International charities working around the world – a cardiac aid trip with Open Heart International

Treating the war wounded in South Sudan

Working in Papua New Guinea
Welcome to October's Anaesthesia News. I hope those of you who attended the Annual Congress in Liverpool enjoyed the high quality education, camaraderie and social events.

This issue contains a number of articles about the professional activities of colleagues in developing countries. Shona Chung, a trainee, visited Rwanda, where her training was augmented by anaesthetising highly complex cardiac procedures under experienced supervision from international based seniors. Most patients, including children, were extubated at the end of surgery. Her submission wasn’t about specific outcomes, more about the clinical and personal experience, though I would be fascinated to know what the outcomes were regarding chest infection, re-intubation, sepsis and ultimately mortality. This sort of experience is so different from what can be expected in the UK, and it must give a trainee a tremendous perspective to aim them for a return to practice here.

Colin Berry describes treating the war wounded in South Sudan, where serious humanitarian issues abound. What strikes the reader is the courage of those like Colin who venture into lands of war but also make themselves susceptible to diseases to which they are not accustomed, and take such risks for the benefit of their fellow humans. It’s always great to nod to the great Robert Burns in their parody entitled Ode to the ODP.

An article on mesmerism, by the author Wendy Moore, describes fascinating accounts of the technique, which makes the reader wonder why we do not utilise more. The safety of modern anaesthesia has perhaps pushed such ideas into the background. One wonders if it might be used as an adjunct to current techniques, measurable perhaps in correctly performed trials as analgesia requirements postoperatively for similar surgical insults, with or without mesmerism or hypnosis as we would probably describe it today. What is the effect of hypnosis on perceptual index?

Li Yen Liew and Hannah Watson are our posts for the month, giving a nod to the great Robert Burns in their parody entitled Ode to the ODP. We value 0DPs greatly. Their technical skill is often superb, and they don’t shirk from making (usually) useful suggestions. It’s always great to see them in the morning and there’s a re-assurance about having them around. If you have worked in other countries without such dedicated assistance you will understand this sentiment.

Is it kind, then, in the Ode, to compare them to the mighty haggis?

Gerry Keenan
Elected Member, AAGBI

Anaesthesia News October 2017 • Issue 363

Editorial

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New AAGBI Officers and Council members

At the Annual Congress in Liverpool, former Honorary Treasurer Dr Kathleen Ferguson, Aberdeen, took up the role of President Elect of the AAGBI, and Dr Tim Meek, Middlesbrough, was appointed Honorary Secretary Elect. They will assume the roles of President and Honorary Secretary next year at the Annual Congress 2018 in Dublin.

Dr Kathleen Ferguson
President Elect

Dr Tim Meek
Honorary Secretary Elect

The AAGBI also welcomes three new elected Council members

Dr Matt Davies, Peterborough
Consultant in Anaesthesia and Intensive Care Medicine

Matt is looking forward to working on Council to represent members and develop our specialty further. He also notes he is one of the growing tribe of MAMILs (middle-aged men in Lycra) and has completed two of the past three AAGBI cycle rides.

Dr Ann Harvey, Cornwall
Consultant Anaesthetist and Trust Lead for Coaching and Mentoring

As well as being a full-time clinical anaesthetist, Ann leads the Royal Cornwall Hospitals Trust Coaching and Mentoring programme.

Dr Mathew Patterill, Coventry & Warwickshire
Consultant Anaesthetist with special interest in cardiothoracic anaesthesia

Mathew is involved with the peri-operative management of cardiothoracic, upper GI and bariatric patients. As a new member of Council he is looking forward to supporting the AAGBI in its endeavour of delivering exemplary safe standards in anaesthetic practice.
I have to admit that when I first filled in the application form to work in Papua New Guinea it was not a country I knew much about; I was soon on a plane on my way there! The town of Tari in Hela Province is at an altitude of 2,200 m in the highlands of PNG. This is a very underdeveloped area even by Papua New Guinea standards, with the first outsiders only arriving here in the 1930s. The locals initially thought the white people must be ghosts of one generation. There is therefore a lot of tribal fighting; the hospital frequently receives patients with gunshot and 'chop wounds' from bush knives. During my stay, 46% of the emergency cases I saw in theatre were as a direct result of violence. This included chest and abdomen gunshot wounds made by factory or homemade weapons, bush-knife wounds to all limbs including traumatic amputations, depressed skull fractures and stab wounds, as well as sexual assaults and rapes in females of all ages. All these cases were treated with either ketamine sedation, regional or an Oxford miniature vapouriser, halothane and no ventilator, meaning that as well as managing blood transfusion, vasopressors and intravenous fluids, you also have to manually bag the patient throughout the entire operation. There are no arterial lines, no central venous pressure lines and no cardiac output monitoring. It was really back-to-basics anaesthesia, constantly feeling for pulses, looking at pupils and being ever alert. There was no blood bank and so we had to rely on patient’s relatives coming in to donate blood. As you can imagine, this was neither a quick nor a smooth process and often difficult decisions had to be made weighing up the safety of going to theatre without any blood versus delaying going to theatre to await blood.

The patient population are incredible in terms of their physiology. You would have a post-partum haemorrhage mother with a haemoglobin of 4 g/L up and helping the other mothers in the ward; the patient who would get up and walk the day after an emergency laparotomy with only some intravenous tramadol for analgesia, or the patient who had both hands chopped off in a tribal fight and walked into hospital with plant roots as tourniquets to try and stop the bleeding.

One memorable female who was two months pregnant was attacked by her husband, she had one hand and one foot traumatically amputated by a bush knife and her husband had also attempted to decapitate her with a significant chop wound to the back of her neck. She was operated on as an emergency and within one week she was teaching herself to manage on crutches with one hand and making plans for her discharge and for herself and her baby’s future. People here have no choice but to survive and to ‘get on with life’ and this is simply what they do. The hospital has a family support centre which does some incredible work counselling victims of violence and particularly victims of domestic and family-based violence. They help these victims to try and get justice through the legal system rather than retaliate or attempt to get compensation, which is the normal route for justice in Tari.

As well as the violence and trauma we managed to do some elective work from smaller operations such as lipoma excisions to hernia repairs and some laparotomies to remove enormous 5 kg ovarian cysts or hysteroscopies for large fibroids. These were particularly satisfying operations as patients were incredibly grateful for their care, and the removal of large ovarian cysts gave patients immediate relief from their symptoms of breathlessness and aorto-caval compression.

Working in Papua New Guinea in these circumstances has certainly been an absolutely incredible experience. I have learnt more in my seven months here than I ever imagined I would. It has given me a level of experience in solo working and also working with significant trauma that I would never expect to get in the UK as a trainee. I now feel much more comfortable anaesthetising a wide group of patients from infants of one year to anaesthetising for unstable bleeding patients. We are always taught in the UK about the importance of ‘doing the basic things well’ and that has certainly been the case for me in Tari and one of my important learning points to take home. The other main thing I learned during my time there was the importance of making decisions. When you are faced with an emergency or an unfamiliar situation you must be able to make decisions and act on them, they may not always be the same decision that someone else would make but you do the best you can in the circumstances you’re faced with.

I would thoroughly recommend this or similar experiences to everyone! I think we are so lucky to have careers that can take us on many different adventures and we should all take advantage of the opportunities.
ODE to the ODP

Fair fa’ an’ cheery the ODPs morning face,
Until they see the trainee race!
Aboon them a’ ye tak yer place,
‘Mornings’, brief without alarm:
Wi’ worthy patience an’ endless grace
As lang’s me arm.

To mak’ amends this page we fill,
Acknowledgement o’ yer burdened will,
We persist t’ use the suction still
Whether or no’ a need!
While thro’ your pores the dews distil
At another guedel on the bed-heid!

Cleaning floors is never sleight,
Cannulas let the blood fall bright,
An’ the counter top is blocked from sight,
From vials clogging up the ditch;
An’ then, O all that machine blight,
Beeping at an eldritch pitch!
(BEEP BEEP BEEP…)

Poor souls! Working in a flash,
Changing soda lime in a dash,
Pumping the trolley up in a hash,
O wee trainee heedless!
Using vials enough to cause whiplash,
O how un-needless!

