GAT - renaissance of the annual conference

Membership survey - what you said

Novice anaesthetists’ survey
The arrow of time

As 2011 slips into the history books, and the arrow of time travels on, I have been dabbling in popular physics: provoked by the following passage in a novel (1) ‘...the quality that defines the whole history of the universe is uncertain, but involves quite a lot of nothing as far as I can tell. We, along with all life, won’t survive the current phase.’

I feel that there is some sort of recognizable pattern here - what is going on in the greater cosmos is reflected in our own little universe – with each re-organisation of the NHS bringing greater disorder and I would say that we may be approaching the degenerate phase - there are clearly black holes for pillows, pens and money; I can think of a few white dwarfs as well. Perhaps others think of me as a brown dwarf.

‘The arrow of time’ (ie the unidirectional nature of time) is somehow linked to this tendency towards greater entropy. The start of a new year seems like an appropriate point to mark all of this.

Enough of all that; January is an action-packed month for the AAGBI. Our Annual Scientific Meeting (18th – 20th Jan), and we look forward to welcoming you there.

In Anaesthesia News we have some interesting stuff; I found Dr Younis’s survey of novice anaesthetists fascinating. I am not sure what proportion of new starters are represented in this survey – adding up the numbers given on the MMC website for 2010 competition ratios for all the English deaneries at CT1 gives a total competition ratios for all the English deaneries at CT1

For more information and to register logon to
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Editorial

The AAGBI Membership Survey 2011

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What does GAT do?

I’ve been asked quite a few times over the last few years and I usually trot off along the lines of: “We represent trainee views within the AAGBI and at external committees. We have organised an Annual Scientific Meeting and seminars about consultant interviews”. Thinking about it, that really isn’t much. But there is so much more to the GAT AAGBI do for trainees.

What’s the difference between GAT and the AAGBI? That’s not the first line of a joke but most trainees believe GAT to be separate to the AAGBI. It isn’t. Far from it. GAT is the name given to trainees within the AAGBI. Trainees are full members of the AAGBI. They have some additional benefits and receive discounted membership rates. The AAGBI has been quite forward thinking as it has had its own faculty, we’ve been working to establish exactly what the implications for anaesthesia trainees during this transition are. We continue to work with the Intensive Care Society, Trainees Committee to disseminate up to date information to our members. These changes will affect both anaesthesia trainees with an interest in Intensive Care and those that don’t.

Intensive Care Medicine: Intensive Care is splitting from Anaesthesia with the inception of its own faculty. We’ve been working to establish exactly what the implications for anaesthesia trainees during this transition are. We continue to work with the Intensive Care Society, Trainees Committee to disseminate up to date information to our members. These changes will affect both anaesthesia trainees with an interest in Intensive Care and those that don’t.

NHS Pensions: HM Government is proposing major changes to our pension scheme. Trainees in any branch of medicine are most affected as we will spend the longest time paying into the NHS Pension Scheme. GAT is not a trade union so we cannot officially represent our members to HM Government. However, we will endeavour to provide our members with information about what these changes are, how it will affect us, what can be done at an individual level and to provide any information about the consultation process. We have representation from the BMA Junior Doctors Committee on the GAT Committee with a view of exchanging information.

Trainee Network Link: The GAT Committee consists of 12 elected members from the UK and Ireland. We represent all trainees and currently do not have any representation from Ireland, Northern Ireland or Wales. Our elections are open to all, and we encourage you to have your say. To date we have not established a robust two-way route to share information from trainees in the branches and the GAT Committee. Alex Beckingsale, the Vice-Chair of GAT is currently working to establish an effective communication network so keep an eye out for this. The GAT Committee are always pleased to hear from you directly via email (gat@agbi.org).

I hope this helps to clarify what the GAT Committee does. Please let us know if you want us to do something for our colleagues.

Nicholas Love
Chair, Group of Anaesthetists in Training

AAGBI Annual Congress and Winter Scientific Meetings (WSM):

Trainees respond about a third of the AAGBI membership. Traditionally, the Annual Congress (September) and WSM (January, London) haven’t had many trainees attending. Much of the content at both these meetings is applicable to trainees in the future. This conference has new poster competitions, so again we are trying to provide more for trainees.

It was great to see the large number of trainees attending the Annual Congress in Edinburgh. What was even better was to see the large number of consultants attending this meeting. This confirmed in my mind that there should be more integration of content. Whether you are trainee or consultant, do come along to these meetings – you won’t be disappointed!

Study Leave: There is considerable variation around the UK about rules for study leave and the amount available. We are currently trying to assimilate information about this and whether there can be more consistency between deaneries. More information will follow.
The AAGBI Membership Survey 2011

The AAGBI is the largest specialty membership organisation in the UK with more than 10,000 members. About 45 new members join each month, of which 80% are trainees. Membership retention is high so the organisation continues to grow. One of the challenges for the AAGBI Council as it plans strategy is how to ensure the organisation remains relevant to its membership. With three new members elected to Council each year, the AAGBI remains more representative than many elected bodies but obtaining a representative view of what is a diverse group of professional wants and needs is difficult.

The AAGBI puts a lot of effort into communicating with its members; Anaesthesia News, the new e-newsletter, a new website and the Linkman Network are some examples. Much of this communication is outwards, though; opportunities for communication into the organisation is confined to emails and phone calls received at headquarters at 21 Portland Place and meeting individual members at events such as Seminars, WSM, or Annual Congress.

A key part of the governance and strategy review commenced in 2010 was the Membership Survey. The AAGBI had not conducted one since 2006, and this one was a long time in the making.

Council members, Linkmen and members were asked in articles in Anaesthesia News and email invitations to submit topics and questions. In the meantime a small team of Council member and staff undertook a round of consultations with leading polling organisations to come up with the right format and size of survey.

The research objectives finally chosen were intended to provide the AAGBI with an up to date understanding of its membership, particularly focusing on:

- Members’ views of the AAGBI
- Members’ opinion of their membership and its benefits
- How members view their communication from and with the AAGBI
- What is important to members?
- Members’ priorities in terms of the future of the AAGBI

There was, at times, heated debate about whether to make the survey entirely electronic, or to include a paper option. In the event both options were available with 74% electronic responses. The full survey response can be found on the AAGBI website http://www.aagbi.org/news/latest-news but some of the major findings are as follows.

9,531 paper copies were distributed with the September editions of Anaesthesia and Anaesthesia News and email invitations were sent to 8,365 working email addresses from the membership database. 2556 responses were received, to give a good response rate of 25% of the membership, but 27% of the distribution lists.

Demographics

64% of respondents were male, 7% aged less than 30, 30% aged 31 - 40 and 41 – 50 each, and 31% aged over 50. 71% of respondents work in England, 10% in Scotland, 5% in Wales, 2% each in Northern Ireland and Eire, 5% overseas and 2% retired. 89% described themselves working for the NHS.

AAGBI Membership

86% rated their interaction with the AAGBI as good or excellent. The top three benefits that attracted people to join were the free subscription to Anaesthesia, AAGBI guidelines and the Personal Injury insurance cover for transfers. These three benefits were also rated as the top three in terms of value of the current membership package. 91% thought AAGBI membership represented value for money.

Events & CPD

58% had attended a Seminar, about 40% each Annual Congress or Regional Core Topics and 30% WSM. The numbers for Regional core topics are particularly pleasing as these have been running for only a relatively short period. The commonest reasons for not attending were budgetary constraints and difficulty getting time off. Distance to travel was also a problem, and Regional Core Topics may go a long way to addressing these issues.

