



PRESS RELEASE

NEUROPAL: PROVIDING MORE PALLIATIVE SUPPORT EARLIER, FOR NNI PATIENTS LIVING WITH DEMENTIA, PARKINSON'S DISEASE, AMYOTROPHIC LATERAL SCLEROSIS (ALS) AND OTHER COMPLEX NEUROLOGICAL CONDITIONS

Singapore, 29 May 2025 – The National Neuroscience Institute (NNI) and Lien Foundation today announced the early impact of the Neuropalliative Ecosystem of Care (NeuroPal), a \$6.8 million initiative transforming care for people with dementia, Parkinson's disease, multiple sclerosis, Amyotrophic Lateral Sclerosis (ALS) and other complex brain, spine, nerve and muscle conditions.

NeuroPal is a comprehensive five-year programme that integrates palliative care into standard neurological care. Launched in April 2024, NeuroPal has already reached nearly 2,000 patients to date and aims to support over 3,600 patients annually by 2030. It integrates palliative care into standard neurological care, helping healthcare teams better understand patients' medical needs as well as their personal goals and priorities.

The initiative addresses a critical gap in healthcare delivery. Local data¹ shows non-cancer patients typically receive palliative care only nine days before death, compared to 33 days for cancer patients. NeuroPal addresses this by providing continuous support from diagnosis onwards, which is particularly crucial as patients can live with neurological disorders for many years while symptoms fluctuate and get worse over time.

"NeuroPal represents a paradigm shift in how we care for patients with dementia, Parkinson's disease, ALS and other neurodegenerative conditions seen at NNI. There is currently no cure and very limited treatments to prevent these conditions from getting worse. By integrating palliative care principles early in our patients' care journey, we can provide appropriate support and medical care to relieve symptoms and enable patients to focus on what matters most to them," says Assoc Prof David Low, Deputy Chief Executive Officer (Clinical) and Senior Consultant, Neurosurgery, NNI.

NNI specialists treat neuroscience patients at seven hospitals across Singapore, including Tan Tock Seng Hospital (TTSH) and Singapore General Hospital (SGH). Previously, patients were not routinely screened for psychosocial issues during follow-up visits at NNI specialist outpatient clinics. Now, as part of this service, patients visiting some of NNI's specialist outpatient clinics at NNI@TTSH are routinely screened to assess their needs, after which tailored support is offered accordingly. These include clinics that manage brain tumours and neurodegenerative disorders, for example, dementia, Parkinson's disease, ALS and multiple sclerosis. Steps are currently underway to increase the number of clinics to include more conditions such as stroke, and NeuroPal is also rolling out at NNI@SGH.

As of 19 May 2025, 1,851 patients have been screened prior to, or at each follow-up clinic visit, and the results show that approximately 1 in 5 require specialised neuropalliative or supportive intervention. While fatigue and sleep issues are common across all patient groups, the programme has identified condition-specific challenges, such as job-related concerns in patients with MS, and mobility issues among those with Parkinson's disease and ALS.

¹ 2023 National Strategy for Palliative Care, National Strategy for Palliative Care Review Workgroup

The impact of NeuroPal is evident in 71-year-old Mr Chia Shyh Shen. Diagnosed with ALS in 2021, he now has minimal mobility below the neck, making it impossible for him to open text messages or select YouTube videos to watch. Working with Mr Chia, a TTSH speech therapist introduced eye-tracking technology for independent phone use, while an occupational therapist recommended a high-back wheelchair to improve support and comfort.

"Neurological conditions often unfold as a long journey of progressive decline, marked by unpredictable symptoms, emotional distress and increasing dependence. NeuroPal is our commitment to transform neuro care delivery upstream, and to dismantle the misconception that palliative care is only for the end of life. Through a holistic and comprehensive approach, we alleviate suffering, uphold dignity, and support families to navigate complex decisions and transitions at every stage of the illness," said **Mr Lee Poh Wah, CEO of Lien Foundation.**

