

GLOBAL HEALTH at the george

Issue 24 | June 2012

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REVIEW SPARKS GLOBAL KIDNEY STUDY



KIDNEY FAILURE SHORTENS THE LIFE OF AFFECTED PEOPLE, REDUCES QUALITY OF LIFE, AND IS EXPENSIVE TO TREAT. PREVENTION IS KEY, AS RELATIVELY FEW TREATMENTS HAVE BEEN SHOWN TO BE EFFECTIVE.

IgA Nephropathy, where abnormal activity of the immune system causes kidney damage, is one of the most common causes of kidney failure but no specific proven treatment is currently available. Affecting mostly young adults, IgA nephropathy is the most common primary glomerular disease worldwide, and many patients develop chronic, slowly progressive kidney injury.

A new systematic review led by Dr Jicheng Lv from The George Institute, China and the Peking University First Hospital included nine trials that involved over 500 patients with IgA nephropathy. Researchers investigated the role of steroids in preventing kidney failure. The review found that steroid therapy appeared to prevent kidney failure, but at a cost of a 55% higher risk of adverse events.

According to researchers the quality of existing trials assessed in the review was suboptimal, raising concerns about the robustness of the findings. The new results, which were published in the *Journal of the American Society of*

Nephrology call for more high quality and reliable trials to be completed among IgA nephropathy patients.

For this reason, the authors from China, Australia, India, the UK, the United States of America and Canada are planning a global study of high-risk kidney patients, called the 'Therapeutic Evaluation of STeroids in IgA Nephropathy Global Study' (TESTING Study). The study will include 1300 people from around the world and follow them for five years, and assess whether steroids safely prevent kidney failure.

The TESTING study will provide data that will guide the treatment of IgA nephropathy patients globally. The study

will engage with patients via hospitals in China initially, and study leaders are currently working to enrol additional centres from Australia, India and other countries around the world.

The first patients were enrolled in the study from the Peking University First Hospital in May 2012. Over coming years, a large number of additional patients will participate in the TESTING study, and will provide reliable and precise evidence about the effects of this promising intervention.

For more information on the TESTING study, please contact Professor Vlado Perkovic on vperkovic@georgeinstitute.org.au or Jicheng Lv on jlvlv@georgeinstitute.org.au.

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INSTITUTE AWARDED KEY FUNDING FOR INDIA'S HEART HEALTH

AROUND \$930,000 IN FUNDING FOR THE HEALTHTRACKER INDIA PROJECT WAS ANNOUNCED IN JUNE AS PART OF THE AUSTRALIAN GOVERNMENT'S COMMITMENT TO THE GLOBAL ALLIANCE FOR CHRONIC DISEASES. THE ALLIANCE IS FOCUSED ON DEVELOPING SOLUTIONS TO REDUCE THE IMPACT OF CHRONIC DISEASE VIA RESEARCH DEDICATED TO THE PREVENTION AND CONTROL OF ISSUES SUCH AS HYPERTENSION, DIET AND TREATMENT OF THESE CONDITIONS. AUSTRALIA IS ONE OF FIVE MAJOR INTERNATIONAL CONTRIBUTORS TO THIS LEADING ALLIANCE.

Three key projects developed by The Institute and other partners have received funding from the Alliance, to total over \$3.3M invested in India's heart health.

"We are honoured to have received funding for these vital projects, which will provide invaluable information to address the rise in cardiovascular disease in India and help provide healthcare solutions. These projects include a national salt reduction program, further investigations into affordable drug treatment strategies to treat hypertension and assessment of innovative smartphone healthcare technology", said Professor Anushka Patel, Executive Director of The George Institute, India.

GUIDED BY THE BEST IN INDIA



The George Institute, India recently hosted a meeting of its Research Advisory Committee (RAC) – an independent body that provides high-level research recommendations. Meeting in March in Hyderabad, the RAC provided positive feedback on the 2011-12 research program in India. The committee made several recommendations around profile raising and funding opportunities, while encouraging the team to continue their focus on developing collaborations and building research capacity within India.

The portfolio of research at The George Institute, India has grown considerably since the Institute officially opened its doors in 2007. Currently, there are ten major studies underway in injury prevention and chronic disease with particular focus on innovative ways to delivery healthcare solutions, particularly in disadvantaged populations.

Membership of the Research Advisory Committee includes:

Dr. G Gururaj, National Institute of Mental Health & Neurosciences, Bangalore

Dr. Rajesh Kumar, Postgraduate Institute of Medical Education and Research, Chandigarh

Dr. Ramanadham Madduri, University of Hyderabad, Hyderabad

Dr. Jeyaraj Durai Pandian, Christian Medical College, Ludhiana

Dr. M Shiva Prakash, National Institute Of Nutrition, Hyderabad

Dr. KR Thankappan, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum

Dr. R Thara, Schizophrenia Research Foundation, Chennai

Dr CS Yajnik, King Edward Memorial Hospital, Pune



HEALTHCARE INNOVATION

SMARTPHONE THE ANSWER FOR INDIA'S HEART HEALTH?