86% wanted the AAGBI to provide online support to help with CPD and revalidation. The AAGBI has already started this work with ‘Tutorial of the week’, and the online video platform. E-education is a major new project for the AAGBI, and it appears this will be a popular and useful initiative. 81% wanted help for Consultants to aid trainees with exam preparation; this will be a new venture for the AAGBI.

It is particularly good to see how well the overwhelming majority of respondents evaluate the quality of interaction with the staff at Portland Place, and the AAGBI’s value for money. When everyone’s income, study leave time and budgets are under increasing pressure these are key messages for us. An initiative such as e-Education represents a major investment and new direction of travel for the AAGBI and it seems this has the support of the membership.

So what next? Apart from a huge sigh of relief that it’s over, the Membership Survey 2011 is also the start of a new line of work. In future the AAGBI will start making use of high quality work with the membership, which may take the form of telephone interviews. We intend to undertake smaller, targeted surveys on areas of particular concern. It’s likely that early areas for research will be working arrangements, SPA allocations, and study leave and budgets following on from successful similar projects on pensions. We also plan to start using an online survey tool on the website.

Spending priorities for the charitable arm of the AAGBI should be Education Events/ Seminars (80% rated this more important), support for developing countries (55%) and Research Grants (55%). The top three strategic areas for the Foundation were Patient Safety Issues (85% more important), guidelines and standards (79%) and lobbying and involvement with NHS reforms (63%).

Getting the survey ‘right’ has been a huge challenge. Conscious of the number of surveys each of us receives, we made great efforts to avoid contributing further to ‘survey fatigue’. Inevitably some thought the survey too long, and others that we’d missed important issues. A 25% response rate is reassuring, and the results indicate that generally as an organisation that we are getting it right.

There were certainly no nasty surprises for Council and a lot of reassurance that the strategic choices we have made and continue to make are in line with the needs and expectations of the membership.

And now, like a BAFTA winner (I wish!) it’s time for some ‘thank you’s. Council colleagues Sam Shinde and Isabeau Walker were tireless as we debated each topic and the nuances of each question. AAGBI staff Karen Mcintosh, Nicola Heard, Nicola Bates, Julie Gallagher and Gemma Campbell did amazing work selecting Entourage, our polling company, and putting together the logistics of printing and distribution. My final edits to questions, made up to and including the final hour before it went to the printers, were greeted cheerfully, if through gritted teeth! Darlings, you were all wonderful.

My final thanks must go to each of the members who took the time to fill in a survey. The results you’ve given will play a major part in the future of your organisation for some time to come. Thank you all very much.

Dr Andrew Hartle
AAGBI Honorary Secretary
Anaesthesia in a Tanzanian mission hospital

APs must cope single-handedly with anaesthesia for a wide range of surgical conditions such as emergency caesarean sections, haemorrhagic shock, abortion for ileus, infants with acute injuries and surgery for congenital malformations. They are frequently on-call and have little free time. Despite their limited training and practical experience they take on the same responsibilities as specialist anaesthetists in developed countries.

In addition, hospitals lack basic anaesthetic and monitoring equipment and essential drugs. Pulse oximeters are unavailable in 70% of all East African theatres [1] and 75% of hospitals in Tanzania do not have a reliable oxygen source [2,3,4]. The supply of electricity is subject to extreme voltage fluctuations and interruptions.

St Benedict’s Hospital, Ndanda, Mtwara region.

My experiences as an anaesthetist in Tanzania during 2009-10 began at St Benedict’s Hospital, Ndanda, near the border with Mozambique. I had privately organized my volunteering supported by the Missionary Benedictine Sisters. The hospital, a mission hospital, consisted of one nurse officer anaesthetist, one nurse with less than five years experience and me. We served three main theatres undertaking major surgery and performed theoretical training every week. I served there for two months and made contact with one of the staff nurses in the neighbouring hospital in Ndanda. Together we prepared a training programme which included intubation, use of the LMA and manual ventilation. Six months later I returned to Nyangao to continue the work they had begun.

Table 1 shows how the proportion of patients receiving endotracheal anaesthesia (E TA) or LMA increased from 0.9% in 2008 to 1.6% in 2009, and to 6.9% in 2010, following the introduction of the Glostavent® anaesthesia system and five weeks of intensive training in October-November. It was predicted that this number would reach 20% in 2011. Data is derived from the annual reports of the hospital [7].

With the new anaesthesia equipment installed our aim is now to ensure that standards are maintained. There will be visiting anaesthetists at Nyangao each year and it has been arranged that one anaesthetist nurse each year will receive professional training at the School of Anaesthesia at the Kilimanjaro Christian Medical Centre.

I found these German machines to be too complicated, too expensive and not robust enough to be suitable for the conditions in such a remote hospital.

St Walburg’s Hospital, Nyangao, Lindi region.

At this neighbouring mission hospital I helped the staff make an assessment of the anaesthesia service so that we could plan improvements.

We found that there was just one nurse anaesthetist who had received one year of training and two or three registered nurses who had been trained on the job but had no theoretical knowledge of anaesthesia.

The equipment included two Oxford Miniature Vaporizers, Oxford Inflating Bellows, laryngoscopes, endotracheal tubes, ventilators, anaesthetic gas concentrators and pulse oximeters. There were no LMA’s, difficult intubation equipment, paediatric anaesthesia breathing system or ventilators. The range of drugs available was similar to that at St Benedict’s Hospital.

The time of our visit most operations were being performed under spinal anaesthesia or with ketamine, or under general anaesthesia with a facemask and spontaneous ventilation. Even patients for major upper abdominal surgery were not usually intubated because of the difficulty of manual ventilation when working single-handed. Infants for hernia repair and other major operations, including intra abdominal surgery, received ketamine alone as equipment for paediatric intubation anaesthesia was absent. As the quality of anaesthesia using these methods was frequently unsatisfactory there was general support when I suggested buying a modern anaesthetic machine.

Sophisticated anaesthesia machines, as used in western hospitals, are unsuitable in this situation due to the frequent power cuts, varying voltage, lack of compressed medical gases, lack of skilled technicians to provide servicing and maintenance. After reviewing the options available, we decided to buy a Glostavent® Anaesthesia System [5, 6] which is specifically designed for use in difficult and remote locations. It consists of an oxygen concentrator, draw-over breathing system, gas driven ventilator and uninterrupted power supply unit (UPS). It is suitable for use in adults and children, is easy to understand, operate and service and can continue to function without interruption if the supply of oxygen or electricity fails. The Glostavent was purchased from Diamedica (UK) Ltd (www.diamedica.co.uk) by the Missionary Benedictine Sisters of Tutzing, Germany from funds raised largely by me.

It is difficult for anyone who has never been to Tanzania to imagine the conditions in which anaesthesia practitioners (APs) work there. There are less than 35 physician anaesthetists for the 40 million inhabitants and insufficient nurse anaesthetists.

Table 1 Types of major operations and anaesthesia at Nyangao Hospital before (2008) and after the presence of visiting anaesthetists (2009) and with availability of an anaesthesia machine (2010).

