

NewsLink

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A smiling female healthcare professional in blue scrubs stands in front of a large medical scanner. The scanner's circular opening is illuminated with a warm yellow light. The background is a clinical setting with shelves and equipment.

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WHEN TO SEEK HELP
FOR BACK PAIN

PUBLISHER

National Neuroscience Institute,
SingHealth

EDITORIAL TEAM

Janet Lau
Adriel Lee
Margaret Perry

CONTACT DETAILS

NeusLink

c/o Corporate Communications
National Neuroscience Institute

Address: 11 Jalan Tan Tock Seng

Singapore 308433

Tel: (65) 6357 7153

Email:

corporatecommunications@nni.com.sg

Website: www.nni.com.sg



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PUBLISHING AGENT

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SAVE YOUR HEROES



Don't let brain attacks from the ones you love. Become a hero.

TEACHING KIDS TO ACT FAST!

Singapore has a new team of superheroes who are on a mission to teach children about stroke. FAST Heroes, an initiative by Singapore National Stroke Association and the World Stroke Organization, uses online games, e-activity books, and videos to teach five to 10-year-olds how to recognise signs of stroke and what they can do to help.



Scan the QR code or visit <https://sg-en.fastheroes.com> for more information.

DEMENTIA

WORKING TOGETHER TO IMPROVE DEMENTIA CARE

The SingHealth Duke-NUS Memory and Cognitive Disorder Centre has been established to improve dementia care, research and education. The virtual centre brings together staff from institutions and specialties across SingHealth to foster collaboration and advance dementia care. It was launched officially on 17 September 2020 at the centre's two-day scientific meeting, which shared the latest clinical updates and practical advice for persons with dementia, caregivers and healthcare professionals.




ONCE-A-DAY PARKINSON PILL IN PIPELINE

People living with Parkinson disease (PD) often need to take the drug levodopa up to six times a day and at set times to control their symptoms. Researchers at Nanyang Technological University have developed a new pill that releases the medicine slowly over 24 hours, avoiding the need for complicated medication regimes. It is hoped that this will improve medication compliance and prevent the 'wearing-off' effect, where symptoms such as stiffness and tremors return between doses. Researchers are aiming to start clinical trials at the end of 2021.



The Endovascular Centre provides minimally invasive image-guided treatments for neurovascular conditions, such as acute ischaemic stroke, intracranial and extracranial vessel narrowings, cerebral aneurysms and arteriovenous malformations.

NEW ENDOVASCULAR CENTRE OPENS AT NNI @ TTSH CAMPUS

Minimally invasive procedures in the brain are evolving rapidly, and include the removal of blood clots to treat stroke. NNI's new Endovascular Centre is equipped to enable NNI to keep pace with these developments. It has a bi-plane interventional angiography system with 4D imaging capabilities, making it easier for specialists to identify different blood vessels in the brain and blood flow patterns during procedures. Dr Wickly Lee, Senior Consultant, Department of Neuroradiology, and Dr Vincent Ng, Senior Consultant, Department of Neurosurgery, are co-directors of the Endovascular Centre.



Key team members who set up the Endovascular Centre (left to right): Dr Vincent Ng, Zain Almuthar, A/Prof Sitoh Yih Yian, Tan Jau Tsair, James Tan, Dr Wickly Lee.

ALS TAKES CENTRE STAGE

The Singapore Repertory Theatre's production of *Tuesdays With Morrie*, which ran from November to December 2020, shone a spotlight on Amyotrophic Lateral Sclerosis (ALS), a neurodegenerative condition that causes progressive weakness of the legs, arms, and muscles that control breathing, speech and swallowing. Based on Mitch Albom's bestselling memoir about his weekly visits to a former college professor who has ALS, the play is deeply moving, yet also has light-hearted moments, as it explores the meaning of life, death and friendship.

Remesh Panicker and Benjamin Chow performing in *Tuesdays With Morrie*.

Photo courtesy of Singapore Repertory Theatre



Siti Mariah Bte Idrus preparing a patient for his CT scan.






MRI VS CT SCANS

– WHAT'S THE DIFFERENCE?

Seeing inside the brain and spine is important for diagnosing and monitoring neurological conditions, with Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) being the most common imaging techniques used at NNI. NNI radiographers explain the differences between the two types of scans, and provide tips to make your next visit easier.

MRI and CT scanners both take images deep within the brain and spine. From the outside, the equipment look alike – large, white, doughnut-shaped machines that scan patients while they lie down. So what's the difference between the two techniques?

	CT	MRI
 How does it work?	Uses X-rays	Uses magnetic fields and radio frequency waves
 How long does it take?	5–15 minutes	45 minutes–2 hours
 Is contrast needed?	Sometimes, depending on type of test ordered	Sometimes, depending on type of test ordered

Contrast is a special dye that is injected into veins on the arms or hands to improve the image quality and aid diagnosis. Alert staff if you have previously had an allergic reaction to contrast. Your doctor will order a CT or MRI scan based on your suspected or confirmed diagnosis.



