

MEDIA RELEASE

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For Immediate Publication

PERSONALISED HEART CARE FOR CANCER PATIENTS: NUHCS RECOGNISED IN EMERGING FIELD OF CARDIO- ONCOLOGY

The National University Heart Centre, Singapore (NUHCS) is the first in the region to be recognised as a Global Centre of Excellence in Cardio-Oncology

SINGAPORE — In a significant milestone in the emerging multidisciplinary field of cardio-oncology in Singapore, the National University Heart Centre, Singapore (NUHCS) has been recognised as a Global Centre of Excellence in Cardio-Oncology by the International Cardio-Oncology Society – the first centre in the region to be awarded the accreditation.

For the past five years, NUHCS has been working closely with the National University Cancer Institute, Singapore (NCIS) to address this critical intersection of heart disease and cancer. This process involves clinicians from both national centres providing comprehensive support to patients with cancer. This includes risk assessment, continuous monitoring, and use of advanced imaging technology, to ensure that cancer treatments proceed safely while safeguarding heart health.

Some 1,000 patients with cardio-oncology needs are co-managed by NUHCS and NCIS annually. This involves monitoring of the cardiac function of NCIS patients on cancer drugs known to affect the heart. In the event of a significant drop in cardiac function, patients will be referred to the Cardio-Oncology team at NUHCS for further assessment and treatment.

Addressing the dire need for specialised heart care among cancer patients

In Singapore, more than one in four deaths are due to heart disease or stroke. Individuals battling cancer are nearly twice as likely to experience blood vessel blockages leading to heart attacks, and up to three times more likely to suffer from a weakened heart, leading to heart failure. This is due to both the effects of cancer itself, as well as cancer treatment-related cardiovascular toxicities.¹

Alarming statistics indicate that heart disease claims the lives of more than one in ten cancer patients. In certain cancers, the risk of dying from heart disease may eventually surpass the risk of dying from the original cancer.²

¹ Navi BB, et al. J Am Coll Cardiol. 2017;70(8):926-938.

Strongman H, et al. Lancet. 2019;394(10203):1041-1054.

² Strongman H, et al. JACC CardioOncol. 2022;4(1):113-123.

Studies have shown that there is often a lack of awareness in cancer treatment-related cardiovascular issues among physicians, including both oncologists and cardiologists. This lack of awareness has downstream effects on patients, who may not fully understand that cardiovascular issues related to their cancer treatment can occur during or years after completion of their cancer treatment.

Assistant Professor Tan Li Ling, Clinical Lead of the Cardio-Oncology Service at NUHCS, said: “As cancer incidence rates rise over the years, there is an increasing need to personalise treatment and closely monitor patients with cancer, to ensure that they can receive optimal cancer treatment safely while managing and minimising damage to the heart.”

A Global Centre of Excellence in Cardio-Oncology

Assistant Professor Tan, who is also a Senior Consultant in the Department of Cardiology at NUHCS, anticipates that the Global Centre of Excellence accreditation will foster further international collaboration, and open doors to greater research opportunities, which will further elevate patient care standards.

The NUHCS Cardio-Oncology team has made significant strides in research, having published multiple research papers on cardio-oncology with Singapore’s national database of cancer and heart attack statistics. These findings highlight that cancer patients may benefit from individualised care for their heart health different from that of patients without cancer.

One of the studies reveals that cancer patients develop heart attacks and strokes despite having lower cholesterol levels compared to patients without cancer, emphasising the need for personalised cardiovascular monitoring in cancer patients.³ In addition, separate studies have also shown that common risk stratification tools for cardiovascular disease are not as applicable in cancer patients compared to non-cancer patients.⁴ These demonstrate the need for further research to address cardiovascular health in cancer patients, who have traditionally been excluded from large cardiovascular studies.

Adjunct Assistant Professor Koo Chieh Yang Christopher, who is a Consultant in the Department of Cardiology at NUHCS, highlighted the necessity of evolving risk prediction models to accurately reflect the cardiovascular risks faced by cancer patients. He shared: “We’ve seen that existing methods underestimate the risk of heart disease in cancer patients, and new approaches and methods are required for the development of effective treatment strategies and patient care protocols.”