<table>
<thead>
<tr>
<th>Type of surgery</th>
<th>Spinal/LA</th>
<th>Ketamine</th>
<th>ETA/LMA</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper abdominal/Chest superficial</td>
<td>9</td>
<td>52</td>
<td>1</td>
<td>62</td>
</tr>
<tr>
<td>Lower abdominal/Genal</td>
<td>852</td>
<td>198</td>
<td>2</td>
<td>1052</td>
</tr>
<tr>
<td>Extremities orthopedic/plastic</td>
<td>178</td>
<td>62</td>
<td>-</td>
<td>240</td>
</tr>
<tr>
<td>Head, neck</td>
<td>-</td>
<td>12</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>TOTAL: 2008</td>
<td>1039</td>
<td>324</td>
<td>13</td>
<td>1376</td>
</tr>
<tr>
<td>Upper abdominal/Chest superficial</td>
<td>4</td>
<td>59</td>
<td>4</td>
<td>67</td>
</tr>
<tr>
<td>Lower abdominal/Genal</td>
<td>826</td>
<td>168</td>
<td>9</td>
<td>1003</td>
</tr>
<tr>
<td>Extremities orthopedic/plastic</td>
<td>192</td>
<td>79</td>
<td>-</td>
<td>271</td>
</tr>
<tr>
<td>Head, neck</td>
<td>-</td>
<td>11</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>TOTAL: 2009</td>
<td>1022</td>
<td>307</td>
<td>23</td>
<td>1352</td>
</tr>
<tr>
<td>Upper abdominal/Chest superficial</td>
<td>2</td>
<td>21</td>
<td>35</td>
<td>58</td>
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<tr>
<td>Lower abdominal/Genal</td>
<td>799</td>
<td>112</td>
<td>40</td>
<td>951</td>
</tr>
<tr>
<td>Extremities orthopedic/plastic</td>
<td>239</td>
<td>42</td>
<td>-</td>
<td>281</td>
</tr>
<tr>
<td>Head, neck</td>
<td>-</td>
<td>11</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td>TOTAL: 2010</td>
<td>1040</td>
<td>186</td>
<td>90</td>
<td>1316</td>
</tr>
<tr>
<td>Expected TOTAL number: 2011</td>
<td>900</td>
<td>100</td>
<td>300</td>
<td>1300</td>
</tr>
</tbody>
</table>

Results

Before 2009 no specialist anaesthetist had ever worked at St Walburg’s Hospital, so the nurse officer anaesthetist had to be totally self-sufficient. In 2009 two Irish anaesthetists visited for two months and made contact with me in the neighbouring hospital in Ndanda. Together we presented a training programme which included intubation, use of the LMA and manual ventilation. Six months later I returned to Nyangao to continue the work they had begun.
My first day at Nyangao hospital in October 2010 began by unpacking the new Glostavent® anaesthesia machine. Despite its long journey from the UK, including a 10-hour lorry ride on a rough road from Dar es Salaam, the machine worked perfectly straight away.

On the day’s list were two patients for total abdominal hysterectomy (TAH) and one three-year-old child with a large umbilical hernia. Shortly after performing the first intubation and having started mechanical ventilation we experienced the usual daily power cut, which lasted eight minutes until the generator started. The Glostavent’s integral UPS successfully bridged the blackout and kept the machine working without the need for any intervention.

For the next patient, a 3-year-old child with umbilical hernia, I planned to induce anaesthesia intravenously, but the veins were almost invisible and there were no small needles in stock. I gave an inhalational induction with halothane and a laryngeal mask airway that I had brought with me from Uppsala. Surgery was uneventful and infant woke as smoothly as she had fallen asleep.

The second TAH patient was difficult to intubate. The nurse anaesthetist had failed to intubate her and I had not yet unpacked everything I’d brought with me from Sweden. Endotracheal intubation had seldom been performed in Nyangao, so there was little equipment available. John, the trainee anaesthetist, went to fetch my bag while I ventilated the patient with halothane via a face mask. Having never seen an LMA before, he tipped the whole contents of the bag onto the floor, so I could select a suitable LMA and insert it. Surgery and anaesthesia were thereafter uneventful.

Training the local staff to manage the airway and use the Glostavent®

The glostavent® Anaesthesia System: MTF Model 03 user manual, labelled in a strange language, its long journey from the UK, including a 10-hour lorry ride on a rough road from Dar es Salaam, the machine worked perfectly straight away.

Every Wednesday I provided training sessions for the local anaesthetists, adapted for the local conditions, tables on dosages of drugs and sizes of airways etc. After only one week of training, I was confident enough to perform ETA without supervision.

Conclusions

Prior to 2009 in both hospitals the level of anaesthesia could not be regarded as safe as the number of anaesthesia providers was insufficient, professional education was insufficient, and equipment was lacking. Despite these situations improved significantly in Nyangao the introduction of an anaesthesia machine along with training in intubation and laryngeal mask anaesthesia led to a significant decrease in the number of patients having major neck and abdominal operations performed under ketamine anaesthesia, with no airway protection and the patient breathing spontaneously ventilation without secure airway for major neck and abdominal operations. Millions of people in developing countries do not currently have access to safe anaesthesia and pain relief during surgery and child birth [8]. According to a recent survey, less than 25% of all anaesthesia practitioners in Uganda are able to provide anaesthesia that meets the WFSA’s minimum requirements for safe anaesthesia [8, 9]. In South Tanzania, less than 20% of all hospitals fulfil these criteria. Lack of appropriate equipment is a major problem. Many Sub-Saharan hospitals possess a graveyard of non-functioning anaesthesia equipment donated without knowledge of the local situation and its needs. African APS are disembarrassed by machines that arrive without instruction manuals, labelled in a strange language, without maintenance instructions and with no way of obtaining spare parts from abroad. They often continue to use obsolete anaesthesia. In contrast, the Glostavent anaesthesia machine proved to be entirely suitable for the local conditions and the local staff quickly learnt to use it with confidence. I recommend it without reservation for any hospital with limited facilities. Improving the quality of anaesthesia is only possible if a realistic assessment of the existing situation is made in advance together with the local anaesthesia staff and surgeons. Appropriate equipment will be needed and should be accompanied by thorough training of local personnel in its use, servicing and maintenance. Emphasis should be placed on the importance of clinical observation and monitoring of vital signs rather reliance on complicated electronic devices. My experience has convinced me that it is possible for individual anaesthetists to make lasting improvements in the provision of safe anaesthesia in some of the poorest parts of the world without excessive financial outlay.

Daniela Kietzmann
Consultant anaesthetist
Uppsala University Hospital

Dr Ryszard Janiekiewicz
Surgeon-in-charge at St Walburg’s Hospital Nyangao, Tanzania

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9. www.nyangaohospital.com
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How Low Can You Flow?

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You Flow? How Low Can You Flow?
My move to Hong Kong was not driven by a career choice but was on a personal decision to move as a family to this exciting and dynamic region. Having decided to move, my next task was to secure employment which hopefully, might enhance my skills and career but at the very least, would still keep me practicing medicine.

Getting a job

Having spoken to two anaesthetists who had previously spent time in Hong Kong, I realized having such conversations before this would be ideal. I was filled with information about how difficult it was to work as an ‘overseas doctor’; poor pay and a regular six day working week. On the plus side, the unanimous opinion was that despite this, the lifestyle was fantastic!

Initially, I contacted the chief of service of Anaesthesia for the largest hospital on Hong Kong Island - Queen Mary Hospital (QMH) and the heads of departments for Anaesthesiology for The University of Hong Kong (HKU) and Chinese University of Hong Kong. After some correspondence and again the same bleak, outlook being emphasized, I was offered a clinical associate / Pain fellow post based on a personal decision to move as a family to this exciting and dynamic region. Having decided to move, my next task was to get employed, which hopefully, might enhance my skills and career but at the very least, would still keep me practicing medicine.