But hark, the worst is yet to come,
When ‘Glidescope!’, ‘BIS!’ is gaily sung,
Or ‘ODM!’ or ‘McGrath!’ for some.
Then, ‘Yes, coffee please!’
An’ with ‘SIGN THE BOOK!’ awa’ they run,
To breaktime ease.

Yet, ODP, we’re in your care,
Our daily trolley struggles, ye kindly share,
Just watch yer feet, there’s nane t’ spare!
Take this ode as oor apology;
So hear ye’ now our gratefu’ prayer,
- An’ gie us one more bougie!

Li Yen Liew
CT2 Anaesthetics

Hannah Watson
CT3 ACCS Anaesthetics
Victoria Hospital, Kirkcaldy

With apologies to Robert Burns…
Tales from the dark side
a personal experience of dealing
with health insurers in Ireland

Most consultant anaesthetists in Ireland have some form of private (independent) practice. In most cases full remuneration of patients’ professional fees are done through health insurance companies. In Ireland from 2009–2014, insurers reduced all professional fees by approximately 20%, affecting the livelihood of many consultants. This occurred during a period of raised taxes and reductions in public sector pay and resulted in a renewed and urgent need to engage with health insurers. In the UK, private medical insurers do not cover full fees and shortfalls remain an issue. The prospect of dealing with large, well resourced companies can be daunting, particularly as competition laws prevent doctors from collectively bargaining for fee increases. Therefore consultant anaesthetists have to meet these insurers as individuals or as a number of individuals. The following is my experience of dealing with various health insurers over the last few years. I am neither endorsing nor encouraging any particular action. In the UK, consultants in legally constituted partnerships can approach insurers as a single organisation.

Form a group
There are many benefits from group anaesthesia practices including enhanced credibility in the case of administration of schedules. Being in a group allows a number of consultant anaesthetists to act as a single entity under competition laws. Many voices become one and an individual representing a group has more power which can be more persuasive. Note that in the UK the formation of a partnership is part of business organisation but also has significant benefits and function as a business person because that is what you are. The people you are dealing with have MBAs to your MBs. Think, act as an intermediary with the insurers and follow up non-representative communication open if a meeting has gone badly. Keep some line of communication open if a meeting has gone badly. Offer stability in return for reward – companies do not want or like uncertainty. Be fair to the other side and let them know specifically what you want. Vague statements like ‘we need an increase’ or ‘anaesthesia is undervalued’ need to be supported by good arguments and followed up with a concrete proposal, e.g. ‘increase the anaesthesia fee to 75% of that of the surgeon because the role and workload of the anaesthetist has changed significantly’. Offer stability in return for reward – companies do not want or like uncertainty. Be fair to the other side and let them know specifically what you want. Vague statements like ‘we need an increase’ or ‘anaesthesia is undervalued’ need to be supported by good arguments and followed up with a concrete proposal, e.g. ‘increase the anaesthesia fee to 75% of that of the surgeon because the role and workload of the anaesthetist has changed significantly’.

Know the other side
Find out about each insurer that you are dealing with. Most are ‘for profit’ companies with increased profits benefiting management and shareholders. The less they pay you the greater their profit margin. Find out how well the company is doing financially by checking online sources such as newspapers and company registration websites. Find out about recent buy-outs or acquisitions that may be putting pressure on current management. Understand that they will have a lot of data on you – your specialty costs, procedures codes, how much you or your group bill relative to other colleagues. Be prepared to bluff and expect the unexpected – deflect or delay. Don’t be emotional – leave the rants for the coffee room. However, having an angry colleague present may make you look more vulnerable. The odd bang of the table may be appropriate and effective if you have previously been measured in your approach.

Understand the other side
What do they want? What are their challenges? What pressures are the individuals you speak to under with respect to bonuses and senior management expectations? The reality is that there is an economic ‘sweet spot’, where they make sufficient profit and you feel sufficiently well remunerated for your work. In the end, both sides should be looking for a sustainable relationship. Consider being a SWOT
A Strengths, Weaknesses, Opportunities and Threats analysis can be very useful if you need to send an offer to the insurer. Your strengths are that the insurers would prefer you on board and like to be able to say they engage with the profession. Your weaknesses are that you are an individual without large scale union-like power. An opportunity is that the insurer needs you to be fully participating in their scheme. A threat is that you can leave their scheme and directly bill patients where the consultant is partially paid by the insurer with the remainder of whatever fee has been set, balance billed to the patient. The reality in this situation is that the patient sees you getting paid twice. They cannot benchmark their ‘balance bill’ against a total anaesthesia fee. Another option to consider is having no relationship with an insurer whatever and bill the patient for the full anaesthesia fee. In this scenario, as explained earlier, a price list and notification of the fee is required before anaesthesia is performed. The services of a billing company now come into their own. Previous experience of our group is that patients in general pay when informed of their fees beforehand and afterwards complain to their insurer that their insurer did not provide them with enough cover. The pressure is then on the insurer not you.

In conclusion, your private (independent) practice is your livelihood contributing to funding the costs of your everyday life. A good, fair and fully participating scheme with the health insurer is the system of professional fee payment most consultant anaesthetists want. The reality is that this is not going to be provided to you without strong and ongoing representation by you with health insurance companies. The direct billing of patients is not without its downsides but is a feasible option provided you ensure that a fair, transparent and effective system of billing and collecting professional fees is in place for your patients.

Stephen Mannion
Consultant Anaesthetist, Department of Anaesthesiology, Victoria University Hospital, Cork

Note: This is a view from Ireland and is not necessarily representative of UK practice

### Understand the business relationship
Remember you are not Oliver Twist going ‘cap in hand’ to the insurer. Health insurance is a package to cover a number of costs – hospital stay, investigations and professional fees. Professional fees make up a third of the total costs health insurers pay out in Ireland. In essence health insurers package your expertise and skills and deliver them to their clients, our patients. Their product is immeasurably weaker if professional fees are not included. They need you because as a consultant anaesthetist you could always bill the patient direct for your services – more on this later.

### Negotiations
Your position(s) must be clear. As Daniel Kahnemann explains in his book Thinking Fast and Slow, do not stay and negotiate if the other side’s position is so far away from your own as to be unacceptable. Otherwise their position becomes the ‘anchor’ from which you have to fight your corner. Better to get up and leave. Be fair to the other side and let them know specifically what you want. Vague statements like ‘we need an increase’ or ‘anaesthesia is undervalued’ need to be supported by good arguments and followed up with a concrete proposal, e.g. ‘increase the anaesthesia fee to 75% of that of the surgeon because the role and workload of the anaesthetist has changed significantly’.

### Billing patients
It is difficult for many consultant anaesthetists to consider directly billing patients. It is a process many are unfamiliar with and is more complex than surgical fees, as patients come to see a particular surgeon not an anaesthetist. ‘Balance billing’ is often mentioned and is where the consultant is partially paid by the insurer with the remainder of whatever fee has been set, balance billed to the patient. The reality in this situation is that the patient sees you getting paid twice. They cannot benchmark their ‘balance bill’ against a total anaesthesia fee.
The Wylie Medal will be awarded to the most meritorious essay on this year’s topic: Medical student electives in developing countries: medical tourism or formative experience? written by a medical student at a university in Great Britain or Ireland.

Prizes of £500, £250 and £150 will be awarded to the best three submissions. Applications are invited from medical students studying in Great Britain and Ireland (subject to confirmation of eligibility to apply to the AAGBI Foundation for funding towards a medical student elective period taking place between April and September 2018. A further round of funding will be advertised in the spring for electives taking place from October 2018 onwards. Overseas students should ensure that they are permitted to apply for charitable funding. Grants will only be awarded to applicants who intend to spend time away from their base academic institution and whose travel, accommodation and subsistence costs are increased as a result.

Preference will be given to those applicants who can show the relevance of their intended elective to anaesthesia, intensive care or pain relief. A key focus of the AAGBI is support for projects in the developing world, hence electives in countries where only a limited amount of training is available are given priority.