MORE THAN 30 MILLION PEOPLE SUFFER A HEART ATTACK EACH YEAR IN INDIA. FOR THOSE LIVING IN RURAL REGIONS SUCH AS ANDHRA PRADESH ON THE SOUTH EASTERN COASTLINE OF INDIA, THE RATE OF CARDIOVASCULAR DISEASE IS PARTICULARLY HIGH AND THE DEVELOPMENT AND IMPLEMENTATION OF EFFECTIVE, LOW-COST PREVENTIVE AND THERAPEUTIC STRATEGIES IS A PUBLIC HEALTH PRIORITY.

Under conditions where health systems are poorly equipped to deal with the rise of cardiovascular disease, innovative ideas are desperately needed to improve the healthcare landscape.

Thanks to new funding from The Global Alliance for Chronic Diseases via Australia's national peak health and medical body, the National Health and Medical Research Council, The George Institute, India, is harnessing smartphone technology in a new project focused on rural India.

The pilot study, initially called 'HealthTracker India' aims to improve screening for cardiovascular risks in the primary healthcare system, while building local capacity to deal with these issues in the long term – supported by an intelligent smartphone application.

Using World Health Organization guidelines, the smartphone application will guide health workers in rural

India through a series of questions to assess a patients blood pressure, blood sugar, weight and height. The answers are entered into HealthTracker, which then calculates a comprehensive risk profile that is uploaded to a secure electronic health record. High risk individuals are then referred to see a doctor who follows a management plan for the patient's long term care. The guide is based on the best available evidence in cardiovascular care, and is also designed to build capacity in primary healthcare in rural India.

"HealthTracker, India will train both primary care physicians and non-physician health workers to better identify cardiovascular risks such as raised blood pressure, high cholesterol and diabetes as major red flags for the potential of suffering from a heart attack. We will assess the benefits of smartphone application to predict a patient's ten year risk of cardiovascular disease", said Dr Pallab Maulik, Head of Research and Development at The George Institute, India.

"This project focuses on a complex yet practical intervention to address the growing cardiovascular epidemic in India. It combines a technological solution with innovative strategies to empower the local health workforce. The pilot findings will be used to inform a large scale trial in rural India. Our goal is to provide rigorous evidence on a strategy that might lead to better health care for under-served populations in low and middle income countries", added Dr David Peiris, Principal Investigator.

UK ACADEMY OF MEDICAL SCIENCE ELECTS TGI PRINCIPAL DIRECTOR



The George Institute's Principal Director, Professor Stephen MacMahon, has been elected as a Fellow of the United Kingdom's Academy of Medical Sciences. Recognised for his contribution in the field of medical science, in particular the prevention and treatment of cardiovascular diseases, Stephen will be formally admitted to the Academy at a ceremony in June 2012. Stephen is internationally renowned for his contributions to global cardiovascular health.

"It is an honour to be elected a Fellow of the Academy of Medical Sciences. This award reflects the successful program of research contributed to by many at The George Institute. The Institute's research has made a significant impact in the medical research arena and this fellowship reinforces the influence of our work," said Professor MacMahon.

Stephen is currently Executive Director of the new George Centre for Healthcare Innovation at the University of Oxford. He also holds a professorial appointment in medicine at the University of Oxford, and is a James Martin Professorial Fellow. Stephen is also Professor of Cardiovascular Medicine at the University of Sydney.

INVESTIGATING SCIATICA

UP TO 14% OF THE POPULATION EXPERIENCE SCIATICA, A MUSCULOSKELETAL CONDITION THAT CAN CAUSE SEVERE PAIN AND DISABILITY. CAUSED BY AN IRRITATED NERVE ROOT IN THE LOWER BACK, SCIATICA PATIENTS EXPERIENCE LEG PAIN THAT IS WORSE THAN THEIR BACK PAIN, PLUS ALTERED SENSATION AND WEAKNESS IN THE LEG. UNDERSTANDABLY THEY ARE KEEN TO FIND FAST AND EFFECTIVE PAIN RELIEF IN ORDER TO RESUME THEIR EVERYDAY LIVES.

Researchers at The George Institute for Global Health are constantly developing and evaluating approaches to the primary care of musculoskeletal conditions such as sciatica. A recent systematic review and meta-analysis published in the British Medical Journal by the Institute's musculoskeletal team investigated best practice in pain management for people with sciatica.

"Unlike most medical conditions, there are no clear and consistent recommendations for the management of sciatica. We assessed 23 published reports to assess pain and disability outcomes among patients. We focused on the efficacy and tolerability of drugs typically administered in primary care with the aim of identifying what works best", said lead author and PhD Student Rafael Zambelli Pinto.

