

Environment issue

Let's get hooked on reducing plastic waste

Fellowship in Environmentally Sustainable Anaesthesia

Come around to recycling: make a positive change

'We are living on this planet as if we had another one to go to'

Membership survey





I am delighted to bring you this bumper edition of *Anaesthesia News*: 'The environment and anaesthesia'. Since the last issue on this topic, the Association's first fellow in Environment and Sustainable Anaesthesia has taken up post, and Cathy Lawson has written an article outlining what she hopes to achieve. We have funding for another fellowship in 2020, so 'watch this space' for the advertisement.

This has been a terrific year for the Environment and Sustainability Committee. The Association places great importance on reducing its carbon footprint as an organisation and as individuals, and we are pushing ahead with our links to manufacturers and government agencies to address these issues nationally.

We ran our first free webinar on the environment in December. Over 100 delegates 'attended' from Great Britain and Ireland, South Africa, New Zealand and other parts of the world. Read a report in this issue, or even better, as the three talks are freely available on learn@aagbi, have a listen. Frank Swinton ran a 'World Café' at WSM, asking 'What is the role of the Association in moving society towards sustainability', and you can find the answer(s) soon in a future issue of *Anaesthesia News*.

Elsewhere in this issue find out about the next environment session at Annual Congress in Glasgow, be inspired by Peter Brooks's article on his project which won the Barema and Association Environment Award, and look out for the advert for the 2020 award. Tackling issues straight on, Will Rattenberry conducted a social media survey about the plastic hooks on facemasks. You can read where we have got to with this issue. Kenneth Barker has written a personal view on the environmental impact of desflurane. Tackling carbon emissions from all anaesthetic gases is high on the NHS long term strategy and we have asked to be involved in shaping these changes.

No 'environment issue' can go without writing about a few of the quirky, inspiring things that we are doing in my hospital. From running a juice pressing day in order to promote our new allotment, to redirecting/reusing all of the anaesthetic non-recyclable plastic bits to a local scrapstore.

Finally, environment and anaesthesia is a shared cause and concern. We are updating the environment section of our website which will have an area for members to post their case studies/initiatives/snippets. All sensible and fun ideas are gratefully accepted. Please send them to secretariat@aagbi.org

Samantha Shinde
Vice President, and Chair, Environment and Sustainability Committee



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Fellowship in Environmentally Sustainable Anaesthesia

This collaboration between the Association of Anaesthetists, the Centre for Sustainable Healthcare (CSH) and the Newcastle upon Tyne Hospitals has been years in the making, so I'm thrilled to be the first, of what will hopefully be many fellows in Environmentally Sustainable Anaesthesia.



In broad terms the fellowship will examine three main workstreams: volatile anaesthetic agents, waste management, and the carbon footprint of anaesthesia. I'll be trained by the CSH Sustainability School in leadership skills for sustainable healthcare and quality improvement and incorporate these into the fellowship's projects. I'll also be working collaboratively with the CSH sustainable surgical fellow on the carbon footprint of regional anaesthesia for joint replacement surgery. Through quality improvement, research and innovation, we hope to share knowledge and ideas as to how we as anaesthetists can provide excellent care for our patients whilst being mindful of our environmental impact, ensuring that we can provide a sustainable service for many years to come. With one eye on the future, our longer-term goals will include working with

medical equipment manufacturers and suppliers to develop and market competitively priced sustainable products, as well as delving into the legal framework surrounding disposal of waste, with a focus on pharmaceuticals. Part of the next year will be starting the groundwork for this.

The next twelve months are going to be a busy and exciting time. If you're interested in following the work of the fellowship, please follow me on Twitter @cathy_lawson85 where I will be posting regular updates.

Cathy Lawson
ST6 in Anaesthesia and Intensive Care Medicine
Northern School of Anaesthesia and Intensive Care Medicine



'And now for something completely different...'

Peter Brooks and Juliet Dunn (both at the Chelsea and Westminster Hospital) and winners of the 2018 Barema & Association of Anaesthetists Environment Award with their project 'Raising awareness of the benefits and reduced environmental impact of paediatric total intravenous anaesthesia' have a conversation about the use of TIVA in paediatrics and the environment.

Are you an eco-warrior?

PB: I've never thought of myself as such, but I once made a movie about gnomes and deforestation, and I used to chop down alien vegetation. I do ride a bicycle but mainly because it makes my commute more efficient and it is good exercise.

JD: Warrior sounds a little too aggressive for my approach to environmental issues. However, I don't own a car, I reuse and recycle as much as I possibly can, and I used washable nappies for my babies, so I am very aware of my personal impact on the environment.

Why do you use TIVA for your paediatric patients?

PB: The technique offers benefits for the individual patient such as less airway irritability, reduced PONV, and less agitation in recovery.

JD: I agree; as anaesthetists we do what we feel is safest and offers the best outcome for the individual patient and in the majority of cases I feel TIVA achieves that.

Why did you apply for the environmental award?

PB: There is an increased focus on the environment and climate change in the media. The Association, the RCoA and CAI have put out a statement encouraging all of us to consider the environmental impact of decisions we make in theatre and how they may affect people's health and well-being both now and in the future.

JD: Aside from the patient benefits derived from using TIVA, the nurses and ODPs who work with us in paediatric theatres have noticed that they feel less tired at the end of a busy day on a high turnover list when we use the technique. There is less

pollution in the anaesthetic room, which has an impact for those working with us. The recovery nurses also give positive feedback about not breathing in exhaled anaesthetic gases from their patients.

PB: As paediatric anaesthetists we will always need to use inhalational inductions, but switching to TIVA as soon as IV access is established will reduce local pollution and cost, as we frequently use high-flow circuits and uncuffed tracheal tubes. Also, NAP6 data shows that more nitrous oxide is used during paediatric anaesthesia; we have to ask if this is necessary?

JD: I've been thinking more about my carbon footprint as an anaesthetist, especially after attending a seminar on Environmentally Sustainable Anaesthesia at the Association in 2018. Intravenous anaesthesia has a much lower lifecycle carbon footprint than volatile anaesthesia. So, the choices I make as an anaesthetist can have much longer-term effects for my patients' lives.

What do you plan to use the award for?

PB: It is great that the sponsors of the award are Barema, who represent anaesthetic and respiratory equipment manufacturers and suppliers. The challenge for us as paediatric anaesthetists is how we teach TIVA safely and effectively to our trainees.

JD: It's one thing to demonstrate the technique during a list, but what we want is for our trainees to feel empowered to use the technique when they are not directly supervised.

PB: Our aim is to use the award to make improvements in the way we teach TIVA to trainees during their experience of paediatric cases.

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Come around to recycling: make a positive change

Most anaesthetists support recycling in the operating theatre and would like to see more of it, but how many of us work in a hospital with an established recycling scheme? Philip Bewley and Hamish Breach discuss how important and easy it is to set up a recycling scheme where you work.

In 2009 the NHS was responsible for more than 18 million tonnes of carbon dioxide (CO₂), a 40% increase in carbon footprint since 1990 [1]. The Climate Change Act commits the UK to cutting carbon emissions by 26% by 2020 and by at least 80% by 2050. As one of the largest employers in the world, the NHS has a role to play in achieving this target. In 2008, the Department of Health published a carbon reduction strategy with the widespread support of NHS organisations and staff [1,2]. As a result, in 2015 the NHS was ahead of target; impressive when you consider that activity in the healthcare system has increased by 18% [3].

In a survey of anaesthetists in England, New Zealand and Australia, only 11% of respondents stated that waste recycling occurred in their operating theatres [4]. We decided to do our bit by introducing a PVC recycling scheme into theatres within the Great Western Hospitals NHS Foundation Trust.