For further information and to apply please visit our website: www.aagbi.org/undergraduate-awards, email secretariat@aagbi.org or telephone 020 7631 1650 (option 3)

Closing date: 31 January 2018 for consideration at the March 2018 Research & Grants Committee meeting

For application forms and further details contact:
Clinical Education, Glenfield Hospital
Laura.Dixon@uhl-tr.nhs.uk or (0116) 258 4917
While employed on a ten-week mission with the International Committee of the Red Cross (ICRC), part of my role was to work as part of a mobile surgical team. In this context, a mobile surgical team involves assembling a small team comprising an anaesthetist, a surgeon and a theatre nurse. We were equipped with 500 kg of pre-packed surgical equipment, drugs and dressings. Our brief was broad, but essentially we were to provide surgical assessment and treatment for wounded following recent clashes outside a provincial town away from the capital. Juba. Support and logistics were to be provided by the ICRC staff in the sub-delegation and our information about the wounded came via a larger than life Congolese doctor, an ICRC health delegate. His sources informed him there were 15 injured people currently hiding in the bush close to an informal IDP camp housing several thousand people.

One of the primary roles of ICRC is to treat civilian and military casualties of war on all sides of the conflict. Most of the existing civilian and military medical infrastructure in the area had ceased to function as a result of population displacement. The hospital was completely empty of staff and patients, all of whom had escaped the violence. When I visited some weeks previously, the wards were full with patients with both military and civilian medical staff providing care. Assembling our team and equipment was a simple task compared to the high level diplomacy required to get us access by road and air into the area. With all movements around the area hampered when populations are displaced. With little time before nightfall, all we could do was attempt to liaison with the mediators for our casualties and find a suitable venue in which to operate. We already knew that staff acting for Médecins Sans Frontières had set up a primary care clinic at the IDP camp and were willing to let us use some of this space in school buildings. They would also provide us with an examination bench to use as an operating table.

Finding our casualties proved a little more difficult. With tensions still running high, most were reluctant to leave their place of hiding until they saw us set up our operating facility the next day. We were allowed to take one of our vehicles into the bush camp. A local medic was working with nothing except a few dressings in a small clearing in the trees. We saw only one injured patient late that afternoon, but were reassured that the others would come to us the following morning. Returning to town we were shown to our accommodation in a local hotel and very tall, which made lumbar spinals straightforward. All patients were mostly malnourished, compliant and could be very challenging and the access to promethazine was vital to control marked cataleptic emergence phenomena on a few occasions. There was no facility to ventilate patients except, rarely, on the operating table. Some laryngeal masks were available, but airway management with ketamine was usually straightforward without airway support.

With no patients to be seen on arrival we set up our rudimentary facility outside huts. The vegetable plots surrounding the huts would soon become overrun in the absence of their owners who had moved to the perceived safety of camps out of town. These people can ill afford to lose vegetable crops like these, a stark reminder of how food production is hampered when populations are displaced. As the hot afternoon turned to evening we came under pressure from our drivers to finish so we could get back to the safety of our compound in town before nightfall. So, with all hands packing away, we made packs of post-op drugs (analgesia and antibiotics) for each patient and left them in a hospital in town (came with the patients and we encouraged them to join us so they could see the extent of debridement of wounds and observe how they were dressed and splinted. It was clear that we could only be on site for one day, meaning that all subsequent treatment would be undertaken by them with very basic local facilities.

All we could do was leave our local colleagues with our remaining dressings and hope that the strength and resilience of these young soldiers would get them through the next few days. We had seen so many examples of survival against all odds in the preceding weeks that we left with some hope, but also knowing that sepsis was likely to be their next enemy. Many would also suffer from chronic deformity and burn from infected long bone fractures with no definitive orthopaedic or rehabilitation treatment available. None of these young people would ever agree to amputation until much later in their treatment. While the violence continues in South Sudan, the need for surgical support will continue, but the displacement of its people and consequent loss of economic security has profound effects on the stability of the whole nation.

Colin Berry
Consultant Anaesthetist
Note: all names and exact geographical locations have been omitted for security reasons

South Sudan is the world’s newest sovereign state, created in 2011 following decades of civil war with its northern neighbour Sudan. Peace only lasted two years in before war erupted again in this young country. The International Committee of the Red Cross (ICRC) works alongside other aid agencies and the authorities of South Sudan to provide support for its people. Providing anaesthesia in a shed outside an unofficial camp for internally displaced people (IDP) in South Sudan is an activity for which you cannot be completely prepared.

Treating the war wounded in South Sudan

Providing anaesthesia in a shed outside an unofficial camp for internally displaced people (IDP) in South Sudan is an activity for which you cannot be completely prepared.
International charities working around the world – a report on my first cardiac aid trip with Open Heart International

Last year, I arrived in Kigali, the capital of Rwanda. My first impression was a very clean, very safe but very sombre city. It was the memorial week for the 1994 genocide in which over 800,000 Tutsis were killed and signs reading ‘Kwibuka’ [Remember] were scattered through the city. Remembering, however, was not my main focus. I was there to partake in my first paediatric cardiac aid trip in what I hope will be a feature of my consultant career. The history of Rwanda is intriguing and I explored it by chatting to the local people and visiting the Genocide Memorial Museum before the ‘main event’ of my trip.

The ‘main event’ was an aid trip with an Australian group called Open Heart International (OHI) (www.ohi.org.au), which was established in 1985 by Russell Lee, Rudi Morgan and Dr John Wallace in response to a need Russell had observed when visiting Tonga. Since then, OHI has visited various countries providing cardiac, burns, cleft palate and gynaecology services. Their first trip to Rwanda was in 2006, and I was privileged to be part of their tenth trip there.

Previous experience of the team shone through on the day of unpacking – boxes and boxes, that looked to me like they would take days to unpack, were sorted, shelves labelled and ready for action within hours. (Lisa aka Lik Lik, the anaesthetic nurse, was a pro who knew just how to do it...) therefore a chance to have a few gin and tonics and meet the team was created. The international aspect of the charity’s name was very apparent in the team assembled: Australian and Tanzanian surgeons, an American intensivist, an Indian perfusionist, anaesthetists from Australia, London and Tanzania, nurses from across Australia and America and several other countries.

Operating commenced on 16 April, and over the next six days we performed 19 paediatric cardiac operations ranging from PDA ligation to the repair of a double outlet right ventricle, to aortic valve replacement. A dedicated theatre and the High Dependency Unit of King Faisal Hospital, Kigali, had been vacated for us to create our own Paediatric Intensive Care Unit of six beds so there was rarely any question of there being beds for the cases. As the junior anaesthetist and one of several members of the team on their first trip, the learning opportunities for me were amazing. Dr David Baines had been on nearly all the previous trips and took me under his wing – central lines were put in on my knees, children intubated on beds that didn’t move and we came off bypass on a number of occasions with a very intermittent ECG – I got much better at looking at the actual heart in front of me to try and determine the rhythm. On-table extubations were the norm, rather than the exception, so titrating the opiates was a little more challenging but, with expert guidance, possible most of the time.

These were not the only challenges for the team. The setup and screening team saw a large number of children prior to our arrival and prepared a list for acceptance, or unfortunately rejection, by us prior to the commencement of surgery. A true team meeting in which the prospects of the children, the abilities of the team and the length of stay of the team were considered – it would not be appropriate or practical for us to tackle a case that was likely to languish in PICU for weeks as that service would not be there for weeks. Children who had been cyanotic their entire lives and now had haemoglobin levels in the 200s were common, and the preparation of blood products was a much more complicated procedure than simply calling the blood bank. Fresh whole blood, which had been available on some of OHi’s previous trips, was no longer available and missed by several of the more senior members of the team.

During our stay we had local mobile phones to enable us to call each other and contact the Rwandan doctors who kindly acted as translators for us and helped guide us through the intricacies of any foreign health system. I suspect they were glad to be rid of our numbers after the week! One day I looked at my phone and I had called the poor Rwandan paediatrician, Dr Edgar Lima, over 20 times in the morning!

One of the unsung, but remarkable, things about overseas aid trips is the opportunity to meet new people and create new friendships. My room-mate for the trip was Dr Teresa Duncan, an American intensivist. For me, she was a wealth of knowledge, having been to Rwanda several times before – she knew where to eat, where to buy jewellery and some of the language and cultural sensitivities. We would chat late into the night (commenting once or twice that doing aid work was doing school...) about our experiences and how the trip was going, and our plans to create new teams to continue doing aid work.

Rwanda, its beauty and its people, surprised me. After the operating was done, and all the children were safely in the hands of the stay back team, the other members of the team had the opportunity to visit the gorillas. Someone I know has been hit on the leg by a baby gorilla and I have watched a silverback walk past me. While the work was the main event, this was an added bonus of my trip.