There were more similarities at work compared to the UK, than differences, which made settling down a little easier! The Hong Kong public medical authority is the Hospital Authority (HA). It is loosely based on a similar system to the NHS. Operating theatres (OT), anaesthetic equipment (e.g. Drager, Dake Asivita B machines, Graseby pumps and Portex epidural kits) and techniques are all very similar to the UK. Of note, there is a distinct separation between Intensive Care and Anaesthesia departments. This is derived from the Australian healthcare system. Training for anaesthetists in Hong Kong is also based on the Australian and New Zealand College (ANZCA) structure: this comprises a 6 year programme, the final year being as a provisional fellow, required to complete a formal project.

Finally arriving and working

On my first day at QMH, I arrived at the hospital and immediately felt reassured. The department consisted of four full time anaesthetists, including the professor of anaesthesia for HKU, visiting clinical associates, and two clinical assistant professors (both originally from the UK). All staff had clinical, teaching and research commitments. It was certainly an international department comprising UK, Australian, Hong Kong and Chinese nationalities.

Life outside of work

Life outside of work

Before I boarded the airplane bound for Hong Kong, my father said ‘after living in Hong Kong, you will realize that there just aren’t enough people in London... it can accommodate so many more!’ This may well be true, but Hong Kong is a densely populated region and space is certainly at a premium. Apartments and living spaces are small, and are ingeniously furnished to make the most of the available space. The housing stock has expanded vertically rather than horizontally. This takes a little getting used to but is eased by amazing views of Victoria harbour and the famous city skyline.

There is much government bureaucracy surrounding organizing visas and identity cards but it seems to work fairly smoothly and without delay.

There is a multitude of bars and restaurants with styles that hail from all around the globe, so there is a shortage of finding a great new place to go out for dinner. One of the most surprising things for me is that only 20% of the region is urbanized, with the remainder comprising beaches and some lush green countryside. There many walking trails, and outlying islands are accessible by cheap and efficient ferries. On the downside, certainly Hong Kong feels very crowded sometimes. Air pollution can be bad and I will miss the ‘fresh air’ of the HK Country Park. There is a multitude of bars and restaurants with styles that hail from all around the globe, so there is a shortage of finding a great new place to go out for dinner. One of the most surprising things for me is that only 20% of the region is urbanized, with the remainder comprising beaches and some lush green countryside.

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A new beginning for the GAT Annual Scientific Meeting

For the last fifty years the Annual Scientific Meeting of the Group of Anaesthetists in Training has provided high quality education, an opportunity to improve one’s CV and a fabulous social occasion for all involved.

Reason 1 – We can provide high quality education at a fraction of the price of a commercial course

Study leave budgets are under pressure. The nominal £800 per annum is allocated at a local level and there are substantial regional variations. It is essential that trainees get good value for their money and we aim to provide an educational programme that covers the breadth of the curriculum, prepares trainees for examinations can wear down even the most resilient of characters. We believe that having a proper outlet to share experiences with like-minded individuals from around the country is essential.

Reason 2 – There is strength in numbers

Increasing numbers at the ASM will improve trainee engagement with the GAT committee. The committee need interaction with the membership to be truly representative. With the opportunity to hear concerns at the local and national level and the Annual General Meeting we can continue to influence decision making in favour of trainees.

Reason 3 – It’s good to talk

There is no doubt that being an anaesthetist in training can be stressful. Working under pressure, the need to excel to be competitive for a consultant post and the omnipresent examinations can wear down even the most resilient of characters. We believe that having a proper outlet to share experiences with like-minded individuals from around the country is essential.

The GAT ASM provides perhaps the only opportunity for trainees to behave like trainees without the constant pressure to behave like a consultant and we should relish that opportunity.

Changes

1. The Education with the GAT committee have taken responsibility for the educational programme

In previous years a local team has arranged the meeting. This is a great deal of work, and those who attended Leeds, Cardiff or Cambridge will remember what a great job was done by these local teams. However, we feel that the Education and GAT Committee at the AAGBI are in the best position to put together a programme that is engaging and stimulating for our trainees.

2. Airway and ultrasound seminars

To facilitate this goal we are turning the final day into ultrasound and airway seminars. This will allow the delegates to really get something ‘solid’ from their time at the ASM. With such seminars coming in at upwards of £150 when run independently you can see that this is an opportunity not to be missed.

3. More competitions

Despite the notion that we all need to stick together, there can be no denying that we all like a bit of competition. The poster and oral presentations are always popular, and we are going to introduce a case presentation competition this year. Cases provide an excellent forum for learning day to day lessons that are neglected by audit and research. They also offer more of a level playing field as they are not affected to the same extent by the strength of the academic and research. They also offer more of a level playing field as they are not affected to the same extent by the strength of the academic department at the author’s hospital.

4. ‘Core topics’ coverage on Day 2

We hope to use the majority of the second day to cover updates in areas of anaesthesia that are practically useful and need to be covered for the FRCA exam. These sessions will aim to deal with the more difficult aspects of subspeciality anaesthesia and offer an update on new developments. It shouldn’t be difficult to map the content to the college curriculum to demonstrate coverage – nothing like ticking a few boxes!

5. Niche workshops

In previous years we have run airway and ultrasound workshops that have held broad appeal to most delegates. With moving these to the parallel sessions, we have made room to have more specific workshops that will appeal to trainees at specific stages of their careers. These will include a consultant interview workshop, organising a placement in the third world and an advanced ventilation workshop for those with an ICM interest.

6. Specific material for pre-FRCA trainees

Have you got the Primary exam coming up or are you aiming to sit your Final soon? If so, this is the meeting for you. We are putting together a tutorial programme of tricky scientific topics that come up in both exams, bringing together experts in the field to provide a one stop shop for your exam preparation. We’ll run this as a parallel session on the final day.

Book your Study Leave NOW!

If you’ve not already done so, check your diaries, write ‘request S/L’ next to the dates Wednesday 27th June to Friday 29th June and start making the necessary arrangements. The programme is filling up and I can assure you that there are several of the ‘big names’ within anaesthesia on the line-up!

Booking will open in January so look out for it and don’t miss the opportunity to attend THE trainee meeting of the year and help us to celebrate the 50th ASM in style.

More details to follow next month...
Anaesthesia News January 2012 Issue 294

John Inkster

A pioneer paediatric anaesthetist

John was appointed as a consultant at the Royal Victoria Infirmary in Newcastle in 1958 and started to develop anaesthetic services for infants and children. In the Pask tradition he produced many pieces of equipment both for anaesthesia and intensive care. Together with Dieter Hoffman in Newcastle University’s Design Unit he produced a fluid-logic, intensive care ventilator that was remarkable for its time in that it efficiently humidified the small tidal volumes used for immature neonates, and was also autoclavable. With Norman Burn, the technician in the anaesthetic department, he produced a T-piece and a set of 8.5 mm tracheal tube connectors, which were later taken up by Portex as the Minilink System. He was an early, possibly the first, appreciator of the value of PEEP in small babies. Most of this work took place at the Fleming Memorial Hospital for Sick Children in Newcastle where he was ably assisted by Lynda Maybee, the anaesthetic sister there and, from 1977, (less ably) by me.

