



MEDIA RELEASE

19 August 2022

NCIS AND BOT MD LAUNCH FIRST CHEMOTHERAPY AND CANCER TREATMENT COST CALCULATOR TO IMPROVE FINANCIAL COUNSELLING FOR PATIENTS

Singapore — The National University Cancer Institute, Singapore (NCIS) has partnered with local A.I. (artificial intelligence) health technology start-up Bot MD to launch a chemotherapy and cancer treatment cost calculator that will assist in the estimation of treatment costs and improve financial counselling for patients.

The NCIS Chemotherapy Cost Calculator (ChemoCalc) enables frontline healthcare professionals to instantly estimate the monthly out-of-pocket expenses for patients based on their prescribed cancer treatment, residency status, means-testing tier and eligibility for various government subsidy schemes. Schemes loaded onto the calculator include the Ministry of Health's Cancer Drug List, drug subsidy schemes (the Medication Assistance Fund and the standard drugs list), Pioneer and Merdeka Generation schemes and subsidies for outpatient specialist services. The calculator will be continually updated in tandem with national revisions and institutional price revisions to ensure that the estimated costs align with the actual costs patients can expect to pay.

The calculator enables staff to instantly estimate out-of-pocket costs to patients based on inputs which are easily accessible from healthcare systems. It was co-developed by frontline staff at NCIS, comprising a team of pharmacists, patient service associates, ground operations staff, medical social workers and doctors working with the Bot MD team. This ensured a user interface that is intuitive and simple.

The Ministry of Health announced in August last year changes to the MediShield Life (MSHL) reimbursement model which will only cover a positive list of clinically proven and cost-effective cancer drug treatments. Each drug now has patient, indication and combination specific limits to reimbursement, with a separate limit for other non-drug costs incurred for cancer treatment (collectively known as cancer services).

Most cancer treatments are administered in combination with other drugs at patient-specific doses, which can make financial counselling challenging, as manual calculations are required to estimate the cost of cancer treatment. In line with the new MOH policy, out-of-pocket costs for patients will also need to factor in drug and clinical indications to estimate their eligible subsidies and claims.



Dr Jen Wei Ying, Associate Consultant, Department of Haematology-Oncology, NCIS, who led the development of the NCIS ChemoCalc said, “In light of the upcoming MOH policy changes, we wanted to create a simple and effective tool that would help our patients understand the cost of their treatment, so that they can be empowered to make decisions on their care, factor these costs into their budgets and seek help early if costs are prohibitive for them. The NCIS ChemoCalc simplifies calculations of patient-specific costs, allowing our frontline medical staff to spend the time instead with patients and helping them cope with a devastating and life-changing illness.”

The NCIS ChemoCalc can be customised to meet the specific needs of various healthcare institutions based on how they procure and administer cancer treatments. It is built with a proprietary algorithm that helps to optimise the cost of treatment. This is done by finding the most cost-effective combination of drug strengths to make up a patient-specific dose, and by highlighting to healthcare staff when a generic or biosimilar alternative is available.

To use the NCIS ChemoCalc, users would need to enter information such as a patient’s chemotherapy regimen, height and weight, and select options from simple dropdown menus that include the patient’s residency status, monthly household income and subsidy status. The NCIS ChemoCalc will then compute the estimated out-of-pocket monthly expenditure for the patient. It will also display a detailed itemisation of the drugs and services relevant to the treatment that the patient is receiving, making it easier for users to submit claims for patients. A summary can be downloaded and printed for patients to take home.

Ms Alexis Koh, Senior Medical Social Worker at the National University Hospital who counsels and provides patients with psychosocial and practical support, said, “Navigating the cancer journey – dealing with treatment and side effects, worrying about changes to one’s health, family, work and care needs, for instance – can be rather overwhelming for patients and their loved ones. Medical costs and treatment affordability are key concerns among many patients and not knowing whether one can afford treatment is an added source of stress and anxiety. The ChemoCalc allows patients to know the estimated treatment costs, monthly out-of-pocket expenses and any accorded government subsidies quickly. With this knowledge, they can then better plan and mobilise their resources to meet their financial needs. If they have difficulty, they can reach out to medical social workers for assistance. Ultimately, we hope to reduce as much stressors as possible so that they can focus on their health and treatment.”

NCIS and Bot MD hope to make the ChemoCalc available to all cancer and non-cancer patients in public and private healthcare institutions.

“As a local health tech start-up, we are honoured to have the opportunity to work with a multidisciplinary team from NCIS to co-develop the NCIS ChemoCalc. Given the increasing complexities of healthcare financing and the fast-growing range of new possibilities in oncology treatments, I believe this tool will be useful not only for the public hospitals but potentially extend to the private hospitals and clinics as well as private insurance companies to help simplify the process of chemotherapy financial counselling in Singapore,” said Ms Dorothea Koh, CEO and Co-Founder, Bot MD.



