

CGH & Abbott Launch the Nutritional Health for the Elderly Reference Centre (NHERC); to Conduct Asia's Largest Clinical Study of Its Kind with SHP to Establish Nutrition Standards for the Elderly

The findings will be critical to managing under-nutrition, improving health outcomes and quality of life for the elderly in Asia

SINGAPORE, 31 August 2017 – Changi General Hospital (CGH) and Abbott today announced their partnership, supported by Singapore Economic Development Board, to set up a Nutritional Health for the Elderly Reference Centre (NHERC) in Singapore. As the centre's first project, CGH and Abbott are working with SingHealth Polyclinics (SHP) to conduct Asia's largest clinical study of its kind to evaluate the effects of nutrition management in the elderly in Singapore.

The centre aims to drive regional leadership in elderly nutrition by studying the association between nutrition and health outcomes establishing nutrition standards for the elderly in Asia, and developing scalable solutions that are customised to the Asian context.

"We are glad to support the collaboration between CGH and Abbott, as it is a good demonstration of developing innovative healthcare solutions out of Singapore. We hope this will help build the necessary capabilities to drive the transformation of healthcare towards evidence-based and preventive models, for Singapore and beyond," said Ms Ho Weng Si, Director, Biomedical Sciences, Singapore Economic Development Board.

Under-nutrition: a common condition among the elderly

"Under-nutrition in older adults is a common condition that can affect up to 35 per cent of community-dwelling elderly who are admitted to hospital. Under-nutrition has a ripple effect on individuals and the healthcare system at large as it puts patients at increased risk for complications such as infections, muscle loss, longer hospital stays, and increase chances of readmission," said Adj. Asst. Prof Samuel Chew, Senior Consultant, Department of Geriatric Medicine at Changi General Hospital (CGH).

Asian countries are ageing faster than other continents. In the last decade, Singapore's resident population has grown older with a higher number of elderly persons¹. By 2030, the number of Singaporeans aged 65 and above is projected to double to 900,000, which means 1 in 4 Singaporeans will be in that age group, up from 1 in 8 today¹.

Under-nutrition is not an inevitable side effect of ageing, but many changes associated with the process of ageing can cause poor nutrition. For example, ageing is frequently associated with decreases in taste acuity and smell, deteriorating dental health, and decreases in physical activity, which may all affect nutrient intake. Changes such as significant decrease in nutrient intake can lead to nutritional deficiencies, with potentially serious health complications.

¹ Singapore Department of Statistics. Population and Population Structure. Retrieved from: <https://www.nptd.gov.sg/PORTALS/0/HOMEPAGE/HIGHLIGHTS/population-in-brief-2016.pdf>. Last accessed on 28 June 2016

“There is a pressing need to create a ‘reference’ database of measurements of the physical properties of the human body* and ranges of biological markers related to nutrition for the local Asian population, to guide clinicians and researchers in determining nutritional ranges for the elderly in Singapore. These nutritional ranges will be useful in the development of more accurate diagnosis, screening and monitoring of outcomes for treatment or intervention. The NHERC study aims to fill these gaps in knowledge of nutrition standards among the elderly in Asia, because dietary factors have significant impact on the health of older persons,” added Adj. Asst. Prof Samuel Chew.

The NHERC study – Asia’s largest nutrition clinical study of its kind

The NHERC study is a large-scale prospective, randomised, double-blind, placebo-controlled study to investigate the effects of nutrition management on community-dwelling elderly in Singapore. The study will be conducted at the newly set up centre, located within CGH which provides the clinical setting and expertise for collection of baseline data using screening tools. Study participants will be interviewed at the centre for nutrition-related assessments.

This will be the largest randomised controlled trial in the Asia Pacific region, investigating the effects of nutritional supplementation in improving health outcomes, reducing hospital (re)admission rate and length of stay among elderly with nutritional deficiency aged 65 and above in Singapore.

“In Asia’s fast aging population today, nutrition plays a vital role in improving the health of elderly. Understanding their nutritional status, their behaviours toward nutrition and studying the effects of dietary modifications including usage of nutritional supplements will be key to achieve the desired nutrition goals for the elderly,” said Dr Low Yen Ling, Director of Research & Development, Abbott Nutrition Asia Pacific Centre.

“To this end, Abbott is pleased to be part of this cross-disciplinary work on the NHERC study. The findings of the study will help us to come up with science-based solutions to manage under-nutrition including establishing nutrition protocols to promote active, sustained healthy living for the elderly,” Dr Low added.

The study is recruiting 1,200 community-dwelling elderly aged 65 years and above who are ambulant, clinically healthy or well-managed chronic disease including hypertension, chronic obstructive pulmonary disease, and cardiovascular disease. Of 1,200 study participants, 800 will be instructed to consume two servings of their allocated study intervention product (i.e., specialised oral nutritional supplement or placebo supplement) each day for a period of six months. Additional contact via telephone will be performed to encourage compliance and collect information on medical-care utilisation and intake of allocated intervention, which will be recorded by the patient in a provided participant diary.

As co-investigator, SHP will be involved in participant recruitment and provide recruitment sites at Marine Parade, Tampines and Bedok. Recruitment for the study will commence in September 2017.

“SHP is a leading primary healthcare provider in Singapore and about 1.8 million patients were seen at SHP in 2016. 30 per cent of patients are the elderly with many having multiple chronic diseases that are managed by multi-disciplinary healthcare teams in age-friendly polyclinics,” said Dr Tan Ngiap Chuan, Family Physician and Director of Research at SHP.

“Our network of polyclinics enables us to support the recruitment of participants for this clinical study and to administer the study protocols at locations convenient to these elderly participants. We look forward to the results of the study as a reference for SHP to further enhance the health of the elderly in the community.”

"Through the NHERC study, we seek to demonstrate that good nutrition is part of healthy functioning in the elderly, and will enable them to live independently in the community. As the world's population ages at an exponential rate, moving the focus from 'treatment and investigations' to 'prevention and optimisation' is the only sustainable and rational way forward for healthcare systems. It aligns to our national strategy to move upstream from healthcare to health for our population," added Dr Tan.

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***Note: Example of physical properties of the human body**

Asians have a different body built as compared to non-Asians. Hence there is a need for Asian reference range in the elderly for physical measurements such as Body Mass Index (BMI) which is calculated from weight and height, muscle mass and body fat which can be approximated using Bioelectrical Impedance Analyser and circumference of the arm and calf.

Gait Speed and Hand Grip strength will also be measured as these are important markers for excessive muscle loss and function with different thresholds for Asian and non-Asian populations.