

# GP e-News

JULY 2016



If you would like to receive further information about our GP education activities for 2016, please email [events@muh.org.au](mailto:events@muh.org.au)

## Welcome from the CEO

Dear Doctors

Welcome to another edition of our MUH GP e-News. Macquarie University Hospital is now in its sixth year of operation. We continue to grow from strength to strength as we move closer to fulfilling our long term vision of becoming a fully integrated health sciences centre. As well as occupancy and theatre utilisation remaining consistently high, we've had some tremendous feedback as a result of our two day triennial re accreditation audit against the National Quality and Safety and ISO standards. We received 12 met with merit recommendations, the highest number they have awarded in all their surveys. I do hope you enjoy reading about what's happening here on campus. I also encourage you to participate in our GP education program or come along to Grand Rounds so you can experience firsthand some of the exciting work taking place at our hospital.

**Carol Bryant, CEO**  
Macquarie University Hospital

## MACQUARIE UNIVERSITY HOSPITAL PARTICIPATES IN HEART-WARMING COMMUNITY INITIATIVE



Macquarie University Hospital was delighted to participate in a joint initiative with ROMAC and Johnson and Johnson to offer a life-changing heart operation to Lolita Tekopo.

Lolita is a 16 year old Solomon Islands teenager who suffered from a congenital heart defect. The heart condition involved her ductus arteriosus which is meant to close a few days after birth. In Lolita's case, it remained open, and mixed oxygen-rich blood with oxygen-poor blood. Lolita has at times found breathing difficult and her sight has been impaired. Doctors in the Solomon Islands did not have the resources to address her condition. The Rotary Oceania Medical Aid for Children (ROMAC) group learned of Lolita and helped her travel to Sydney with her mother. This surgery will ensure she lives a normal life. Cardiologist Dr Jason Kaplan said: "It would have caused her to restrict her exercise and not keep up with her classmates. The heart could become enlarged and lead to heart failure," Dr Kaplan said. Lolita was grateful for the doctors and Rotarians. "I feel good. My sight is a lot better. I'm happy to be fixed. "They are very good people and they are a blessing to me." Rotary Oceania Medical Aid for Children has helped more than 400 children receive treatment since 1988. This is the first time Macquarie University Hospital has participated. ROMAC incoming chairman Rob Wilkinson said Lolita was older than most children in the program, who required a hospital with paediatric care.



MACQUARIE UNIVERSITY  
**Hospital**

# UPDATE ON OUR LYMPHOEDEMA SERVICE



**PROF JOHN BOYAGES MBBS(SYD) (HONS) FRANZCRPHD**  
Professor of Breast Oncology and Director Lymphoedema Program  
Faculty of Medicine and Health Sciences, Macquarie University

Lymphoedema Clinic  
Suite 301, Level 3, 2 Technology Place  
Macquarie University, Sydney NSW 2109

## To make an appointment

**CALL** 02 9812 2950

**EMAIL** [lymphoedema@muhs.org.au](mailto:lymphoedema@muhs.org.au)

## LYMPHOEDEMA FAST FACTS

10 THINGS YOU SHOULD KNOW ABOUT LYMPHOEDEMA AND THE MQ LYMPHOEDEMA PROGRAM

To read a recent article on one of our patients that appeared in the Sydney Morning Herald [click here](#)

We'd like to update you on some exciting developments happening around our Lymphoedema program. This one-stop approach ensures that research, education and clinical care are combined to ensure our patients receive optimal care for this complex condition. Lymphoedema mainly occurs because of treatment of lymph nodes by surgery and/or radiation after a diagnosis of cancer. We are currently seeing patients with breast cancer, melanoma and gynaecological cancer, as well as those with head and neck cancer.

In a recent publication we found that 29% of patients who have moderate or advanced lymphoedema have had an episode of cellulitis in the previous year, with about half of those requiring admission to hospital. This means days

off work and an extra burden on patients and their families.

One way of minimising the health burden of lymphoedema is through early detection. In response to this, we have now commenced a lymphoedema clinic under the auspices of the Macquarie University Health Sciences Centre. This new clinic complements our Advanced Lymphoedema Assessment Clinic (ALAC) where we see patients with intractable lymphoedema and explore surgical treatment options, such as liposuction, lymph node transfer and, from later this year, lymphovenous anastomosis (LVA).