MONEY MATTERS AND MEDISAVE

The cost of CT and MRI scans varies, depending on the number and type of tests ordered by the doctor. You can claim from your MediSave account to help cover the cost of your scan, subject to withdrawal limits. There are annual limits, so if you have had scans done at other hospitals during the calendar year, you may not be able to use MediSave for scans done at NNI.



Siti Mariah Bte Idrus
Senior Radiographer
NNI

5 GOLDEN RULES FOR ALL NEURORADIOLOGY PATIENTS

PREGNANT?

Tell a member of staff before the scan, as X-rays can harm your unborn baby. If you are unsure, you will need to take a pregnancy test before the scan can be done.



AGED UNDER 21 YEARS OLD?

Your parent or legal guardian must accompany you for your appointment as they will need to give consent should you need a contrast injection (except for National Service men).

KEEP STILL THROUGHOUT THE SCAN

Movement causes blurred images – if this occurs you may need to repeat the scan, resulting in more radiation (X-rays).

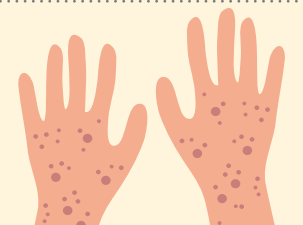


CONTRAST INJECTION

You may need a contrast injection with your scan – this may cause a warm feeling in the chest and abdomen, as well as a metallic taste in the mouth, that lasts a few seconds. On the other hand, some people feel nothing at all!

ALLERGIC REACTION

Tell a member of staff if you have had an allergic reaction to contrast during a previous scan.





Oh Hui Ping
Principal Radiographer
NNI

MUST-REMEMBER INFORMATION ABOUT MRI

MRI is often considered the gold standard in imaging because the scans are very detailed. This is particularly useful when diagnosing conditions such as stroke, tumours and inflammation. Here are things to expect when having an MRI, and tips to help your visit go smoothly.

IT'S NOISY!

You cannot feel an MRI scan but you can hear it. The machine makes noises similar to a construction site, so you will be given earplugs to block out the sound and headphones with soothing music.

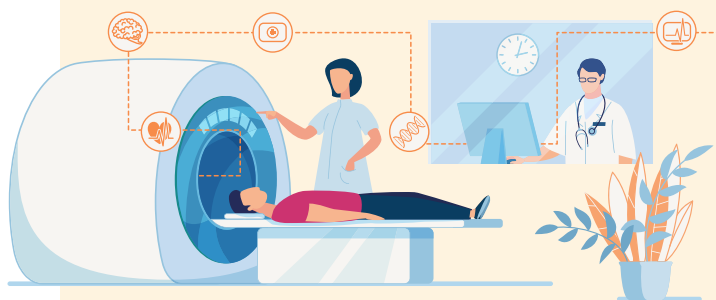
SPACE INSIDE THE SCANNER IS TIGHT

If you are anxious about being in enclosed spaces, tell our staff. If possible, your scan will be done using an MRI scanner that can play calming videos to distract you during the scan.

A radiographer will also talk to you, and there is a button to press in emergencies or should you feel distressed.

THE MAGNETIC FIELD OF AN MRI IS VERY STRONG

Even very small amounts of metal on clothing or the body can cause serious burns, so a safety check will be conducted before you have your scan. To stay safe during your scan and avoid delays, here are some points to note:



Oh Hui Ping
positions patient
for MRI scan.



DO CHANGE INTO THE GOWN PROVIDED

All clothes must be removed before your MRI scan. This includes bras, as they can contain underwiring and metal fasteners. Underpants or panties can be left on if they do not contain any metal decoration or fasteners.



DO BRING YOUR IMPLANT CARD

If you have an implant such as a pacemaker or deep-brain stimulator, please bring your implant card along. It contains details of your implant that are required to ensure it is safe for you to have the scan.



DO BRING YOUR OLD FILMS OR CDS FROM PREVIOUS SCANS (IF AVAILABLE)

If you previously had scans done at private hospitals or clinics, bring copies of the films or CDs, if available. This will allow staff to compare and check for any changes.



DO NOT BRING VALUABLES TO YOUR APPOINTMENT

All jewellery, including rings and earrings, must be removed before the scan. You will be given a locker with a key to store your clothes, personal items, and mobile phone, but please leave your valuables at home.



DO NOT WEAR MAKE-UP

Some make-up products, such as false eyelashes and eye make-up, contain trace amounts of heavy metals. This can cause image artefacts – distortions in an MRI image that can affect accurate interpretation of the scan.



