



**College of Intensive Care Medicine
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STATEMENT ON SUSTAINABILITY

The College of Intensive Care Medicine of Australia and New Zealand (CICM) Statement on Sustainability in Intensive Care Medicine and College Operations.

1 PURPOSE

The purpose of this statement is to:

- Affirm the College's commitment to adopting strategies which contribute to environmental sustainability;
- Advocate for primary and secondary prevention of disease and promote policies to improve health and wellness;
- Advocate for the embedding of sustainable practices in the provision of comprehensive clinical management of critically ill patients and in the workplace;
- Advocate for the use of the principles: reduce, reuse, recycle, rethink and research, where appropriate;
- Serve as a resource for CICM Fellows, Trainees and College staff with practical guidance on how they can positively contribute to the achievement of sustainable outcomes; and
- Acknowledge the benefits to the health and well-being of the population that accompany carbon reduction strategies.

2 SCOPE

This document is aimed at CICM Fellows, Trainees and College staff. The workplaces covered by this statement includes intensive care departments and units, the College's main office and all other locations where the College may conduct activities (e.g. locations of exams, conferences and meetings). It is acknowledged that the ability of individuals and groups to adopt sustainable practices and protocols will vary from workplace to workplace and that contributions to sustainability can range from personal practice and role modelling, to committee participation and lobbying activities.

The document does not aim to mandate strategies to be adopted by Fellows, Trainees and College staff nor provide commentary on strategies and guidance for actions outside of the workplace. However, the document may also be used as a resource by the broader health community.

3 BACKGROUND

Environmental Impacts of Climate Change and Sustainability

Research related to climate change has been undertaken by a wide range of regional, national and international bodies including:

Australia	The Australian Department of Energy and Environment and state government equivalents CSIRO Climate Science Centre Bureau of Meteorology Various university-based bodies. For example: UNSW Sydney Climate Change Research Centre (CCRC)
New Zealand	The Ministry for the Environment National Institute of Water and Atmospheric Research (NIWA) Victoria University of Wellington's New Zealand Climate Change Research Institute
Global	Intergovernmental Panel on Climate Change (IPCC) World Meteorological Organization (WMO) International Council for Science (ICSU) Intergovernmental Oceanographic Commission (IOC/UNESCO)

The College recognises that this research has conclusively determined that climate change is occurring and carries plausible risks of adverse impacts on the health of society, in particular those who are socially disadvantaged.

The College acknowledges possible impacts of climate change include:

- Resource insecurity with reduced access to food and water;
- Extreme weather events including floods, droughts, storms, wildfires, and extremes of heat and cold;
- The displacement of people moving from regions that are increasingly uninhabitable;
- Crowding and increases in communicable diseases arising from population displacement and restricted access of people to food, water and adequate shelter; and
- Mental health and stress-related disease as a consequence of displacement or lack of resources.

The College acknowledges the link between climate change and 'greenhouse gas' emission, especially that of carbon dioxide (CO₂). The College supports the Paris Agreement in which the Australian government has committed to reducing emissions by 5 per cent below 2000 levels by 2020 and by 26 to 28 per cent below 2005 levels by 2030 and increasing Australia's renewable energy capacity. New Zealand has committed to becoming net carbon neutral by 2050. Hong Kong has committed to reduce carbon intensity target of 65% to 70% by 2030, using 2005 as the base, which is equivalent to 26% to 36% absolute reduction and a reduction to 3.3-3.8 tonnes on a per capita basis¹.

¹ The Paris Agreement and Hong Kong. <https://www.gov.hk/en/residents/environment/global/climate.htm>

The College acknowledges that the healthcare industry makes a significant contribution to the total CO₂ emissions. Specifically, Australian research found that *“the carbon footprint attributed to healthcare was 7% of Australia's total; that is, similar to the entire carbon emissions of all activities associated with 7% of Australians (e.g. all people in the state of South Australia). Hospitals and the pharmaceutical industry were together responsible for two-thirds of the carbon footprint associated with healthcare in Australia. 90% of the carbon footprint stemmed from indirect CO₂ emissions due to purchases between multiple different economic sectors that fed into the healthcare sector”*².

The College also acknowledges that as a medical specialist training college it has a role in leading Fellows, Trainees and College staff to recognise the impact of climate change, and place preventive strategies the centre of work practices. This aligns with recognition of the health benefits of sustainability and the College's endorsement of health advocacy as one of the key domains of intensive care practice.