How it works

Plastics are conveniently classified into five different types; one of these is PVC (polyvinyl chloride). PVC is used to make 40% of medical devices and a large proportion of which is found in anaesthetic facemasks, postoperative oxygen masks and fluid administration sets, all of which can be readily recycled [5]. National collection schemes now exist to provide an alternative, sustainable disposal route for waste medical items made from high-quality medical-grade PVC.

Recycling bins are often provided free of charge by some companies, along with educational posters, stickers, training sessions and communication materials [5]. Special collection containers are sited next to non-infectious clinical waste bins, and staff members are given clear instructions on which items are accepted for recycling. Bags are collected and delivered to a specialist recycler. The recycler granulates the material, which is treated at a temperature that denatures all biological residues. This granulated plastic is used to make 100% recycled products for the horticultural industry, such as tree ties.

Introducing change in Swindon

The desire to introduce change came from two places. First, I (Philip) had recently worked at a hospital in Bath with a strong recycling culture. Having started a new placement, I took some of this enthusiasm for sustainability with me. Second, I had edited an *Anaesthesia News* article about a company that recycles used anaesthetic PVC facemasks [5]. This was the first time I had considered becoming involved in any kind of sustainability project. PVC facemasks are such a commonly used item, it seemed that by recycling them, we could do some real good.

In August 2016, I contacted a PVC recycling company to enquire about the feasibility of recycling facemasks. This was confirmed in the September and I approached a supportive consultant (Hamish) with the idea. I then contacted the Trust Sustainability Lead, Head of Theatres and Head of Recovery and organised a meeting of the following staff members to discuss the project further:

- Recycling representative
- Anaesthetic consultant and myself
- Clinical Lead - theatres
- Clinical Lead - recovery
- Waste Co-ordinator
- Health and Safety Lead
- Clinical Governance Co-ordinator

Two months later we all met. I was pleasantly surprised by the amount of enthusiasm for the scheme. The meeting ended with an agreement to trial PVC recycling early in 2017. I wrote a standard operating procedure that described the aim, scope and procedure for PVC recycling in theatres. Specific recycling bins to be used in recovery were chosen in conjunction with infection control.

We presented the scheme to the Anaesthetic Department at the local clinical governance meeting in January 2017. Once again, there was widespread support. It was undoubtedly

helped by the fact that all anaesthetists needed to do was bring their anaesthetic facemask with the patient to recovery at the end of the case.

The recovery staff members were educated about what could be included in PVC recycling in March. Shortly after this, the project went live.

As of August 2017, the Great Western Hospital in Swindon had been recycling all PVC facemasks used in theatres and recovery for 6 months. By March 2018, we had recycled 222kg of PVC. Overall, the scheme has been a great success, with great participation from all involved, and is still running today.

Get involved!

If you are a trainee, staff grade or consultant anaesthetist who wants to do the same thing, where do you start? The timeline described in Box 1 can be used as a blueprint for introducing the scheme elsewhere. Below is some advice on what to do and not do, based on our experiences in Swindon.

Box 1. Process for setting up a recycling scheme where you work

- Step 1.** Approach and secure the support of a senior member of your team
- Step 2.** Contact a recycling company to enquire about the feasibility of recycling items used in theatres
- Step 3.** Organise a meeting of key people (sustainability lead, head of theatres, head of recovery, clinical leads, health and safety lead, etc) to discuss your plans
- Step 4.** Write a standard operating procedure
- Step 5.** Select appropriate recycling bins and for their collection
- Step 6.** Create educational materials about recycling (e.g. posters)
- Step 7.** Engage with and educate staff about the scheme
- Step 8.** Feedback the results of the scheme to keep people engaged

No man/woman is an island

You aren't going to be able to do this on your own. For the scheme to take hold and continue when you move on, you need the support of your anaesthetic department. The best way to achieve this is to find a supportive consultant with an interest in sustainability and ask for their help.

Keep your friends close...

The Trust Sustainability Lead is your new best friend and a natural ally. He/she is a great starting point when trying to establish exactly who you need to contact to get the project started. Get in touch with them early, listen to their advice and sit next to them in any and all meetings.

Patience is a virtue

This is not a project you are going to complete in a month. It will involve a lot of different people that work in different areas of the hospital. There are obvious individuals such as anaesthetists, operating department practitioners and recovery nurses who will need to be informed, but also people you are unlikely to have met before. This includes theatre management, waste management, porters, infection control and sustainability leads. They all need to be involved and on your side for the project to work. My advice is to contact the relevant people and arrange a meeting. This will allow everyone to discuss the project and how best to start implementing it.

Show them the money!

Or more importantly the savings. There is clear evidence that improved sustainability correlates with cost savings in health care [6]. PVC recycling is no different. Facemasks are normally disposed of in clinical waste bags that go to deep landfill or are incinerated. This is expensive. Since September 2017, the PVC recycling scheme introduced in Swindon has recycled 222kg of PVC from theatres. It is difficult to calculate the exact cost savings associated with this, and admittedly they will be modest, but this is a scheme that costs nothing, saves money and benefits the environment. As such, it is something that I believe is hard to argue against.



Education stations

Even the most beautifully organised recycling scheme will be a waste of time if nobody knows what they can and cannot recycle. Anaesthetists, operating department practitioners and recovery staff all need to know what goes in the bins and where they are. In addition to presenting the scheme at clinical governance days, we utilised signs in theatres and recovery reminding everyone to use the PVC recycling bins.

A positive change

While at times it was frustrating, we have learnt an incredible amount and met people working in roles that we didn't even know existed. It was great management experience and gave a better insight into how complex the workings of a hospital are. Overall, we were amazed with the general level of enthusiasm for the project, and how quickly and easily it was introduced.

Anaesthesia prides itself on being at the forefront of patient safety. Given the devastating effects of climate change, perhaps it is time that we broaden our concept of what that means. We can no longer ignore the impact that our actions and healthcare as a whole has on the environment, and people's health as a consequence. Change is needed, even if it is difficult. We must be realistic: this change will not happen all at once but will be a series of small steps in the right direction. As anaesthetists, we have a responsibility and are in an ideal position to drive this change.

Philip Bewley

ST6 anaesthetics
Severn School of Anaesthesia

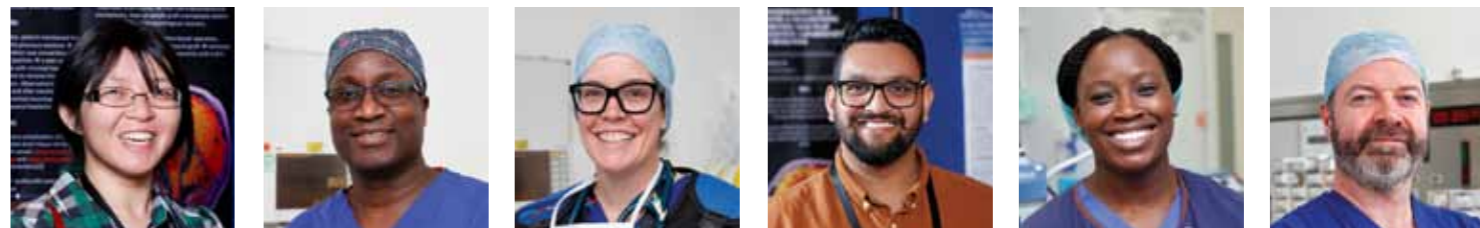
Hamish Breach

Consultant anaesthetist
Great Western Hospitals NHS Foundation Trust
Swindon

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Seven reasons why you should answer the membership survey



The Association of Anaesthetists is launching its membership survey in March this year.