Led by Ms Louise Koelmeyer, an internationally recognised expert in lymphoedema therapy, the clinic can screen

patients after cancer treatment (using L-Dex® bio impedance), treat them using the full range of complex lymphoedema therapy and prescribe custom-made and ready-to-wear compression garments, as well as providing education and advice about the ongoing management of this difficult condition.

As you may know, Medicare will reimburse up to 5 allied health visits per patient per year under the Chronic Disease Management scheme. Please consider giving your patient a referral for a CDM to help subsidise the cost of treatment. Many private health funds will contribute to the costs when the Medicare-sponsored visits are used up.

We are planning a GP seminar about lymphoedema to be held on Monday 12 September.



1. Lymphoedema is a chronic condition of swelling in a body part caused by blocked or damaged lymphatic vessels.
2. There are two types of lymphoedema:
  - 1) Primary – a genetic condition that can occur at any age and is characterised by underlying problems with the lymphatic system. The vessels may not pump properly or there may be an insufficient number of nodes or vessels, or both may occur.
  - 2) Secondary – most commonly caused by cancer treatment to the lymph glands but can be caused from parasites, trauma or infection.
3. Lymphoedema generally affects only one arm or leg, depending on the location of the damaged nodes and/or vessels. However, it can affect both limbs, the trunk of the body and the head and neck region.
4. If you have lymph nodes removed from your armpit during cancer treatment such as breast cancer or melanoma, you may have a 20% chance of developing lymphoedema. This risk can increase to 50% with more intensive treatments. If you have a sentinel node biopsy, the risk is about 5-8%.
5. We don't know why some patients get lymphoedema after cancer treatment and some don't, even when they have exactly the same treatment.
6. We are also doing research to explain why lymph fluid stimulates fat production and scarring in affected swollen limbs.
7. Lymphoedema may affect people physically, functionally and psychologically. Early detection and management is the key to a successful outcome.
8. Lymphoedema can be detected early with a special device called Bioimpedance Spectroscopy (L-Dex®) that measures the presence of fluid even before the patient or doctor can detect it.
9. Lymphoedema is treated in the first instance with conservative complex lymphoedema therapy known as CLT. This consists of skin care, exercises, lymphatic drainage massage, compression therapy (bandages or garments) and education. It is important to be assessed by a qualified lymphoedema practitioner. Find a qualified therapist at [www.lymphoedema.org.au](http://www.lymphoedema.org.au)
10. In advanced lymphoedema, the lymph fluid becomes fatty tissue and the only effective approach is medical liposuction. This is a complex non-cosmetic procedure to remove fat and some fluid from the affected limb to match it to the other unaffected limb.

Macquarie University Hospital is home to one of Australia's leading multi-disciplinary diagnostic and treatment services for lymphoedema.

We are completing surgical procedures for lymphoedema, underpinned by comprehensive research and education.

For more information about our program, go to: [lymphoedema.muhs.org.au](http://lymphoedema.muhs.org.au)

Professor Boyages said, "It's fantastic that our Lymphoedema Program at Macquarie University is changing people's lives. However, we need more funding to support our research and help uninsured patients."

Louise Koelmeyer, Lymphoedema Program Manager and Lymphoedema therapist said, "Early detection and intervention is the key to successful outcomes! All patients diagnosed with cancer treatment affecting the lymph nodes should have tailored education according to their level of risk and ongoing monitoring to detect early sub-clinical changes. Lymphoedema affects individuals physically, functionally and psychologically – our program at Macquarie University supports individuals to improve their quality of life."

**GP EDUCATION DINNER 6.30PM MONDAY 12 SEPTEMBER**

**REGISTER YOUR INTEREST >**

## DONATIONS WELCOME

Please help us with our research. Donations to the Macquarie University Lymphoedema Program are tax deductible.