4 STATEMENT

4.1 ENVIRONMENTAL

To contribute to environmental sustainability, the College supports an approach which recognises the importance of both energy efficient and conservative consumption strategies. The energy efficient strategies are focused on contributing to a reduction in carbon emissions, while the consumption strategies target waste reduction and reduction in carbon emissions. The main carbon footprint of the ICU stems from direct energy use for heating, ventilation, air conditioning (HVAC) and lighting, rather than ICU equipment (ventilators etc) or the purchase of materials and subsequent waste generation³.

4.1.1 ENERGY EFFICIENCY STRATEGIES

Strategies that Fellows and Trainees within Hospitals, Departments or ICUs may effectively engage with include:

- Advocacy for disease prevention and appropriate early detection and intervention to prevent critical illness.
- Involvement in decision-making regarding energy usage within the hospital and unit or department and sustainable procurement of devices and therapeutic goods.
- Forming or joining a hospital sustainability team. Such teams are best constituted as multi-disciplinary structures with a sustainability officer and hospital executive leadership.
- Collaboration with Aboriginal, Torres Strait Islander and/or Māori groups to develop sustainability initiatives.
- Promoting initiatives which will contribute to energy efficiency. For example:
 - Installation of newer and more efficient air-conditioning;

² The carbon footprint of Australian health. Published January 2018 care
[https://www.thelancet.com/journals/lanph/article/PIIS2542-5196\(17\)30180-8/fulltext](https://www.thelancet.com/journals/lanph/article/PIIS2542-5196(17)30180-8/fulltext)

³ The carbon footprint of treating patients with septic shock in the intensive care unit.
[https://cicm.org.au/CICM_Media/CICMSite/CICM-Website/Resources/Publications/CCR%20Journal/Previous%20Editions/December%202018/CCR_20_4_1-12-18_p304-](https://cicm.org.au/CICM_Media/CICMSite/CICM-Website/Resources/Publications/CCR%20Journal/Previous%20Editions/December%202018/CCR_20_4_1-12-18_p304-312.pdf)

[312.pdf](https://cicm.org.au/CICM_Media/CICMSite/CICM-Website/Resources/Publications/CCR%20Journal/Previous%20Editions/December%202018/CCR_20_4_1-12-18_p304-312.pdf)

- Installation and optimally utilisation of air-conditioning controls such as time controllers that switch equipment off after hours;
- Improvement in the maintenance of building systems;
- Installation of variable-speed drives for fans or pumps;
- Installation of more energy-efficient lighting such as LEDs;
- Installation of lighting controls such as motion sensors in infrequently occupied rooms; and
- Turning off equipment when not in use including lights, computers and medical equipment.
- Encouraging application of energy efficient design principles (e.g. appropriate use of insulation and reflective materials and appropriate orientation relative to the sun's positioning etc) for new hospitals/department designs or refurbishments⁴.
- Encouraging the installation of solar power generators and appropriate energy storage facilities to supplement energy consumption.

Strategies for College Staff within the College's main office include:

- Utilising efficient lighting such as LED.
- Turning off lights when rooms are not in use.
- Closing blinds to keep heat from office and thereby reduce the need for air-conditioning during summer.
- Using natural light where possible.
- Changing the source of energy (moving towards renewable based electricity).
- Turning off equipment when not in use including computers and printers;
- When contracting with power suppliers, using resources such as: <https://www.canstarblue.com.au/solar-power/the-greenest-energy-companies-in-australia/> to minimise the carbon footprint of office energy utilisation.
- Integrating sustainable energy and energy efficient designs in any future construction or renovation projects of College premises.
- Forming a sustainability group that regularly meets and audits environmentally aware activities.

Strategies for organisers of conferences, exams and meetings include:

- Utilising 'green event' planning principles⁵.
- Optimising use of technology such as video-conferencing to minimise need for travel for meetings.
- Aligning with NHS England and Sustainable Development Unit's guidelines and good practice for sustainable events.

Strategies for Fellows, Trainees and College Staff in relation to meetings etc include:

- Considering the use of public transport, cycling or walking.
- Minimising air travel and, when air travel is necessary, making use of carbon offset programs.
- Booking accommodation at hotels which are accredited with Ecotourism Australia, Earth Check or a similar green accreditation scheme.

⁴ Green Star ratings for new hospital and Intensive care units. www.nzgbc.org.nz/GreenStar

⁵ Events Industry Council principles of event sustainability based on the United Nations Sustainable Development Goals. <https://www.eventscouncil.org/Sustainability/Sustainability-Pledge>

- Encouraging improved teleconferencing to reduce the carbon impact of conferences.