Here are seven reasons why we ask you to take the time to answer it:

- It's the most reliable way to get feedback from you regarding the services we provide for you;
- Even though it is completely anonymised, your answers allow us to get to know you better;
- It's a sure way to let us know which services you would like the Association to provide more of;
- Your answers allow us to represent your views when we interact with political and professional bodies on your behalf;
- Answers to some of the questions asked in this survey may be used to influence workforce planning for the future;
- A high response rate will make the answers much more meaningful and powerful;
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Upma Misra

Honorary Membership Secretary

**YOUR
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Association of Anaesthetists Trainee Wellbeing Initiative Award

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The Trainee Wellbeing Initiative Award has been set up to celebrate excellence in trainee led projects that have and will continue to improve the wellbeing of anaesthetic colleagues in a region or local area in Great Britain and Ireland.

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L. du Toit *et al.*



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WILEY

Anaesthesia Digested

February 2019

Anaphylaxis to intravenous gelatin-based solutions: a case series examining clinical features and severity

Farooque S, Kenny M, Marshall SD.

NAP6 suggested that the rate of anaphylaxis with gelatine-based solutions is similar to rocuronium (the most commonly implicated non-depolarising neuromuscular blocker) at 6.2 per 100,000 administrations. It is uncommon with starch-based colloids or albumin. Starches have, of course, received a bad press because of the possibility of renal injury when large volumes are used in the critically ill - something which hasn't been formally studied

with gelatins, although their popularity has surged. This case series is particularly interesting because of the severity and the latency of onset may, paradoxically, lead to the practitioner administering even more gelatin as the patient becomes more hypotensive. So what next? Do we bin colloids, use starch more judiciously, or just use crystalloids? Have a look at our #gelophylaxis TweetChat!

Guidelines for the safe practice of total intravenous anaesthesia (TIVA): Joint Guidelines from the Association of Anaesthetists and the Society for Intravenous Anaesthesia

Nimmo AF, Absalom AR, Bagshaw O, *et al.*

Congratulations to Iain (John) Glen who recently received a Lasker award for the discovery of propofol (these often precede a Nobel Prize in Physiology or Medicine). There are so many advantages of propofol-based TIVA over inhalational anaesthesia that I hardly know where to start. It's hard to find a plausible reason not to use TIVA and it's now one of the cheapest options for general anaesthesia. So why are so few anaesthetists using it? Before you

write in, 'yes' I'm biased, but it's still surprising that even in the UK (the home of TIVA) it is used for less than 1 in 10 anaesthetics. One advantage of inhalational agents is the ability to monitor end-tidal concentrations, although this is not a reason to avoid TIVA. Education and safety are key, and these apposite guidelines are perfectly timed essential reading to address both. The article is accompanied by an excellent editorial.

Global Capnography Project (GCAP): implementation of capnography in Malawi - an international anaesthesia quality improvement project

Jooste R, Roberts F, Mndolo S, *et al.*

If you could only have a pulse oximeter or a capnograph, which would you chose? I'd go for the capnograph. The Lifebox Foundation is working hard to improve peri-operative safety in less economically developed environments in areas such as safety checklists, surgical site infection and, probably best known, provision of robust pulse oximeters for every anaesthetic.

This fascinating quality improvement project suggests that capnography should be next on the agenda and I must agree this may indeed be one of the most important projects in anaesthesia safety in the last decade.

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N.B. the articles referred to can be found in either the latest issue of *Anaesthesia* or on Early View (ePub ahead of print)

Mike Irwin, Editor *Anaesthesia*

Gauss T, Gayat E, Harrois A, et al.

Effect of early use of noradrenaline on in-hospital mortality in haemorrhagic shock after major trauma: a propensity-score analysis

British Journal of Anaesthesia 2018; **120**: 1237-44

Introduction

Trauma remains a significant cause of morbidity and mortality worldwide, resulting in 5 million yearly deaths [1]. Fifty percent of deaths within the first 24 hours are attributed to preventable haemorrhage [1]. The mainstay of treatment is to stop the haemorrhage and adequately fluid resuscitate, preferably with blood products. The use of vasopressors in the management of haemorrhagic shock has long been debated. Some consider that they are detrimental as they prevent tissue reperfusion and removal of metabolic acids and endogenous anticoagulants that build up in shocked tissue [2]. They have also been found to increase mortality two-fold if used within the first 24 hours following haemorrhagic shock [3]. They are also not recommended in the Advanced Trauma Life Support (ATLS) paradigm. Others argue there is a place for their use. However, there are no clear guidelines on the most appropriate vasopressor to use nor the most efficacious dose or timing of administration. The authors of this paper note that vasopressors are commonly used in France as part of the management of haemorrhagic shock. They investigated the early use of noradrenaline on the 24 hour mortality of trauma patients with shock.

Methods

This was a national multicentre study, which prospectively looked at a regional trauma registry in France. The study defined haemorrhagic shock as those trauma patients who received ≥ 4 units of blood products. Patients with a GCS of 3 or those who had suffered an out-of-hospital cardiac arrest were excluded. In-hospital mortality within 24 hours in patients who did and did not receive early noradrenaline was compared using a propensity-score model. The explicative and adjustment variables were predetermined by a Delphi method.

Results

A total of 7141 patients were in the registry during the study period and 518 suffered haemorrhagic shock. Of these 201 had early noradrenaline and 317 had no vasopressor administration. After propensity-score matching 100 patients were left in each group. The hazard mortality was 0.95 (95% CI: 0.45-2.01; p 0.69)

Conclusion

The authors report that their findings did not demonstrate a negative outcome on mortality from early use of noradrenaline in haemorrhagic shock. They suggest that the results of this study support the need for larger prospective trials on the use of vasopressors in this situation. The study did not make any recommendations of dose or timing of noradrenaline administration. The importance of haemorrhage control and volume resuscitation, preferably with blood products, should not be delayed in lieu of vasopressor administration. Until a high quality RCT is conducted there will remain equipoise over this question. Our current practice is that vasopressors should ideally be avoided in haemorrhagic shock patients due to the potential to adversely affect tissue perfusion.

Edward Rogers
CT1 Anaesthetics

David Hunt
Consultant in Critical Care and Anaesthetics
Frimley Park NHS Foundation Trust

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Lee D, Czech JA, Elriedy M, Nair, A. El-Boghdadly K, Ahmad I

A multicentre prospective cohort study of the accuracy of conventional landmark technique for cricoid localisation using ultrasound scanning

Anaesthesia 2018; **73**: 1229-34

Introduction

Application of cricoid pressure is standard practice during rapid sequence induction, but the efficacy of this manoeuvre depends on correct identification of the surface landmarks. Studies have suggested an inconsistent ability to do this [1, 2]. The primary objective of this study was to evaluate the accuracy of identifying the cricoid cartilage by landmark technique. Secondary objectives were the relationship between this and BMI, age and sex.

Methods

This was a prospective, observational study of adult patients undergoing elective surgery, excluding pregnant patients and those with previous maxillofacial surgery or anatomical deformities. Qualified anaesthetic assistants were asked to identify and mark the cricoid cartilage using a conventional landmark technique. With the patient maintaining the same position, this was compared with the cranio-caudal midpoint of the cricoid cartilage as identified in the sagittal plane using a high-frequency linear transducer. The distance between the two marks was then compared. As the height of the anterior cricoid arch varies between 5.5 and 10 mm in adults [3-5], the authors proposed that application of pressure more than 5 mm away from the midpoint would constitute an ineffective manoeuvre. Patients' weight, height, age, sex and ASA status were also recorded.