**CLICK HERE >**



## BELLS PALSY – YET ANOTHER USE FOR BOTOX



### DR GAZI HUSSAIN

Specialty: Cosmetic, Plastic and Reconstructive Surgery

Macquarie Plastic and Reconstructive Surgery  
Macquarie University Clinic Suite 301, Level 3  
2 Technology Place, Macquarie University, NSW, 2109

### To make an appointment

**CALL** 02 9812 3899

**EMAIL** mprs@muhs.org.au



Dr Gazi Hussain

Bells Palsy is a relatively common condition, affecting approximately 20 per 100,000 people per year. It is characterised by the sudden onset of unilateral facial paralysis affecting all of the branches of the facial nerve.

The cause of Bells Palsy is essentially idiopathic, but it must be differentiated from other causes of Facial Paralysis such as Varicella Zoster infection or tumours. It is for this reason that any patient presenting with a facial paralysis requires immediate referral for neurological assessment.

The treatment of Bells Palsy is essentially expectant, as the majority of cases will recover within 3 weeks. Corticosteroid treatment has been shown to improve recovery, but needs to be commenced early (within 3 days of onset) to be of benefit.

Approximately 70% of patients will achieve complete recovery within one year. Unfortunately up to 30% of patients with Bells Palsy may not achieve full recovery. Some will be left with a complete Facial Paralysis and some will only achieve a partial recovery. It is this group of patients who have not regained full movement who could benefit from referral to Macquarie Plastic and Reconstructive Surgery.

Dr Gazi Hussain, Specialist Plastic Surgeon, has been treating patients with Facial Paralysis since 2001. In severe cases, surgery may be indicated. Nerve grafting from the contralateral side of the face or muscle transplantation may be indicated to produce movement and a smile. Gold or platinum weights may be inserted into the upper eyelid to aid with eye closure, and face-lifting procedures may be used to correct ptotic soft tissues.

A group of partially recovered Bells Palsy patients can develop debilitating facial muscle spasms or the condition of synkinesis. Synkinesis is thought to occur due to the erroneous regeneration of facial nerve bundles to the incorrect target muscle, causing abnormal or unwanted facial movements. The commonest form of synkinesis occurs between mouth movements (orbicularis oris) and eye closure (orbicularis oculi). Other forms of synkinesis include dimpling of the chin (mentalis) and twitching of the cheek (lip elevators) or neck muscles (platysma) while talking. In some cases this muscle tightness can cause significant pain.

Excellent control of these conditions can be achieved with the combination of Botulinum Toxin injections and specific facial physiotherapy. The Botulinum Toxin relaxes the facial muscles, which are in spasm, or abnormally contracting. Targeted physiotherapy is used to retrain and regain control over these muscles. Botulinum Toxin injections to treat facial spasms are partially rebateable under Medicare.

Facial Paralysis can be devastating for patients as it affects their ability to interact with those around them. They frequently shun social situations. Surgical and non-surgical options are available to aid these patients both in appearance and function.

## ADVANCED ECHOCARDIOGRAPHY EXPANDS CARDIO-ONCOLOGY SERVICES



### DR ARVIND IYER

Specialty: Cardiology  
Subspecialty: Echocardiography

### DR JASON KAPLAN

Specialty: Cardiology  
Subspecialty: Echocardiography

### To make an appointment

**CALL** 02 9812 2900

Cardiology  
Suite 203, Level 2, 2 Technology Place, Macquarie University, NSW, 2109



Dr Arvind Iyer  
and Dr Jason  
Kaplan

Macquarie University Hospital has new echo technology to detect early left ventricular dysfunction using myocardial strain – one of the primary markers of cardiotoxicity in oncology patients.

Chemotherapy-induced cardiotoxicity is the leading cause of mortality and morbidity in cancer survivors. In patients who develop heart failure from cancer therapy, mortality is around 60 per cent within two years. Careful screening, with a focus on early detection and intervention, is important for this group of cancer survivors.

The Department of Cardiology at Macquarie University Hospital now has advanced echocardiography (echo) technology that detects subtle changes in the heart muscle of patients who have undergone chemotherapy. The new technology is located in their Outpatients Clinic.

Importantly, the new echo gives an objective indication of changes in the myocardium before a reduction occurs in the Left Ventricular Ejection Fraction (LVEF) – the measurement of how well the heart pumps blood. For chemotherapy patients, myocardial deformation appears to precede changes in LVEF.