STROKE:

FAST DISCOVERY HELPS RECOVERY

Emergency treatment at the first sign of stroke improves recovery and reduces the risk of long-term disability.

Watching Mr Zailani Bin Mahmood draw, it is hard to believe he suffered a stroke four months ago. Had it not been for his daughter Salinah's quick actions, the 66-year-old might have lost his drawing skills for good. "I had just finished eating dinner at home when I started feeling unwell. I felt light-headed and could not control my arms," remembers Mr Zailani. Fortunately, his family was with him and reacted quickly. "My sister Nuraisah caught him from behind as he started to

fall, and we were able to sit him down on a chair," says Salinah. "When I saw that he could not move his arm properly, that his speech was slurred, and that his face was drooping on one side, I knew he was having a stroke."

Salinah immediately called 995 for an emergency ambulance. When Mr Zailani arrived at Changi General Hospital, he was given medication to dissolve the clot in his brain to help restore blood flow. He was then transferred to Singapore General Hospital for a procedure to

Mr Zailani's realistic drawing of horses, which he drew a couple of months after his stroke.



remove the clot. But when he arrived, another scan showed that the clot had already dissolved, so the procedure was not needed.

Mr Zailani's speech and the right side of his body, including vision in his right eye, were affected by the stroke. "All I could see was black out of my right eye. However, vision gradually started to return the next morning and, within one week, it was nearly back to normal," he describes. Just two days after the onset of his stroke, Mr Zailani was able to walk again; he was discharged two days after that encouraging sign.

At home, Mr Zailani's family helped him recover – chatting with him to improve his speech, exercising together with him, and reminding him to take his medication to prevent another stroke from occurring. To strengthen his right arm and keep his mind active, Nuraisah gave him a sketch book and pencils. "I stopped drawing when I left school, and it has been fun to take it up again. I can spend hours drawing landscapes and family members – I get so absorbed that I don't realise how much time has passed!" says Mr Zailani.

WHY CALL 995 FOR STROKE?

Mr Zailani's recovery is an example of the benefits of acting quickly for stroke patients. When an emergency ambulance is dispatched for a case involving stroke, the paramedics will contact the hospital en route. The on-duty stroke team is then activated and will be on standby to receive the patient at the Emergency Department. This ensures prompt assessment and treatment, which can reduce the risk of long-term disability.

On arrival, the patient is assessed and sent for a brain scan. The team, together with a dedicated stroke

specialist, will then decide on the most suitable course of treatment. The treatment offered will be based on a few considerations, such as the onset and type of stroke, medical history, regular medications (where applicable), and the safety of the treatment for the case at hand.

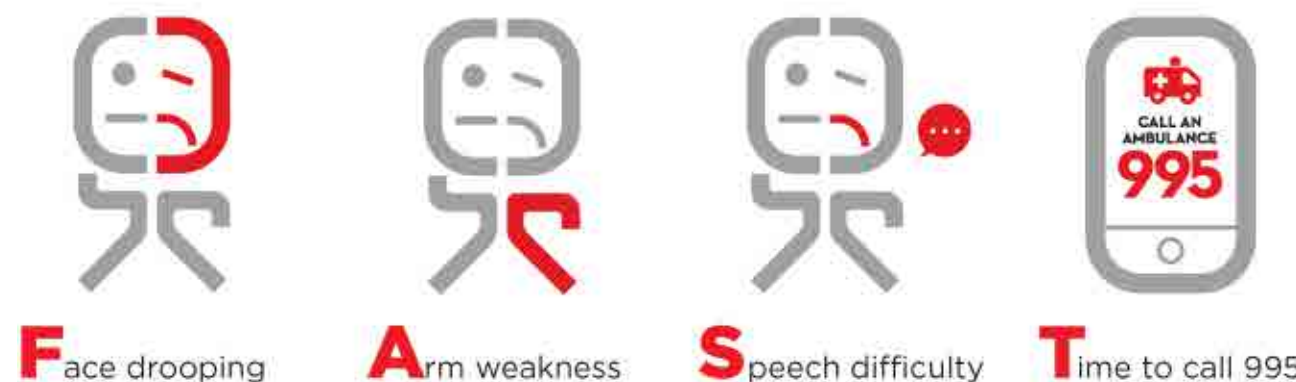
Many patients do not arrive in time to be considered for hyperacute stroke treatments. Hopefully, when more people recognise the signs of stroke and remember to call 995, we can achieve more success stories like Mr Zailani's case.

*Remember:
Time is brain.
To spot a stroke,
think F.A.S.T.*



Dr Charles Chan Chung
Senior Staff Registrar
Neurology
NNI

**Stroke is an emergency.
To spot a stroke, think F.A.S.T.**



Reproduced with permission from Stroke Services Improvement team

MAKING THE MOST OF 'ON' AND 'OFF' STATES IN

PARKINSON DISEASE

No two persons with Parkinson (PwP) will have the same set of symptoms. However, some will experience what are known as the 'on' and 'off' states. Learning to manage this is key in controlling symptoms and maintaining quality of life.

