

GP IN-SYNC

A quarterly e-newsletter by
NUH GP Liaison Centre



**GP Appointment
Hotline +65 6772 2000**

Apr-Jun 2017

Featured Doctors of the Month



Dr Mahesh Babu Ramamurthy

MBBS(India), FCPS(Child Health), DNB(Paediatrics), MD(Paediatrics), MRCP(UK) Clin. Fellow in Paediatric Intensive Care (Glasgow, UK)

Head and Senior Consultant
Division of Paediatric Pulmonary and Sleep
Senior Consultant
Division of Paediatric Critical Care
National University Hospital

Dr Mahesh Babu Ramamurthy trained in paediatrics in India and underwent sub-specialty training in paediatric intensive care in the UK and paediatric pulmonology in the US.

He joined the National University Hospital (NUH) in October 2009. Dr Mahesh specialises in paediatric pulmonology, sleep and critical care, and his clinical interests include childhood respiratory conditions, including asthma and allergies, flexible paediatric bronchoscopy and sleep studies.

Paediatric Pulmonary and Sleep Service

The Division of Paediatric Pulmonary and Sleep at NUH offers a comprehensive range of services catered to both common and advanced respiratory problems in children. The division's output is the result of close teamwork between senior doctors, nurses, respiratory therapists and experienced lung function and sleep technicians.

The division has advanced lung function lab with an extensive range of tests to measure respiratory function in children. For example, we do impedance oscillometry in children as young as three years old. This is a useful tool in working up preschool children with wheezing. Tests such as spirometry, exhaled nitric oxide and exercise challenge tests are used to aid in the diagnosis of asthma. Availability of tests like sniff nasal inspiratory pressure (SNIP), maximal inspiratory and expiratory pressures (MIP and MEP respectively) help with the early identification of respiratory involvement and intervention in patients with neuromuscular disease.

The division also provides services within a multi-disciplinary clinic model. Children with complex upper airway problems are seen in the aerodigestive centre which allows them to see multiple specialists in the same setting. Similarly, children with neuromuscular problems are seen in the multi-disciplinary neuro-muscular clinic for their respiratory and other health issues.

Evaluations of noisy breathing and suspected foreign body aspiration are quickly assessed by flexible bronchoscopy. With a wide array of scopes, we can perform the procedure in children of all ages – from the neonatal age group to adolescents. For the past four years, the division has also been conducting regular "hands-on" flexible bronchoscopy workshops with participants coming from over 15 countries.

The division has a new sleep laboratory with a child-friendly environment and equipment for investigating children with snoring and sleep related problems. The waiting times are short with a very responsive appointment process. Behavioural sleep issues and other complex sleep problems are addressed by a multi-disciplinary team of doctors.



Dr Mahesh in consultation with a patient



Dr Mas Suhaila Isa

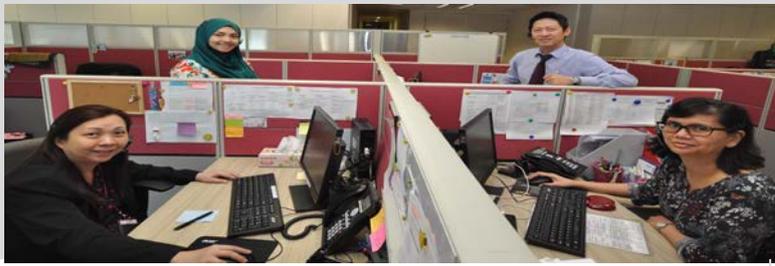
MBBS, MRCPCH(UK)

Consultant
Division of Paediatric Infectious Diseases
National University Hospital

Dr Mas Suhaila Isa is a consultant and clinician educator with the Division of Paediatric Infectious Diseases, NUH. Her clinical practice involves all areas of general paediatrics and specialised care for a wide range of infectious issues in both immunocompetent and immunocompromised hosts, as well as travel health and immunisation.

Paediatric Infectious Diseases

We provide care and advice in the management of severe childhood infections and those related to underlying chronic medical conditions and immunocompromised children who have undergone transplant, chemotherapy, acquired or congenital immunodeficiency and critically ill children in paediatric and neonatal intensive care. We also care for children with infections after injury or surgery, tuberculosis, babies born to mothers with HIV, tropical infections, prolonged fevers as well as provide travel health and immunisation advice.



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Paediatric Travel

Just like adults, more children are travelling internationally and more than a third of overseas travellers are 15 years old and younger. Children are exposed to similar health risks as adults but the consequences can be more serious. Parents intending to travel with children should know of these health risks and how they can avoid them.