“LV strain has become the most robust method by which to measure this deformation,” said Dr Arvind Iyer, cardiologist at Macquarie University Hospital, who will lead the new cardio-oncology program.

“LV strain can also be used to predict subsequent cardiotoxicity as well as consequences of therapy, beyond one year after chemotherapy treatment. LV strain really has become the primary marker of cardiotoxicity that we can use to modify a patient’s treatment and follow-up regime to avoid the development of advanced heart failure.”

The advanced technology will have particular relevance for breast cancer patients – both those taking traditional chemotherapy agents and those on newer biologics – as well as for people who have undergone several rounds of chemotherapy.

“The new cardiac ultrasound technology offers patients access to the most advanced technology in this field,” said Dr Jason Kaplan, Clinical Lead of Cardiovascular and Respiratory Medicine at Macquarie University Health Sciences Centre. “It’s an important part of our cardiac and oncology service where we can offer the standard of care and diagnostic modalities seen at international centres of cancer excellence.”

# OUR GRAND ROUNDS PROGRAM



Dr Pirooz Poursoltan  
and A/Prof Kevin Ho-Shon



## LOCATION

Interactive Zone,  
Ground Floor,  
Faculty of Medicine  
and Health Sciences

## DATE/TIME

Final Wednesday of every month;  
12.45–1.00 lunch;  
1.00–2.00pm presentations

## FORMAT

Presentations followed by  
robust discussion

## CATERING

A sandwich lunch will be provided

**The large amount of bio-medical research at Macquarie University and its synergies with an on-site hospital are making the Macquarie University Health Sciences Centre's Grand Rounds a powerhouse of new learning.**

Under the umbrella of the Macquarie University Health Sciences Centre (MUHSC), our new Grand Rounds are proving to be a dynamic site of interdisciplinary discussion and learning.

Held on the last Wednesday of each month, MUHSC Grand Rounds are open to all clinical staff, researchers, trainees and students from the university, hospital and clinic.

“We know that, ultimately, patients get the best care if the triad of research, education and clinical excellence is prized,” said Professor Rick Kefford, Medical Oncologist at Macquarie University Hospital, who is spearheading the program.

“Our Grand Rounds are a forum where those three streams come together, in line with the philosophy of MUHSC, to have robust dialogue around a particular case of interest.”

The monthly meetings follow the format of an initial case presentation – from a surgical discipline or medical discipline – followed by input from the audience.

“Importantly, that input is from all disciplines,” said Professor Kefford. “We want fresh eyes and minds thinking about challenging medical scenarios, and lively discussion that is possible from different disciplines and perspectives, specialties and sub-specialties coming together. This includes allied health as well as surgical and medical staff.

“Discussion takes place across a range of possible themes: management, potential ways to investigate or research directions, for example. The mix of more experienced medical staff with younger medical students is also vital for learning and innovation. We have Bachelor of Clinical Science and physiotherapy students attending, as well as registrars and post-doctoral candidates.

“I think it’s important to realise that in this profession, we don’t stop being students – no matter what our level of experience. Our Grand Rounds are designed to emphasise the importance of questioning – something we should always be doing in the interests of innovation and excellence in patient care.”

In the future, we hope to involve local medical professionals from the surrounding communities.

## 2016 PROGRAM

	UNIT/TOPIC	CLINICIAN	UNIT/TOPIC	CLINICIAN	CHAIR
31-AUG	LYMPHOEDEMA	John Boyages	INFECTIOUS DISEASES	Miriam Paul	RICK KEFFORD
28-SEP	NEUROLOGY	Dominic Rowe	RESPIRATORY	Alvin Ing	RICK KEFFORD
26-OCT	ORTHOPAEDICS	Des Bokor	NEUROSURGERY	Marcus Stoodley	RICK KEFFORD
30-NOV	CRITICAL CARE	Mike Parr	PRIMARY CARE	Simon Willcock	RICK KEFFORD



Collette Tosen, Departmental Administrator  
Richard Kefford AM MB BS PHD FRACP  
Professor of Cancer Medicine  
Head, Department of Clinical Medicine  
Head, Cancer Clinical Program

## 12 MET WITH MERIT RECOMMENDATIONS FOR MUH IN RECENT AUDIT

On May 10th – 12th, Macquarie University Hospital completed a two day triennium re accreditation audit against the National Quality and Safety Standards and ISO standards.