Parkinson disease (PD) affects the nervous system that controls movement. There is no cure and it gets worse over time, but treatment can help manage some of the symptoms. However, after a few years of taking medication, some patients experience fluctuation of symptoms in between medication doses, known as the 'on' and 'off' phenomenon.

Motor (movement) symptoms are the main signs of PD. These include the four S's:

- **shaking**
- **slowness**
- **stiffness**
- **stability impairment** (poor balance)



Besides motor symptoms, PwP also experience:

- **depression**
- **constipation**
- **postural hypotension** (drop in blood pressure when standing up from sitting or lying down)
- **fatigue**
- **smell impairment**
- **urinary symptoms** (urinary urgency, frequent urination)
- **cognitive changes**
- **sleep disorder** (excessive day time sleepiness, acting out of dream)



'ON' STATE

- With medication, a PwP functions well, with good control of symptoms, such as tremor, stiffness and slowness.
- Starts around 30 to 45 minutes after taking medication and can last a few hours, depending on the individual and stage of the disease.

'OFF' STATE

- When the effects of the medication start wearing off, symptoms return.
- PwP may find it more difficult to walk and move, and can also experience mood changes, anxiety and restlessness.
- Usually happens before the next dose of medication is due.

Planning activities according to the medication 'on/off' timings helps to reduce stress and frustration that can result from living with PD.

Professor Louis Tan, Senior Consultant, Department of Neurology and Parkinson Disease & Movement Disorders Programme Director at NNI, explains, "Initially, transition from the 'on' to 'off' state is gradual and predictable. However, as the disease progresses, it may occur more frequently throughout the day. Patients should seek medical advice to address this."

TIPS TO MANAGE PD SYMPTOMS

- **Keep positive** – PD can affect your mood
- **Recognise 'off' symptoms of PD and keep a symptom diary**
- **Discuss with PD specialist doctors and nurses if you need help coping with new symptoms – they can adjust your care plan to suit your needs**
- **Take medication regularly and stick to the prescription, which helps you have better control of symptoms**



- **Plan daily activities around 'on' and 'off' states – do activities that require more energy during the 'on' state**
- **Exercise regularly to help you remain strong and sleep better**
- **Take part in social activities and keep your spirits up**

CREATING A ROUTINE THAT WORKS FOR YOU

Madam Guo, 55, has been living with Parkinson disease (PD) for a decade. Over the years, she has adjusted her daily routine so that she can continue to do activities she enjoys during her 'on' state and rest during her 'off' state.

In the early stages of PD, Mdm Guo was able to live life as usual, but as her condition progressed, she slowly found it harder to control her movements. In her 'off' state, there were times when she did not have the strength to hold a sheet of paper. Walking became difficult, she suffered from leg cramps, and she ended up drooling when she spoke.

CONTROLLING SYMPTOMS WITH SURGERY

A few years ago, Mdm Guo had deep brain stimulation, a surgery to implant a device that sends electrical signals to the brain to help control her movements. Since then, her mobility during her 'off' state has improved. However, there are still times during the day when she feels weak and tired.



The products of Mdm Guo's handiwork during her 'on' state include food packing (top), chwee kueh (above), and flower arrangements (left).

MAKING THE MOST OF BEING 'ON'

In her 'on' state, Mdm Guo seems like a different person. She is able to move around with ease, and can earn a living doing flower arrangements and packing noodles at home for distribution at a temple. She also enjoys hobbies, which she does in her 'on' state. These days, Mdm Guo learns new recipes online, and recently learned to make *chwee kueh*.

GRATEFUL FOR HELP

She lives with her helper, who is her main caregiver and helps her with more strenuous household chores. "I'm thankful for my helper. Parkinson is not easy on both the patient and caregiver, so it is important for both parties to understand and be understanding of each other," she shares.

To make the most of her 'on' states, Mdm Guo plans each day with care. She is mindful of when her medicine will wear off, and slows down her activities nearer her 'off' state.

NAP LESS, SLEEP MORE

One tip that works for Mdm Guo is to avoid lying down during her 'off' state, as this makes her feel more tired. As she sometimes experiences insomnia, a non-motor symptom of PD, she tries not to sleep during the day so that she can sleep better at night. To keep her spirits up, she makes it a point to meet friends for a meal, sometimes indulging in her favourite cheat meal once a week — *laksa*!



A DAY IN THE LIFE OF MDM GUO

Mdm Guo shares how she plans her activities according to her 'on/off' timings.