A travel consultation involves medical recommendations particular to the destination and itinerary. We would provide advice about vaccines (e.g. typhoid, hepatitis A, yellow fever, and others) and prophylactic medications (e.g. against malaria). We advise to consult four to six weeks prior to the trip to allow time for adequate antibody protection.

Some destinations may require us to make a special order for a vaccine. We also review to make sure the child is up to date with their childhood immunisations and vaccines like MMR which can be given on an accelerated schedule from six months. Some vaccines (e.g. yellow fever and meningococcal) may be an entry requirement for certain destinations.

The consultation will provide the opportunity, where applicable, to review related topics like altitude sickness, vehicle safety, first aid, food and water precautions and insect precautions. We also review students travelling for overseas programmes and include a physical examination and laboratory testing as required.

Travel Clinic at NUH

The NUH Travel Clinic was created in 2002 as an extension to Medicine Clinic, located in the NUH Wellness Centre. In 2011, the Travel Clinic was absorbed by NUH International and in March 2016, it was moved under the Division of Infectious Diseases and is currently located in the OPAT Clinic, NUH Medical Centre.

If you or your patient is interested or require a travel consultation, please call us at 6772 8600 or email travel@nuhs.edu.sg.

We will request a detailed vaccination history, current medications and allergies history and the planned itinerary of countries, cities and special activities.

In The News

Lion-hearted fighter beats the odds

Ten-year-old Boon Kye Feng prances around the living room in furry purple pants that match the lion's head he is wearing. He lifts the head and moves it from side to side to a beat only he can hear.

Even when the little lion gets thirsty, he drinks water through the opening in the head. Seeing him at play, it may be difficult for strangers to tell that he has spent almost half his life battling leukaemia. His family fought it along with him, gifting two transplants – cord blood from his baby sister and stem cells from his mother – to keep him alive.



With two transplants behind him, Boon Kye Feng, now 10, can enjoy doing the lion dance

Despite the intensive treatment, his parents said he had remained positive and playful. It had started in late 2011 when Kye Feng developed spots and bruises which his parents thought were sandfly bites.

When the spots appeared a second time, his mother, Mrs Celine Boon, decided to take him for a check-up. Doctors found that his white blood cell count was very high and told the family he could have leukaemia (cancer of the blood). It was diagnosed as juvenile myelomonocytic leukaemia (JMML), a rare form of the disease.

She said: "Still, I had never expected that it would happen to my son. I was quite alarmed." JMML is so rare that blood samples had to be sent to Germany to confirm the diagnosis. Kye Feng began chemotherapy at KK Women's and Children's Hospital (KKH) in 2012 to control the condition while waiting for a bone marrow transplant.

Although KKH doctors had not seen a JMML case in about 10 years, they did the transplant as there were few other options. His father, Mr Roy Boon, 46, said: "It was all trial and error. There's no exact treatment for JMML." Mrs Boon was then pregnant with their fourth child and doctors said the baby girl's cord blood could be used for the transplant as there is a 25 per cent chance of a match between siblings. Thankfully, it was a full match for Kye Feng, who had the transplant and recovered well.

He looked forward to starting Primary 1 with his brother. But before the March holidays of his first year in school, doctors noticed that the percentage of donor cells in him was beginning to fall, signalling that there could be a problem. When it became clear that the cancer had returned, Mrs Boon said she broke down and cried. "I was shocked. There weren't any physical symptoms. Why did it happen so quickly? It wasn't even one year after the transplant and things had looked so promising," she said.

A Second Chance

The family sought a second opinion from the National University Hospital (NUH) and entered into the care of Associate Professor Tan Poh Lin from the paediatric haematology-oncology division. While doctors from both hospitals suggested a second transplant for Kye Feng, there was more bad news.



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His illness was mutating into mixed-phenotype acute leukaemia, a combination of two forms of cancer. He also faced a life-threatening infection that caused high fever and bloating.

Besides beginning palliative care to improve his quality of life, the family continued to push for treatment, including natural killer-cell therapy and the removal of Kye Feng's enlarged spleen in a complicated seven-hour operation. Even though the test results showed that leukaemic cells remained in his bone marrow, Kye Feng had a second transplant in September 2015, this time using stem cells from his mother.

Doctors usually recommend transplants only when patients register no leukaemic cells. Mrs Boon said: "If he didn't have the transplant, he would have only six months more. With the transplant, he would at least have a chance of recovery. "He was fighting hard. If I didn't give him the chance, I would never know if he could have survived." Kye Feng responded well to his mother's stem cells.