John was a founder member and early president of the Association of Paediatric Anaesthetists. He retired in 1985 but retained a keen interest in paediatric anaesthetic matters and was fully involved when the APA held its annual meeting in Newcastle in 1999. John Inkster was a man of sharp intelligence, dry humour and great common sense and contributed an enormous amount to paediatric anaesthesia and intensive care.

Robin Bray, Consultant anaesthetist, Newcastle upon Tyne (Retired)
An estimated 334 million patients undergo surgery every year with seven million suffering complications from surgery or anaesthesia and one million dying. It is also predicted that 50% of these complications are avoidable [1]. Doing some simple maths, therefore, 3.5 million anaesthetic and surgical complications and 500,000 deaths should be avoidable each year. These are staggering figures and ones that we should surely all aim to try to reduce.

It is also very easy to assume that all of these complications occur in the developing world, and that, in our lofty towers, we have been practicing near perfect anaesthesia and surgery for decades. However, in England and Wales, 182,331 incidents relating to surgical specialties were reported to the National Reporting and Learning Service between April 2010 and March 2011. 1,188 of these resulted in severe harm and 290 in death [2]. The perioperative rate of death from inpatient surgery in studies in industrialized countries is 0.4 to 0.8% and the rate of major complications 3 to 22% [1,3]. It is easy to mistake these figures for being rare or rare events likely to occur only in the developing world and that we have ‘nothing to worry about’. However, having taught the checklist during a two week course in Uganda incorporating obstetric anaesthesia and the Lifebox training (www.lifebox.org, pulse oximetry and the WHO surgical checklist), they are, in fact, extremely impressive.

The structure of the training session.

• Introduction including the global statistics (as above).
• The 10 objectives for safe surgery published by the WHO (summarised below):
  1. Operate on the correct site on the correct patient.
  2. Avoid anaesthetic complications and protect the patient from harm.
  3. Recognise and prepare for airway or respiratory complications.
  4. Recognise and prepare for high blood loss.
  5. Avoid known allergies.
  6. Minimise surgical site infection.
  7. Avoid retained swabs, needles and instruments.
  8. Correctly handle and label surgical specimens.
  9. Improve teamwork and communication.
• Human factors in healthcare.
  • Its origin from the aviation industry with examples of airline disasters.
  • Crew resource management.
  • The importance of check-lists and flattening the theatre hierarchy.
• The checklist.
  • Introduction to the ‘sign in’, ‘time out’ and ‘sign out’.
  • Analysis of each component asking candidates for experiences (personal or third-party) involving errors within that area.
  • Reflection on whether using the checklist would have avoided that error in happening.
• Video of the checklist in action (Great Ormond Street http://www.youtube.com/watch?v=56y8b4Mk).
• Role-play with a case scenario.
• How best to introduce the checklist into their hospital and problems they may encounter.

The candidate’s experiences and concerns

Going through each component on the checklist was an incredibly valuable experience for both candidates and faculty alike. Not only were there horror stories shared between the UK and Uganda with an increasingly alert audience, but it also became increasingly apparent that that very simple checklist could have avoided every single error described. Candidates were so keen to share experiences with their groups that rarely got half way through the components on the checklist. In fact, by improving teamwork, theatre efficiency and reducing complications, it is likely to increase theatre throughput.

However, in England and Wales, 182,331 incidents relating to surgical specialties were reported to the National Reporting and Learning Service between April 2010 and March 2011. 1,188 of these resulted in severe harm and 290 in death [2]. The perioperative rate of death from inpatient surgery in studies in industrialized countries is 0.4 to 0.8% and the rate of major complications 3 to 22% [1,3]. It is easy to see that we still have room for improvement.

The initial study by the Safe Surgery Saves Lives Study Group to assess the outcomes of introducing the checklist was conducted with an equal split between low-income and high-income settings (as illustrated in Table 1). Following introduction of the checklist, rates of complication fell from 10.3% to 7.1% among high-income sites (P=0.001) and from 11.7% to 6.8% among low-income sites (P=0.001) [1]. Although the latter was not statistically significant in the high-income sites, it is obvious to see that the checklist significantly reduced complications and deaths globally.

But for this reduction in complications to occur and to be reproduced, the checklist needs to be used correctly, consistently and meticulously.

What did we learn from Uganda?

As A Vats and colleagues concluded in their paper, successful implementation of the checklist requires organizational leadership, local champions, and an essential component, training in its use [4].

And it is in the latter point that I think we could learn a lot from the course in Uganda. As faculty given a whole afternoon to teach the candidates on the WHO checklist, we were forced to consider it’s relevance and how best to get this across to a country of anaesthesiologists providers to whom it was even more of a foreign concept than it was to us in the UK.

The given fact that many of us received absolutely no training in the use of the checklist when it was introduced in the UK, this was quite a challenge. When preparing to talk about the checklist for the first time we all felt it would be a dry subject, difficult to teach and impossible to string out over a whole afternoon. In fact, it was an incredibly interactive session for which the candidates showed enthusiasm, and the training fitted well into the timeframe of an afternoon.

The enthusiasm to implement it in their own hospitals varied among the candidates as much as it does anywhere in the world. Although few said it was impossible, many feared it would meet fierce obstruction by the surgeons and administrative staff. The traditional hierarchy with the surgeon very much at the top still exists in some theatres and the feeling of disempowerment is sometimes reinforced by the fact that the vast majority of anaesthetic providers

Auckland City Hospital Auckland, New Zealand

David Snell
ST6 anaesthesia, Freeman Hospital, Newcastle

References:

Table 1:

<table>
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<td>UK</td>
</tr>
<tr>
<td>Waikato Hospital</td>
<td>Auckland, New Zealand</td>
<td>New Zealand</td>
</tr>
<tr>
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<td>Seattle, Washington</td>
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</tr>
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<td>Killarney, Ireland</td>
<td>Ireland</td>
</tr>
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<td>Manila, Philippines</td>
<td>Philippines</td>
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<td>Toronto General Hospital</td>
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<tr>
<td>St George Hospital Auckland</td>
<td>Auckland, New Zealand</td>
<td>New Zealand</td>
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</tbody>
</table>

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References:
**AAGBI Essay Competition for Ugandan Fellows: July 2011**

We should have used a checklist

Dear F2s of the hospital

Cannulas go into veins. These veins can often be found in the hands/arms/feet of your patients. A tourniquet can be used to engorge them and make them more easily identifiable.

Practice putting them in – this will make you better able to them on the very rare occasions when they are difficult to insert. Try to avoid a reflex bleep to the anaesthetist – use these guidelines as a starting point:

Things to bleep the anaesthetist for:

Your patient is bleeding/septic/hypovolaemic to such an extent that you are unable to maintain their blood pressure by infusing fluid through the pink cannula you put in their antecubital fossa.

You have tried to cannulate more than once and failed. Your consultant has tried to cannulate more than once and failed, your registrar has tried to cannulate more than once and failed.

Things not to reflexively bleep the anaesthetist for:

• A nurse says “ooh she was a nightmare to cannulate last time”
• The patient flinches/cries when you approach them with a needle
• A nurse says “oooh she was a nightmare to cannulate last time”
• You have tried to cannulate more than once and failed, your registrar has tried to cannulate more than once and failed, your consultant has tried to cannulate more than once and failed.

Yours Sincerely

The friendly anaesthetist on call

**Thank you**

Dr Mahesh Nagar, British Association of Indian Anaesthetists presents AAGBI president Dr Iain Wilson with a cheque for £1,000 for Lifebox at the annual meeting in 2011.