TIME	ACTIVITY
5am 'Off' state	<ul style="list-style-type: none"> Wake up Perform religious rituals Read scriptures aloud, which helps with voice training Measure blood pressure
6.30am	<ul style="list-style-type: none"> Take medication Wait for medication to activate (about 15 to 30 minutes, but can be unpredictable)
7am 'On' state	<ul style="list-style-type: none"> Eat breakfast, consisting of fruits and eggs (meal at 30 minutes after taking medication to ensure effectiveness of medication) Exercise at home (cycling, taichi and exercises recommended by physiotherapist) Drink juice Measure blood pressure Pack food for distribution at temple Flower arrangement
11.30am 'Off' state	<ul style="list-style-type: none"> Rest Watch television Listen to music Do stretches to relieve muscle cramps
12.30pm	<ul style="list-style-type: none"> Take medication
1pm 'On' state	<ul style="list-style-type: none"> Eat lunch Shower Continue packing food for the temple Buy groceries Drink protein shake
4pm 'Off' state	<ul style="list-style-type: none"> Rest Watch television Read scripture Watch informative public forums online
5.45pm	<ul style="list-style-type: none"> Take medication
6.15pm 'On' state	<ul style="list-style-type: none"> Eat dinner Drink juice Household chores Watch television Drink protein shake
9pm	<ul style="list-style-type: none"> Bedtime

HERE TO HELP YOU

Strong social support can help you and your loved ones live better with brain, nerve, muscle and spine conditions. Scan the QR code for a list of support groups you can join:

<https://www.nni.com.sg/patient-care/patient-support-groups>





OUCH... MY BACK HURTS!

WHAT SHOULD I DO?

Back pain is extremely common – about 90% of people experience it at some point in their lives. Dr Colum Nolan, Head of Neurosurgery, Sengkang General Hospital, and Consultant, Department of Neurosurgery, NNI, explains when we should be concerned, and where to seek medical help.

A pulled back muscle (lumbar strain) is the most common cause of back pain. A warm or cold compress and pain medication can provide relief, and it usually gets better on its own within one to two weeks. However, about one in 10 cases of back pain needs medical attention. So when should you see a primary care doctor, a specialist, or go straight to the Emergency Department?



“**Bed rest is not best when it comes to back pain, so continue to stay active unless advised otherwise by your doctor.**”

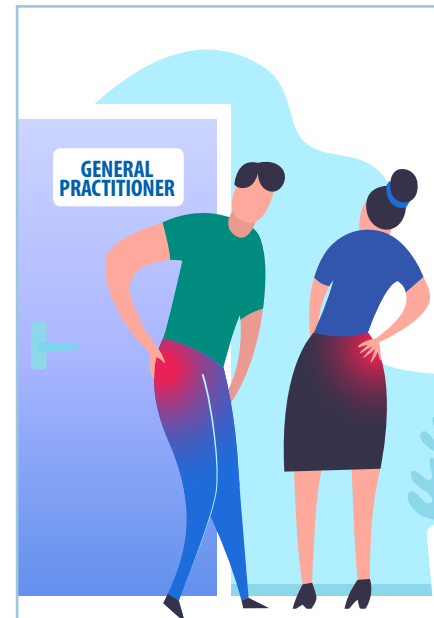
– Dr Colum Nolan



Back Pain ‘Red Flags’

These symptoms with back pain are warning signs that specialist or emergency treatment may be needed:

- Unexplained weight loss
- Loss of appetite
- Neurologic symptoms; e.g., numbness, weakness in legs
- Older age (above 50 years old)
- Fever
- History of cancer
- Problems passing urine or bowel motions
- Back pain caused by an accident or trauma



PRIMARY CARE DOCTOR

If your back pain is not getting better or if you are worried about it, see a primary care doctor (general practitioner or polyclinic doctor). Your doctor will assess your condition and check for ‘red flags’ (see sidebar), which may require referral to the Emergency Department or an urgent referral to a spine specialist.

If there are no red flags associated with the back pain, your doctor can usually treat it with medication and/or refer you for physiotherapy. Your doctor may refer you to a spine specialist if your symptoms worsen, persist beyond six weeks, or if you begin to experience neurological problems.



