



Medical Spotlight

New Treatment Option to Better Manage Chronic Acid Reflux

Majority of our Gastroesophageal Reflux Disease (GERD) patients would be stable on medical therapy. However, some patients will seek alternatives due to failure to control symptoms with medication, volume reflux (regurgitation), poor quality of social life and an intolerance to medication.

Fundoplication has been the standard anti-reflux operation. However, there was room for improvement like the standardisation of procedure techniques, decreasing untoward outcomes like bloating, failure to vomit and decreased failure rate. These led to the development of a mechanical sphincter augmentation device. The device adds to the available tools for managing reflux disease and is thus complementary to existing choices. The device is made up of magnetic beads interlaced as a band. The magnetic attraction between the beads augments the lower oesophageal sphincter muscle, helping it to stay closed to prevent food from getting back into the oesophagus. Normal peristalsis can easily overcome the magnetic attraction between beads, thus allowing them to separate for passage of food and liquid naturally into the stomach.

The procedure is carried out laparoscopically. The diameter of the isolated oesophagus is sized by using a sizer and a conforming device. The advantages of the procedure include a shorter operative time due to lesser dissection, reproducibility and earlier return to normalcy, as a routine diet can be resumed immediately after surgery, and the patient can be discharged within 1 – 2 days after surgery.

In the long term, patients are able to burp, thus decreasing their bloated feeling. Also, patients can vomit should the need arise as the intra-gastric pressure would easily overcome the bonding strength of the magnets. Failure rates to achieve good symptomatic control in the long term is reported to be 5% at six to 12 years following implantation, with a high patient satisfaction rate. Poor oesophageal motility is a relative contraindication. Erosion of the device into the oesophagus is reported at 0.3% and necessitates explantation. As this is a magnetic device, it is compatible with normal 1.5 tesla MRI, but higher-powered MRI scans will demagnetise the device.

The National University Hospital (NUH) is the first hospital in Singapore to offer the new treatment option for GERD since June 2019.

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Progress and Development Updates in Cardiac Surgery

National University Heart Centre, Singapore (NUHCS) is a national centre with a multi-disciplinary team providing a comprehensive and holistic approach to the treatment of cardiovascular diseases. The team of cardiac surgeons from the Department of Cardiac, Thoracic and Vascular Surgery

(CTVS) is committed to providing patient-centric and outcome-driven life-saving surgery ranging from institution of extracorporeal life support, coronary artery bypass graft surgeries (CABG) to surgeries for valvular heart diseases and complex aortic surgeries.



The ExtraCorporeal Membrane Oxygenation (ECMO) inter-hospital transfer programme comprising a team of dedicated intensivists, perfusionists and ECMO surgeons has achieved cardiopulmonary support of patients in extremis on total heart-lung (veno-arterial ECMO) or lung (veno-veno) configuration using portable heart-lung machines followed by safe and expedient transport back to NUHCS for intensive care management. Activation of this service has been at high frequency particularly during the first half of the year for the COVID-19 pandemic.

In the continuously-advancing cardiac surgical field, it is important to adapt and deliver the highest standard of care whilst meeting the shifting expectations of patients. Now, instead of the median sternotomy, some of the major cardiac surgeries can be performed in a less invasive fashion through Minimally Invasive Cardiac Surgery (MICS) with reduced trauma and scarring.

MICS enables performance of heart bypass, valve, and aortic surgeries as well as combinations of procedures through smaller incisions (“keyhole”) in the chest, obviating the need for a complete split of the sternum. Examples include left thoracotomy for CABG (single/multi-vessel), right thoracotomy for excision of cardiac tumors (e.g. myxomas), closure of holes in the heart, mitral valve repair/replacement with combination of tricuspid or arrhythmia

surgery, right anterior thoracotomy for aortic valve replacement and partial (J) sternotomy for aortic valve and aortic surgeries.

NUHCS has established the MICS programme through an integrated multi-disciplinary approach, with A/Prof Theodoros Kofidis (Head and Senior Consultant, Department of CTVS) at the helm, drawing on a broad range of expertise of cardiac surgeons, vascular surgeons, cardiologists and anaesthetists. This has recently culminated in the MICS programme being conferred the NUHCS Peak of Excellence, where it has achieved a track record of proven clinical outcomes and publications on the international arena.

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New Clinical Appointments/Promotions



We are pleased to announce the appointment of Professor Anantharaman Vathsala as Head, Department of Medicine, National University Hospital (NUH) and Yong Loo Lin School of Medicine, National University of Singapore (NUS Medicine) from 1 September 2020.

In 2008, Prof Vathsala joined NUS Medicine as Professor in the Department of Medicine and Senior Consultant in NUH. She assumed the role of Acting Head for Department of Medicine on 1 June 2020.

Prof Vathsala is a well-respected and passionate clinician with significant contributions in the development of renal transplantation. She is Co-Director of the National University Centre for Organ Transplantation (NUCOT). Under her leadership, NUCOT has performed more than 1,000 transplants, demonstrated clinical outcomes comparable to international standards, and has evolved to be a key institution for clinical training and research in Southeast Asia. Prof Vathsala is an established researcher who has participated in many clinical trials that contributed to the success of renal transplantation. In recognition of her significant contribution to Singapore’s healthcare, she was conferred the Distinguished Senior Clinician Award by the Ministry of Health in 2018.



Happenings @ NUH

Updates from National University Centre for Oral Health, Singapore (NUCOHS)

It has been more than a year since NUCOHS was officially opened on 5 July 2019. The centre has since been seeing an increase in referrals from local practices and polyclinics for its wide range of multi-disciplinary specialist oral health services and patient-centred facilities. Services and treatments provided include:

- Acrylic partial / full dentures
- Amalgam restoration
- Cleft lip and palate
- Crooked teeth
- Crowns and bridges
- Dental pulp infection
- Dental trauma in children
- Early childhood caries
- Gum infection/bleeding/recession
- Gummy smile
- Implant treatment (Surgical and Prosthodontics)
- Orthodontics (Braces)
- Orofacial trauma and infection
- Sleep bruxism and breathing disorder
- Wisdom tooth removal

The Centre is thus able to manage the needs of young to elderly patients, including patients with special needs and those with multiple co-existing medical conditions. One such specialised equipment used at the centre is the **Wheelchair Tilt**, a dental chair that allows wheelchair-bound patients to be easily examined from the comfort of their own wheelchair. This removes any difficulties these patients face when being transferred to a normal dental chair. With a maximum tilt of 70 degrees and maximum weight of 370kg, the Wheelchair Tilt has been an invaluable tool for clinicians.



As one of the three national centres, NUCOHS, along with the National University Cancer Institute, Singapore (NCIS) and the National University Heart Centre, Singapore (NUHCS), is an integral part of the National University Health System (NUHS) in meeting the evolving specialised healthcare needs of the population in Singapore.

The Centre has also been working closely with the rest of the NUHS medical departments at National University Hospital (NUH), Ng Teng Fong General Hospital (NTFGH), and National University Polyclinics (NUP) to enhance patient care pathway, such as patient referral and management of patients with medical conditions like diabetes, cancer and dementia. In addition, NUCOHS has integrated an oral health system within NUHS, where oral health specialists and professionals from the cluster will work closely in multi-disciplinary care teams to provide the best care possible for patients.



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