Assistant Professor Tan added: “We will continue our efforts in research, education and clinical care, to ensure that patients facing the dual challenge of cancer and heart disease will have access to the most comprehensive care possible. As a Global Centre of Excellence, we are deeply committed to advancing the field of cardio-oncology, not just within our own walls but globally.”

³ Koo CY, et al. *Sci Rep*. 2021;11(1):21167.

⁴ Koo CY, et al. *Biomedicines*. 2022;10(11):2681.

Koo CY, et al. *Cancers (Basel)*. 2023;15(21):5222.

Chinese Glossary

National University Heart Centre, Singapore (NUHCS)	新加坡国立大学心脏中心 (国大心脏中心)
National University Cancer Institute, Singapore (NCIS)	新加坡国立大学癌症中心 (国大癌症中心)
Assistant Professor Tan Li Ling Clinical Lead, Cardio-Oncology Service Senior Consultant Department of Cardiology National University Heart Centre, Singapore (NUHCS)	陈丽玲 助理教授 肿瘤心脏病学护理临床主任兼高级顾问医生 心脏内科 国大心脏中心
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About the National University Heart Centre, Singapore (NUHCS)

The National University Heart Centre, Singapore (NUHCS) is an academic, national specialist centre under the National University Health System (NUHS). NUHCS brings together the resources, expertise and capabilities in the areas of Cardiology, Cardiothoracic and Vascular Surgery to better meet the needs of the growing number of patients with heart disease and raise the future generation of medical professionals.

As one of two national heart centres in Singapore for the treatment and management of complex cardiovascular diseases, NUHCS offers six core clinical programmes including Heart Failure & Cardiomyopathy, Structural Heart Disease, Acute Coronary Syndrome, Heart Rhythm, Congenital & Structural Heart Disease and Women's Heart Health. The centre has been awarded two institutional Peaks of Excellence for its Minimally-invasive Cardiothoracic Surgery and Aortic Centre Programme, and has been ranked top in Singapore for three consecutive years in 2022, 2023 and 2024 for the specialty of Cardiac Surgery in Newsweek's "World's Best Hospital" Award.

Comprising a team of internationally-recognised cardiologists and surgeons from the cardiothoracic and vascular specialties, NUHCS serves as a referral national centre for cardiothoracic and vascular conditions and provides a comprehensive approach to the treatment of these patients. The holistic patient-care approach is backed by leading

translational research at the Cardiovascular Research Institute (CVRI) and Cardiovascular Metabolic Translational Program, all of which complements these advanced quaternary clinical services to deliver state-of-the-art treatment solutions to the most challenging heart, lung and circulatory diseases.

NUHCS services span across four locations to serve the western and central locations in Singapore:

- NUHCS at National University Hospital (NUH), Kent Ridge - Main Operations
- NUHCS Heart Clinic @ Ng Teng Fong General Hospital (NTFGH)
- NUHCS Heart Clinic @ Jurong Medical Centre (JMC)
- NUHCS Heart Clinic @ Alexandra Hospital (AH)

For more information, visit: <https://www.nuhcs.com.sg>.

About the National University Cancer Institute, Singapore (NCIS)

The National University Cancer Institute, Singapore (NCIS) is an academic, national specialist centre for cancer under the National University Health System (NUHS), and is the only public cancer centre in Singapore that treats both paediatric and adult cancers in one facility.

As one of two national cancer centres in Singapore, NCIS (pronounced as “n-sis”) offers a broad spectrum of cancer care and management from screening, diagnosis and treatment to rehabilitation and survivorship, as well as palliative and long-term care. NCIS’ strength lies in the multi-disciplinary approach taken by our clinician scientists and clinician-investigators to develop a comprehensive and personalised plan for each cancer patient.

NCIS provides the full suite of specialised oncology and haematology services at the NUH Medical Centre at Kent Ridge, Singapore, including those by the NCIS Chemotherapy Centre, NCIS Radiotherapy Centre and NCIS Cellular Therapy Centre.

NCIS also offers cancer services at other hospitals in Singapore:

- NCIS Cancer & Blood Clinic @ Ng Teng Fong General Hospital
- NCIS Radiotherapy Centre @ Tan Tock Seng Hospital
- NCIS Radiotherapy Clinic @ Khoo Teck Puat Hospital

To bring cancer care even closer to our patients, our NCIS on the Go programme delivers a range of cancer services at clinics within the community for their convenience. For more information, please visit www.ncis.com.sg.