SPINE SPECIALIST

Back pain with one or more ‘red flags’ should be seen in the Emergency Department or urgently in the Specialist Outpatient Clinic (SOC) by a spine specialist (either a neurosurgeon or an orthopaedic surgeon trained in the management of spinal disorders), depending on the urgency. Most referrals to the SOC are less urgent, with two of the most common reasons for referral to our clinic being:

Slipped disc

- Discs act as cushions between bones in the spine
- When a disc slips or bulges out, it can press on nerves, causing back pain with sciatica
- Sciatica is lower back pain that spreads to the hip, buttocks and legs
- Can affect adults of all ages
- Treated with medications and physiotherapy (if no weakness or red flags); if symptoms do not

improve after six to eight weeks, steroid injections or surgery may be considered

Spinal stenosis

- Narrowing of spaces within the spine, which can put pressure on nerves
- Caused by wear and tear in the spine
- Usually affects people aged 60 years and older
- Common symptoms:
 - Back and leg pain when walking that is relieved by rest
 - Heaviness, weakness or numbness, often in both legs
 - Treated with medication, physiotherapy, steroid injections or surgery, depending on severity of symptoms

Other back conditions treated by spine specialists include scoliosis (curvature of the spine), spondylosis (arthritis in the spine), spine tumours, fractures and infections.



EMERGENCY DEPARTMENT

Some back conditions require urgent medical attention. Go to the Emergency Department if you have:

- Suffered a severe trauma to your back from
 - a road accident
 - a fall from height
 - a sports injury; e.g., from trampolining, rock climbing, etc.
- Back pain with weakness in the legs or loss of bowel or bladder control

CARING FOR THE NATION



Congratulations to all NNI staff who received their National Day Awards in August 2020 for their outstanding performance and devotion to duty.

THE COMMENDATION MEDAL (PINGAT KEPUJIAN)

Dr Ng Wai May
Deputy Director & Advanced Practice Nurse, Nursing

THE EFFICIENCY MEDAL (PINGAT BERKEBOLEHAN)

Esther Vanessa Chua,
Nurse Clinician-Advanced Practice Nurse, Nursing

Ho Thye Sin
Principal Radiographer, Neuroradiology

THE LONG SERVICE MEDAL (PINGAT BAKTI SETIA)

A/Prof Au Wing Lok
Medical Director

Clinical A/Prof Josiah Chai
Head & Senior Consultant, Neurology (TTSH Campus)

Dr Ng Wai May
Deputy Director & Advanced Practice Nurse, Nursing

Tan Jau Tsair
Assistant Director, Neuroradiology

Lee Kah Keow
Senior Nurse Clinician, Nursing

Haslindah Binte Salim
Senior Associate Executive, Neuroradiology

“

I joined nursing 25 years ago because I wanted to make a difference to patients' lives, and this continues to drive my work. I enjoy my dual career track as an Advanced Practice Nurse (APN) and a Nursing Administrator, as it allows me to manage stroke patients, help shape the stroke care system, and also lead NNI nursing to grow the profession. It is an honour and privilege to receive the commendation and long service medals – I see my work in public healthcare as a service to the nation.

– Dr Ng Wai May

”



LIVING A LIFE OF PURPOSE

Senior Enrolled Nurse Juraidah Binte Abdul Rahman has received the Tan Chin Tuan Nursing Award 2020, Singapore's highest honour for enrolled nurses.



Dr Ng Wai May, Deputy Director, Nursing, presenting the award to SEN Juraidah (right).

For Senior Enrolled Nurse (SEN) Juraidah Binte Abdul Rahman, becoming a nurse marked a defining chapter in her life.

When she was young, SEN Juraidah's late grandmother was admitted into the intensive care unit. The nurses there fascinated her – she watched them care for their patients meticulously and passionately, sometimes even skipping their meals to attend to patients' needs. "Each of them had a heart of gold," she recounts. "As I cared for my ailing grandmother growing up, I knew that I too wanted to become a nurse."

A nurse for 21 years, SEN Juraidah continues to constantly strive to expand her knowledge and skills. In 2018, she took on a new role as a Neurology specialty nurse, caring for patients with neuromuscular conditions, such as myasthenia gravis and motor neuron disease.

For disease management, many of these patients are on steroids, which weaken the immune system and have long-term effects, such as thinning bones

(osteoporosis). SEN Juraidah goes the extra mile by checking each patient's immunisation status and bone health, recommending influenza immunisation and osteoporosis management to help prevent complications, such as pneumonia or fractures.

Her strong sense of duty motivated SEN Juraidah to volunteer for deployment to foreign worker dormitories during the COVID-19 outbreak. She spent two months performing nasal swabs, screening workers for respiratory symptoms, and arranging for ambulance transfers to hospital when needed.

Receiving the prestigious Tan Chin Tuan Nursing Award in November re-affirmed her life's calling to be a nurse. "I am honoured to receive this award. Seeing how my patients face life courageously inspires me to continue making a difference as a nurse," says SEN Juraidah. "This award would not have been possible without fellow professionals who inspire, teach and share new things with me daily. Together, we thrive."



“

I am honoured to receive this award. Seeing how my patients face life courageously inspires me to continue making a difference as a nurse.

– Juraidah Binte Abdul Rahman

”



Taken before 7 April safe distancing measures.

INNOVATING CARE, CHANGING LIVES

Two NNI nurses have been recognised for their excellence in clinical care, research and nursing education.