Open Heart International is a charity I hope I can continue to volunteer for. I would like to thank Dr Darren Wolters who invited me onto the team and to say thanks to the entire team, especially Dr Ian Nicholson the surgeon on our, and many other, trips.
**AAGBI QUALITY ASSURANCE**

**How do we Quality Assess?**

**Events (AAGBI conferences, Core Topics, Seminars)**

Speakers and workshop organisers are invited because of their expertise and based on recommendations.

They are asked to provide learning objectives, and to list GMC, RCoA main, and Trainee Curriculum codes that are appropriate. This allows delegates to more accurately select and map their educational needs for appraisal.

A trained QA assessor evaluates the delivery of education against a number of criteria, which include delivery of learning against the codes and objectives provided.

Delegate feedback is gathered at each event, allowing us to plan for future meetings effectively and select topic areas and speakers that are highly valued by delegates. We are increasing the electronic feedback in line with our environmental policy and to make feedback easy for members.

The summarised anonymous feedback is shared with speakers and organisers as well as being presented in our annual QA reports.

**Filmed lectures**

A further stage of QA occurs for lectures that are filmed at our conferences. These videos are available on our online learning platform, Learn@AAGBI (www.learnataagbi.org).

This process ensures that the videos and slide transitions are correct, that the content of the video is suitable for a wider viewing, and that there are no copyright or reputational issues. This video QA is carried out by a panel of remote QA assessors which has been recruited from the membership.

**Safer Anaesthesia from Education (SAFE) project**

Courses are evaluated using delegate and facilitator feedback, evidence of improvement in knowledge and skills (from pre and post-course testing), and follow up of delegates to see how useful the training has been. We are currently in the process of commissioning external evaluation.

Again, all QA is carried out online, which complies with our digital and environmental objectives.

We are future going to pilot the use of remote QA, with assessors observing seminars via webinar technology.

**What did we find in QA 2015/2016 and QA 2016/17?**

We have identified a number of areas where we are performing well against our standards. For example: QA Standard 5: Presenters will be expected to have both current knowledge/expertise of the topic area and the skills to deliver the content appropriately, as indicated by evidence provided by the presenters themselves or those who recommend them. Presenters’ performance will be reviewed through evaluation in the form of feedback from learners and peer review.

The first part of this standard is taken as read, as the speakers are selected on the basis of their status as experts in their respective fields, but it is quite difficult to evaluate. We have therefore changed the wording to ‘Presenters will be expected to demonstrate both current knowledge/experience…’ This will then be assessed by the onsite delegate evaluation and QA reports.

Feedback on speaker presentations remains high for 2015/16 and 2016/17 (Table 1). For 2016/17 we have been collecting delegate feedback electronically via SurveyMonkey, which has significantly increased the number of responses at our conferences. For seminars, which are smaller events, the transfer to electronic collection has not increased the response rate as significantly and this may be because paper forms can easily be collected from smaller groups. We will keep a keen eye on future scores to see whether the slight decrease in average score when collecting electronically for large events is a trend that continues.

**Table 1: Table of average delegate and QA scores for AAGBI presentations**

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<th>Average delegate score</th>
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<td>Total</td>
<td>8.3</td>
<td>8.1</td>
</tr>
</tbody>
</table>

**Summary**

Engaging, effective, and diverse educational resources that promote learning for our members remain central to our QA process. In collecting and sharing this data with our speakers, organisers and members we hope to continually drive up the quality of educational experience for our membership. We review the data we collect and how we collect the data in order to make it as relevant as possible whilst also aiming to keep it practical and workable. The areas where we are currently falling below our own standards relate largely to documentation of learning objectives and coding. These are of course important and we will be working hard to improve in this area. On the positive side we continue to have good delegate feedback. We would like to thank all of the AAGBI members who have given their time and expertise as organisers, speakers, and workshop facilitators. Also many thanks to the AAGBI staff who meticulously collect and collate all the data.


If you are interested in the full content of the Annual QA report please email training@aagbi.org to request a copy.

Dr Tel Sheraton  
AAGBI Board Lead  
Andrew Mortimore  
E-education Manager, AAGBI
As trainees, we are all managed by a postgraduate medical education organisation. Often our only involvement with it is for recruitment, assessment or timetable allocation - depending on our individual circumstances. Its role beyond this is generally a mystery among the majority of the trainee population.

The fellowship provided me with the opportunity to gain an in-depth understanding of the responsibilities of the deanery and how its activities are influenced by political policy. In particular, I became aware of where the limitations exist. For example in posts where training has been deemed unsatisfactory, it is difficult to simply remove trainees; understandably time has to be granted for changes to be made. Although the deanery’s priority is training, wider Trust and workforce issues have to be taken into account. Exposure to this aspect of the deanery as someone who is not in a permanent position, gave me valuable insight into how the system works.

To complete my projects, the secondment necessitated working with all the local administrative teams involved in training. It was a unique opportunity to become familiar with the non-specialty administrative teams who are core to the operation of the deanery. Working with these teams who were outside of anaesthesia widened my awareness of more generic roles within medical education, such as the Associate Deans. The Associate Deans are each responsible for a particular area, i.e. Specialty and Associate Specialist doctors, Quality, and the Trainee Support Unit. They lead on projects to develop and improve their designated area; one recent example in PPGME is the introduction of Quality Panels by the Associate Dean for Quality.

Quality panels are an annual, trainee-led review and grading of posts in every specialty across the region. Each trainee completes a questionnaire and the results (along with other quality information i.e. GMC National Trainee Survey) are then discussed at a meeting comprising a chair (often the Training Programme Director), a selection of other trainers involved in the programme and trainees. A report is produced at the meeting and includes a grading – Excellent, Good,
I developed an understanding of the subtle differences between specialties; in particular, the different training and supervisory structures and the modes of communication among trainees. This experience made me aware of the differences, a ‘one size fits all’ approach may not be the most effective and it is important to be guided by those in the specialty. I also worked closely with the quality team. Having been unaware of their existence I soon realised how central they are to coordinating postgraduate medical education, and how their activities impacted on every team within the deanery.

The quality team monitors the standard of postgraduate training and follows up any issues that arise; a colossal task. One component of this that most trainees will have encountered is the General Medical Council National Trainee Survey. Each year the team encourages trainees to complete the survey, process and analyse the data and manage concerns within the relevant training programmes. Associated with monitoring the quality of education are the biannual contract meetings conducted between the deanery and the individual Local Medical Education Providers. During these meetings there is a discussion between the Director of Medical Education, deanery quality team and senior Trust management about medical education and training within the Trust. Attendance at these meetings helped me understand the responsibilities of the Trust with regard to training, as outlined in the GMC guidance [1]. This included their obligation to provide the ‘learning environment and culture’ and to take ‘action when concerns are raised that impact on patient safety’ [1]. The discussions were an opportunity for the education leaders to raise issues that impact on training and discuss a means of resolving them with senior Trust management. An example of this could be a situation where trainees are redeployed for service provision and subsequently fail to receive appropriate training. A solution could be the creation of incentivised Trust grade posts to fill the rota gaps, jobs with an opportunity for personal development. I believe that understanding the remit of this team is key when taking on an education leader role; a core element of this position is working to enhance the quality of training.

What is there to gain on a personal level?

The title of the fellowship highlighted the fact that a key aspect of it was about developing leadership skills. I was able to observe different leadership styles outside of the clinical setting, as well as starting to familiar with the concept of needing to change mindset between settings.

Practising leadership skills outside of clinical work is an opportunity that rarely presents itself as a trainee. I was able to do this by taking charge on my own projects, e.g. preparing trainees in Peninsula for the quality panel process. This training was important as quality panels are very different from the old style ‘school visits’ and trainee engagement is crucial for the panels to be effective. I arranged sessions at each Trust in the region to deliver my training, and this highlighted to me how much organisation is required to hold such an event. I had the opportunity to speak to trainees across a range of specialties and identify any potential pitfalls before the process began.

