The next option is to develop a completely new course with an entirely UK (or European) group of instructors and educationalists with its own production, distribution, and quality control administration. Such an answer would have the advantages of relevance and cost control. There would be the problems of increase in variation with other countries, lack of international recognition, and problems of maintenance. In addition it needs to be appreciated that while details of treatment might change, it is unlikely that the basic system used for ATLS could be improved; the phrase, ''re-inventing the wheel'' comes to mind.

Before accepting this option the driving force behind the individuals and groups wishing to see a separate UK or European course also need to be considered. Many protagonists honestly believe the disadvantages of staying in the ATLS family outweigh its advantages. A minority are motivated by more transient emotions such as feeling excluded, xenophobia, and possibly even jealousy. It is important to know what is driving people because the costs and time commitment required to develop this type of course are huge, even for the UK. If one considers a European based course then the problems increase further. Nevertheless it is possible and there are structures and personnel who can do it. The question is, are advocates for this option motivated enough to keep it going over 26 years and six editions?

The final option, as described by McKeown, is to increase the involvement of international groups. In so doing issues such as core content (for all) and peripheral (for local needs) could be addressed along with the thorny issue of cost versus resources. This solution is likely to generate enthusiasm, and passion because of its local relevance while being part of an international family. However, these advantages would need to be balanced against reduced central control, finances, increased variation, reduced quality control, and an increase in organisational complexity.

In summary, from its tragic origin ATLS has become an icon in medical education. However, its quality control system and administration has led to rigidity and a perceived lack of interest in non-US ways of managing trauma. There is no doubt that ATLS is at a crossroads in its development. To do nothing runs the risk of a schism developing. Alternatively it could adapt to become a truly international course. Either option will require trauma enthusiasts wishing to develop a more effective course for patients rather than as a reaction to a current set of problems.

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Advance trauma life support

# Advanced trauma life support in the United Kingdom: time to move on

**J P Nolan**

There are strong reasons for the UK to develop its own trauma life support course.

When the Advanced Trauma Life Support (ATLS) was introduced into the United Kingdom in 1988 it revolutionised trauma training for doctors who were expected to treat seriously injured patients. The American College of Surgeons' Committee on Trauma (ACS COT) had compiled a course manual that, in the main, represented state of the art practice in the treatment of major trauma. The style of teaching was refreshing; indeed, much of medical education in the UK has evolved into the same scenario based interactive format. I had the opportunity to take the course in Baltimore, Maryland in 1989. In the following year, as an attending anaesthesiologist at the Shock Trauma Center in Baltimore, I was then able to see the teaching applied while resuscitating seriously injured patients covering the range of blunt and penetrating trauma. I gained my ATLS instructor status while in Baltimore and taught on two provider courses there before returning to the UK. When I started teaching on ATLS courses in the UK in 1991, I was immediately impressed by the highly interactive format and strict adherence to core content; both of these features were different from my experience on courses in United States.

Although ATLS is considered an international course, and is run in at least 23 countries (http://www.facs.org/meetings_events/atls/region15.html), the course content is controlled entirely by the ACS. Like many of the early ATLS instructors in the UK, I was led to believe that our constructive comments would be fed back to the ACS COT and that this feedback would be taken into consideration when revising the course core content. I now know that we were being rather naive and, despite the best efforts by several UK ATLS committee chairmen, our suggestions, along with those from many other countries, have been largely ignored. I don't blame our American colleagues for being reluctant to implement suggestions from other countries: they will want to ensure that their own course is tailored perfectly to the requirements of doctors working in the American healthcare system. Globally, cultures and healthcare systems vary considerably and it is unrealistic to expect a single course to suit everyone. A parallel can be drawn with attempts to develop standardised international cardiopulmonary resuscitation (CPR) guidelines[1]: despite reaching international ''consensus'' there remain significant differences between the CPR guidelines published by the American Heart Association (AHA) and those of

the European Resuscitation Council (ERC).[2]

Regrettably, over the 15 years since I gained my ATLS provider certificate, the course has failed to maintain its initial momentum and several weaknesses have emerged:

- The revised manual should have been published in 2001; the current edition was published in 1997. A compendium of proposed changes appeared two years ago and yet the ACS COT has only just announced the expected publication date for the 7th edition (October 2004).
- The course format has failed to keep pace with developments in education. Other life support courses have moved almost completely away from lectures to workshops; where lectures remain they are delivered using high quality PowerPoint slides. These changes can be controlled and implemented entirely by the relevant national course committees.
- Even with the compendium of proposed changes, some of the ATLS core content is falling behind state of the art trauma practice; for example, low volume fluid resuscitation.
- The UK ATLS Committee has persistently flagged up problems with the way that airway management is taught and yet little has been changed—this total lack of input by specialists other than ''trauma surgeons'' is a reflection of American practice—it bears no relation to practice in virtually any other country in the world.
- The ATLS concept has continued to focus on the single handed physician working in a small rural hospital (in the United States). Although this may have been applicable to some parts of UK practice 15 years ago, it is certainly not now: in most UK hospitals receiving patients with serious injuries, resuscitation is undertaken by multidisciplinary teams. The ALS course assumes that cardiac resuscitation is undertaken as a team and training in team leadership is a fundamental part of the course; trauma resuscitation should be taught in the same way.

The fact that the course is controlled totally by the ACS COT prevents the Royal College of Surgeons of England from taking it forward in the way, I am sure, it would like to. It must be very frustrating to see courses such as Advanced Paediatric Life Support (APLS) and Advanced Life Support (ALS) evolve rapidly and embrace audiovisual technology and current educational practice.[3 4]

The efficacy and cost effectiveness of life support courses is under close scrutiny. The high instructor to candidate ratios demanded by these courses creates a significant impact on limited NHS resources. In the case of ATLS, this is compounded by the significant profit made by the ACS from the sale of course manuals. The current cost of an ATLS manual to a course centre in the UK is £68 and this will increase to £80 once the new manual is released. Based on my experience with the Resuscitation Council (UK) ALS course manual, the cost of printing a similar manual in the UK would be a fraction of this figure.

Surely, the time has come for the UK to develop its own generic trauma course. There are already plans to develop a European trauma course in association with the ERC. In theory, the concept of a European trauma course is sensible but I envisage at least two significant problems: firstly, international collaboration will slow the process of development and implementation of change; secondly, most other European countries have far more prehospital involvement by doctors than we have in the UK and a European trauma course is likely to have a strong prehospital bias. Initially, the development of a UK based trauma course may be the most efficient way of getting a course that suits the requirements of doctors in this country. The transition from ATLS to the UK equivalent will be problematic, but this is a long term investment and it will provide us with the ability to have total control of trauma education in our own country: control of the course content will enable integration with undergraduate curriculums in the UK. Those of us who have been ATLS instructors for many years have witnessed a dramatic change in the enthusiasm and motivation among students taking the course. This is probably partly because most are now compelled to take the course; in the early 1990s most of the candidates were genuinely keen to learn about major trauma. The recent drop in enthusiasm may also reflect the fact that many of the candidates have been taught much of the ATLS content before they attend the course.

Finally, we must consider some of the political sensitivities and conflicts that will have an impact on any decision to move away from ATLS. The ATLS course generates significant revenue for the Royal College of Surgeons of England as well as for the ACS. A future UK trauma course might not be under the administrative control of the RCS: it might, more appropriately, be administered by an intercollegiate body and this will mean redistribution of revenue away from the RCS. At the insistence of the ACS COT, in all countries the ATLS programme must be under the administrative control of a national surgical organisation. This does not reflect the multidisciplinary nature of the course: in the UK, 33% of ATLS instructors are anaesthetists, 25% are emergency physicians, 17% are orthopaedic surgeons, and only 11% are general surgeons.

In summary, although the ATLS course has been invaluable, I think that there are several strong reasons for the UK to develop its own trauma life support course. The national course committee would have the freedom to produce a course to suit the way trauma care is delivered in the NHS and the resources currently going to our American colleagues could be invested in our own training programme.

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Conflicts of interest: Jerry Nolan is vice chairman of the Resuscitation Council (UK) and ex-chairman of the ALS Course Subcommittee of the Resuscitation Council (UK).

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