The Four Pillars of NeuroPal

- A multidisciplinary neuropalliative team of NNI and TTSH staff provides tiered support. The team includes neuropalliative doctors, specialty nurses, clinical psychologists, medical social workers, physiotherapists, occupational therapists, speech therapists and dietitians, and meets regularly to discuss and address patients' needs.
- 2. Regular routine screening for physical, cognitive, and psychosocial needs using the Distress Thermometer (DT) prior to or at each clinic visit so that needs can be identified and addressed as new symptoms develop and impact patients' lives. This self-reported short questionnaire is a validated screening tool for checking distress in cancer patients and is also used for patients with life-limiting medical conditions.
- 3. Neuropalliative training in palliative care principles and techniques, delivered by the Lien Centre for Palliative Care, for all NNI clinical staff, multidisciplinary team members and community care partners. This certificated neuropalliative care course will be rolled out progressively from 2025 and includes community care partners, members of the neuropalliative multidisciplinary team and all NNI doctors and nurses.
- 4. Partnerships with palliative care providers for seamless care transition, to improve patient access to care facilities in a timely manner to alleviate caregiver and patient distress. This includes direct-access admission to the new palliative ward at TTSH, SingHealth Community Hospitals' inpatient palliative wards, Assisi Hospice Home Care and Dover Park Hospice Home Care.

"Holistic, multidisciplinary care has always been a priority at NNI because many of our patients live with conditions that get worse over time, causing significant physical, mental and social challenges. The Distress Thermometer helps us understand what matters most to our patients at each visit, connect them with suitable support services and strengthen our staff and partners' capabilities in palliative care, ultimately providing better support for patients and caregivers," says Assoc Prof Adeline Ng, Senior Consultant, Neurology, NNI and NeuroPal co-lead.

Steps are currently underway to increase the number of clinics and include more conditions such as stroke under the programme at NNI@TTSH. NeuroPal is also rolling out at NNI@SGH, with the eventual aim of more hospitals running the programme.

Please refer to Annex A for the NeuroPal factsheet, which includes data. For information about motor neuron disease, visit Motor Neuron Disease (MND): Symptoms & Treatments | SingHealth.

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About National Neuroscience Institute

The National Neuroscience Institute (NNI) is Singapore's national and regional centre of excellence for treatment, education and research in the neurosciences. NNI offers over 20 clinical subspecialties and treats a broad range of conditions affecting the brain, spine, nerves and muscles. In the area of patient care, it provides clinical neuroscience services to various hospitals in Singapore. The Institute also coordinates and provides clinical neuroscience training, and is actively involved in conducting basic and clinical neuroscience research in Singapore. NNI is a member of the Singapore Health Services (SingHealth) - a public healthcare cluster which manages four hospitals, five specialty centres, nine polyclinics and a network of community hospitals. For more information, please visit www.nni.com.sg.

Lien Foundation

The Lien Foundation is a Singapore philanthropic house known for its approach to radical philanthropy. It adds value to the national agenda, advancing health and social care by supporting innovative models, convening strategic partnerships, and driving advocacy. It champions a future where palliative care, rehabilitation, and mental health services are prioritised, and accessible to all. Its portfolio of initiatives includes integrating palliative care early across medical specialties and chronic diseases with significant suffering. It is also expanding rehabilitation to empower patients to maintain or improve their function and independence. For more information, visit lienfoundation.org.

NeuroPal Fact Sheet

NeuroPal provides comprehensive support in four key ways:

1. Establishment of neuropalliative multidisciplinary teams

 The teams offer two levels of support to patients with higher and complex neuropalliative needs. Patients identified as having minimal neuropalliative needs (score of less than 6 on the Distress Thermometer) are managed by their attending specialist:

	Multidisciplinary Team Discussion Members				
Tier 2	Clinical Psychologist (NNI)				
Higher Needs	Advanced Practice Nurse (NNI & TTSH)				
	Community-Palliative Nurses (NNI)				
	Medical Social Worker (TTSH)				
Tier 3	Neuropalliative specialists (NNI & TTSH)				
Complex Needs	Medical Social Worker (TTSH)				
	Clinical Psychologist (NNI)				
	Advanced Practice Nurse & Community-Palliative Nurses (NNI)				
	Physiotherapists (TTSH)				
	Occupational therapists (TTSH)				
	Speech therapists (TTSH)				
	Dietitians (TTSH)				

 Having a dedicated team which focuses on neuropalliation improves the coordination of care, facilitates multidisciplinary case discussions and enables staff to be upskilled to better understand and manage the complex needs of patients living with neurodegenerative conditions.

