

Green efforts • NUH wins international recognition

The National University Hospital (NUH) has stepped up efforts to reduce its environmental footprint, and it has now received international recognition. The hospital has earned the Healthcare Sustainability Certification from non-profits from the US and Switzerland.

While the non-profits have given out similar certifications in the US, NUH is the first to be accredited under the new scheme to certify organisations in other countries.

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NUH receives international recognition for its green efforts

It earns certification for moves in reducing waste and emissions, and driving recycling

Zachary Lim

The National University Hospital (NUH) has received international recognition for its green efforts, earning Healthcare Sustainability Certification from non-profit organisations in the healthcare sector from the US and Switzerland.

The joint certification is from the Joint Commission International in the US and the International Hospital Federation's Geneva Sustainability Centre in Switzerland.

While they have given out similar domestic certifications in the US, NUH is the first to be accredited under a new scheme to certify organisations in other countries.

The certification, which recognises NUH for its efforts in reducing waste and emissions, and driving recycling habits, was announced by Minister for Sustainability and the Environment Grace Fu at NUH Green Day 2025, the hospital's annual flagship sustainability event.

"This is an impressive accolade for the scope and impact of your environmental initiatives, and a strong recognition for your commitment to environmental stewardship, setting a new benchmark for healthcare institutions worldwide," she said.

Globally, the healthcare industry generates more than 4 per cent of total greenhouse gas emissions, contributed by its significant consumption of energy and water, and generation of waste.

"It is therefore crucial that the healthcare sector participates fully in climate action and environment protection. The people, whose lives you are saving, whose health you are taking care of, whom you are keeping in good health, are adversely affected by climate change and environmental degradation," Ms Fu said.

NUH began transitioning to environmentally friendlier alternatives for anaesthetic gases from 2021. This followed a project aimed at reducing the use of desflurane, an anaesthetic gas that carries a global-warming potential that is 2,590 times more potent than carbon dioxide (CO₂).

Alternatives like sevoflurane – which is about 20 times less harmful to the environment – and an intravenous drug called propofol are options adopted to an extent by some hospitals in Singapore, including NUH.

The reduction in the use of desflurane at NUH between April 2021 and March 2023 saved the hospital more than \$577,000 and 1,904 tonnes in CO₂ emissions, equivalent to taking 680 cars off the road.

This is one of a series of initiatives implemented by the hospital in reducing its environmental footprint. Some of these efforts were also recognised through an internal award distributed during the event, targeted at projects driving sustainability through daily operations.

Some of the winning projects included addressing the overprescription of antibiotics and the reduction of couch paper use.

By implementing new guidelines, educational materials for clinicians and patients, and a tracking system for the prescription of antibiotics for wisdom tooth surgery, NUH brought prescription rates down, while maintaining a low infection rate of less than 1 per cent.

Previously, about 85 per cent of patients would be prescribed antibiotics as a precautionary drug.

But Dr Yong Chee Weng, a consultant at the division of oral and maxillofacial surgery at the National University Centre for Oral Health Singapore, and his team found that antibiotics are needed primarily only by patients at high risk of infections.

The change to prescribing the drug only to patients in need of it

saved costs and reduced waste, the risk of antibiotic resistance, and an equivalent of 14,700kg of CO₂ emissions.

Dr Yong said they plan to upscale this by expanding the guidelines to other oral surgical procedures.

Ng Teng Fong General Hospital

has rolled out similar practices in its dentistry department, and plans are under way for other institutions of the National University Health System (NUHS), including Alexandra Hospital.

The monthly reduction of 137 rolls of couch paper – which spans

a surface area of more than a hectare – in its specialist outpatient clinics has also saved more than 500kg of emissions.

Up till the implementation of this project, which was led by NUH head of service operations Sharmaine Poh, couch paper was lined

over the entire length of the examination bed after it was sanitised and wiped down.

"Studies found that sanitising and wiping alone was sufficient in low-risk clinics. These clinics saw cases not involving discharge, or bodily fluids and waste that might



Minister for Sustainability and the Environment Grace Fu, with National University Hospital chief operating officer Jeremy Lee, trying out the Sort-at-Source initiative, which allows nurses to segregate plastic and paper waste from medication and medical tools immediately upon prescription or use, at NUH Green Day on June 11. ST PHOTO: GAVIN FOO

transmit infections," she said.

Since 2023, NUH has also ramped up recycling efforts on multiple fronts, with its most recent project being the Sort-at-Source initiative, piloted in three inpatient wards over two weeks in May.

It allows nurses to segregate plastic and paper waste from medication and medical tools immediately upon prescription or use, by depositing the recyclables into two bins attached to the side of their trolleys.

Set to be rolled out across all 44 NUH wards by end-2025, the initiative is estimated to recover close to 24,000kg of recyclable waste annually.

This is in line with its commitment to take the overall recycling rate of the hospital up to 60 per cent of all waste produced by 2030.

Collectively, all efforts by NUH have successfully lowered emissions per patient by 5 per cent between 2022 and 2023.

Some of these practices are already being gradually implemented in the other hospitals of NUHS, said Mr Jeremy Lee, chief operating officer of NUH.

He added: "Sustainability is not a choice in healthcare. It's a fundamental responsibility to our long-term resilience... This global recognition affirms our belief that care for our patients and care for the planet must go hand in hand."

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