Results

100 patients were recruited. 35 anaesthetic assistants were involved, with two-thirds of them having more than five years' experience. The midpoint of the cricoid cartilage was incorrectly identified by a margin of more than 5 mm in 41% of patients (in 21%, the margin was more than 10 mm). This error was uniformly distributed above and below the midpoint of the cricoid cartilage. There was no significant correlation with BMI, age, or sex.

Discussion

The authors conclude that using surface anatomy to identify the cricoid cartilage is inadequate, has a high degree of variability, and is independent of the patient's baseline characteristics and practitioner experience. They argue that as ultrasound allows easier identification of the anatomy and may improve the application of cricoid pressure, pre-induction ultrasound scanning should be a standard of care for rapid sequence induction.

Conclusion

Though controversy exists over the benefits of the Sellick manoeuvre [6], in many countries cricoid pressure is a core skill deployed in critical circumstances. Misapplication may have adverse consequences, including incomplete oesophageal occlusion with subsequent gastric aspiration and, distortion of the anatomy. This study focuses on a contentious topic as ultrasound scanning during rapid sequence induction does not reflect current practice.

However, ultrasound of the neck may be of use during airway assessment to assist in correctly identifying structures such as the cricoid cartilage and cricothyroid membrane.

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Anaesthesia News



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Association of Anaesthetists goes orange, but is still green!



The Association of Anaesthetists may have rebranded, reorganised and restructured its image, but its values remain the same. Our members are fortunate to have a strong voice representing them via the Environment and Sustainability Committee and Education Committee, and never has our environmental stance been stronger than at our Annual Congress in Dublin.

Thirteen foolhardy anaesthetists cycled all, or part, of the way from London to Dublin saving goodness knows how many air/train miles. (Pause for a confession: on day one I was full of energy, got lost and cycled five extra miles; on day three I was cold and windswept and got the train for ten miles. I've just about convinced myself that the two cancel each other out, as for my Strava stats....).

For the third year running we had a meat-free day; we banned all plastic cups at the venue and went old fashioned with water 'on tap' in glass jugs and glasses; we banned all disposable coffee cups at the venue; at the environment session, we live-streamed three talks from speakers in the North of England, Scotland and Japan. The conference centre in Dublin was

chosen for its superb green credentials (for example, all the trees used to create the building, lecture theatres and panels were replanted tree for tree, and the escalators picked up speed only when they sensed people on them, thereby saving energy). We took this opportunity to launch our new branding with disposable coffee cups, tote bags made from 100% recyclable material and ball-point pens that were 80% derived from plants and 80% biodegradable.

Who knows what sustainability initiatives we will come up for Glasgow 2019...any ideas?

Samantha Shinde
Chair, Environment and Sustainability Committee

5 CPD Points

Manchester Conference Centre

26th Annual Manchester Paediatric Anaesthesia Update
22nd March 2019

Programme

- Learning lessons from high profile paediatric cases
- Pre-operative preparation using virtual reality
- Improving pain at home after day case surgery
- Anaesthesia challenges in paediatric oncology
- Debate: This house believes that all children should be intubated using videolaryngoscopy
- Managing a child with "noisy breathing":
 - Surgeon's perspective
 - Anaesthetists perspective

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Courses for trainees working in resource-poor settings

Global surgery and developing world anaesthesia are rapidly becoming important and widely discussed topics with the publication of the Lancet Commission on Global Surgery in 2015 [1]. However, the first Association of Anaesthetists working group to look at anaesthesia provision in lower/middle income countries was set up in the mid-1960s with a steady stream of anaesthetists interested in working overseas ever since. Increasing support of trainees and consultants interested in working abroad has developed, with the RCoA outlining optional modules in anaesthesia in developing countries in their higher curriculum [2].

Opportunities abroad range from shorter placements that focus on teaching and service provision, such as SAFE courses and Facing Africa Fellowship in Ethiopia, to longer term commitments such as Lifebox fellowships and time deployed with Médecins Sans Frontières (MSF), UK-Med and Voluntary Services Overseas (VSO). Preparation and training prior to undertaking one of these roles has not been structured in the past and has relied on the experience and expertise of the organisation responsible for the placement. VSO and MSF offer robust and thorough pre-deployment programs, but many others do not allow the opportunity to consider ethical, political, institutional and safety issues prior to the start. However, a wide range of resources are available to support anaesthetists: online courses that can be completed in your own time, face to face courses and longer term diplomas. These all aim to discuss personal safety, awareness of the limitations of both your role and the structure you are working within, and consideration of sustainability and achievement of long-term goals.

The courses described will be of use to anaesthetists both in the early stages of planning or interest, and to those who have plans already in place.

Online

e-LA Anaesthesia for Humanitarian and Austere Environments sessions

These e-learning modules were developed by E-LfH and the RCoA. They focus on differences between the UK and resource poor environments and provide practical tips.

<https://www.rcoa.ac.uk/e-la/anaesthesia-humanitarian-austere-environments>

Global Health and Humanitarian Medicine course

The Global Health and Humanitarian Medicine course is a part-time, online or classroom-based course run by Médecins Sans Frontières (Doctors Without Borders). The course is designed to provide doctors with the essentials for working in tropical medicine.

<https://www.msf.org.uk/global-health-and-humanitarian-medicine-course>

Face to face courses

Developing World Anaesthesia Course at the RCoA

This one-day course focuses on a practical introduction to the practice of anaesthesia in the developing world, and austere environments. Some of the key topics it deals with are ketamine anaesthesia, use of draw over vapourisers, and obstetric and paediatric anaesthesia. It also tackles problem solving in the field and how to organise your time away and get it recognised.

<http://www.dwacourse.co.uk>

Essentials of Anaesthesia in the Developing World & Remote Locations

This one-day course run by Cardiff University includes updates on infectious diseases, needle stick injuries, drug availability and paediatric anaesthesia, as well as equipment that you may use in the developing world.

<http://www.bmc.wales/developing-world>

Anaesthesia in Developing Countries

This five-day course run yearly in Uganda provides a direct experience of one of the environments in question, tackles practical issues in anaesthesia as well as treating diseases less frequently encountered in the UK.

<https://www.ndcn.ox.ac.uk/study/continuing-professional-development/anaesthesia-in-developing-countries>

SAFE (Safer Anaesthesia from Education) Train the Trainer Courses

A one-day course to prepare potential instructors for teaching overseas on the Association of Anaesthetists /WFSA obstetric and paediatric SAFE courses.

<https://www.aagbi.org/education/events>

Diamedica Training Day: Equipment Use and Maintenance for Global Medics and Biomedics

Diamedica manufacture and supply a range of anaesthetic, ICU and oxygen supply equipment designed specifically for low resource settings. This one-day course provides practical technical training on maintaining, servicing and repairing their equipment.

<http://www.diamedica.co.uk/english/trainingday2018.cfm>

Anaesthesia for Global Outreach Course

This three-day course run by Boston's Children's Hospital gives participants a holistic approach to anaesthesia work in developing countries or austere environments. It offers lectures, practical sessions and talks on cross-cultural adaptation and travel preparation.

<http://www.childrenshospital.org/centers-and-services/departments-and-divisions/department-of-anaesthesia/conferences>

Other qualifications

Courses in Conflict and Catastrophe Medicine

This course leads to a diploma upon completion of the examination. It explores specialist knowledge for all practitioners working within medical response teams who provide medical and surgical response at the scene of major man-made and natural disasters.

<https://www.apothecaries.org/course-in-conflict-catastrophe-medicine/>

Coming up in the future

Good Volunteering Practice for Anaesthetists

This online course is being developed. It is supported by WAS, WFSA, RCoA, Association of Anaesthetists, VSO, THET to act as a universal tool for all UK anaesthetists interested in working overseas. The focus is not clinical provision, but the ethical, personal, and professional challenges that come from working within the environment of international development.