2. Routine screening for physical, cognitive, and psychosocial needs

- Patients attending 13 clinics at NNI@TTSH are asked to complete a Distress Thermometer (DT) survey to assess how they and their caregivers are coping with their illness. Conditions seen by these clinics progress over time, therefore screening is done before each review appointment in case the patients' needs have changed.
- Patients are categorised by their neuropalliative care needs based on their DT score (0-10), and categorised based on the level of intervention required:
 - i. **Category 1** patients with minimal neuropalliative needs. These patients are managed by their current NNI specialist and care team.
 - ii. Category 2 patients with a DT score of 6 or above have higher neuropalliative needs and are referred to the MSW, clinical

- psychologist and advanced practice nurse who are members of the neuropalliative multi-disciplinary team.
- iii. Category 3 patients have complex neuropalliative needs, e.g. DT score 6 or above and require support of at least 2 multidisciplinary team members. These patients are referred to the neuropalliative specialist and full multidisciplinary team for care.

Data as at 19 May 2025

Initial Assessment Status	Count				
Total Unique Patients	1,851				
Single DT Assessment	1,498				
Multiple DT Assessment	353				
Multiple Assessment:	Count				
DT Score change (DT<6 and DT≥6 at previous screening)					
Improved	150				
No Change	84				
Got worse	119 90% of these cases had DT<6 and got worse on the second DT				
DT Score change in patients with DT≥6 at previous screening)	Count				
Improved	73				
No Change	12				
Got worse	11				
Breakdown by Category based on Distress Thermometer (DT) score	%				
Tier 1 – Minimal Needs	76.2%				
Tier 2 – Higher Needs (score of 6 or above)	23.8%				
Total of 17 Tier 3 cases to date – these patients have complex needs and are					

referred by Neurologists, Neurosurgeons and Advance Practice Nurses (referral is not dependent on their DT score)

	Total no. of responses	No. of Unique patients	Top 3 Concerns	No. of DT6 or above (% of responses per programme)
Brain Tumours	149	109	Feeling Tired, Sleep Issues, Pain	29 (19%)
Dementia	708	603	Memory, Sleep Issues, Feeling Tired	173 (24%)
Movement Disorders e.g. Parkinson's disease	448	353	Mobility Issues, Feeling Tired, Constipation	97 (22%)
Neuroimmunology e.g. Multiple sclerosis	354	282	Feeling Tired Sleep issues Work	104 (29%)
Neuromuscular e.g. ALS, Myasthenia gravis	477	352	Feeling Tired, Mobility Issues, Pain	103 (22%)
Others e.g. epilepsy, neurovascular (brain aneurysm),	166	152	Feeling tired, Sleep issues, Mobility	46 (28%)

Note: Total number of responses exceeds the total number of unique patients as some patients have done the DT multiple times.

3. Neuropalliative training for healthcare workers

- The Lien Centre for Palliative (LCPC) Care is developing certificated neuropalliative care courses which includes general foundational palliative care modules, neuro-specific modules and profession-specific modules, tailored for doctors, nurses, allied health professionals and community care partners.
- The courses will be rolled out progressively:
 - i. 2nd half of 2025 101 Neuro-conditions online course: For community care partners, allied healthcare professionals and general practitioners. Expected reach: 50 participants per year over 4 years.
 - ii. Expected launch 2026 Neurosupportive Care (Basic) online module: For NNI doctors, nurses and clinical psychologists. Expected reach: 80 staff per year over 3 years.
 - iii. Expected launch 2027 Neurosupportive Care (Advanced) in-person module: 1 doctor and 1 nurse from each of NNI's 9 clinical

programmes will attend the 1.5 day course, and champion neuropalliative care for the conditions they manage.

4. Partnerships with seven community care providers for seamless care transition

- Workflows and processes will be strengthened between hospital and community hospice partners to improve patient access to appropriate care facilities in a timely manner, further supporting complex neuroscience patients who are in a distressed state or predicted state of continued deterioration.
- This includes providing direct-access admission to the new TTSH Palliative Care ward and SingHealth Community Hospitals' inpatient palliative wards for suitable patients and enhancing Assisi Hospice Home Care and Dover Park Hospice Home Care services for homebound patients.