Visit www.lifebox.org

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**Next Year...**

**SAVE THE DATE**

**ANNUAL CONGRESS**

**BOURNEMOUTH INTERNATIONAL CENTRE**

**19-21 SEPTEMBER 2012**

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**Trainee Anaesthetists**

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**AAGBI Essay Competition for Ugandan Fellows: July 2011**

The first to be operated on was a Caesarean section on a gravida 2 para 1 patient with a big baby. It was done successfully in 25 minutes.

“OK guys, please call the midwife to bring the next patient who is ready”

Quickly the midwife brings in the patient who was ready. This mother was an elderly primigravida, a 35 year-old lawyer working at the regional court of law. Her name was third on the operating list. She was put on the table and induced under GA.

The surgeon while scrubbing his hands at the water sink turns and asks the surgeon. “We thought at least you read the patients notes and the name before you scrubbed for the operation.” “I don’t know how to explain this to her. God help me.” says the surgeon.

I wish we had used a checklist.

Thank you

Mugasa Emmanuel, Uganda
Since the advent of national recruitment in 2007 there is a novice burden on anaesthetic departments every year in August when new trainees start their training. This process has significant implications for Trusts as novices require direct supervision at all times until they have completed the Initial Assessment of Competency (IAC). The IAC is a set of 19 assessments outlined in the Royal College of Anaesthetists curriculum [1] designed to assess whether a novice trainee has attained the competencies to be added to the on-call rota.

The college emphasises that this is not a license for unsupervised practice, but the trainee would normally be allowed to deliver an anaesthetic to a healthy adult without direct supervision if competent. The amount of practice a novice requires before they feel competent and confident to join the on-call rota is obviously dependent on the novice, but also the training they receive. The timing of the IAC varies between trusts as there is no guidance on the duration and level of experience a novice anaesthetist requires before joining the on-call rota, but most trainees are assessed at around 3 months.

This Survey was based around IAC and intended to take a snapshot of current practice in development of novice anaesthetic trainees across the United Kingdom. The aim was to identify how much experience novice trainees have of being on-call before joining the on-call rota and whether they have performed any anaesthetics independently prior to starting their on-calls. There is no exact number of procedures that trainees should have carried out before being safe to perform them without direct supervision but the survey aimed to identify trainees’ experience in the skills outlined as per the 2010 curriculum published by the Royal College of Anaesthetists.

Methods

College tutors across the United Kingdom were sent an e-mail link to a website-based survey in December 2010 asking for feedback on their novice trainees. This was done in December 2010 and the period when most trainees would have completed their IAC.

Only novice trainees were asked to complete an anonymous online survey consisting of 24 multiple choice questions focussing on their experience, confidence and assessment prior to starting the on-call rota. The questions are detailed on the next page.

Demographics
1. What is your training deanery?
2. What is your training stem?

Experience
3. How many months experience have you had as an anaesthetic trainee?
4. How long into your training did you start on-calls without direct supervision?
5. Did you do a period of shadowing on-calls before going on to the rota without direct supervision?
6. If you answered YES to the above question please enter the number of weeks you shadowed on-calls.

Simulation
7. Did you have any simulation based assessment prior to starting your on-call rota without direct supervision?
8. If you answered YES to the above question please indicate the scenarios you practised.

IAC
9. Has your pre-assessment technique been assessed as part of your initial assessment of competencies?
10. Did you complete all of your initial assessments of competency prior to starting the on-call rota without direct supervision?

Procedures
11. How many endotracheal tubes have you inserted?
12. How many endotracheal tubes have you inserted WITHOUT direct supervision?
13. How many extubations have you performed?
14. How many extubations have you performed WITHOUT direct supervision?
15. How many rapid sequence inductions have you performed?
16. How many rapid sequence inductions have you performed WITHOUT direct supervision?
17. Would you feel comfortable performing a rapid sequence induction unsupervised?
18. How many spinal anaesthetics have you administered?
19. How many spinal anaesthetics have you administered WITHOUT direct supervision?

Anaesthetics
21. Please rate how you feel about the following statement: I feel confident providing anaesthesia without direct supervision for ASA 1 and 2 patients.
22. How many times have you performed anaesthesia for acute abdominal surgery (e.g., appendectomy)?
23. How many times have you performed anaesthesia for acute abdominal surgery (e.g., appendectomy) WITHOUT supervision?
24. Would you feel comfortable performing anaesthesia for acute abdominal surgery (e.g., appendectomy) WITHOUT supervision?

Supervision
76% (118) of respondents had 3-6 months anaesthetic experience at the time of the survey, 17% (27) had 7-12 months experience.

Results

There were 156* respondents across the United Kingdom, representing every healthcare deanery. 63% (98) of trainees were core anaesthetic trainees and the other 37% (58) were Acute Common Care Stem trainees. 19% (30) of novice trainees did not have an anaesthetic training exit.

Looking at our survey results most trainees (72%) had started on calls by the end of 3 months although 11% (16) had an extended period of supervision. 17% (25) of trainees were always supervised.

Simulation
83% (136) of respondents received simulation-based training prior to starting their on-calls. 95% (126) of this group had practised failed intubation drills, with 76% (103) and 75% (101) having practised cardiopulmonary resuscitation and critical incidents such as anaphylaxis respectively.

IAC
21% (32) of respondents had not completed their IAC prior to starting the on call rota. 96% (149) of trainees had their pre-operative assessment skills assessed before starting the on call rota.

Procedural experience

Intubation/extubation

Table 1 shows that at the time of the survey 97% (151) of novice trainees had performed more than 20 endotracheal intubations and 65% (85) of novices had performed more than 60 intubations. Without direct supervision 15% (23) of novice trainees had performed more than 20 endotracheal intubations. 66% (102) of novices had performed more than 30 endotracheal tube extubations. Without direct supervision 12% (19) had performed more than 30 extubations and
Anaesthesia for acute abdominal surgery is a mini case evaluation statement, only 8% (13) disagreed. Most respondents were confident at administering ASA 1/2 patients with only 9% (15) disagreeing with the statement. Trainees had reasonable experience of acute abdominal surgery with 66% (102) having anaesthetised more than ten of these cases. 24% (37) of respondents had never anaesthetised for acute abdominal surgery without direct supervision, indicating the relative perceived risk of these cases amongst seniors. Trainees were again quite comfortable anaesthetising for acute abdominal surgery (76%).

The IAC assesses novices’ ability to deliver anaesthesia to ASA grade 1/2 patients and for acute abdominal surgery, e.g. an appendicectomy. Most respondents were confident at anaesthetising ASA 1/2 patients with only 9% (15) disagreeing with the statement. 

Conclusion

It was interesting to see that the majority of novices complete the IAC within 3 months and seem to perform the majority of the skills before starting the on-call rota. As expected many skills were practised under supervision, but despite this many respondents felt comfortable performing tasks independently. The 2010 curriculum does not set a number of skill procedures to achieve during the novice period. One of the main reasons raised from the survey was whether we need set definite number of skill procedures successfully performed before going on the solo rota? Should we say that shadowing on-calls and simulation-based critical incident assessment are an essential requirement before going on to solo on-calls? Many hospitals have already changed the out of hours coverage with regards to consultants and trainees, so that these training needs could be addressed. Hopefully future surveys may find answers for these questions.