Online resources / further information

RCoA Global Partnerships <https://www.rcoa.ac.uk/careers-training/oope-and-oopt/working-training-developing-countries>

Association of Anaesthetists <https://www.aagbi.org/international>

UK-Med <https://www.uk-med.org>

VSO <https://www.vsointernational.org>

World Anaesthesia Society (WAS) <http://worldanaesthesia.uk>

World Federation Societies of Anaesthesiologists (WFSA) <https://www.wfsahq.org>

Francesca Mazzola

ST7 Anaesthetics, London
and World Anaesthesia Society



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Let's get hooked on reducing plastic waste

The devastating environmental impact of plastic waste is becoming increasingly apparent. Public interest in reducing wasteful practices has increased dramatically in recent years. National campaigns including the Daily Mail's 'Turn the Tide on Plastic' and television documentaries, in particular 'Blue Planet 2', have helped to raise the profile of this issue dramatically. The NHS generates approximately 5.5 kg of waste per patient per day [1]. Of that, ~ 30% is plastic, and 20% of all hospital waste arises from operating theatres [2]. A 2009 audit estimated that each operating theatre creates 2300 kg/year, of which about 40% is recyclable [3]. However, less than 15% of NHS waste is recycled [4]. This means that a huge amount of plastic is currently sent to landfill or incinerated at great environmental and financial cost.

RecoMed (who ran a trial at Queen Victoria Hospital, and won the first Barema and Association Environment prize, in 2015), now run a PVC recycling service for 28 hospitals. It is funded by VinylPlus (an EU association of PVC manufacturers committed to sustainability). They recycle PVC medical products including facemasks, oxygen tubing and fluid bags. In November 2018, RecoMed informed us that they had collected a total of 11 349 kg of PVC. Unfortunately, at present the recruitment of more hospitals is suspended while further funding is awaited, raising questions about the economic sustainability and scalability of the project. Moreover, many single use plastic items are not made from PVC and are not collected, including the anaesthetic mask hook ring.

A simple way to reduce plastic waste is to identify items that are disposed of unused. In the UK we believe the plastic hook ring to be one such item. Hook rings are routinely supplied on anaesthetic face masks despite the fact that the Clausen harness for which they were originally designed is obsolete. The NHS performs approximately 2.39 million general anaesthetics each year [5]. It follows that an enormous number of hook rings are being disposed of unused. In 2016, Radhakrishna and Rangappa wrote about this issue [6]. They stated that a small survey in the UK had revealed that the hook rings were discarded unused. They contacted 'three leading manufacturers' who were aware that 'hooks were not used by anaesthetists in most of the UK and Europe' but were 'still popular in North America'. The ongoing manufacture of hook rings was justified as 'the logistics of supplying only to a European market without the hook was far costlier than the manufacture and supply of the hooks to all regions.'

We decided to conduct a further survey to provide additional evidence to manufacturers that the routine provision of the hook ring is not required. The survey was advertised locally and on Twitter, with the aim of attracting an international response. Data was collected between May and October 2018. There were 352 responses; 90% of respondents were from Europe. 92% had never used the hook ring and 97% agreed that disposable masks should be manufactured without a hook ring (see table). 99% believe that manufacturers need to do more to address plastic waste in anaesthetic practice, and 66 commented or suggested ways to reduce plastic waste. The survey suggests that hook rings are very rarely used and that the overwhelming majority of anaesthetists are in favour of discontinuing their routine manufacture. The low response from outside Europe means that it is impossible to draw firm conclusions about their use elsewhere. It is, however, apparent that there is international concern amongst anaesthetists about plastic waste.

Survey question	Agree	Disagree
I have NEVER used the hook ring provided on disposable anaesthetic face masks	92%	8%
I AGREE that disposable anaesthetic face masks should be manufactured without a hook ring	98%	2%
I believe that manufacturers need to do more to reduce unnecessary plastic waste in anaesthetic practice	99%	1%

The Association of Anaesthetists Environment and Sustainability Committee have now discussed this issue with the Association for Anaesthetic and Respiratory Device Suppliers (Barema) and we have contacted three leading manufacturers directly. There is a desire to reduce plastic waste, but global tender specifications remain an issue. In the UK, the Public Services (Social Value) Act 2012 places a statutory obligation on the NHS to consider social and environmental wellbeing as well as financial wellbeing when procuring goods. We are in discussion with key members of NHS Supply Chain, an arm's length body of the Department of Health. This group has been tasked with optimising products (to ensure safety and quality alongside value), in line with Lord Carter's report [7], and engages with clinicians. They agree with us that that waste and disposal requirements should be considered in future procurement specifications and are keen to involve the Association with the changes that are being undertaken, not just on plastic, but on specifications that feed into the procurement process. We have received clarification from the team at NHS Supply Chain confirming that procurement specification framework for anaesthetic masks in the England does not stipulate that manufacturers must supply hook rings with facemasks.

Of the three manufacturers approached, one has responded. We are pleased that they acknowledge the issue and are offering an alternative. However, at present they are not planning on removing hook rings from their existing product. In 2019 the re-tendering process of the 'airways management' framework will provide an opportunity for the NHS to stipulate that masks are provided without hook rings, enabling this change.

Sean Duggan, the Anaesthesia and Filtration Group Product Manager at Intersurgical responded: "Intersurgical appreciate the recent dialogue with the Association's Environment and Sustainability Committee and recognise the issues that this article has raised regarding unnecessary waste within anaesthetic practice. We aim to minimise the environmental impact of our products and services and have implemented an Environmental Management System certified to ISO 14001. Part of this commitment has been the development of innovative products that use alternative materials to PVC. In line with current global market requirements we and many other suppliers provide our range of anaesthetic face masks into UK hospitals with hook rings. However, in response to this issue, and as part of our ongoing programme, Intersurgical will be introducing a full range of non-PVC anaesthetic face masks without hook rings, allowing clinicians the opportunity to not only reduce waste but also make an improved environmental choice in their daily clinical practice."

Discontinuing the routine manufacture of the hook ring will require further communication and co-operation between users, procurers and manufacturers. The Association is lucky to have great working relationships with our industry colleagues and Barema. We will continue to pursue this issue and, if successful, it will set a precedent for how users can feedback and reduce wasteful practice on a large scale. In the meantime, we urge local procurement teams to look into purchasing masks provided without hook rings. We believe that cost alone is no longer an acceptable justification for environmentally damaging practice.

Manufacturers perhaps would be wise to consider the impact on their corporate identity and branding if they continue wasteful practices simply to increase profit.

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ST6 Anaesthetics
Nottingham University Hospitals

Samantha Shinde
Vice President Association of Anaesthetists, Chair Environment and Sustainability Committee

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'We are living on this planet as if we had another one to go to'

(Quote from Terry Swearingen, Nurse and Winner of the Goldman Environmental Prize 1997)



The anaesthetic team at North Bristol NHS Trust (led by our Senior ODP - Malcolm Hand) frustrated by the enormous mountains of plastic that we generate every day and which cannot be recycled, have been collecting small plastic pieces of anaesthetic kit and sending them to an art scrapstore (reusefuluk; <https://reusefuluk.org/>) to be reused as pieces for art projects. This is an original and fun way to find a solution to a waste problem whilst engaging with the local community. To give you an idea of how much we collect, the photo shows how much plastic was collected in one week from 24 theatres and how many set wraps were collected from one theatre in one day.