Dr Tan said: "I believe Kye Feng is a 'miracle'. We have all learnt a lot from him, not only in the science of managing the disease and the doctor-patient relationship, but also in his love of life, and his fearlessness and resilience, despite the years of pain and suffering." The crucial three months after the transplant passed by without issue, but the boy developed a graft versus host disease (GVHD) one year later. Still, his parents were relieved that it was not a second relapse. He was put on medication for GVHD and will recover completely.

In the meantime, the family is treasuring the time they can spend together. Mrs Boon said: "We will relax and go with the flow, as long as Kye Feng is happy."

Source: The Straits Times, 14 February 2017, © Singapore Press Holdings Ltd. Reprinted with permission.

NUH programme fights food allergies in small doses

For years, eating even a smidgen of peanut butter would make Tng Shih Kai feel nauseated, giddy and break out in rashes. Now – three months after completing a programme to increase his tolerance to the food – he can eat more than 10 peanuts at a go without triggering an allergic reaction.

It sounds like a small thing, but it has made a big difference to the 13-year-old and his family. "We had to diligently check the menu before we ordered food (at restaurants), and at supermarkets, we would check all the labels," recalled his father Tng Yan Hui, 45.

In 2015, the National University Hospital (NUH) started its food oral immunotherapy programme, focusing only on peanuts. No medication is involved.

Instead, a child is fed minuscule amounts of the food that he is allergic to, with the dose gradually increased until he can safely stomach small amounts. Cow's milk was added last year, and there are plans to expand it to include other common allergens such as eggs or tree nuts.

Dr Soh Jian Yi, who is from the hospital's division of paediatric allergy, immunology and rheumatology, said the standard advice for parents is to keep their children away from foods that trigger allergies "It is easy for us as physicians to say that," he said. "But for the parents and the child, it translates into a lot of worry and work over the days and months."

Around 20 children with persistent food allergies lasting past age five, when many children have outgrown them, have been enrolled in the scheme so far. Though allergies are rarely studied here, it is estimated that peanut allergies affect up to 0.5 per cent of children of school-going age.

The whole process typically takes between six and 10 months, after which children will need to keep eating some of this food in small doses, at least twice a week indefinitely, for it to remain effective.

NUH said the entire course of treatment costs between \$2,500 and \$4,500 for subsidised patients, and that any child over age five with these allergies can enrol. It hopes to expand it to adults in the future.

Dr Soh said parents should not attempt this treatment regimen on their own. It is difficult to accurately measure food portions of less than a milligram, and the child may have a severe adverse reaction. Since completing the treatment, Shih Kai and his parents no longer worry about trace amounts of peanuts in his food. Even better, he can now indulge in something he has wanted to eat for a long time – satay sauce. Shih Kai said: "I would see my friends eat it, and it smelled good. I would feel envious."



Nurse Michelle Tan showing the small dose of peanut that Shih Kai was to be fed with at NUH yesterday. His father, Mr Tng, said the boy's increased tolerance to peanuts has made a big difference to the family

Source: The Straits Times, 2 February 2017, © Singapore Press Holdings Ltd. Reprinted with permission.



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A Volunteering Heart

Making Wishes Come True

As a nurse working with paediatric oncology patients, I have always wanted to do more for these brave warriors. I came to know of Make-A-Wish Foundation Singapore through my patients when I witnessed the magic and ripple effect they created during and after a wish is granted.

I have been volunteering for Make-A-Wish as a wish granter for six years. Despite having granted more than 10 wishes, the most memorable one is still the wish of a five-year-old girl who was diagnosed with Acute Lymphoblastic Leukemia and loved My Little Pony series and wished to see them come to life.

Together with another volunteer, we planned for a day filled with ponies. The day started with her creating her own pony soft toy that later got dressed up with clothes that she had chosen. She was then brought to a stable (with real ponies!), given a personalised tour and even got the chance to groom and feed the ponies.

After all the hard work, the little girl was presented with a surprise pony party! It was a party that included many fringe activities - a magic show, pony rides, popcorn station, face painting, personalised fondant cupcakes, two- tier chocolate cake and a photo booth.



SSN Clara (first from the right) with fellow volunteers on the day of the wish granting

She also had her close friends who came as surprise guests. In the end, she summarised the day in three simple words "Awesome! Awesome! Awesome!"

Although this wish was granted two years ago, I have remained in touch with her mum. She still occasionally sends me texts saying that the little girl recalls that very magical and unforgettable day up till this very moment – the perfect kind of ripple effect!

