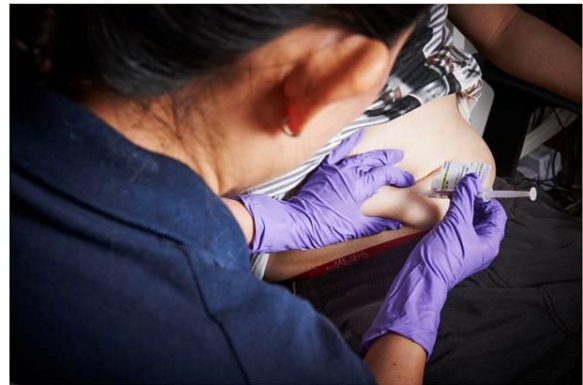


PRESS RELEASE

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NCIS PILOTS CANCER TREATMENT @ HOME



*(left) The nurse checks the patient's blood pressure, temperature and heartbeat before the VELCADE[®] injection, a standard procedure that is practised in a clinical setting as well.
(right) The nurse administers VELCADE[®] to the patient at home.*

Multiple myeloma patients can now have their injections for VELCADE[®], a chemotherapy drug, administered in the comfort of their home, as part of NCIS' home care programme.

Singapore, 12 November 2015 – Multiple myeloma patients at the National University Cancer Institute, Singapore (NCIS) can now choose to have their VELCADE[®] injections administered by a nurse outside the NCIS specialist outpatient clinics. Ten patients have signed up for the three-year pilot programme, named VELCADE[®]@Home, which is launched in August this year, and 55 home visits have been made as of 31 October.

“While we have previously extended care to patients at home, it is mainly for transitional care - helping patients to settle in at home after their hospital stay or assisting caregivers in learning to take care of the patients themselves. Now we are going a step further by providing treatment to patients at home,” said Professor Chng Wee Joo, Director and Senior Consultant at NCIS, and a multiple myeloma specialist who is spearheading the programme.

How the VELCADE®@Home programme works

The VELCADE®@Home programme is a partnership between NCIS and Johnson & Johnson Pte Ltd, which markets VELCADE® in Singapore, with the objective of enabling cancer care and treatment to be more convenient and accessible for patients.

VELCADE®, also known as Bortezomib, is a chemotherapy drug commonly used to treat multiple myeloma. It is usually administered once or twice a week with four injections per treatment cycle.

Suitable patients are identified by the NCIS doctors who will explain the VELCADE®@Home programme to them in detail. Home administration starts from the second cycle where patients can have their VELCADE® injections done up to three times at home per cycle.

A nurse will contact the patient on the same day of the scheduled home visit to perform phone triage if he or she is fit to receive the injection. A nurse will then visit the patient's home, examine the patient, administer the VELCADE® injection and report his or her progress to the doctor if necessary (please see **Annex A** for the process flow).

Patients and caregivers welcome benefits of treatment at home

Not only do patients experience the same excellent standard of care, this new delivery of treatment also means more convenience for them and their caregivers. They make fewer trips to the clinic, thus spend less time travelling and waiting at the clinic. There is less stress as they are able to experience greater comfort at home, and both patients and their caregivers can continue with their lives with minimal disruptions.

Indeed, feedback has been positive and patients have expressed that they are happy with the programme. Said Mr Gwee Choon Huat, 64, the first patient on the new initiative, "I am really relieved that the VELCADE® injections can be done at home. It saves me a lot of time and effort; I have to wake up at 5.30am if I want to leave the house at 7.00am to reach the clinic at 8.00am, and the train is usually jam-packed at that time. At home, there is also less risk of contracting airborne infectious diseases, especially as my immunity level is low. VELCADE®@Home is a big step forward for our healthcare industry in Singapore."

Being at the patients' homes also provides the nurses with the unique opportunity to observe the patients in their home setting. Said Kelly Lai, a senior staff nurse in the Division of Oncology Nursing at NCIS, "We are able to see the environment and conditions they live in and identify potential health and medical issues which we can then highlight to the patients and the medical staff." She is one of the three nurses who administers VELCADE® for patients at home.

Continual development of homecare services for cancer patients

Said Prof Chng, "We spent a considerable amount of time to develop this programme as there are many factors to consider." To ensure the successful implementation of the programme, Prof Chng and his team had to select a drug that is effective, stable and well-

tolerated by patients with few side effects. A drug generally used to treat multiple myeloma, VELCADE[®], fits these criteria, making it a prime candidate for home administration.