In two weeks, 12.2 kg of plastic was collected - which may not seem like a lot, but since the heaviest piece of plastic is an i-gel® 'spoon', that's pretty good going. If we continue collecting these pieces at our current rate, that will be over 300 kg/yr of plastic that is going to be reused, rather than being landfilled or sent for energy from waste disposal.

To our knowledge we are the first trust/board in the UK and Ireland to be doing this. However, via social media and the ODP's Forum, this snowball is gathering momentum quickly, and enquiries are starting to come in from many other hospitals in South Wales, Liverpool, Newcastle, London, Norwich, Cardiff and Sheffield to name but a few. Chesterfield and Abergavenny have since started this programme and in our own trust, the ICU and Interventional Radiology department have joined in this scheme too. There is also interest from the BBC in our project. Soon, we will also be collecting the purple/green sterile wraps from the sets and sending them to the scrapstore. There are now a few large projects taking place using these pieces, including the i-gel holders.

So how did we do this? Take one enthusiastic ODP (to get the project off the ground and organise collection of the plastic from theatres); a 'green anaesthetic department' who are willing to remember to flick their vial caps and plastic hook rings in to the correct receptacle; a trust that really wants to do its best for sustainability in the NHS and will overcome the problems of storage and collection of the plastic waste; and, a scrapstore that is willing and able.

The downside is that you need to be wary of the dangers of small bits of plastic in small children's hands; and, you need to make sure that the scrapstore isn't overwhelmed by the amount of scrap - it takes a bit at a time to determine how much they can find a home for. Items not to reuse include anything clinical or that may have been near a patient, no 'twist off' tops of saline/water bottles, and no sharps.

To keep the momentum going, we need to encourage other hospitals to do the same; put pressure on manufacturers and the NHS to get rid of useless bits of plastics such as face hooks (see article in this issue); email the Association of Anaesthetists with your innovative ideas, so that we can share your stories of good 'green practice' with other departments via *Anaesthesia News*, our environment network ('work in progress') and as a resource on our website; become an Association of Anaesthetists 'eco champion' and spearhead good environment practice in your hospital. We would rather not have to recycle plastic in the first place, but until we succeed in putting pressure on and work with manufacturers to find alternatives and ask them to clearly label their products so that we know they can be recycled, then we will reuse rather than wastefully dump our plastic. Our next project is to organise a Christmas decoration workshop to see what festive creations we can make out of our left-over plastics.

Malcolm Hand
Senior ODP

Esther Coffin-Smith
Sustainable Development Manager
North Bristol NHS Trust

Samantha Shinde
Chair, Environment and Sustainability Committee



Assistant Editor for *Anaesthesia Reports*

The Association of Anaesthetists is looking to appoint a new Assistant Editor for *Anaesthesia Reports*.

The Association of Anaesthetists has launched a new fully independent case report journal, *Anaesthesia Reports*, in January 2019. This is the latest iteration of *Anaesthesia Cases* and takes the traditional case report to the 21st century by also including multimedia pieces. The Editorial Board hopes to be indexed in the main databases such as PubMed in the near future. The role of the Assistant Editor is mostly email and web-based and involves reviewing submitted manuscripts and multimedia items and editing them in preparation for publication. The successful applicant should have a history of publication, be able to write coherent and elegant English, and have good time management skills. Previous editorial experience is not necessary, but experience of acting as an assessor/referee for papers submitted to peer-review journals is desirable. The term of office is 3 years with up to two extensions. As well as the opportunity to work with an excellent and cohesive editorial team, rewards include free registration at major Association of Anaesthetists' meetings.

Applicants should submit a report of up to 500 words on 'The value of case reports in 21st century anaesthesia' by email to the Editor, **Dr Kariem El-Boghdadly** (elboghdadly@gmail.com), together with a short curriculum vitae (no more than two A4 pages). Shortlisted candidates may be asked to perform a small number of editorial tasks as part of the selection process.

We would particularly welcome applications from senior trainees and consultants who are within the first ten years of their substantive appointments and looking to develop their reviewing and editing skills.

Applicants who wish to discuss this post are advised to contact the Editor, Dr Kariem El-Boghdadly.

The closing date for applications is **17 March 2019**



6 March 2019

Cases & Clinical Challenges

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- Debates/discussions about controversial areas in obstetric anaesthesia

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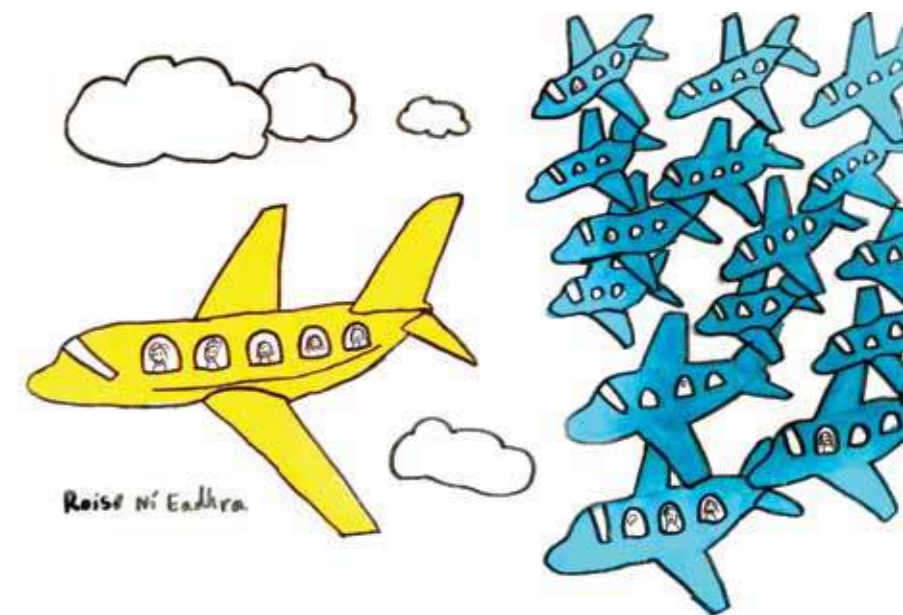
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Celebrating
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'....twelve years to save the world'

- the impact of desflurane on the environment (a personal view)

Desflurane is a great anaesthetic agent: cardio-stable, minimal metabolism and a low blood-gas partition giving quick waking and extubation. These advantages are of course highlighted by the manufacturer and by enthusiasts. A meta-analysis found that the mean patient responsiveness time was better by 1.7 minutes and tracheal extubation could be performed 1.3 minutes earlier in patients receiving desflurane compared with sevoflurane [1]. In a similar meta-analysis, the corresponding values in obese patients were found to be 3.8 and 4.97 minutes, respectively [2]. Some have argued that there are less respiratory complications in recovery units, though NAPs 4 and 5 hinted that poor reversal may be the bigger issue [3, 4].



What about the environment? Desflurane has a 14-year lifespan, giving it a Global Warming Potential (GWP100) of 2540, as compared with 130 for sevoflurane and 510 for isoflurane [5]. All three agents are bad for the environment, occupying the same part of the light spectrum as CFC's and trapping certain wavelengths of light within the atmosphere, thus contributing to global warming. Inhalational agents represent 5% of acute hospital carbon emissions, but their contribution is not included in the annual Carbon Reduction Commitment figures in any of the four countries of the UK. Although the physical characteristics of desflurane make it twenty times as bad for the environment as sevoflurane, for the complete picture one must also take into account its potency. In fact, one MAC hour of desflurane is fifty times as bad for the environment as one MAC hour of sevoflurane [6].