The Executive Team were informed by the audit team that the Hospital had received the highest number of ‘MET WITH MERIT’ recommendations that they have awarded in all their surveys.

To RSVP to  
Grand Rounds

[click here](#) >



## UPCOMING GP EDUCATION DINNERS

Macquarie University Hospital is a supporter of continued professional development (CPD) through the RACGP GPs and specialists program. We welcome GPs to the campus and provide a range of high-quality and dynamic medical education seminars throughout the year for their enjoyment. We are hosting a number of GP events this year. If you are a Sydney GP, join us in an interactive educational session by leading Macquarie University specialists. As well as learning about developments in their respective fields, you will have the opportunity to raise questions and discuss issues with these specialists.



### For more information

Contact Macquarie University Hospital's Marketing Manager, Katherine Filippi

**CALL** 02 9812 3099

**EMAIL** [katherine.filippi@muh.org.au](mailto:katherine.filippi@muh.org.au)

## MACQUARIE NEUROSURGERY: LEADING RESEARCH IN THE TREATMENT OF AVMS WITH RADIOSURGERY



To make an appointment

**CALL** 1300 622 782

### PROFESSOR MARCUS STOODLEY

Clinical Program Head, Neuroscience

Specialty: Neurosurgery

Subspecialty: Syringomyelia, Chiari Malformation and Cerebrovascul

Macquarie Neurosurgery Macquarie University Clinic

Suite 201, Level 2, 2 Technology Place, Macquarie University, NSW, 2109



### LYMPHOEDEMA SERVICES

12 September at Macquarie University Hospital

**CLICK HERE TO REGISTER YOUR INTEREST >**



### NEUROSURGERY AT MUH

28 September at Macquarie University Hospital

**CLICK HERE TO REGISTER YOUR INTEREST >**



**Supported by an NHMRC grant, the hospital's neurosurgery team is conducting world-leading research into the molecular effects of treating large AVMs with radiosurgery.**

Arteriovenous malformations (AVMs) – congenital lesions that are most common in children and young adults – make up a significant clinical problem affecting more than 20,000 Australians. They can inflict disabling neurological deficits that can sometimes be fatal.

Although current treatment – by surgery, endovascular occlusion or stereotactic radiosurgery – is generally effective for small AVMs, over one third of AVM patients cannot be treated safely.

Researchers at Macquarie University Hospital are working on a new radiosurgical approach using the hospital's Gamma Knife technology. They are using lessons from new cancer therapy, where deliberate stimulation of intravascular thrombosis is emerging

as a promising therapeutic tool. The technique, termed 'vascular targeting' exploits inherent differences between the endothelium in tumour vessels and normal endothelial cells.

"The Gamma Knife is a very precise tool to alter blood vessels," said Professor Marcus Stoodley, who leads the neurosurgery laboratory at Macquarie University. The idea is to use the Gamma Knife to induce molecular changes in the AVM vessels. These could then be targeted with antibodies carrying agents that promote thrombosis, which will then only occur in the radiated abnormal vessels.

"What makes our work at Macquarie University Hospital so unique is that we have strengths from different research teams coming together to tackle this problem. Our neurosurgery team is working alongside researchers from nanotechnology and from proteomics – all based together at Macquarie University."

At the completion of the project, researchers hope to have characterised the changes in the molecular profile of AVM endothelium induced by radiation in an animal model and a human primary cell line. The project is long term and now has about 10 years of data, with the model fairly well advanced.

"The significance of this work lies in its potential for rapid translation into therapies for currently untreatable brain AVMs," said Professor Stoodley, who completed advanced training at Stanford University and the University of Chicago after his initial neurosurgery training in Australia. "In the longer term, successful development of a radiosurgery-vascular targeting technique has potential for wider application, such as for other brain lesions – including cavernomas and primary and secondary brain tumours."