Senior Staff Nurse Clara Su
Department of Paediatrics, NUH

Passion Beyond Duty

Bringing Health Screening to the Neighbourhood

The Neighbourhood Health Service (NHS) is a student-led community project that was started in Taman Jurong in 2007 by a group of NUS medical students who were interested in bringing health screening to the doorsteps of the underprivileged. Now in its 11th year, the NHS has expanded to provide residents of 1 to 2 room rental flat blocks in various areas of Singapore with free health screening and follow-up.



The Neighbourhood Health Service (NHS) brings health screening to the doorsteps of the underprivileged

Credit photo to Dr Wang Yi Liang, Tan Tock Seng Hospital

The founding ethos of the NHS has been its focus on lower-income, rental flat residents. Over the years, studies by the NHS have shown that preventive healthcare services like cancer and cardiovascular screening is less accessible to people living in rental-flat neighbourhoods, while management of chronic diseases like hypertension is also sub-optimal. Hence, the NHS targets rental flat populations in order to bridge these gaps and help the most vulnerable.

NHS has also embraced technology to improve care delivery. We have transitioned from clipboards, paper and pen to iPads with a secure app-based system for students to key in data and play educational videos during patient counselling.

From relying on generic materials for its health promotion efforts in the early days, the NHS has created its own educational materials, including pamphlets and videos. These attempt to address some of the common misperceptions about health that have been identified among residents in these low-income communities.

Key to its success is the support of many individuals – the medical, nursing and social work student volunteers, faculty supervisors, grassroots organisations, partners and sponsors, without whom NHS will not be able to function. Most of all, we thank the residents of these rental flats for opening their doors and hearts to us for all these years.

Dr Chiong Yee Keow
Senior Resident, Department of Paediatrics, NUH



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What's Happening @ NUH

6th Wong Hock Boon Paediatric Masterclass

Date: 25 – 27 Aug 2017

Venue: NUHS Tower Block

Website: www.nuhkids.com.sg ('Events')

**6th Wong Hock Boon
PAEDIATRIC
MASTERCLASS**

Endocrinology | Gastroenterology | Haematology

NUHS Tower Block
26 – 27 Aug 2017, Singapore

PRE-MASTERCLASS COURSE
Practical Pulmonology for the
Community Practitioner
25 Aug 2017 (afternoon)

PROGRAMME INFORMATION

- Visit www.nuhkids.com.sg for registration and programme details
- Email nuhkids@nuhs.edu.sg for more information

ORGANISED BY

NUH kids
National University
Hospital

NUS
National University
of Singapore
Yong Loo Lin School of Medicine

**CELEBRATING EXCELLENCE IN
PAEDIATRIC HEALTHCARE**

The Department of Paediatrics, National University Hospital, is proud to present the 6th Wong Hock Boon Paediatric Masterclass from **26 – 27 Aug 2017**.

We will also be running a Pre-Masterclass Course – Practical Pulmonology for the Community Practitioner – on **25 Aug 2017**.

Held annually since 2011, this event focuses on general and sub-specialty paediatrics, continuing in the long tradition of excellent teaching from the department and honouring the legacy of our founding professor, Emeritus Professor Wong Hock Boon.

This year, the focus areas are **Endocrinology, Gastroenterology and Haematology**. Our Wong Hock Boon professors – invited speakers of international standing – will be joined by the department's own clinicians who will be speaking in their respective fields. The event has become a key platform for local and regional healthcare professionals to connect and share updates in the field of paediatrics.

"I CAN !" Doctors' Symposium: "New Developments in Allergy and Asthma"

Date : 28 October 2017 Saturday

Time : 2pm – 3.30pm (Registration & lunch starts at 1pm)

**Venue : Grand Copthorne Waterfront Singapore,
392 Havelock Road Singapore 169663**

Website: www.nuhkids.com.sg ('Events')

Future Treatment of Allergic Diseases	Dr Soh Jian Yi
Panel Discussion : What's best for Asthma and Allergies in Childhood: Real World Management	Prof Hugo Van Bever and Dr Michael Lim
Debate: Prevention of Food Allergy : Early or Late Weaning in Singapore	Dr Alison Lee and Dr Soh Jian Yi

**The organising committee reserves the right to change the lecture topics without prior notice.*

Upcoming CME Events

Date	Topic
20 May'17	Developmental Paediatrics Updates : Media, Sleep & Childhood Development

Registration & lunch will start at 1.00 pm

Event Venue:
NUHS Tower Block Auditorium
1E Kent Ridge Road, Singapore 119228

For more information and registration, you may contact the GP Liaison Centre at gp@nuhs.edu.sg