

# GP IN-SYNC

A monthly e-newsletter by  
NUH GP Liaison Centre



**GP Appointment  
Hotline +65 6772 2000**

*November 2015*

## Specialist in Focus



### **A/Prof Wilson Wang**

MBBS (London), FRCS (Glas), D.Phil (Oxford)

Head & Senior Consultant,  
Division of Hip & Knee Surgery  
Department of Orthopaedic Surgery

A/Prof Wilson Wang specialises in a wide range of knee and hip treatments and operations, including total joint replacement surgery of the knee and hip, other joint operations (e.g. revision knee and hip replacements, osteotomies), arthroscopic (key-hole, minimally invasive) surgery including ligament reconstructions, meniscal repairs and cartilage and scaffold reconstructions and complex and advanced joint surgery such as meniscal transplants, partial knee replacements and 3D guided surgery.

A/Prof Wang completed his medical degree with distinctions and multiple awards at University College London (UCL), UK, and was awarded the Girdlestone Scholarship by the University of Oxford for his Doctor of Philosophy (Ph.D.) degree. His specialty training in knee and hip surgery was at the internationally recognised Nuffield Orthopaedic Centre in Oxford, UK. In addition to his clinical work, he leads a prize-winning programme in orthopaedic research, with special interest in hip and knee reconstruction, implants, tissue regeneration and 3D printing in medical technology.

He was the President of the Singapore Orthopaedic Association from 2012 to 2013, and currently serves as Singapore Representative of the ASEAN Arthroplasty Association and also of the Hip Chapter of the Asia-Pacific Orthopaedic Association, and as Editor-in-Chief of the scientific journal Science Insights Medicine.

## Clinical Highlights

### ***Knee Pain – A Common Orthopaedic Problem***

Knee pains are frequently encountered in all age groups, and they are among the most common problems treated by orthopaedic specialists.

In younger, more active individuals, knee injuries are often encountered. Medical treatment would be directed at diagnosis and treatment of the specific injured structure, aiming at healing and recovery of function. With age, tissues become less supple and withstand stresses poorly. Osteoporosis in bones becomes more common, increasing risk of fractures. Cartilage degeneration in joints often leads to osteoarthritis, joint instability and knee pains.

In degenerative situations, accumulated wear and tear with age and activities may result in knee damage that becomes irreversible. When features such as bone spurs and cartilage thinning occur, the condition is termed osteoarthritis.

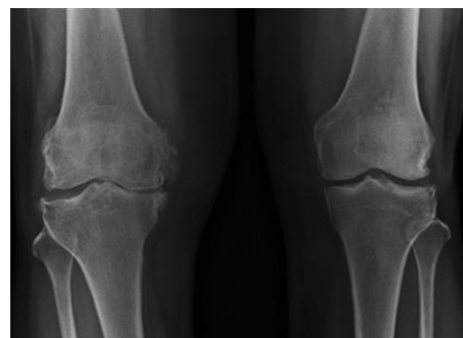
Symptomatic knee osteoarthritis is common worldwide, with prevalence estimated at over 10% of persons aged over 60, and it is more common in women than men.

The condition seems to be more frequent in Asian races, due to genetic factors, knee shape and leg alignment problems such as bow-leggedness. While knee osteoarthritis is associated with older individuals, younger and more active persons may also develop this due to excessive stress on the knee (such as repeated squatting and impact activities), or to untreated previous injuries such as large meniscal tears.

An orthopaedic specialist will be able to advise on the diagnosis, and also whether the condition is serious or not.

Medical management may be conservative in simple cases, such as modification of activities, physiotherapy, simple analgesics and supplements, and use of braces. In more severe cases, surgery may be recommended.

For soft-tissue knee problems, available procedures include operations like arthroscopy, ligament reconstruction and meniscal repair, to advanced or complex procedures such as cartilage scaffold reconstructions and meniscal transplant in appropriate cases. For osteoarthritis, milder options that may be considered include knee injections and keyhole surgery (arthroscopy), but in established cases of knee osteoarthritis, procedures that are indicated include knee realignment operations and knee replacement surgery, which may be partial or total depending on the indications of the individual patient. The ultimate aim is for an effective treatment that improves quality of life.