## EASING THE PAIN OF ANGINA

### DR IMRAN KASSAM

Speciality: Cardiology  
Subspeciality: Electrophysiology,  
Heart Failure, Pacing  
Phone: 02 9819 7011

### DR EDWARD BARIN

Speciality: Cardiology  
Subspeciality: Cardiac Arrhythmias,  
Hypertension, Heart Failure  
Phone: 02 9887 8888



### To make an appointment

CALL 02 9812 2900

Based on a patient's response while using the TENS machine, doctors can predict their probable success with the permanent neurostimulation implant. Results from the TENS trial also provides surgeons with valuable information on where to place the permanent leads.

"The implant procedure itself is relatively simple," explained Dr Imran Kassam, consultant cardiologist who performed the first implant on an angina patient at Macquarie University Hospital in mid-July.

"The device itself is placed just inside the chest wall, so it's not an intra-cardiac procedure. However, the diagnostic and work-up stage can be complex and it's important to be thorough and accurate with this to ensure success of the permanent implant procedure.

"A good multidisciplinary team also needs to be in place, including technical advisors, surgeons, physicians, cardiac nurses and allied health care workers."

In the case of Macquarie University Hospital's first patient, who just days after the procedure, was able to walk up to 20 metres, after barely being able to walk at all.

Given the newness of the use of neurostimulation for angina patients, Dr Barin and Dr Kassam have established a national research collaboration to collect data that will track long-term outcomes of patients.



Associate Professor Tillman Boesel, patient Antonio Caristino and Dr Imran Kassam

New South Wales' first neurostimulation procedure for patients with intractable angina was introduced in July, when Macquarie University Hospital doctors took on their first case.

Patients with intractable angina have often reached the end of the line in terms of available treatments, living with severe pain and poor quality of life. Walking to the newsagent to buy the morning newspaper can, in itself, be a tremendous effort or even impossible.

"These patients have previously not responded to anti-angina medications, and have had angiograms and stents that don't adequately reduce their pain," said Dr Edward Barin, Medical Director of the Macquarie Heart Clinic and Coordinator of the Cardiac Diagnostic Unit at Macquarie University Clinic.

"Now, with neurostimulation available at Macquarie University Hospital, another avenue is open for improving their quality of life."

The technology – pioneered by international biotechnology company Medtronic – is based on the company's previous neuromodulation technology for patients with severe pain. Associate Professor Tillman Boesel first introduced that technology to Macquarie University Hospital in 2012 for patients with severe back pain.

The new application of the technology for angina targets two things: pre-conditioning of the heart and collateral blood flow, thereby stimulating blood flow to the heart, and increasing oxygen supply.

As part of the selection process, patients are first trialled on the non-invasive transcutaneous electrical nerve stimulation (TENS) machine, which sends pulsed electrical stimulus to nerves via two or more electrodes pads placed on the skin.

## PUBLIC HEALTH: NEW PRIORITIES, NEW PROFESSIONS



### A CHANGING HEALTHCARE LANDSCAPE

Click here to [find out more >](#)

With Australia's ageing population, our progressively more globalised world and an increase in the number of people dealing with chronic or complex health conditions, the healthcare needs of our expanding population have grown significantly in recent years. Because of this we're seeing:

- the rapid growth of integrated health services
- an increase in the demand for a diversified public health workforce.

And though the demand for skilled public health professionals is on the rise, this workforce remains in short supply. So, as the sector revises traditional healthcare roles and new roles emerge, exciting opportunities will exist for those individuals – across all disciplines – who are interested in improving the public's health and being part of this trailblazing healthcare transformation.

### MACQUARIE UNIVERSITY'S NEW MASTER OF PUBLIC HEALTH

Keen to address these evolving needs and to open doors to rewarding careers as public health professionals. Macquarie's **Master of Public Health** will equip graduates for 21st-century public health practice across a range of careers – specialise in Environmental Health; Health Law, Ethics and Policy; Health Leadership; Global Health; or Research (a direct pathway to PhD studies). This innovative, interdisciplinary and future-focused course provides the broad foundational knowledge and skills tomorrow's public health workforce will need to:

- prevent disease
- promote health
- address health-related issues in our globalised world
- work in a variety of jobs, in a variety of sectors – anywhere in the world.