A more ambitious and ongoing project was formalising the role of the Trust with regard to training, as outlined in the GMC guidance [1]. This included their obligation to provide the ‘learning environment and culture’ and to take ‘action when concerns are raised that impact on patient safety’ [1]. The discussions were an opportunity for the education leaders to raise issues that impact on training and discuss a means of resolving them with senior Trust management. An example of this could be a situation where trainees are redeployed for service provision and subsequently fail to receive appropriate training. A solution could be the creation of incentivised Trust grade posts to fill the rota gaps, jobs with an opportunity for personal development. I believe that understanding the remit of this team is key when taking on an education leader role; a core element of this position is working to enhance the quality of training.

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Prior to the fellowship I had not been involved with any formal meetings. Attendance at these provided me with the knowledge of how they are arranged, chaired and minuted; simple but very useful skills. They gave me the opportunity to meet a range of people (both consultants and trainees) who I would otherwise not have met.

Things to consider/potential pitfalls

Part-time fellowships are infrequent and some fine-tuning was required to enable the role and training to run smoothly alongside each other. There are a few points to consider:

- Less than full-time working. This impacts on the day-to-day working pattern and will lead to an extension of training. All parties, including the Training Programme Director and the local department, have to be flexible in order to achieve both training and the fellowship. Working set days was rarely possible due to rota requirements; especially true when doing intensive care and cardiology modules.
- On-call commitments. I initially continued full-time on-call commitments with the aim of minimising the impact on the department. However, it was impossible to accommodate both training and fellowship activities. Eventually, I reduced my on-calls to part-time, this is something that has to taken in to account and discussed with the local department prior to applying for such a role to avoid disappointment.
- Application for out-of-programme experience (OOPE). Although the fellowship is part-time and training continues, the percentage of the time spent doing the fellowship is often classified as OOPE. Depending on the local policies, the duration allowed has to be discussed with the Training Programme Director. The time out of training will also affect the Certificate of Completion of Training date after STs.
- Switching between roles. The two roles are very different and by nature of a part-time fellowship, there is a reduced presence in the department. Those trainees who are parents are likely to be familiar with the concept of needing to change mindset between settings.

Although I have described a specific post in Peninsula deanery, my aim is to make trainees aware of opportunities that are available and inspire others to consider part-time fellowships in education and other areas. I thoroughly enjoyed my time as the education leadership fellow and it strengthened my desire to become an education leader in the future.

An evaluation of the validity of the pre-operative oxygen uptake efficiency slope as an indicator of cardiorespiratory fitness in elderly patients scheduled for major colorectal surgery

Bongers BC, Berkel AE, Klasee JM, van Meeteren NL.

Cardiorespiratory exercise testing is commonly used to assess the fitness of people about to undergo surgery. Peak oxygen uptake (VO2peak) and the ventilatory anaerobic threshold are the most widely used parameters. There are, however, some clinical limitations to using such measures derived from maximal exercise. The authors of this study assessed the usefulness of the oxygen uptake efficiency slope (OUES), a derivative measure, at 80%, 90% and 100% of maximal effort, in 71 older people scheduled to undergo major colorectal surgery. The slope at the submaximal points correlated well with the VO2peak and the ventilatory anaerobic threshold, suggesting that the OUES has promise as an alternative metric in the future.

A survey of acute pain services in the United Kingdom

Rockett M, Vaston R, Chand J, Wieland D.

Readers old enough to be working in anaesthesia in the 1990s will remember the proliferation of Acute Pain Services that followed the joint College report Pain after Surgery. Despite the widespread introduction of such services, they seem to vary from hospital to hospital. This questionnaire survey aimed to map out the services provided and gauge the extent to which they meet current standards. As one might expect, the authors found great variability across the country, and the paper is well worth reading for its detailed results. Given that many patients’ pain is hard to manage, any data that support the promotion of expertise through developing effective Acute Pain Services are welcome.

Reference


N.B. the articles referred to can be found in either the latest issue of *Anaesthesia* or on Early View (jPubs ahead of print)
Farm worker James Wombell was admitted to Wellow District Hospital in Nottinghamshire in June 1842 with a diseased knee. Having suffered discomfort for five years, 42-year-old Wombell was now unable to walk and was excruciating pain. The local surgeon, William Squire Ward, advised him that the only option was amputation. There was just one problem: Wombell was terrified of the pain from surgery.

With no effective means of anaesthesia at his disposal beyond a slug of brandy or a dose of laudanum, Ward decided to try a novel approach: mesmerism. In London a few months earlier, the surgeon had witnessed a mesmerist, Baron Jules Dupotet, perform a mastectomy in a mesmeric sleep. The operation was the most major procedure involving mesmerism to date and its impact on the medical profession was dramatic.

It had been a long time coming. Mesmerism was named after the German physician, Franz Anton Mesmer, who discovered in the 1770s that he could induce a form of sleep in his patients through repeated hand movements. Not only did his patients lose their inhibitions and slavishly follow his commands, they became insensitive to pain. Mesmerism, as it became known, attracted a wide following on the Continent but it was largely ignored in Britain – until 1837.

That summer, a flamboyant French mesmerist, Baron Jules Dupotet, arrived in London and advertised his lectures and demonstrations. The British medical profession was singularly unimpressed with the exception of Elliotson, professor of medicine at University College London and a minor physician at University College Hospital. Intrigued by what he saw, Elliotson tried mesmerism on his patients and staged demonstrations in the UCH lecture theatre which attracted hundreds of astonished spectators.

Eager to exhibit the propensities of mesmerism to banish pain, Elliotson attached patients to electric batteries and stuck pins in their flesh. He would later assert that the first operation performed under mesmerism in Britain was the insertion of a seton – a silk thread – in the neck of one of his patients at UCH in 1838 when she displayed ‘perfect anaesthesia’. Despite this achievement and the spectacle of smiling patients being shocked by electricity and stabbed with pins, it was another four years before William Collins Engledue, a surgeon friend of Elliotson, used mesmerism to carry out a significant surgical procedure. In June 1842, Engledue mesmerised a 17-year-old patient with a contracted knee and then severed her hamstring. She was unaware the operation had taken place until she woke. Modest and retiring, Engledue did not publicise his case for another two years. And so it was the Wombell amputation four months later that took the medical world by storm.

Despite the demise of the medical press and medical establishment, news of the pioneering operation under mesmeric anaesthesia at Wellow District Hospital spread rapidly. Up and down the country, orthodox doctors and dentists now ventured to perform operations under mesmerism for themselves. Wary of the scepticism aroused by the Wombell case, many of them gathered parties of witnesses to vouch for what they saw. In Edinburgh a crowd watched as Robert Nasmyth, surgeon-dentist to Queen Victoria, removed a molar from a mesmerised patient while in Leicester 20 men crammed into a lavatory room to witness a patient having a molar withdrawn. In Wolverhampton, a mesmerised man had a finger amputated with ‘not a muscle quiver’ and at Leicester Infirmary a 20-year-old woman had her leg amputated before numerous witnesses including the local newspaper editor.

The novelty of surgery without pain caught on elsewhere too. Surgeons in America performed a flurry of operations under mesmerism while in Germany a mesmerised woman had a tooth removed by a British army doctor overseen by the island’s chief of police. But nowhere did mesmeric surgery thrive quite so vigorously as in India where James Esdaile, a Scottish surgeon with the East India Company, performed hundreds of operations on native patients. An unassuming and pragmatic man, Esdaile even gained the support of British government officials who allowed him to run an ‘experimental hospital’ dedicated to mesmerism. Having trained Hindu assistants to carry out mesmerism to perform a mastectomy in 1854.

Mesmerism, however, was not beaten yet. As surgeons flocked to use ether, and subsequently chloroform, they soon discovered that chemical anaesthesia had significant drawbacks. The first death from ether came within three months of Liston’s landmark operation while chloroform claimed its first victim within two years. With deaths mounting over the next 20 years, many doctors continued to favour mesmerism as a safer, more reliable alternative. After testing ether in 1847, Esdaile quickly reverted to mesmerism in India. In Britain, a surgeon in Exeter named John Parker carried out more than 100 operations using mesmerism while another surgeon, William Tubbs, based in Cambridgeshire, used mesmerism to perform a mastectomy in 1854.