*X-ray showing osteoarthritis of the right knee (left side of picture), with osteophytes (bone spurs) and loss of cartilage joint space. The left knee (right side of picture) has good joint space between the femur and tibia bones. This patient had right knee pain that was affecting her walking and daily activities.*



## GP Liaison Centre (GPLC)

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## Specialist in Focus



### A/Prof Naresh Kumar

MBBS (AIIMS), MS Orth. (AIIMS), DNB Orth, FRCS Ed. FRCS (Orth & Trauma), DM (Orth Spinal Surgery)

**Senior Consultant,**  
NUH University Spine Centre

**Deputy Head,**  
Spine Division

**Undergraduate Education Director,**  
NUS Department of Orthopaedic Surgery

A/Prof Kumar did his spinal fellowships at Queen's Medical Center Nottingham, UK (degenerative spinal problems and spinal trauma), St. James Hospital, Leeds, UK (spinal deformity correction) and at Harborview Medical Centre, Seattle USA (cervical spine & spinal trauma). He became a fellow of the Royal College of Surgeons of Edinburgh in 1992 and of the intercollegiate board in Orthopaedics in 1997 after being awarded the FRCS (orthopaedics & trauma).

He has a keen interest in minimally-invasive surgery and has introduced the concept of minimal invasive surgery for metastatic spine disease in this region. He practices the whole spectrum of spinal surgery which includes degenerative, spine trauma, spine tumour and spinal deformity corrections. His main interest is development of surgical treatment for both primary and secondary spine tumours. He has also published in these fields at appreciable lengths. Since 2014 onwards, his research has also branched into introducing minimally invasive surgery (MIS) in metastatic spinal tumour surgery.

Recently, he has been recognised internationally as an expert on spine tumour. Since 2013, he has been appointed as Undergraduate Education Director for NUS Department of Orthopaedic Surgery. To date, major developments have been made in curriculum rationalisation and assessment standardisation. Currently, his educational research focuses on developing instructional video in Orthopaedics clinical examination.

## Clinical Updates

### Metastatic Spine Tumour

#### About the condition

The occurrence of this disease is on the rise as lifespan increases among our elderly population.

#### What causes it?

It can be caused by spread of cancer cells from primary site like lung breast, prostate and kidney to the spinal column where they deposit and grow as tumour mass.

This growth can press the spinal cord causing paralysis or make the spinal column weak producing severe pain even on normal activity such as sitting, walking and standing.

#### Signs & Symptoms

Spinal tumours usually present as severe back pain, which is not responsive to normal anti-inflammatory and analgesic medications. The back pain increases particularly upon loading the spine (segmental instability).

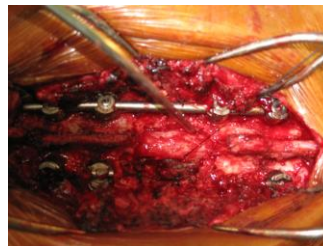
Some individual may experience partial or complete weakness of upper limbs and/or lower limbs depending on the site of compression on the spinal cord.

#### Diagnosis

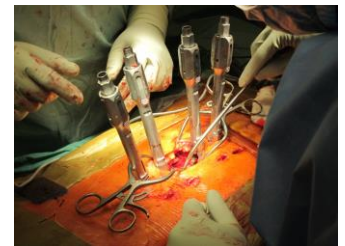
Diagnosis usually requires an MRI scan to establish the spinal cord compression by the tumour.

#### Treatment Options

This would require operative decompression and fixation. The operative fixation can be done either by standard open technique or minimally invasive surgery.