Imagine taking a flight to New York with 200 other people. Now consider the same 200 passengers divided into groups of four, each group taking one of fifty aircraft to fly simultaneously on the same route at the same time, in order to arrive 5 min earlier (Figure 1). The first example is sevoflurane, the second is desflurane. Nobody could justify the use of fifty aircraft, but we cling to the availability of desflurane on the basis of clinical choice, advantages for some patient groups, and a minor time saving. Anaesthetists on the whole are not a conservative bunch, our practice evolves constantly such as decreasing flow rates, reducing the use of nitrous oxide, adopting TIVA or regional anaesthesia where appropriate, and leading on issues such as patient safety and fatigue, but still we want our desflurane.

IRC travel and project grants funding

The International Relations Committee (IRC) offer travel grants to anaesthetists who are seeking funding to work, or to deliver educational training courses, usually, but not exclusively, in low and middle-income countries.

IRC travel grants - for short visits (usually less than one month) to a maximum of £1,000.

IRC project grants - for projects involving an individual or team over a period of weeks or months.

IRC volunteer/OOPTE grants - for long-term voluntary work, generally longer than one month.

Eligible travel dates: 24 May 2019 - 25 July 2019

Application deadline: 22 March 2019

More information: www.aagbi.org/travel-grants

SAFE funding

The Safer Anaesthesia from Education (SAFE) Steering Group offers funding for appropriately experienced Faculty Leaders for anaesthetists to deliver a modular training course in obstetric or paediatric anaesthesia in low-income countries. Priority is given for projects undertaken in African countries.

Eligible travel dates: 1 April 2019 - 1 April 2020

Application deadline: 1 March 2019

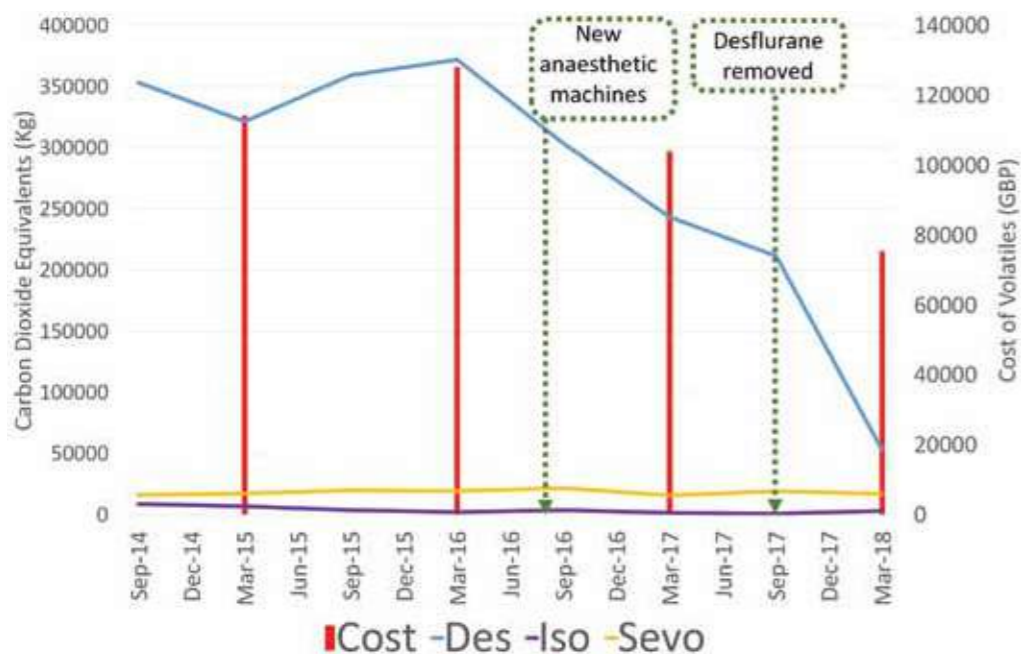
More information: www.aagbi.org/SAFE-funding Funding applications will not be considered retrospectively.



Association
of Anaesthetists

For more information, please email secretariat@aagbi.org
or telephone 020 7631 1650 (option 3).

Figure 2



As a first step, we could start to measure the use of all volatiles, and describe their contribution to global warming? Deciding how to minimise this pollution might then be addressed, but the nature of commercial and political interests will, in all likelihood, make this a lengthy process, and favouring one product against another is very difficult for a government or national organisation to do. Change may be better achieved from the grassroots up. Many anaesthetists are already making great strides to minimise their impact on the environment, but many are asking questions. Will it make a difference? Is it easy to change? The 5% of acute hospital carbon emissions from volatile anaesthetics equates to half of all energy used to heat hospital buildings and water [7]. By not using desflurane, we could reduce the amount due to volatiles to 0.5%.

If you want to try, it is easy to make the change. Here is our own recipe:

- Talk about the issue with your friends and colleagues;
- Raise awareness by sharing the facts in an educational presentation;
- Discuss low-flow anaesthesia (< 0.5 l.min⁻¹) and desflurane use at your departmental meeting;
- concession to gain is to have the desflurane removed from the anaesthetic machine - still available, but not the default;
- Mentioning a wish-list of new toys seems to help win people over;
- Meet your budget holder and get agreement to re-allocate any cost savings to new toys (ultrasound, TIVA pumps, depth of anaesthesia monitors, etc.);
- Audit use of low-flows;
- Desflurane will still be used, but ensure that it is removed after each use, and go around the theatre suite yourself checking once or twice a week.

In Inverness we were fortunate to have the double change of new, modern anaesthetic machines, quickly followed by the above project. In the six months following the implementation of the new practice we saw a dramatic fall in CO₂e and spend on volatile anaesthetics (Figure 2). Compared with peak periods, there was an 81% reduction in CO₂e, and a 52% reduction in costs [8].

Finally, we talked to our friends about desflurane. We formed a WhatsApp group calling ourselves the Scottish Environmental Anaesthesia Group (SEA-G) - aiming to have two representatives in every hospital in Scotland. The chat has ranged from volatile anaesthetics, to TIVA, to waste disposal, and to drug disposal to AGSS, lighting and so on. It has been illuminating, and we hope soon to co-ordinate with the Association of Anaesthetists environmental champions.

So, what about the environment? Twelve years [9] is not very many tomorrows. Why not start today?

Daniel Lunardi
ST3 Anaesthesia

Kenneth Barker
Consultant, Raigmore Hospital, Inverness

With thanks to Rosie Ní Eadhra for the image

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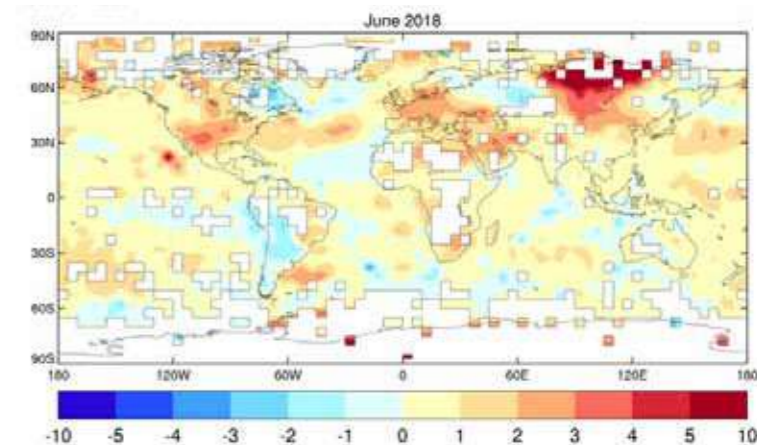
Webinars go global

In early December the Association ran its seventh webinar; this time on the environment and sustainability. The webinar format has been very successful since we started them in 2017, but we decided to ring the changes. First, we offered this event for free to try and gauge the mood. The pricing of our educational events surprises some, but as well as speaker expenses and venue hire, there are many hidden costs such as staff time. These staff costs also add-up for webinars, even though speaker and venue costs are nil. However, if there is one topic that is an obvious choice for a trial of free registration, it has to be sustainability. All the speakers, the Chair and the technical support team worked from home or their offices.