In time, of course, improved and refined chemical anaesthesia banished surgery under mesmerism – or hypnosis as it was named in 1841 – almost entirely to the history books. Interest in hypnosis as a means of anaesthesia enjoyed a revival in the 1950s but remains controversial to this day. However, recent trials using hypnosis in combination with chemical anaesthesia – known as ‘hyponoanaesthesia’ – have produced promising results. In Belgium surgeons have performed more than 9,000 procedures on patients using self-hypnosis in conjunction with anaesthesia while in the USA mesmerism is being reconsidered in cases of minor surgery involving minimal anaesthetic complications. The possibilities of using hypnosis for anaesthesia remain as mesmerising as ever.


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**Mesmerism**

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The height of the cricothyroid membrane on computed tomography scans in trauma patients


Introduction

“Cant intubate, cant oxygenate” scenarios account for over 25% of all anaesthesia-related deaths [1]. An emergency surgical airway is the last step in all difficult airway algorithms. This involves making an incision through the cricothyroid membrane and inserting a tracheal tube. The Difficult Airway Society recommends a 6 mm internal diameter tracheal tube that has an external diameter of up to 8 mm [2]. Procedural failure may result from attempting to pass a device with too large an external diameter through the cricothyroid membrane. Placement of an over-sized tracheal tube can lead to damage of the supralaryngeal cartilages, complications which include dysphonia and subglottic stenosis [3].

This study aimed to establish the height of the cricothyroid membrane, as measured on computed tomography (CT) scan, in a UK trauma population.

Methodology

Patients presenting between January 2014 and June 2015 who were received of the Major Trauma Centre, Doncaster, South Yorkshire, who received a CT scan as part of their initial imaging strategy, were eligible for inclusion in the study. Reconstructions of lateral sagittal images of the neck were viewed and the maximum height of the cricothyroid membrane was measured using electronic calipers. These measurements were taken independently by two radiology residents, blinded to each other’s measurements.

Results

A total of 745 trauma scans were assessed of which 492 (64.7%) were suitable for analysis. Height measurements were made on all scans, 377 (79.2%) of which were in male patients. The mean (SD) height of the cricothyroid membrane was 7.69 (2.21) mm and 7.86 (2.20) mm in male patients, and 6.00 (1.76) mm and 5.69 (1.71) mm in female patients, respectively. There was a statistically significant difference in the height of the cricothyroid membrane between male and female patients (p < 0.001).

Discussion

There was an indication of a relationship between age and height of cricothyroid membrane, especially in male patients. On more formal testing, it was found that the cricothyroid membrane height was significantly related to age for males. The presence of concurrent tracheal intubation or cervical spine immobilisation was found not to have a significant effect on cricothyroid membrane height.

Conclusion

This study has raised some important considerations if an emergency surgical cricothyrotomy is required. The height of the cricothyroid membrane within this adult population is considerably smaller than that previously described. These findings have important implications for emergency airway management, including training, preparation and equipment selection. Thus, it is recommended that a selection of tracheal tube sizes for access to the cricothyroid membrane is available within this procedure. A comparison of the external diameter of common emergency surgical airway devices, and the percentage of the study population in whom the cricothyroid membrane height is greater than the external diameter of the device is specified below:

<table>
<thead>
<tr>
<th>Device</th>
<th>Proportion of study population with cricothyroid membrane height &gt; external diameter of device</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 mm internal diameter tracheal tube</td>
<td>8</td>
</tr>
<tr>
<td>5 mm internal diameter tracheal tube</td>
<td>6.7</td>
</tr>
<tr>
<td>6 mm internal diameter tracheal tube</td>
<td>5.6</td>
</tr>
<tr>
<td>7 mm internal diameter tracheal tube</td>
<td>4.2</td>
</tr>
<tr>
<td>Shiley tracheostomy 4 mm internal diameter</td>
<td>51.3</td>
</tr>
<tr>
<td>Meiker cricothyrotomy set</td>
<td>8.2</td>
</tr>
<tr>
<td>TracheoQuick cricothyrotomy set</td>
<td>5.0</td>
</tr>
<tr>
<td>Shiley tracheostomy 4 mm internal diameter</td>
<td>65.5</td>
</tr>
</tbody>
</table>

Shawl El-Ghazali
CT2 Anaesthetics, Leicester Royal Infirmary

References


Nilsamn T, Clarke R, Lu T, Erik D, Gay D.

Catheter-related right internal jugular vein thrombosis after chest surgery


Introduction

Central venous catheters (CVCs) are commonly used for the delivery of fluids and medicines and to monitor a patient’s haemodynamic status [1]. Indwelling catheters are typically used for 7–14 days following placement. Complications of CVC placement can be subdivided into early and late. Early complications include pneumothorax, haemorrhage, and arrhythmias, and air embolism. Late complications include infection, catheter migration, and venous thrombosis or stenosis [1]. CVC-related thrombosis can lead to pulmonary embolism and mortality. A previous study found an unexpectedly elevated rate of deep vein thrombosis in patients who had received a CVC in a medical ICU; thus the authors recommended regular ultrasound surveillance, possibly with increased prophylaxis (e.g. anticoagulation therapy) [2].

Methodology

This was a prospective observational study investigating the risk factors associated with catheter-related right internal jugular vein thrombosis in patients undergoing thoracic surgery. Before surgery, patients underwent Doppler ultrasound examinations of the neck from the thyroid cartilage level to the supraclavicular region to detect any evidence of thrombus. A neck Doppler ultrasound examination was performed after CVC placement and on each of the following days until the catheter was removed. Insertion technique and type of CVC catheter was standardised between patients. If a follow-up ultrasound examination identified a thrombus in the right internal jugular vein, the ultrasound images were charted and the locations were observed and recorded. If the diameter of the thrombus was > 4 mm, the catheter was removed and additional ultrasound examinations were performed the following day to check for subsequent changes. If the thrombus was < 4 mm, it was observed by ultrasound on following days.

Results

The study enrolled 24 patients. No thrombosis was found in any of the patients prior to CVC insertion, but it appeared on 17% (10/60) after surgery. Half of the 18 patients affected had thrombus < 4 mm and the other had larger thrombus. The thrombus was most commonly found at the puncture site and seen in 14 out of 18 patients.

Discussion

The risks of thrombosis increased with a longer duration of anaesthesia, although there was no significant association with the technique and type of CVC catheter was standardised between patients. The study enrolled 24 patients. No thrombosis was found in any of the patients prior to CVC insertion, but it appeared on 17% (10/60) after surgery. Half of the 18 patients affected had thrombus < 4 mm and the other had larger thrombus. The thrombus was most commonly found at the puncture site and seen in 14 out of 18 patients.

Conclusion

This study does make the case for increased use of Doppler ultrasound monitoring during and after CVC placement. Particularly with the common use of CVC catheters, it is important to ensure that late complications such as thrombosis are reduced. One of the limitations of this study is the small number of patients recruited. Although the results are relevant, they were not statistically significant – which is likely due to the small number of patients recruited. Routine use of such imaging should be part of future large-scale and long-term studies that investigate peri- and post-operative thrombus formation and surveillance.

Sharki El-Ghazali
CT2 Anaesthetics, Leicester Royal Infirmary

References


Nilsamn T, Clarke R, Lu T, Erik D, Gay D.
Dear Editor

I was interested to read Dr Lucas’s informative article about the Obstetric Anaesthetists’ Association (OAA) in Anaesthesia News August 2017. While she is correct in detailing that the aim was ‘promoting the highest standards of anaesthetic practice in the care of mother and baby’, it should also be mentioned that specific aims were to reduce the excessive maternal mortality associated with anaesthesia, and the probably related aim of increasing the availability of epidural anaesthesia throughout the country. These aims necessitated a large increase in consultant anaesthetic sessions devoted to obstetrics. These sessions were very few in 1969.

That these aims were largely achieved was due to the efforts initially of the two founders of the OAA, Dr Bryson of Liverpool and Dr Lewis of Belfast, aided in a big way by Drs Selwyn Crawford of Birmingham, Mort of Glasgow and Doughty of Kingston to name just a few. Those interested in the early history of the OAA could refer to a 2007 PhD thesis written by Richard Barnett, entitled ‘Obstetric anaesthesia and anaesthesia in England and Wales 1945-1975’. It can be found in the Wellcome Library.

Anthony Rubin
Retired Consultant, Chelsea and Westminster Hospital

References
1. Ward M. Letters to the Editor, Anaesthesia News 2017; 357: 17

Note: MHRA was not informed

Dear Editor

I hope you will follow both.

