A Survey of Advanced Trauma Life-Support Training Amongst Doctors in Ireland

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Citation

Abstract
The objective of this study was to quantify the number of surgical trainees who were Advanced Trauma Life Support (ATLS®) trained in the Republic of Ireland and to assess waiting period to do a course, the effectiveness of the course and difficulties faced by the trainees to do such a course. In July 2000, we undertook a questionnaire based survey involving trainees in the general surgical, orthopaedic, accident and emergency and anaesthetic specialities working in 26 hospitals providing acute trauma care throughout the Irish Republic. Response rate of returned questionnaires was 48.5%. Of the respondents 34% were ATLS® of which 52% were orthopaedic trainees, 32% were anaesthetic trainees and only 17% were Accident and Emergency department trainees. Shortage of courses and course centres and long waiting periods, the longest being three years was identified as a cause of the low ATLS® training numbers. Course numbers and centres have trebled since the study was undertaken hopefully addressing the issue.

INTRODUCTION
Advanced trauma life support (ATLS®) courses were devised by the American College of Surgeons in 1978. Participation in these training programmes is intended to help the medical staff improve the level of trauma care in the management of polytrauma patients. The participating medical staff includes orthopaedic, general surgery, accident and emergency and anaesthetic subspecialties.

All trainee doctors in acute surgical specialities and doctors who are part of the trauma team handling acute accidental emergencies should possess suitable trauma management skills. An advanced trauma life-support course, developed to train medical personnel, teaches a systematic approach to the care of the injured patient.

ATLS® has become a desirable or even essential part of training for many surgeons and anaesthetists [1]. Existing studies deal with ATLS® courses that involving the junior residents at the Senior House Officer (SHO) level. Our study involved nonconsultant hospital doctors, including Senior House Officers, Registrars, and Specialist Registrars (SpR). Our aim was to survey the extent of ATLS® training in this group of doctors and to assess waiting period, the effectiveness of the course and difficulties faced by the trainees to do such a course throughout the Republic of Ireland. We also studied the demand for the course, problems obtaining study leave and funding as well as availability of places in the course.

MATERIAL AND METHODS
This study was undertaken during July 2000 in Waterford Regional Hospital. Questionnaires were sent to 1008 trainee doctors in the specialities of accident and emergency, orthopaedics, surgery and anaesthesiology who held a training post in 26 hospitals providing trauma care in the Republic of Ireland. The Questionnaire is displayed in Table 1. Non-responders were contacted by telephone and electronic mails. Second-time non-responders were not contacted again.
Figure 1
Table 1: ATLS Questionnaire

<table>
<thead>
<tr>
<th>Name</th>
<th>Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please circle the appropriate answers

2. Speciality: A/E, Surgery, Orthopaedic, Anesthesia
3. Grade: SHO, REG, SPR, SNR
4. Did you attend an ATLS Course? Yes No
   - If not do you intend to attend? Yes No
   - If you do the course more than 3 years ago? Yes No
   - Do you intend to recently? Yes No
   - If you when?...
   - If not are you shortlisted for a course? Yes No
5. Where did you do the course? Dublin, Kilkenny, Other
6. Have you had leave to attend recently? Yes No
7. Do you think it is an essential course? Yes No
8. Have your trauma skills improved? Yes No
9. Have you had difficulties? Obtaining study leave Yes No

Course fees: Self sponsored / Hospital paid

Thank you for completing the QUESTIONNAIRE and please return it in the enclosed self-addressed envelope.

RESULTS

The total response rate was 48.41% (488 replies out of 1008). The 488 respondents comprised of 25.2% orthopaedic doctors, 33.1% surgical doctors, 25.6% from accident and emergency and 15.9% anaesthesia doctors. A detailed data of the survey is displayed in table 2.