Open operative decompression and stabilisation of metastatic spine



Minimally-invasive surgical fixation for metastatic spine tumour

### Degenerative Spine Disease

#### About the condition

Degenerative spine disease that requires surgical treatment will present with disabling back pain or lower limb pain, which requires a spectrum of treatment modalities such as spinal fusion or decompression after the patients have trialed a good course of physiotherapy and other non-operative treatments such as acupuncture and chiropractic treatment. Some of these conditions present with severe deformity of the spine. This will require major reconstruction of the spine.

#### What causes it?

Ageing process causing disc degeneration and osteoarthritis of the spine are main reasons for age-related deformity of the spine.

#### Signs & Symptoms

Majority of patients are asymptomatic. Symptomatic patients usually present with severe disabling back pain and/or difficulty in walking. They may also have pain at rest in the lower limbs.

#### Diagnosis

The diagnostic process requires taking appropriate x-rays, MRI and perhaps even CT scans.

#### Treatment Options

This would require operative decompression and fixation. The operative fixation can be done either by standard open technique or minimally invasive surgery.



# Shaping Medicine for the Future

CME Registration: <https://nuhcme.com.sg/>

## News Updates

### *Little Jeremy can look forward to a normal life after liver transplant*



Mr Guo spending a quiet moment with Jeremy at 6am on Aug 1, just before both of them go into the operating theatre for the liver transplant operation. Fortunately, Mr Guo was found to be a suitable donor for his son.

He was a little yellow boy. From his skin to his eyeballs, the unhealthy hue permeated Jeremy Guo's tiny frame, as though he had been dipped in paint. His liver had failed, toxins were building up, and he was living on borrowed time. Last month, with a new liver courtesy of father Guo Yang, 34, who gave up part of his own organ, he finally got to eat cake for the first time, and blew out his second birthday candles a healthy, lively boy.

When Jeremy was operated upon, over 12 hours on Aug 1, a team from The Straits Times (ST) was allowed to be present the whole time to document the complex procedure that has saved numerous lives here. ST has waited for Jeremy to regain his health before releasing the details in print today, as well as video footage on its website.

Since it was started 20 years ago, Singapore's National Paediatric Liver Transplant Programme has achieved success rates comparable to the best in the world.

But things were less certain when Professor K. Prabhakaran stood at the operating table for 27 hours, performing Singapore's first successful paediatric liver transplant in 1995.

"Those days are over now," he said, pointing out the refinements in surgical techniques. Nonetheless, that first patient, who was 11 when she had the surgery, recovered and went on to get married and have children.

Prof Prabhakaran, director of the Paediatric Organ Transplant Programme at the National University Hospital, is now a veteran who has helmed most of the over 100 such operations done here. "The aim of a liver transplant – it's not just surviving, it's going on to lead a normal life," he said.

Likewise, the paediatric kidney programme at NUH has gone from strength to strength since it began in 1989.

Said Professor Yap Hui Kim, head and senior consultant at the hospital's Division of Paediatric Nephrology: "A transplant... gives patients the best quality of life, and the best opportunities ahead." Professor Quak Seng Hock, of the NUH Division of Paediatric Gastroenterology, Hepatology and Nutrition, said: "For children who are growing and developing, many of the patients are affected in terms of development... so one of the measures of success is growth."

For Jeremy, the future looks bright. He has gained weight, weighing in at 12.9kg on his birthday, from around 10kg just after the operation, and tests show his liver is working normally. Said his mother Maggie Yu, 33: "He has lost the yellow colour. I can see the difference."



Professor Prabhakaran (fourth from left) and his team working together to remove Jeremy's diseased liver. The operation was complicated by Jeremy's earlier surgery, which had caused some scarring between the liver, and abdomen and intestines.



Mr Guo Yang with his son Jeremy on Aug 26, before the boy was discharged from hospital 25 days after his liver transplant operation. An ST team was allowed to document Jeremy's 12-hour transplant on Aug 1.