For the latest news and event information follow @AAGBI on Twitter

Dr’s Chowdury and Rippin’s letter highlights the absolutely vital importance of checking the non-operative side for absence of marking – an often overlooked step. It also provides an opportunity to remind readers of the official NHS instructions on skin marking for surgery. The instructions, found in the recent NatSSIPs document [1] and in a previous NPSA document [2], are often not adhered to in full, but anaesthetists are in an ideal position to ensure any digressions are addressed:

• Verification of operative site marking is integral to all stages of the WHO checklist process.
• Marking is mandatory for all procedures for which it is possible (exceptions may include surgery to teeth, some emergency surgery, bilateral operations and operations where laterality is to be decided only after examination under anaesthesia).
• The site must be marked shortly before the procedure but not in the anaesthetic room or the procedure room.
• The marking must be performed by the operator or a nominated deputy who will be present during the procedure.
• The mark must be made with an indelible marker, the ink of which is not easily removed with alcohol or soap.
• The mark should be an arrow that extends to, or near to, the incision site.
• The mark must be placed such that it will remain visible in the operative field after preparation of the patient and application of drapes.
• For procedures during which the patient’s position may be changed, marking must be applied such that it is visible at all times.
• When the patient’s position is changed during a procedure, the surgical site should be re-verified and the surgical mark checked.
• The non-operative side must never be marked - not even with statements such as ‘not this side’.

Verification of site marking at the end of the procedure is not a substitute for checking the non-operative side before beginning the procedure.

Samina Chowdhury
ST3 Anaesthetics
Leeds General Infirmary

Ben Rippin
Consultant Anaesthetist
Leeds General Infirmary

Editor’s reply:


References

Send your letters to:
The Editor, Anaesthesia News at anaenews.editor@aagbi.org
Please see instructions for authors on the AAGBI website

Dear Editor

Willy Wonka & the cannula dressing?

During a recent routine theatre list, we were surprised to discover an unusual IV cannula dressing. It contained a silver metallic disc overlying the point where the cannula wing was stuck down (Fig. 1). An alternative dressing was used and anaesthesia proceeded uneventfully.

Figure 1 ‘Silver dressing’

Since this ‘silver dressing’ was unlike any other product in the manufacturer’s range we humbly assumed we had won some kind of prize, akin to a ‘golden ticket’, and briefly imagined ourselves touring an exciting factory full of wondrous surprises and other-worldly beings. Alas, our hopes were dashed when no such invitation was found in the packet.

That these aims were largely achieved was due to the efforts initially of the two founders of the OAA, Dr Bryson of Liverpool and Dr Lewis of Belfast, aided in a big way by Drs Selwyn Crawford of Birmingham, Mort of Glasgow and Doughty of Kingston to name just a few. Those interested in the early history of the OAA could refer to a 2007 PhD thesis written by Richard Barnett, entitled ‘Obstetric anaesthesia and anaesthesia in England and Wales 1945-1975’. It can be found in the Wellcome Library.

Anthony Rubin
Retired Consultant, Chelsea and Westminster Hospital

References
1. Ward M. Letters to the Editor, Anaesthesia News 2017; 357: 17

Note: MHRA was not informed

Dear Editor

We discuss a case which highlights the need for vigilance, even when robust systems are in place to minimise the risk of wrong site surgery.

A patient was listed for an urgent washout of his right ankle. The preceding evening his right lower limb had been marked and consent gained by a member of the orthopaedic team. On the day of surgery, the patient expressed significant anxiety as he noticed both lower limbs had arrows pointing downward to both ankles.

In his attempt to clarify matters, the patient had used his own permanent marker and wrote ‘NO’ repeatedly on the unaffected side. He alerted staff to the fact that both of his legs appeared to be marked and sought assurance that only his right ankle would be operated on.

In order to facilitate good postoperative analgesia, we elected to perform a popliteal block and as part of routine pre-operative checking procedures confirmed the operative side and site with the patient, which highlighted the error. Prior to inducing general anaesthesia, we took steps to reassure the patient that we were aware of the ankle to be operated on.

On further investigation, it transpired that soon after the patient’s right lower leg had been marked, he had crossed his legs thus transposing the ink from the marking pen to the unaffected limb.

Aside from causing increased patient anxiety, as was our experience, this seemingly innocuous accident transfer of surgical site marking had the potential for resultant wrong-site regional blockade and/or wrong site surgery, especially in the presence of cognitive or communicative impairment. The second point is the ability of patients to add marks themselves, in this case beneficial but potentially a further cause of confusion.

We are working collaboratively with our surgical colleagues to identify safer ways to mark surgical sites. Some preliminary suggestions have included usage of sterile pre-printed pens with reduced potential for ink transfer, or application of a clear sterile dressing following marking. Writing out the word ‘LEFT’ or ‘RIGHT’ on the desired side is a practice adopted by some surgeons. If ink is transposed, the word appears mirrored backwards and should therefore raise questions about the intended surgical site.

Editor’s reply:


References

Send your letters to:
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Please see instructions for authors on the AAGBI website

Dear Editor

The pen is as dangerous as the sword

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A patient was listed for an urgent washout of his right ankle. The preceding evening his right lower limb had been marked and consent gained by a member of the orthopaedic team. On the day of surgery, the patient expressed significant anxiety as he noticed both lower limbs had arrows pointing downward to both ankles.

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Dear Editor

We report on a potential hazard regarding newly introduced prefilled syringes.

In an attempt to reduce the amount of drug vials being wasted daily after being drawn up as emergency drugs and not used, our department decided to change to prefilled 10 ml syringes of ephedrine (3 mg/ml) and phenylephrine (50 mcg/ml) acquired from Aguettant Ltd, UK.

In order to break the seal and expose the syringes’ Luer-Lok™ connector, the manufacturer recommends twisting and pulling the protective cap (Fig 1). We have noticed that if the protective cap is just pulled/broken and not twisted (Fig 2), as might happen in an emergency or with a user not familiar with this product, a small plastic seal is left fully or partially attached to the tip of the syringe. This seal could potentially accidentally block different connectors or even be injected into large lumen central line ports. With the technique recommended by the manufacturer the seal detached and remains in the protective cap. We have identified at least two devices in our department to which a syringe with an un-detached seal could connect to with no difficulty: the SAFEFLOW™ set with non-return valves (Armstrong Medical Ltd., UK), mostly used for obstetric anaesthesia in our hospital, and the more general extension set with stopcock (JCM MED, France) used for most anaesthetics (Fig 3).

A safety concern notice was sent to the company who investigated the matter and reported back promptly. They agreed to organise a study to confirm our findings and to implement improvements to the cap design. They also checked the product code and batch numbers to ensure all medication was properly filled and sealed before leaving the factory. They acknowledged that the safeguard of having to twist off the cap would reduce the chance of a seal being left attached to the syringe.

We are aware of other hospitals in the UK who have encountered similar problems. We recommend that all existing syringes to which a syringe with an un-detached seal could connect should be changed (perhaps temporarily) to a different prefilled syringe set so that any potential incidents can be avoided. We also recommend that the syringe manufacturer consider the recommendation of twisting the cap to be isolated from the syringe body and possible unhindered access by the healthcare professional to the seal at the end of the syringe is not removed. When this happens, we recommend placing the cap back on the syringe and twist off again as described in Figure 1. The patient risk mentioned in the report has never been observed and its potential occurrence has not been identified in our studies to date. When the product is not used according to the instructions, it should be evident for the doctor that the syringe becomes difficult or even impossible to use. This misuse remains rare with a reporting rate of 0.0002% for more than 5 million syringes sold worldwide over the last three years. Aguettant is committed to providing training and support for our pre-filled syringes. Our R&D team are also working on improvements that will help to eliminate this specific possibility of misuse. Once again we would like to thank Dr Efrimescu for highlighting the need for adherence to the instructions and we are grateful to the Editor for the opportunity to publish this letter.

Cécile Bailly
Medical Director

Jerome Joly
Responsible Pharmacist
Aguettant, France

Response from manufacturer:

Figure 2 Syringe cap removed by snapping or by pulling it apart. Note the plastic seal that remains fully (left lower image) or partially (right lower image) attached to the Luer-Lok™ connector.

Figure 3 The Luer-Lok™ connector with an un-detached plastic seal connects easily to the SAFEFLOW™ set (upper and lower left images) and in the 3 way tap of an IV extension lead (the red arrow marks the plastic seal in the 3 way tap hub).