NURSES' MERIT AWARD 2020, MINISTRY OF HEALTH

TAN IL FAN

Nurse Clinician - Advanced Practice Nurse
Specialty: Stroke

What does your work currently involve?

I am leading the neuro-recovery programme, which helps to ensure smooth transition of stroke patients from the acute hospital to community hospital and back home. This includes reviewing patients in the acute stroke unit at Singapore General Hospital and at Outram Community Hospital (OCH) post-transfer, screening for post-stroke complications, training the OCH nursing team in stroke care, and working with community partners to help patients re-integrate when they go home.

What is the most challenging part of your work?

I need to develop new models of stroke care to improve the service with limited resources and without compromising patients' care. To overcome these challenges, I need to be on the ground to identify clinical or process gaps, review evidence-based practice, and engage stakeholders from the different institutions to get their buy-in.

What is the most rewarding part of your work?

Witnessing stroke survivors and caregivers benefiting from changes I have made is very rewarding. I am thankful to work with great colleagues who influence and inspire me to push to greater heights.

SINGHEALTH DIRECTOR OF NURSING AWARD 2020

PENG XUEJUAN

Nurse Clinician
Specialties: Epilepsy and multiple sclerosis

Why did you specialise in epilepsy and multiple sclerosis?

Epilepsy is common in Singapore, and seeing the impact it has on patients' work and families motivates me to help them lead as normal a life as possible. Multiple sclerosis (MS) is not as common and usually affects adults in their 20s to 40s — many lose their jobs due to the disease, so I decided to join them in their fight against MS.

What is the most rewarding part of your work?

It is deeply satisfying when epilepsy patients ask me to help them manage their condition, as I know that they trust me and recognise my efforts.

Which of your quality improvement projects has had the greatest impact?

The Multiple Sclerosis Quality Measures, which we started in 2015, allow us to track patient outcomes and identify ways to improve care. Falls and fatigue are common challenges in MS. Previously, 42% of our patients reported falls compared to 19% now, and 50% suffered fatigue that had worsened and this has now reduced to 15%.



PUSHING THE FRONTIERS

Four NNI clinicians recently received National Medical Research Council (NMRC) awards and scholarship to carry out translational and clinical research to transform neuroscience care in Singapore.

“The major cause of dementia is an abnormal protein called amyloid. However, my ongoing research has found that silent strokes (strokes with no physical symptoms) are another cause for dementia among Asians. My team is investigating if the presence of both amyloid and silent strokes aggravate each other to result in earlier onset and a more severe form of dementia. If our research confirms this, repurposing existing treatment for silent strokes could be a strategy to treat or prevent dementia.”



Clinician Scientist Award – Investigator
A/Prof Nagaendran Kandiah
Assistant Director,
Clinical Research;
Senior Consultant,
Department of Neurology

“I am trying to discover advanced imaging signatures for reversible and irreversible brain injury. I believe if we are able to do this, it would allow us to understand why the brain can promote either processes leading to recovery or decline after an injury. This learning is crucial to developing new ways to promote the former and suppress the latter, so that we obtain the best possible patient outcomes.”



Clinician Scientist Award – Investigator
Dr Nicole Keong Chwee Har
Senior Consultant,
Department of Neurosurgery



Clinician Innovator Development Award
A/Prof Ng Wai Hoe
Senior Consultant,
Department of Neurosurgery

Ministry of Health (MOH)
Healthcare Research
Scholarship – Master of
Clinical Investigation
Programme
Dr Koh Shimin Jasmine
Consultant, Department of
Neurology



CELEBRATING NNI SERVICE CHAMPIONS

The NNI Quality Service Award recognises staff who have excelled in their roles in patient care, performing with the highest levels of professionalism, compassion, integrity and a strong commitment to teamwork. Congratulations to all 47 NNI service champions!

STAR AWARD WINNERS

Neurodiagnostic Laboratory

Tan Eyok Yian
Neuro Technologist

Neuroscience Clinics

Fauziah Binte Amat
Patient Service Associate

GOLD AWARD WINNERS

Neurodiagnostic Laboratory

Phua Ziqun
Senior Sonographer

Sherlynn Ang
Neuro Technologist

Neurology

A/Prof Nigel Tan
Senior Consultant

Neuroradiology

Jestase S/O Posman
Senior Radiography Assistant

Neuroscience Clinics

Han Ren Kwang
Patient Service Associate

Priscilla Tan
Patient Service Associate

Neurosurgery

Dr Benjamin Huang
Resident Physician

Dr Jai Rao
Senior Consultant

Nursing

Li Wei
Senior Nurse Clinician –
Advanced Practice Nurse



SILVER AWARD WINNERS

Corporate Communications

Eddy Jamal
Senior Executive

Low Wei Ling
Senior Associate Executive

Medical Affairs, Quality and Risk Management

Michelle Wee
Assistant Director

Neurodiagnostic Laboratory

Teo Boon Choon
Senior Manager

Neurology

Dr Adeline Ng
Senior Consultant

Dr Ang Kexin
Consultant

Dr Carol Tham
Consultant

Dr Chua Hoe Chin
Senior Consultant

Dr Jasmine Koh
Consultant

Clinical A/Prof Josiah Chai
Head & Senior Consultant (TTSH Campus)