Table 2: ATLS survey findings

<table>
<thead>
<tr>
<th>Speciality</th>
<th>Orthopaedic</th>
<th>Anesthesia</th>
<th>Surgery</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total doctors</td>
<td>158</td>
<td>218</td>
<td>201</td>
<td>35</td>
</tr>
<tr>
<td>Responses received</td>
<td>123</td>
<td>125</td>
<td>78</td>
<td>132</td>
</tr>
<tr>
<td>Spr</td>
<td>29</td>
<td>0</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>REG</td>
<td>38</td>
<td>41</td>
<td>35</td>
<td>59</td>
</tr>
<tr>
<td>SHO</td>
<td>68</td>
<td>79</td>
<td>17</td>
<td>92</td>
</tr>
<tr>
<td>ATLS trained</td>
<td>64</td>
<td>29</td>
<td>14</td>
<td>60</td>
</tr>
</tbody>
</table>

Of the 488 doctors, 167 were ATLS®-trained (34.22%). 52% doctors in the orthopaedic speciality were ATLS®-trained while A/E were 17%, surgical specialists 37.03%, and anaesthetists 32%. 16 out of 167 had done the course more than three years ago.

106 of the 167 ATLS® trained doctors had done the course in the Republic of Ireland and the rest in the UK, and the United States. 15 out of 488 had problems obtaining leave to attend the course. A few trainees, especially those who had attended their courses outside the country, had experienced funding problems for ATLS® courses. This survey has shown that most trainees view ATLS® positively. Only twelve doctors out of 488 denied that the course improved their trauma skills. It was also observed that the trauma management skills of the trainees who completed the course had improved and they felt more confident treating the acutely injured patients, including management of shocked patients, patients with chest and pelvic trauma.

Among the doctors who were not ATLS®-trained, all understood the importance of the course. The single major reason given for not enrolling in the course was the inability to secure a place in the course schedule. The average waiting period for the ATLS® course in Dublin and Kilkenny was three years. Irrespective of their previous level of training and experience, nearly all surgeons and anaesthetists who took this course felt that it had improved their clinical skills and other professional attributes. A very positive attitude toward ATLS® prevailed among all participants.

DISCUSSION

Doctors attend ATLS® courses in order to understand and update skills in trauma management in accident and emergency situations. The ATLS® course provides an easily remembered method for evaluating and treating the victim of a traumatic event. It also provides a platform for evaluation, treatment, education, and improvement of our ability to provide quality medical care to our patients [1]. Also, as ATLS® is becoming an essential requirement for progression to the senior level, places in existing courses are going to the SHO grades and not to the doctors who are frequently called to accident and emergency departments.

There is an increasing demand for the ATLS® course, which trains doctors to provide consistent methods of caring for the resuscitation and evaluation of the polytraumatised patient. According to our survey more orthopaedic trainees are ATLS®-trained—52%—than the other specialities. More courses are clearly needed to train a larger number of doctors.

In the year 2000 there were four ATLS® course centres in Ireland providing only six courses per year. These courses could theoretically educate only 120 trainees per year. Considering our study figures, out of 488 responders 167(35%) were ATLS® trained. This leaves 321 trainees without this valuable training if they were to take this course in Ireland. The overall ATLS® trained percentage in our
survey was 35%. If this figure was generalised, there would be 751 trainees out of 1008 who would need to do this course. Places are required for recertification as well for doctors that have done a ATLS® course every 4 yearly.

Despite the evolution, expansion and popularity of emergency medicine as a medical specialty in the United Kingdom (UK), emergency departments are still primarily staffed by senior house officers particularly at weekends and at night [3]. The situation is the same in the Irish Republic trauma hospitals. The courses and course centres clearly are insufficient to meet the needs at the present moment. The courses need to be trebled in order to train the currently untrained trainee population.

At the time the paper was written and revised the training numbers have increased and in Dublin alone there are 8 courses each having 20 trainees doing the course. Training centres have started in Kilkenny and Cork as well.

There were a few weak points in our study, the chief being the low response rate especially from the anaesthetic subspeciality. The non responders if responded could have altered our data and results. If all the non-responders were ATLS® trained our overall ATLS® trained trainee numbers would have dramatically swelled. If the non-responders had a similar ATLS® training experience we still would have come up with the same conclusion of more courses and course centres to train the trainee population. We also did not study in detail the re-certification rate for these courses that is recommended by the American College of Surgeons after every four years.

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