Chinese Glossary

National University Cancer Institute, Singapore (NCIS)	新加坡国立大学癌症中心 (国大癌症中心)
Dr Jen Wei Ying Associate Consultant Department of Haematology-Oncology, NCIS	任玮瑛 副顾问医生 新加坡国立大学癌症中心肿瘤血液科
Ms Alexis Koh Senior Medical Social Worker National University Hospital (NUH)	许玲莉 高级医疗社工 国立大学医院(国大医院)
Bot MD	Bot MD
Ms Dorothea Koh CEO and Co-Founder, Bot MD	许丽奉女士 首席执行官及共同创始人, Bot MD

For media enquiries, please contact:

Amal Naquiah Communications Office National University Health System HP: +65 8200 0346 Email: amal_naquiah_ahmad@nuhs.edu.sg	Loh Zhi Wei Head, Marketing & Communications Bot MD HP: +65 9231 5017 Email: zhiwei@botmd.io
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About National University Cancer Institute, Singapore

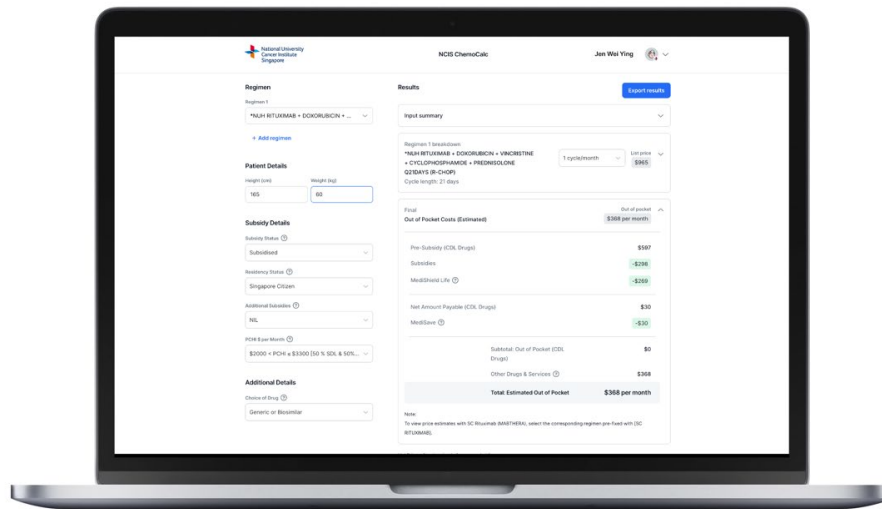
The National University Cancer Institute, Singapore (NCIS) offers a broad spectrum of cancer care and management covering both paediatric and adult cancers, with expertise in prevention, screening, diagnosis, treatment, rehabilitation and palliative care. The Institute's strength lies in the multi-disciplinary approach taken to develop a comprehensive and personalised plan for each cancer patient and his or her family. Our award-winning clinician-scientists and clinician-investigators conduct translational research and clinical trials, providing patients with access to evidence-based cancer diagnostics, technology and therapies. For more information about NCIS, please visit www.ncis.com.sg.

About Bot MD

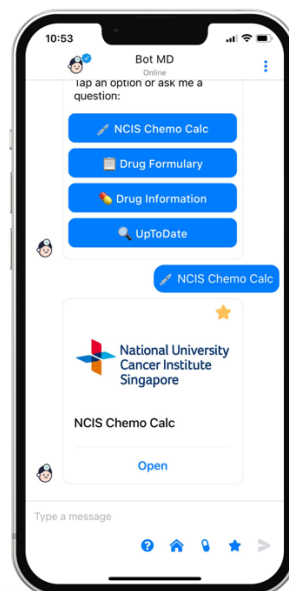
Bot MD is a Y-Combinator backed startup with the mission of Empowering Doctors around the world. The company's proprietary A.I. chat engine is able to integrate with hospital information systems to provide instant answers to doctor and patient queries. Bot MD can also power popular messaging platforms such as WhatsApp, Facebook Messenger, Viber and LINE to help doctors easily automate patient workflows. Since 2018, Bot MD has been used by over 18,000 clinicians from leading hospitals and clinics around the world including the National University Health System, the National University Cancer Institute, Singapore, Alexandra Hospital, Khoo Teck Puat Hospital, Changi General Hospital, Parkway Radiology, the National Kidney Transplant Institute and Siloam Hospitals. For more information, visit www.botmd.com

ANNEX – Screenshots and suggested captions for NCIS ChemoCalc

The NCIS ChemoCalc instantly calculates out-of-pocket costs for cancer patients



NCIS medical social workers and financial counselling staff can also access the ChemoCalc on-the-go via the Bot MD Hospital app





The NCIS ChemoCalc mobile interface allows users to estimate patient costs