Source : *The Straits Times* (30 October 2015)

Watch the video on <http://www.razor.tv/video/1367034/22-month-old-boy-gets-liver-transplant>



# Shaping Medicine for the Future

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## News Updates

### Hope in Sight

#### More occupational therapy services available to help low-vision sufferers adapt & live well

A sudden severe viral eye infection last year left Mr Nasiruddin bin Pengut, 32, completely blind in the left eye. He also lost most of his right eye’s visual field — the total area that can be seen when the eye is focused on one point.

Yet, Mr Nasiruddin is now able to read, as well as use the computer and touch-screen devices after undergoing a low-vision rehabilitation programme at National University Hospital (NUH), which sees 80 to 100 new patients with low vision each year. He also has no problems retrieving his mail and taking walks around the neighbourhood on his own.

Said Mr Danial Bohan, senior optometrist at NUH’s Eye Surgery Centre, low vision affects mainly the elderly, as the number of potentially blinding eye conditions, such as glaucoma and age-related macular degeneration, increases with age.

Added Ms Chen Xuanyu, a low vision-trained senior occupational therapist from NUH Rehabilitation Centre: “With the use of various low vision aids and strategies, they are still able to do what they want to do and lead a fulfilling life.”

Mr Nasiruddin’s independence after his vision loss did not come easily. The former architect had to rely on his mother to help him with everyday tasks such as identifying food on his plate. Mr Nasiruddin learnt to adapt after Ms Chen taught him to identify the area of best vision for a visually-impaired person.

Using this, he was able to maximise the use of his remaining vision for daily activities. Ms Chen also visited him at home to explore how his family could make the space more low-vision-friendly.

For instance, items at home were re-arranged, brighter lighting was added to his desk area, while coloured tapes were used to enhance contrast in the environment. Rubber bands were tied to essential items such as toothbrushes to help him identify them.

However, stigma and lack of awareness about low-vision rehabilitation have prevented some patients from seeking help early. Said Ms Chen: “It is important to note that low-vision patients who make early adjustments and adaptation often do better. Simple tools like the magnifier can make a huge difference to their lifestyle needs”.

#### Occupational Therapy for Low-Vision Sufferers

Dr Dawn Lim, associate consultant at NUH Eye Surgery Centre, said demand for low-vision services has increased in recent years. More institutions now offer occupational therapy services together with their existing low-vision rehabilitation programmes.

Typically, the patient is first assessed by a low-vision optometrist, who prescribes suitable optical devices, such as magnifiers and telescopes for specific visual tasks, said Ms Chen. A low-vision-trained occupational therapist then works with the optometrist to teach patients how to use the prescribed tools, she said.

The Singapore Association of the Visually Handicapped (SAVH) also provides occupational therapy to visually-impaired clients to help them re-orientate and rehabilitate with the use of a white cane. It sees about 30 to 40 cases each month.

Meanwhile, NUH Eye Surgery Centre has plans to expand its low vision programme, so that patients — especially the elderly with little or no social support — do not fall through the cracks, said Dr Lim. For instance, the team is looking at ways to equip community-based occupational therapists with the necessary skills to manage low-vision patients. As part of a new pilot initiative, the NUH team will also work with nursing homes and eldercare centres to integrate basic vision screening into their existing work processes.

“This is to ensure that people with low vision can be identified early and receive the necessary treatment or care,” said Dr Lim.

Source : TODAY (23 Sep 2015)



## Upcoming CME Events

Date	Topic
14 Nov **	Updates on Management of Skin Disorders
21 Nov	NUH Dentistry – GP Updates 2015
28 Nov *	Updates in Neurosurgery for the General Practitioner

\*\*Event Venue : Carlton Hall, York Hotel

\*Event Venue : Seminar Room, NUHS Tower Block, Level 1

Registration & Lunch will start at 1pm

Event Venue:

NUHS Tower Block, Auditorium, Level 1  
1E Kent Ridge Road, Singapore 119228

For registration please visit our CME Portal at <https://nuhcme.com.sg/>.  
or email us at [gp@nuhs.edu.sg](mailto:gp@nuhs.edu.sg)