Dr Stuart Younle
CTI Anaesthetics, Royal Surrey County Hospital

Dr Visveswar Nataraj
College Tutor, consultant anaesthetist, Royal Surrey County Hospitals

References


GAT comment:

This survey highlights a number of important issues - among them the idea of switching theatres as a novice to achieve accelerated skill acquisition and the concept of shadowing a more senior trainee to bridge the transition to solo on calls. It is notable that at present only 75% new starters benefit from a shadowing period, and this seems a practical point to address. The Royal College of Anaesthetists do offer guidance on the matter of procedure numbers in the document “Curriculum for a CCT in Anaesthetics Ed 2 August 2010”, but not in the context of achieving the Initial Assessment of Competence. We feel that this will, by definition, vary between individuals both in timetables and case numbers required. A target “minimum number of procedures” will not ensure competence, but it might give the novice anaesthetist a better appreciation of what they’re aiming for. We welcome further comment from you on this issue via gat@aagbi.org

Delivering an anesthetic

Respondents were asked to rate how confident they felt providing anaesthesia for an ASA grade 1 or 2 patient using the 5 point Likert scale. 67% (104) agreed and 14% (21) strongly agreed with the statement, only 8% (13) disagreed.

The majority of novice trainees surveyed (81%) were aiming for a CCT anaesthetics Basic Level Training. Survey respondents had good exposure prior to starting on-calls. A number of skill procedures to achieve during the novice period;

Delivering an anaesthetic

Related articles and resources

This was the most heavily supervised procedure, with 64% (99) of trainees having never performed it without direct supervision.

Spinal Anaesthetics

It was interesting to see 52% (81) of novice trainees had administered more than 10 spinal blocks at the time of the survey. 36% (57) of trainee anaesthetists had administered spinal anaesthetics without direct supervision (see table 2).

Delivering an anaesthetic

Respondents were asked to rate how confident they felt providing anaesthesia for an ASA grade 1 or 2 patient using the 5 point Likert scale. 67% (104) agreed and 14% (21) strongly agreed with the statement, only 8% (13) disagreed.

Anesthesia for acute abdominal surgery is a mini case evaluation exercise in the IAC. 56% (102) of trainees had anaesthetised these cases more than 10 times, however only 17% (26) had done this without direct supervision. 76% (119) of respondents would be comfortable delivering an anaesthetic for acute abdominal surgery without direct supervision.

How many times have you performed anaesthesia for acute abdominal surgery?

TABLE 1

<table>
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TABLE 2

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<th>Number of RCP performing at least 75%</th>
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Delivering an anaesthetic

Respondents were asked to rate how confident they felt providing anaesthesia for an ASA grade 1 or 2 patient using the 5 point Likert scale. 67% (104) agreed and 14% (21) strongly agreed with the statement, only 8% (13) disagreed.

Anesthesia for acute abdominal surgery is a mini case evaluation exercise in the IAC. 56% (102) of trainees had anaesthetised these cases more than 10 times, however only 17% (26) had done this without direct supervision. 76% (119) of respondents would be comfortable delivering an anaesthetic for acute abdominal surgery without direct supervision.

How many times have you performed anaesthesia for acute abdominal surgery?

Discussion

The majority of novice trainees surveyed (81%) were aiming for a career in anaesthesia, with between 3 and 6 months anaesthetic experience (76%).

Supervision/shadowing

The most common period of supervision was 3 months (88%). Clearly many trusts feel this period is sufficient for novice anaesthetists to gain the competencies required to join the on-call rota. 25% (17) respondents said they were always supervised during their on-calls, which may be falsely high as trainees were surveyed in December when levels of supervision may be higher than at the end of the year. Shadowing on-calls prior to starting the rota was also common practice (75%) to gain experience and boost confidence [2]. The majority (87%) shadowed for 1-4 weeks.

Simulation

Simulation training for critical incidents has well recognised benefit; and capabilities displayed during their IAC. It is assumed that trainees feel confident with essential skills such as intubation, extubation and rapid sequence induction prior to starting the on-call rota, but there is little knowledge on the level of experience they should have gained.

Other authors suggest that trainees need to have intubated between 47-57 patients before they are competent [4-5]. Respondents had good experience of intubation and extubation, with the majority performing more than 40 intubations and 30 extubations under supervision. Performing RSI’s is a skill trainees must achieve as part of the IAC. Survey respondents had performed intubation prior to starting the on-call rota with 86% (134) and 43% (67) having performed more than ten and twenty RSI’s respectively. This figure was obviously lower without direct supervision, with 77% of trainees (120) having performed less than 10 and 16% (25) having never performed RSI’s unsupervised prior to starting the on-call rota. Despite this 80% (125) of trainees would feel comfortable performing an RSI without direct supervision.

Ability to perform Spinal anaesthesia is not assessed in the IAC, but nonetheless is a very important skill to achieve as a junior trainee. There is not a recommended target number of procedures to achieve from the RCoA, but between 39 and 71 attempts have been suggested [4-6] as necessary to attain competence. Amongst respondents to the survey 52% (81) had performed more than ten. Perhaps due to the risks of spinal anaesthesia and technical difficulty...
Effect of adrenaline on survival in out-of-hospital cardiac arrest: A randomised double-blind placebo-controlled trial

A randomised double-blind placebo-controlled trial was conducted in OHCA patients attended by St John Ambulance Western Australia (SJA W). SJA W has a longstanding policy on no drug administration during OHCA. Patients in OHCA were randomised to receive either 1ml intravenous adrenaline 1:1000 or 1:99.19% sodium chloride placebo during CPR. Primary outcome was survival to hospital discharge with secondary endpoint of pre-hospital return of spontaneous circulation (ROSC).

Results
264 patients received adrenaline and 256 patients received placebo. The likelihood of achieving ROSC pre-hospital was 3.3 times greater with adrenaline than for placebo (OR 3.4; 95% CI 2.0-5.6). Adrenaline was associated with a significant increase in survival rate. In patients admitted to hospital 25.4% versus 12.0% (OR 2.3, 95% CI 1.4-3.6). Survival to hospital discharge was greater in the adrenaline group than placebo, 4.0% and 1.9% respectively, but this failed to reach statistical significance.

Discussion
This study demonstrated the superiority of adrenaline over placebo in achieving ROSC. Adrenaline is widely available in the Australian transport system and could readily be administered to hospital following OHCA. Adrenaline use failed to demonstrate a significant improvement to survival to hospital discharge, possibly due to the study being underpowered for its primary endpoint. These findings are critically important as they establish the efficacy for the continued use of adrenaline within current resuscitation guidelines. In the future, improvements in post-resuscitation care (therapeutic hypothermia), adrenaline administration protocols and back-up methods to allow adrenaline to be administered in survival to be made. Further studies on the role of adrenaline, optimal dose and administration timings in OHCA are warranted.

Dr Steve Lohar, ST3, Northern Schools of Anaesthesia

Reference

Assessing the Diagnostic Accuracy of Pulse Pressure Variations for the Prediction of Fluid Responsiveness: A “Gray Zone” Approach

Maxime Canesson et al.

Anesthesiology 2011; 115:231–41

Background: Respiratory arterial pulse pressure variations (PPV) are the best predictors of fluid responsiveness in mechanically ventilated patients during general anesthesia. However, previous studies have been performed in a small number of patients and determined a single cutoff point to make clinical decisions. The authors sought to define the predictive value of PPV in a larger, multicenter study and to express it using a gray zone approach.