4.1.2 CONSUMPTION STRATEGIES

The principles at the heart of consumption strategies are ‘reduce, reuse, recycle, rethink and research’. These principles are enacted in the following recommendations:

Within Hospitals, Department or Units, Fellows and Trainees should:

- Strive to become involved in decision-making to promote conservative and efficient consumption of goods.
- Strive to source goods and services from suppliers who are ‘Green Tick Certified’⁶.
- Initiate and actively engage in hospital recycling.
- Carefully manage stock volumes to optimise consumable use and avoid expiry.
- Where possible, and efficient, utilise reusable rather than single use equipment.
- When unavoidable, try to use single-use equipment that can be recycled or is biodegradable.

Within the College’s main office, College Staff should:

- Minimise ‘hard copy’ document production.
- Maximise double-sided printing and settings which minimise ink usage.
- Print in colour only when absolutely necessary.
- Use recycled paper whenever possible.
- Segregate waste into recyclable and non-recyclable matter.
- Arrange for waste to be disposed of appropriately.
- Strive to source goods and services from suppliers who are ‘Green Tick Certified’.
- Maximise (re)use of furniture, electronic equipment and old document paper through recycling and donations.

4.2 RESEARCH AND OPERATIONAL STRATEGIES

The College encourages the conduct of research and data collection to investigate the environmental effects of the practice of Intensive Care and the impact of climate change on trends in critical illness. This will promote the development of appropriate operational strategies, quality improvement initiatives and educational programs designed to enhance sustainability outcomes. This will enable informed decision-making and assessment of the effectiveness of these various initiatives.

Relevant College policy documents will be reviewed and aligned with this Statement on Sustainability.

References and sources

- The carbon footprint of treating patients with septic shock in the intensive care unit: cicm.org.au/CICM_Media/CICMSite/CICM-Website/Resources/Publications/CCR%20Journal/Previous%20Editions/December%202018/CCR_20_4_1-12-18_p304-312.pdf
- How to hold a low carbon, sustainable event: https://www.sduhealth.org.uk/search/resources.aspx?q=Guidelines&zoom_query=Guidelines#

⁶ Green Tick indicates the supplier complies with the latest international standards for sustainability, environmental auditing, and advertising. <https://www.ipaustralia.gov.au/tools-resources/certification-rules/1057895>

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- The carbon footprint of Australian health. Published January 2018 care: [www.thelancet.com/journals/lanph/article/PIIS2542-5196\(17\)30180-8/fulltext](http://www.thelancet.com/journals/lanph/article/PIIS2542-5196(17)30180-8/fulltext)
 - The Paris Agreement and Hong Kong: www.gov.hk/en/residents/environment/global/climate.htm
 - Green Star ratings for new hospital and Intensive care units: www.nzgbc.org.nz/GreenStar
 - Events Industry Council principles of event sustainability based on the United Nations Sustainable Development Goals: www.eventscouncil.org/Sustainability/Sustainability-Pledge
 - Green Tick indicates the supplier complies with the latest international standards for sustainability, environmental auditing, and advertising: www.ipaustralia.gov.au/tools-resources/certification-rules/1057895

Acknowledgments

The Statement on Sustainability and Climate Working Group 2018.

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Further Reading

- Government and international initiatives www.environment.gov.au/climate-change/government
 - The transition to a low-emissions and climate-resilient Aotearoa New Zealand www.mfe.govt.nz/climate-change/what-government-doing/climate-change-programme
 - [Choosing Wisely Australia www.choosingwisely.org.au/recommendations/cicm](http://www.choosingwisely.org.au/recommendations/cicm)
 - Doctors for the Environment, Australia (DEA) www.dea.org.au
 - OraTaio: NZ Climate and Health Council www.orataiao.org.nz
 - The Climate and Health Association (CAHA) www.caha.org.au
 - The UK Sustainable Development Unit www.sduhealth.org.uk
 - The Centre for Sustainable Healthcare www.sustainablehealthcare.org.uk
 - Global Green and Healthy Hospitals www.greenhospitals.net
 - Event sustainability management system standard www.iso20121.org/
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Publishing Statement

Published by CICM: November 2019 This Professional Document has been prepared with regard to general circumstances, and it is the responsibility of the practitioner to have regard to the particular circumstances of each case, and the application of this document in each case. The college's Professional Documents are reviewed from time to time, and it is the responsibility of the practitioner to ensure the current version has been obtained. Professional Documents have been prepared according to the information available at the time of their publication, and the practitioner should therefore have regard to any information, research or material which may have been published or become available subsequently. Whilst the college endeavours to ensure its Professional Documents are as current as possible at the time of their preparation, it takes no responsibility for matters arising from changed circumstances or information or material which may have become available subsequently.

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