Across all studies from various countries across the world, there were a variety of drugs used to treat sciatica pain including non-steroidal anti-inflammatory drugs, (NSAIDs), opioid analgesics, corticosteroids, antidepressants and anticonvulsants.



"While we assessed the best available evidence in the area of sciatica management, it was clear to us that better research is needed. The current evidence is low quality and did not show favourable effects of NSAIDs and other treatments. Our review exposed a lack of conclusive evidence to endorse the prescription of these drugs for patients with sciatica in primary care", added Professor Chris Maher, Musculoskeletal Division Director.

As the population ages, and increasing numbers of people suffer musculoskeletal conditions such as sciatica and back pain, we must acknowledge the role high-quality evidence can play in improving the treatment and impact of these conditions on our health systems across the world.

PHD STUDENT PROFILE: RAFAEL ZAMBELLI PINTO



"I first came to Australia in December 2009 to commence my studies and work at The George Institute. I first heard about The George Institute from my Masters supervisor in Brazil. I started following the latest musculoskeletal research publications from the Institute and I realised that this was definitely the best place to go abroad and get some experience with clinical research, while studying my for PhD at Sydney University", said Rafael.

Since his studies in physiotherapy, orthopaedics, sports physiotherapy and biomechanics, Rafael has wanted to learn more about clinical research. His particular area of interest is low back pain, which he says is a well-known condition but more studies are needed to better understand treatment and prognosis.

At The George he is working with back pain expert Professor Chris Maher. Rafael is specifically interested in the evidence-based management of sciatica. "In the field of low back pain, this is a relatively common condition readily recognised by most primary care clinicians", said Rafael. He is now conducting a new systematic review with meta-analyses to determine the efficacy of treatments for the condition.

CHRONIC AND CRITICAL CONDITIONS

CHINA FOCUS ON CHRONIC DISEASE PREVENTION

INTERNATIONAL AND LOCAL EXPERTS IN NON-COMMUNICABLE DISEASES (NCDs) CONVERGED ON XI'AN IN SHAANXI PROVINCE, CHINA, IN MAY FOR THE FOURTH ANNUAL CHRONIC DISEASE FORUM FOR THE PREVENTION AND MANAGEMENT OF CHRONIC DISEASES AND A HEALTH POLICY ROUNDTABLE.

Jointly hosted by The China International Center for Chronic Disease Prevention, The George Institute for Global Health, China, and Xi'an Jiaotong University, the event was also sponsored by the US National Heart, Lung, and Blood Institute (NHLBI) and UnitedHealth Group.

Professor Lijing Yan, Head of the Research and Development Division at The George Institute, China, and Director of the China International Center for Chronic Disease Prevention, said the Forum and Roundtable was an opportunity to discuss key health issues facing China and the developing world.

"China is undergoing a huge change to its health landscape so discussions that connect health practitioners and researchers together with policy makers are particularly important as we develop responses to prevention and management of NCDs," she said.

"With rapid economic development come a number of very challenging health problems facing China today and into the future. The impact of NCDs is being increasingly recognised, stalling economic growth, impacting quality of life and burdening under resourced health systems.

"Our discussions reached a consensus on the top three priorities for prevention and control of non-communicable



The fourth annual Chronic Disease Forum called for increased focus on prevention and control of key risk factors

diseases in China. These priorities are tobacco control, salt reduction and preventing and controlling other risk factors such as high blood pressure and obesity.

"The Forum was an opportunity to raise awareness generally around NCDs and specifically around these priorities. We connected stakeholders involved in this debate so that we could all exchange the latest thinking and research results.

"This provides a very solid foundation for health policy decision makers and reformers."

With NCDs responsible for 83% of all deaths in China as well as a high incidence in developing countries worldwide, the discussion focused on advances in community based initiatives in non-communicable disease prevention and

control and on medical reforms underway in the China health system.

"Outcomes of the meeting reinforced for us the importance of working with local communities – doctors, leaders and local citizens to raise awareness about the barriers to good health," Professor Yan said.

The Chronic Disease Forum and Health Policy Roundtable are annual events and are jointly supported by the Bureau of Disease Prevention and Control and Department of Maternal and Child Health Care and Community Health in the Chinese Ministry of Health, China Health Education Center, China National Center for Disease Control and Prevention and Community Health Association of China.



VULNERABLE POPULATIONS

KANYINI: FINDING CHRONIC DISEASE SOLUTIONS

FOR ABORIGINAL AUSTRALIANS, CHRONIC DISEASE IS THE MAJOR DRIVER OF THE PERSISTENT GAP IN LIFE EXPECTANCY OF MORE THAN 12 YEARS. ABORIGINAL AUSTRALIANS ARE FIVE OR MORE TIMES MORE LIKELY TO DIE FROM HEART DISEASE, DIABETES AND KIDNEY DISEASE AND ARE LESS LIKELY TO HAVE READY ACCESS TO THE REQUIRED TREATMENTS FOR THESE CONDITIONS.