The fact that multiple myeloma is a relatively rare cancer that affects a smaller number of patients is a factor in choosing VELCADE[®], explained Prof Chng. "NCIS sees about 100 patients with multiple myeloma in our clinics each year, of which an average of between 20 and 30 are newly diagnosed cases. VELCADE[®] is one of the standard treatments in multiple myeloma given to about 70 patients each year at NCIS. We wanted to pilot this programme on a smaller group of patients first and assess how well it works before moving on to other treatment drugs for more common cancers with a bigger pool of patients." Another consideration was that similar initiatives for VELCADE[®] done overseas have proven to benefit patients¹.

Dr Dora Lang, a nurse clinician in the Division of Oncology Nursing at NCIS who is heading the VELCADE[®] home administration team, added, "We are heartened by the initial response from the patients. This programme works because of the strong mutual trust and effective communication between the doctors and the nurses who work closely and make decisions on patient care together."

"We will continue to monitor patients' progress and gather their feedback. This would allow us to improve on the VELCADE[®]@Home programme and set the foundation for other cancer home care and treatment initiatives at NCIS," said Prof Chng.

Besides the VELCADE[®]@Home programme, NCIS has also pioneered new ways to deliver treatment. NCIS performed the first outpatient autologous stem cell transplant in 2011. Stem cell transplant is now available on an outpatient basis, allowing patients to recover from such a procedure at home while enjoying the same standard of care as inpatients. Besides the comfort of recuperating at home, patients also save significantly on hospitalisation costs. NCIS is also the first centre in Southeast Asia to offer Accelerated Partial Breast Irradiation, a new convenient treatment that offers early stage breast cancer patients new hope.

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¹ Meenaghan T., et al., Home administration of bortezomib: Making a difference to myeloma patients' lives, European Journal of Oncology Nursing (2009), doi: 10.1016/j.ejon.2009.09.03

About the National University Health System (NUHS)

The National University Health System (NUHS) is an integrated academic health system that delivers value-driven, innovative and sustainable healthcare.

Grouping the National University Hospital (NUH), the National University Cancer Institute, Singapore (NCIS), the National University Heart Centre, Singapore (NUHCS), the NUS Yong Loo Lin School of Medicine, the NUS Faculty of Dentistry and the NUS Saw Swee Hock School of Public Health under a common governance structure, NUHS creates synergies for the advancement of health by integrating patient care, health science education and biomedical research.

NUHS also works closely with health and social care partners in the public, private and people sectors to develop and implement programmes that contribute to a healthy and engaged population in its Regional Health System.

For more information on the NUHS, visit www.nuhs.edu.sg

About the National University Cancer Institute, Singapore (NCIS)

The National University Cancer Institute, Singapore (NCIS), a national specialty centre, 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 adopts a multi-disciplinary approach to develop a comprehensive and personalised plan for each cancer patient and his or her family. NCIS draws on the expertise of its specialists in the fields of haematology-oncology, radiation oncology, gynaecologic oncology, paediatric oncology, surgical oncology, oncology nursing, oncology pharmacy, palliative care, pathology, radiology, medical specialties including gastroenterology and hepatology, infectious diseases, pulmonary and critical care, psychiatry, epidemiology and public health as well as other allied health sciences.

NCIS, which is part of the National University Health System (NUHS), is home to the Cancer Therapeutics Research Group, one of the few academic early phase cancer clinical trial groups spanning leading academic centers in Singapore, Hong Kong, Korea, Australia, and Taiwan. Its strength in research allows patients to access drugs and devices before they are commercially available. NCIS is also closely affiliated with the Cancer Science Institute of Singapore, National University of Singapore.

For more information about NCIS, visit www.ncis.com.sg

Annex A

VELCADE®@Home Process Flow

1. Doctor prescribes Velcade and informs the patient about the VELCADE®@Home programme.



2. The patient signs the consent form with the doctor and has his/her injection dates scheduled.



3. The nurse will conduct a phone triage on the day of the injection, prior to the home visit.



4. The nurse goes to the patient's home to administer VELCADE®.



5. The nurse reports back to the doctor if necessary.