The “gray zone” approach has been proposed to avoid the binary constraint of a “black or white” dichotomy of the ROC curve. A gray zone may better fit the reality of clinical or screening practice. The technique proposes two cutoff points on the X axis to delineate the black zone at the gray zone. The lower cutoff allows exclusion of the diagnosis (fluid responsiveness in the current case) with near certainty, while the higher cutoff includes the diagnosis with near certainty. Intermediate values included in the gray zone correspond to a prediction of fluid responsiveness, which is a more pragmatic diagnostic decision. A second potential limitation of the ROC curve analysis for evaluation of dynamic variables is that most previous studies indicate it necessitates a fixed definition of fluid responsiveness (an increase of more than 10% or 15% in stroke volume [SV] or cardiac output [CO]) after a fluid challenge, whereas according to the Frank-Starling curve, the response to a given volume load is actually a continuum of values ranging from “no increase” to a “large increase” in SV and/or CO.

Methods
The authors studied 413 patients during general anesthesia and mechanical ventilation in four centers. PPV, central pressure-sensor cardiac output, and cardiac output after VE were recorded before and after volume expansion (VE). Response to VE was defined as more than 15% increase in cardiac output after VE. The following approaches were used to determine the gray zones: resampling, receiver operating characteristic and logistic regression analysis.

The impact of changes in the benefit-risk balance of VE on the gray zone were also evaluated. The authors defined two opposite strategies: (1) tight fluid control strategy, in which fluid challenge would be “tuled in” if no sine fluid loading would be two times more deleterious than non-optimal CO control; and (2) liberal fluid control in which no-ve maximized CO would be two times more deleterious than an excessive fluid loading. The gray zones for this two alternative strategies were 35% and 40%, respectively.

Results
The authors observed 299 responders (51%) and 214 nonresponders (49%). The PPV (the area under the receiver operating characteristic curve was 0.83 (95% CI: 0.80–0.86) for PPV, compared with 0.57 (95% CI: 0.54–0.59) for central venous pressure.

This study is the first to test the application of the gray zone concept to PPV for the prediction of fluid responsiveness and to do so in a large sample.

The results show that
(1) This approach defines a range of PPV values, between 9% and 15% for which fluid responsiveness cannot be reliably predicted.
(2) This range is more appropriate than previously (25%, 90%) of patients in the operating room.
(3) The percentage change according to the fluid management strategy to be applied (±14% for tight fluid control strategy and ±8% for liberal fluid control strategy) should be defined in every patient.
(4) There is a cross-relation between the percentage change in CO used to define fluid responsiveness and dependence on PPV.

Conclusion: Despite a strong predictive value, PPV may be inaccurate (between 9% and 15%) in approximately 25% of patients during general anesthesia. PPV decreases in the gray zone between the two cutoffs, uncertainty exists, and clinicians should pursue a diagnosis using additional tools.

Vijay Jagannathan, Specialist Trainee, Northern Deanery

Reference
**Dear Editor**

According to the AAGBI survey of private practice [1], 91% of anaesthetists seem to set their fees with some link to the private medical insurers fee scales, be that with an added proportion or some reference to the surgical fee. There is an alternative! The insurers helpfully published how long they thought it reasonable for a procedure and its associated anaesthesia time to take. This was called the Relative Values Exercise. It is available on the internet. This gives an incontrovertible quantification of the time involved for the anaesthetist associated with any procedure. The next step is to decide how much we are worth, interestingly the government publish the fee scales that they will pay barrières for legal aid work based on the time they spend during a day in court (am I being overly cynical if a day in court is about 6 hours attendance), plus a lump sum for taking on a case which represents the preparation time, this is available at www.justice.gov.uk/downloads/Angial-aid-fee-schedule.pdf. You will see also that the fees are dependent on the experience of the barrister. On the back of my fag packet this works out at around £200 per hour. The question is do you think you are worth the same rate of pay that the STAG pays to our legal colleagues for defending miscreants.

*Dr GJ Walker*

*Consultant, Banbury*

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**Response from Sean Tighe, Chair, AAGBI Independent Practice Committee**

The Relative Values review, produced by Newchurch and commissioned by some of the private medical insurers (PMIs), was published but never adopted by the PMIs. It described the relative value of anaesthetic work purely in relation to the time involved in caring for a patient undergoing a particular procedure. However, the surgical relative values took the following into account: time, skill, physical effort, mental effort, judgement and stress. It is not easy to acquire a copy but it could still be argued that the figures in the report could be used to form the basis of a billing scheme.

The AAGBI cannot suggest or support a particular hourly rate for the work of an anaesthetist, but it is worth noting that an editorial published in Anaesthesia last year suggested that the PMIs currently reimburse anaesthetists at a rate of approximately £170 per hour [1]. However, many would argue that an hour of anaesthesia during a complex case on a challenging patient with multiple comorbidities should attract a larger fee.

The AAGBI is on record as stating that the anaesthetist should set reasonable and transparent fees [2], and that the individual anaesthetist should be free to set his or her fees according to a variety of factors that he or she may feel are pertinent. These might include [3]:

- The time taken to provide the service, including pre-operative, intraoperative and postoperative care
- The training, qualifications and experience necessary to provide medical care safely
- The complexity of the medical care provided
- The rarity of the anaesthetic skills necessary to provide safe and effective care
- The risk to the patient of the procedures being performed
- The time of day and day of the week that the service is provided and the degree of surgical urgency
- The risk to the anaesthetist of providing the service

The AAGBI believes that anaesthetists should set their own fees and should make very effort to inform patients of their fees before surgery. Indeed, it argues that if an insured patient is not warned of the fees before surgery, the anaesthetist should accept the PMI's benefit for that procedure.

*Sean Tighe*

*Chair, AAGBI Independent Practice Committee*

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1. Harrop-Griffiths W, Prison S, Grant S. ‘The workman is worthy of his hire’: what is an anaesthetist worth in 2010? Anaesthesia 2010; 65: 325-7

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1. Harrop-Griffiths W, Prison S, Grant S. ‘The workman is worthy of his hire’: what is an anaesthetist worth in 2010? Anaesthesia 2010; 65: 325-7
In 1846 the first successful demonstration of ether anaesthesia took place. Before this few surgical operations could be performed. In the 1840s sniffing gases and vapours for fun had become popular. This paved the way for the introduction of agents that enabled surgery to be performed painlessly.

This was one of the most important discoveries in medicine. However, it was soon recognised that these drugs could be dangerous in the wrong hands.

Our new temporary exhibition explores how one of the most important advances in medicine can be misused and the expertise of anaesthetists who administer them safely.

www.aagbi.org/education/heritage-centre
EBPOM 2012
Provisional Meetings Calendar

Monday 2nd July
- LsORA (London Society of Regional Anaesthesia) Course
- 7th National Cardiopulmonary Exercise Testing Course Day 1

Tuesday 3rd July
- 7th National Cardiopulmonary Exercise Testing Course Day 2
- Mastering Cardiac Output Monitoring Course

Wednesday 4th July
- The Great Fluid Debate
- 6th National Peri-Operative Cardio Pulmonary Exercise Testing Meeting

Thursday 5th July
- EBPOM Day 1: 11th Evidence Based Peri-Operative Medicine Congress

Friday 6th July
- EBPOM Day 2: 11th Evidence Based Peri-Operative Medicine Congress

To keep informed about this and other EBPOM meetings please visit www.ebpom.org.