Dr Kamal Kumar Verma
Senior Consultant

A/Prof Kevin Tan
Senior Consultant

Dr Koh Pei Xuan
Associate Consultant

Dr Ng Peng Soon
Consultant

Dr Rajinder Singh S/O Pall Singh
Senior Consultant

Dr Sheila D/O Srinivasan
Senior Consultant

Dr Yasmin Binte Idu Jion
Senior Consultant

Wilbur Koh
Psychologist

Neuroradiology

M Vanitha
Radiographer

Neuroscience Clinics

Elena Chai
Senior Patient Service Associate

Farah Julieanna Binte Mohamed Saleh
Patient Service Associate Executive

Ng Zhi Hui
Patient Service Associate

Nishathi D/O Rajasegaran
Senior Patient Service Associate

Nur Syarafana Binte Shariff
Patient Service Associate

Nurul Amira Binte Komaron
Senior Patient Service Associate

Oh Qian Qi
Patient Service Associate Executive

Serene Lim
Patient Service Associate

Siti Adilah Binte Jafa'ar
Patient Service Associate

Wendy Teo
Senior Patient Service Associate

Yuliati Binte Jahir
Senior Patient Service Associate

Nursing

Esther Vanessa Chua
Nurse Clinician

Janis Tye
Senior Nurse Clinician –
Advanced Practice Nurse

Lee Kah Keow
Senior Nurse Clinician

Linda Lim
Senior Nurse Clinician –
Advanced Practice Nurse

Peggy Lim
Senior Staff Nurse

Tan Chew Seah
Senior Staff Nurse



Madam Sumarni with her husband and their four children.



BECAUSE YOU GIVE

Your donations to the NNI Fund help our patients cope with their conditions and take control of their lives, as Madam Sumarni explains.



“My migraines first started when I was 12 years old but, in 2019, they got much worse. The pain was so bad that it made me feel sick – I couldn’t walk properly or do simple tasks, such as cleaning the house or taking care of my children.

My migraines are triggered by stress and loud noises, which are hard to avoid when living with my four children aged six to 16! But I have to stay strong for them.

Finances are tight for my family. Thankfully, the NNI Fund covers the cost of my migraine medication. With these pills, my condition is now under control and I have started working as a kitchen assistant to help support my family.

I’m very grateful for the help from the NNI Fund as I can use the money I save for my children and other costs, such as food and transport.”

Change someone’s life today with a gift to the NNI Fund.

- Support patients in financial need battling diseases such as dementia, stroke, Parkinson disease, and brain tumour
- Improve treatments using innovative equipment, care models, and treatment methods
- Accelerate research discoveries to improve and transform care
- Nurture future leaders in neuroscience


Scan the QR code to find out more about the NNI Fund’s work and how to donate.



All qualifying donations received from now till 31 December 2021 are entitled to 250% tax deduction if NRIC is provided and conditions are met.

CAN YOU SPOT THE SIGNS? >

Face drooping Arm weakness Speech difficulty Time to call 995

Spot the  +
3 people with
signs of stroke

**SPOT
STROKE**



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NATIONAL NEUROSCIENCE INSTITUTE CONTACT DETAILS

NNI @ SGH Campus

Singapore General Hospital, Block 3, Clinic L
Outram Road, Singapore 169608
Main Tel: (65) 6222 3322
Appt Tel: (65) 6321 4377
Email: appointments@sgh.com.sg

NNI @ TTSH Campus

Tan Tock Seng Hospital, NNI Block,
Neuroscience Clinic
11 Jalan Tan Tock Seng, Singapore 308433
Main Tel: (65) 6357 7153
Appt Tel: (65) 6330 6363
Email: appointments@nni.com.sg

NNI @ CGH

Changi General Hospital
2 Simei Street 3
Singapore 529889
Appt Tel: (65) 6850 3333

NNI @ KKH

KK Women's &
Children's Hospital
100 Bukit Timah Road
Singapore 229899
Appt Tel: (65) 6294 4050

NNI @ KTPH

Khoo Teck Puat Hospital
90 Yishun Central
Singapore 768828
Appt Tel: (65) 6555 8828

NNI @ SKH

Sengkang General Hospital
110 Sengkang East Way
Singapore 544886
Appt Tel: (65) 6930 6000



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