Hopefully, the environmental impact of the event was low. The other innovation is that we joined with the South African Society of Anaesthesiologists and the New Zealand Society of Anaesthetists to offer this webinar to their members. As a result, we had over 100 delegates, including eighteen from New Zealand and seven from South Africa, and others from Australia, Canada and Malta. We timed the event (18.30 h GMT) to suit those in Europe, South Africa and New Zealand (an early start for them). Colleagues in Australia had an even earlier start to their day! All the delegates have since been able to watch a recording of the presentations via our website, and members of the Association could reflect on the event using learn@aagbi.

The topics were: 'The impacts of extreme weather on public health', 'Recycling: impediments, blockages and barriers. How can we start overcoming them?', 'What can we do to minimise the environmental impact of anaesthesia delivery?' Rob Wilby, Professor of Hydroclimatic Modelling at Loughborough University began with a description of the impact of extreme heat events, with many insights from his work in Ghana where he has been accurately tracking the temperatures in homes and hospitals. He made a point of showing that heat events are now global phenomena (Figure 1), not just in Africa or other traditional, hot locations. Tim Vorster described how he and others have led the 'green' agenda at his hospital around waste management and recycling schemes. There was much discussion about PVC products and single-use items. Finally, Tom Pierce described the effects of anaesthetic agents and energy use in operating theatres on the environment. He described the effects of desflurane (covered elsewhere in this issue) and pointed out that the environmental costs of TIVA remain unknown.

Figure 1



Temperature anomalies (°C) in June 2018 relative to the 1961-1990 average based on the Met Office HadCRUT4 data set; source: <https://blog.metoffice.gov.uk/2018/07/27/summer-temperature-2018-the-new-normal/>

One of the advantages of our webinar software is the ability for delegates to 'ask' questions (submitted via a typed interface), meaning it offers much more to those watching at the time than 'passive' live streaming; we had over 30 questions submitted during the event which the speakers answered.

Watch out for forthcoming webinars on Managing Anaemia, Hip Fracture Patients, and Less Than Full Time training. Join in, enjoy and reflect!

Mike Nathanson
Immediate Past Honorary Secretary

Dear Editor

Accidental lidocaine infusion

We came across an unusual intravenous fluid preparation in our intensive care unit whilst collecting a few different fluid bags to use as props at medical student teaching. The fluid was a 500 ml bag of 5% dextrose with 0.2% lidocaine hydrochloride (Fresenius Kabi). This would equal a total dose of 1g of lidocaine should it be given in error, and almost five times the safe amount for an average 70 kg person. It was not something we expected to find! It was stored next to 5% and 20% dextrose bags (Figure 1) and could therefore be given in error during the treatment of hypoglycaemia or used to make up vasoactive or inotropic medications. None of our ICU team knew the fluid was being stocked and it is not used for pain management at our institution. A stock check has shown it was being kept in other locations within the hospital, and has now been removed.

Figure 1



There has been extensive press coverage due to errors involving drugs such as intravenous bupivacaine injection via the wrong route [1, 2]. Intravenous fluid preparations tend to be produced in similar packaging, which can lead to inadvertent wrong route administration as a result of human error. This is even more relevant during stressful situations, where the anaesthetist / intensivist may be focused on multiple variables

like haemodynamic stability, ventilation, or resuscitation, and the process of giving drugs or fluids can become a sub-conscious one. Guidance from the Royal College of Nursing recommends pre-printed prescriptions or the use of stickers when preparing and giving high-risk products [3]. Bags of fluid for epidural use only should clearly state this fact, and they should be stored in separate areas. The Medications and Healthcare products Regulatory Agency recommends the 'judicious use of colour' to aid accurate identification of medicines [4]. Despite the use of coloured labels to identify the commonly used anaesthetic drugs, this practice has not been picked up by fluid manufacturers.

The importance of familiarising yourself with local protocols and therapies, and the conscious checking of all medications is essential to avert potential patient harm. A recent study in the *Journal of Patient Safety* showed that re-designed opaque labels aided the correct selection of intravenous fluid during a simulated emergency (e.g. Hetastarch versus lidocaine); however, it was underpowered to show if new labelling helped pick up more errors when the incorrect fluid was initially chosen [5]. We invite manufacturers of intravenous fluids (and other drugs) to take steps to improve the consistency in labelling and packaging of medication. This would aid the discrimination of different products, and help to reduce the risk of drug errors.

Geoffrey Warnock
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Judith Ramsey
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Dear Editor

Room 101

Room 101 is a BBC comedy television and radio series in which celebrities are invited to discuss their pet hates and persuade the host to consign them to oblivion in Room 101. I am neither a celebrity nor have I been talent spotted, but if I was ever invited onto the show, disposable cups would be one of my top choices to go to Room 101. However, when I was at Gatwick Airport recently, I spotted this great cup recycling set up. Wouldn't it be nice if all hospitals had a system like this or even better, banned disposable cups altogether?

Samantha Shinde
Consultant Anaesthetist
North Bristol NHS Trust



Your letters

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

Dear Editor

How green does your garden grow?



Our Trust is building an allotment on site for staff and patients. The allotment will provide a space for gentle exercise, rehabilitation and an opportunity to spend time outdoors. The produce grown will be harvested by allotment users for their own consumption; however, as part of the plan we are hoping to plant more fruit trees. Generous donations from the local community, staff and businesses in the form of a greenhouse, water butt, wheelbarrow, garden buildings, raised beds, tools, money and time, have meant that plans are on track. In order to promote the allotment site, the Sustainability Team organised a community fruit pressing day, using a fruit press loaned by the National Trust at Tyntesfield. The pears were from trees on site but were also bolstered by donations from staff and the local community. The apples trees sadly failed to produce a single apple, so we relied on donations. The 18 litres of fruit juice generated was a real success. We are hoping for greener fingers next year, and who knows what fabulous fruit and veg we will grow in the allotment. Fruit juice one year, smoothies and pies the next!

Samantha Shinde
Consultant Anaesthetist

Esther Coffin-Smith
Sustainable Development Manager
North Bristol NHS Trust

Dear Editor

Time to change the name

In 2006 I wrote an article in the *College Bulletin* stating my view that we should retain the name 'anaesthetist' and not become 'anaesthesiologists' [1]. I have changed my mind! What twelve years ago I thought was rather a pleasant anachronism and very English in its 'splendid isolation' from the rest of our colleagues around the world, I now believe to be a mistake that both College and Association should seek to change. The words I quoted in 2006 from the Chicago surgeon MJ Seifert resonate more strongly with me today: "An ANESTHETIST is a technician, and an ANESTHESIOLOGIST is the scientific authority on anesthesia and anesthetics", he wrote [2]. I see no reason to adopt the American spelling, but I now have a much greater sympathy with the basic message. At a recent Asian Australasian Congress of Anaesthesiology held in Beijing I was asked, after a historical lecture, why in the UK we remained 'anaesthetists'? It's just what the College and Association want I said, as I believe it had been recently re-debated by high Councils. Neither the questioner or I were convinced! As our profession moves, in some quarters, towards the adoption of the term 'perioperative physician' I would ask that the UK aligns itself with almost all of the rest of the world and starts to use the term 'anaesthesiologist' for who we are. Please can we reopen this debate?

David Wilkinson
Retired Anaesthetist
London

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Submission deadline: 3 April 2019

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The closing date for applications is 17 May 2019

barema

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