



15 January 2018

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Dear David

Re: Statement on Environmental Sustainability in Anaesthesia and Pain Medicine Practice

The New Zealand Society of Anaesthetists welcomes the opportunity to provide feedback on the above position statement, as well as the background paper. We have tracked suggested changes in the position statement and background paper (attached), as well as provided higher level commentary.

Our Executive has consulted with members who are particularly knowledgeable on the topic of environmental sustainability, and who have implementing sustainable practices in their own hospitals.

Overview

Climate change is the single most important issue facing healthcare and humanity; it remains both the greatest threat but also the greatest opportunity for public health.

The NZSA fully supports ANZCA in developing a position statement to address environmental sustainability and commends those who have contributed to the development of the document. It is certainly a good start, and it incorporates many of the issues our profession is concerned about in relation to environmental sustainability. However, we believe that a bolder document is needed with stronger, more ambitious targets and actions to enable our profession to embrace the opportunity to mitigate the harmful effects of climate change. There is now a growing impetus in society to address this issue and we have a responsibility to be proactive to the health of our communities to build on this momentum to make a significant impact. This should include being knowledgeable about what is happening internationally so that we can readily emulate strategies which have been successful and avoid reinventing the wheel, such as the SDU in the UK as referred to in PS64.

Key points relating to PS64

- We are supportive of the purpose statement but believe it can be considerably strengthened. We have included some suggested changes to wording, and additional wording, which are tracked in the position statement.

- The focus of the document seems to be primarily on environmental sustainability as it pertains to perioperative care and not the broader healthcare system. The scope statement could reflect this more clearly.
- The Statement includes infrastructure, equipment and consumables, rational use of diagnostic tests and prescriptions, anaesthetic gases and waste. We would recommend that the Statement also include transport/travel.
- We believe that there should be a section specifically aimed at climate change. While the document acknowledges climate change in its first opening statement, more needs to be included in this document about the actions needed to tackle climate change. Specifically, buying into carbon emissions measurement and reduction (CEMARS) philosophy. The main areas in terms of carbon emissions reductions for anaesthetists are: procurement, transport (travelling to conferences, patients travelling to see doctors when telemedicine would suffice in some circumstances) and inhalant agent use.
- We have the following comments to make on the clauses in the statement:

4.1 Infrastructure

This covers built environment and energy efficiency but does not cover energy supply and/or adaptation which could both be included under the infrastructure heading.

Hospital energy supply is one of the biggest contributors to the carbon footprint of healthcare and to air pollution through the burning of fossil fuels.

A statement about new infrastructure utilising low carbon energy should be incorporated. Options for low carbon energy depend on local context (Australia has grid electricity mainly from coal, whereas New Zealand is primarily renewable). Options for low carbon energy include: Combined heat and power (CHP), grid based electricity using ground source heat pumps (NZ), biomass boilers (woodchip common in NZ), photovoltaics (better return on investment in Australia). This technology can be retrofitted into existing infrastructure. In the UK, retrofitting CHP is a common method of reducing carbon footprint of existing hospitals.

Adaptation is not mentioned in infrastructure. New infrastructure should be built to cope with an increased range of ambient temperatures as well as to cope with drought, storm events, flooding and sea level rise. Hospital infrastructure in Australia is already struggling with increased ambient temperatures during heatwave events.

4.2 Equipment and consumables

- We commend that the document acknowledges that equipment and consumables should have their environmental footprint analysed with a 'cradle to grave' life cycle analysis. However, the document needs to convey the need to emphasise the responsibility of procuring decision makers to source reusable/recyclable and environmentally friendly products. In turn manufacturers will not change unless this

pressure is applied to them, and the waste problem relies on manufacturers making changes to the products they offer.

- Procurement policy is mentioned in reference to LCA for reusable versus single use items. We suggest broadening this to suggest procurement policy for all items should undergo assessment of its environmental footprint. Within this broad assessment of environmental impact, the issue of reusable versus single use items should be considered.

- The item on donating to developing countries could be expanded on as there is a very real risk that donated equipment and drugs contributes to the environmental and financial burden of waste disposal in developing countries, unless its end use is subject to careful consideration.

4.3 Diagnostic tests and prescriptions

- The first sentence from the background document is excellent and could be included at the beginning of this section: *“Environmental sustainability is also related to clinical inefficiencies in the provision of healthcare such as interventions that do not meet patient expectations or provide the desired outcomes.*

- Under prescribing practices should examples such as discharge opioid plans be mentioned and the use of oral medication versus intravenous.

- We only have a best guess of how much unconsumed medication gets into our waterways and landfills. Ergo using TIVA may reduce GHG emissions but we need to find appropriate ways of disposal of both intravenous and oral medications.

4.4 Anaesthetic gases

- Stronger wording is needed in this section. The most significant impact we have on the environment as anaesthetists is through the greenhouse gas emissions associated with anaesthetic gases. A recently published article *Avoiding desflurane and N2O where possible will have a significant impact on the environmental impact of our anaesthetic practice* (Lancet planet health 2017; 1: e381-88 MacNeill et al) identified reducing desflurane and occupancy based ventilation as the two most important strategies for reducing the climate impact of surgical services.

4.5 Waste

- Separated waste streams is an important first step into general waste and infectious waste to reduce the cost of theatre waste disposal, as well as its environmental impact (infectious waste disposal has significantly higher GHG emissions than general waste). When waste streams are separated this helps to facilitate recycling.

4.6 Transport/travel

- We would strongly recommend that a clause for transport/travel be added to the statement.

- Active transport for staff and patients improves health and reduces carbon emissions associated with healthcare.
- Air travel for doctors to attend medical education events overseas is a significant contributor to the carbon footprint of healthcare (this, along with anaesthetic gases, is likely to be the biggest source of our contribution to GHG emissions). Where possible anaesthetists should choose local medical education events and use videoconferencing.

Other comments on climate change

- We (the College and NZ and Australian Societies) need to advocate for politicians, bureaucrats and hospitals to urgently develop robust legislation and processes to measure and reduce our carbon footprint.
- We need to advocate for all DHBs to sign up to a CEMARS process or similar.
- Manufacturers of anaesthetic equipment and drugs must be required to supply all their products in reusable or recyclable packaging, together with information on the effects of their product on land, water and atmosphere. We should also be asking whether a product can be made from recycled materials.
- We need to demand that unless there are good clinical reasons, a reusable product should be purchased rather than a disposable one.
- As a profession we need to ensure that we are represented in purchasing and design decisions, and structural changes.
- It is well recognised that climate changes affect our most vulnerable populations most. We need to acknowledge that as such, they require special consideration.

We would like to thank the College for embarking on this work and fully support its aims. We trust that our comments are helpful.

If you have any questions regarding our submission, please contact me at president@anaesthesia.nz

Yours sincerely



David Kibblewhite
President