centres in the UK, it may well prove to be an attractive and financially viable model there.

What about patient safety? The literature on patient safety when anaesthetized by a physician or a supervised CRNA is confusing and inconclusive. Since the rate of serious complications from anaesthesia is so low, it seems safe to say that we will not see the large scale prospectively randomized trials that will establish differing safety records for the different modes of practice. However, there is enough experience and retrospective data for us to be certain that an anaesthesia care team model does not have a detrimental effect on patient safety.

It is important to be certain that the legislative process that establishes the profession of APs makes it clear that they must practice as part of an anaesthesia care team under the direct supervision of anaesthetists. There should be no possibility of independent practice.

In conclusion, we feel that if the AA model is chosen, nationally implemented and adhered to, we can see no threat to quality and current provision of services. Indeed, for the reasons mentioned above, emergence of properly trained and supervised practitioners could actually improve service with reduced cost and enhance job satisfaction for all involved. Let us remember that anaesthesia is the practice of medicine, not nursing.

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