Catalin-Julian Efrimescu
Anaesthetist trainee

Wouter Jonker
Anaesthetics Consultant
Sligo University Hospital, Ireland

**This incident was not reported to the Health Product Regulatory Authority as it was a potential misuse rather than a manufacturing error.

Dear Editor

The hazards of water bottle bite valves to patients.

Patients with restricted mobility, e.g. with neuromuscular diseases, have limited ability to access and drink fluids. There are several systems on the market that allow people to drink without having to hold a bottle or container, including systems that use a ‘bite valve’. These are also seen on sports and hiking equipment; biting down on the valve opens the orifice, allowing fluid to flow from the bottle when the valve is sucked (see Fig. 1). This report describes an incident where a bite valve became detached, unnoticed into the patient’s oropharynx from his drinking container while he was in hospital. It was only found when the patient required intubating for respiratory failure.

A patient with multiple sclerosis was admitted to ICU for a trial of NIV for deteriorating respiratory function from left lower lobe pneumonia. On arrival he had a RR of 28/30, sats of 98% on 100% FO2 and PaCO2 of 8.0 kPa. He underwent a chest physiotherapy session, loosening thick mucoid secretions which were suctioned. After the session, NIV was re-established. The patient tired quickly, sats were 90% and PaCO2 had risen to 12.0 kPa. His GCS had dropped to E2V1M5. The decision was made to immediately intubate the patient.

Laryngoscopy revealed a Grade 1 view. A margin of blue plastic was noticed posteriorly in the oropharynx by the intubator, but was initially attributed to the in situ nasogastric tube. Once the endotracheal tube had been sited, a blue plastic foreign body was seen in the patient’s mouth, presumably having been displaced upwards by the endotracheal tube (see Fig 2).

This was identified as the bite valve from the end of the tubing attached to the patient’s personal water bottle. The bite valve had been used by the patient during the patient’s time on ICU (approximately 2 hours), so the valve had been in the patient’s oropharynx for longer than this time. There was no way of knowing when the bite valve became detached. It was present on arrival to hospital according to the patient’s family. The patient was unable to communicate the presence of the bite valve in his oropharynx to hospital staff due to his reduced GCS. We postulated that the bite valve contributed to his respiratory failure, and potentially caused or contributed to his sudden worsening after the physiotherapy session on ICU.

It is likely that the end result of intubation and ventilation would have occurred despite the bite valve. However, due to the size of the bite valve it did not help the clinical course. An incident report was submitted locally for this case.

If equipment is brought in from home by patients or carers, should it be used? If it is unfamiliar to staff, there is a risk the components are unknown and therefore, if the equipment is faulty, goes unidentified. I suggest that staff should familiarise themselves with all such equipment to minimise this risk, or not use it.

Bite valves and similar objects may be a cause of sudden respiratory deterioration in patients. Although a patient is in a hospital environment, the differential of a foreign body should not be dismissed. This case may prompt healthcare staff to consider a foreign body as a possible cause of sudden respiratory distress.

Many patients are unable to verbalise problems to healthcare staff due to the course of their disease or longstanding communication difficulties. As this case shows, a bite valve measuring almost 3.5 cm was not visible to healthcare staff on routine examination, and only just visible on laryngoscopy. I suggest it worth noting the ability of a sizeable foreign body to go undetected in a patient’s oropharynx, seemingly for several hours.

Dr Sellar highlights the importance of eternal vigilance. It is not clear whether the product was faulty or whether it was user factors that led to the problem. Had this been a medical device, of course, the event would have required submission of a report to MHRA. However, as it was a consumer product, it is subject to consumer law and the Local Trading Standards department is the first port of call for reporting.

Louise Sellars
5TS Anaesthetics, Sevenoaks

From the editor:

Dr Sellar highlights the importance of eternal vigilance. It is not clear whether the product was faulty or whether it was user factors that led to the problem. Had this been a medical device, of course, the event would have required submission of a report to MHRA. However, as it was a consumer product, it is subject to consumer law and the Local Trading Standards department is the first port of call for reporting.
Dear Editor

‘Murphy’s eye’ – a thing of the past?

Tracheal intubation was developed by pioneers in the late 19th century, who exploited advances in anaesthesia, anatomy, physiology and optics. Much has been written about the variety of methods used to successfully place a tracheal tube (TT), but less is available regarding the exact nature of the tubes themselves.

In 1941, Dr Frank Murphy published a short paper titled ‘Two improved intratracheal catheters’ [1]. In it, he lists a number of qualities that the ideal TT should have, which seem self-evident to modern practitioners, namely: flexibility to fit into the pharynx and larynx; elasticity to prevent soft tissue injury; strength to resist compression; resistant to kinking; easy to sterilise; durable following repeated use and sterilisation; an adequate luminal diameter for low resistance to gas flow; available in a range of sizes.

His two catheters differed in the main in their shape: one was straight, the other curved. It is interesting to note that the ‘eyes’ that now carry his name are mentioned only in passing, with the simple observation that these are ‘of importance because should one or more of the eyes become obstructed with mucus, breathing is still not embarrassed.’

The principle of a second opening at the distal end of a TT sounds plausible, and has been presented in a number of devices since. But how much benefit does it provide? In clinical practice, if the Murphy’s eye provides the means to ventilate via an obstructed TT, then the fundamental problem (i.e. the fact that the distal end is actually obstructed) might never be detected. There are no case reports of uncomplicated ventilation.

On the other hand, there have been a number of case reports detailing airway incidents in which the author’s conclude that a Murphy’s eye would have prevented issues. These include:

- A 41-year-old man suffering multiple injuries following a multi-vehicle, high-speed road traffic collision. He became increasingly difficult to ventilate on ITU (with associated changes in his ICP). It was found that a retropharyngeal haematoma from a cervical spine fracture was pushing his trachea onto the TT bevel and obstructing it [2].
- A 59-year-old man undergoing elective back surgery. On establishing him in the prone position, his ventilator pressures increased markedly. Bronchoscopy revealed the TT bevel was obstructed by the tracheal wall, and this could not be resolved by repositioning [3].

It can be reasonably argued that these are anecdotal: is there any evidence that the Murphy’s eye permits sufficient gas flow should the main bevel become obstructed? Hall et al. published a study looking at mathematically modelled human airways and simulated airflow. They showed that while the Murphy’s eye gives an alternative flow pathway which ‘cannot be described as ideal pulmonary ventilation’, it does permit significant ventilation in the event of complete bevel occlusion [4].

In contrast, there are several reports of complications relating to the presence of a Murphy’s eye. Kubota et al. [5] reported introducing a suction catheter into the TT which ‘could neither be advanced nor withdrawn after insertion’. This necessitated the removal of both the catheter and the TT, which revealed the offending catheter had exited via the Murphy’s eye and become lodged there.

It should be noted that this was a curved-tipped catheter for ‘selective bronchial suctioning’, and the authors note that ‘this complication should not occur if a straight-tipped catheter was used’. Certainly in our current practice, only straight-tipped catheters are used for blind bronchial suctioning, with a fibre bronchoscope utilised should direct suctioning be needed.

Similarly, a Murphy’s eye might interfere with the use of a bronchoscope: if the tip of a fibrescope is inadvertently advanced through a Murphy eye, it becomes impossible to advance the tube into the trachea [6].

Another case report documenting a Murphy’s eye issue involved the insertion of a percutaneous tracheostomy in an intensive care unit [7]. Here, the guidewire was inadvertently inserted into the TT via the Murphy’s eye, rather than directly into the trachea. Again, it is common practice in our centre to do such a procedure under direct visualisation by means of a bronchoscope, which would have immediately picked up this complication.

There is therefore importance in knowing if a given TT has an eye or not: when inserting catheters or fibrescopes, it is essential to know which orifice will be entered. If it enters the eye, the catheter/scope may become stuck.

The choice of using a TT with a Murphy’s eye depends on context. An eye should be avoided if the use of suctioning or a scope seems likely. Conversely, an eye should be used if in a situation where a change of TT would be difficult or impossible (e.g. prone/lateral position) or where mucus plugging is likely (asthma, bronchiectasis).

Andrew Laurie
576 Anaesthetics, Aberdeen Royal Infirmary

References
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