Through the Kanyini Collaboration, a large team of researchers are working to break down these barriers, so that best practice chronic disease care becomes the norm for Aboriginal communities and health outcomes are improved.

The Kanyini Collaboration, led by researchers at The George Institute and Baker IDI Heart and Diabetes Institute, aims to improve health outcomes for Aboriginal and Torres Strait Islander people at risk of heart disease, diabetes and kidney disease. Importantly, Kanyini seeks to develop

culturally appropriate research and, based on evidence about what works, to advocate for solutions to improve access and health.

“Kanyini is about improving chronic disease care for Aboriginal Australians. Our research has already identified inequities in access to healthcare, and soon we will report on particular barriers to accessing care. This information will help clarify what is and isn’t working for Aboriginal Australians,” said leading researcher and Chief Investigator of Kanyini, Professor Alan Cass.

Researchers will also report on the effect of the polypill – a four-in-one pill, which combines four proven risk reduction medicines into one low cost pill – in improving adherence to effective treatment for people at high-risk of heart attack and stroke. The research team hopes that a polypill strategy will reduce the extreme burden of cardiovascular disease among Aboriginal Australians. The Kanyini-GAP trial is due for publication in early 2013 and will show whether patients can more easily maintain adherence to

effective medical therapy, and thus better reduce blood pressure and cholesterol, with the single pill rather than usual care.

In the future, Kanyini researchers plan to explore how we approach, in primary care, the screening and management of depression, anxiety and stress with Aboriginal Australians. Pioneers in this area, building on earlier work by Kanyini Chief Investigator Professor Alex Brown, the Kanyini team will investigate the interplay between psychosocial factors such as chronic stress and depression and chronic disease in Aboriginal communities.

Professor Cass believes the ongoing findings from the suite of Kanyini studies will inform government policy and build capacity to provide high quality chronic disease health services for Aboriginal Australians. “The Kanyini team is thrilled to be conducting groundbreaking research that will truly contribute to closing the gap for Aboriginal Australians”, he said.

60 SECONDS WITH SHARON PONNIAH, PROGRAM MANAGER, KANYINI VASCULAR COLLABORATION



My role at The George Institute is to... manage a range of exciting projects as part of the Kanyini Vascular Collaboration that partners with aboriginal health services to conduct rigorous, focused research.

I believe medical research has the power to... influence change and improve lives.

Kanyini will... help improve health outcomes among Indigenous Australians.

I loved working as... a program manager at the Pharmaceutical Management Agency of New Zealand

My first job was... at Burger King (I was 15!)

I hope one day to... own a pair of Christian Louboutins.

My biggest achievement so far... graduating with a PhD.

I work at The George Institute because... it stimulates and challenges me.

REGISTER NOW:

HYPERTENSION MANAGEMENT IN ACUTE STROKE
Co-ordinated Satellite Meeting
28-29 September 2012



Global stroke and hypertension experts will convene in the Blue Mountains, New South Wales, Australia this September to explore the most up to date knowledge regarding the management of hypertension in acute stroke. Registrations for the pre-International Society of Hypertension Co-ordinated Satellite Meeting are now open and will explore new avenues of research aimed at resolving critical care of patients with acute stroke.

Join leading international experts Professor Giuseppe Mancina and Professor Peter Rothwell in the plenary session on 28 September 2012 chaired by Professor John Chalmers. These keynote speakers are pioneers of cardiology and neurology and will explore the role of hypertension in acute stroke management. An impressive line-up of speakers from the international arena will present on 29 September 2012.

The Scientific Committee welcomes abstracts on a broad range of topics related to stroke, hypertension and cardiovascular disease. Submit your abstract now.

Please contact: Roma Keswani, The George Institute for Global Health
Tel: +61 2 9993 4590 Fax: +61 2 9993 4502
Email: rkeswani@georgeinstitute.org.au

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THE GEORGE INSTITUTE FOR GLOBAL HEALTH
Postal Address: PO Box M201, Missenden Road NSW 2050 AUSTRALIA

AUSTRALIA (HOSPITAL)
Level 10, King George V Building
Royal Prince Alfred Hospital
Missenden Road, Camperdown
Sydney NSW AUSTRALIA
Telephone +61 2 9993 4500
Facsimile +61 2 9993 4501
info@georgeinstitute.org.au

AUSTRALIA (CITY)
Level 12, 321 Kent Street
Sydney NSW AUSTRALIA
Telephone +61 2 9657 0300
Facsimile +61 2 9657 0301

CHINA
Room 1302, Tower B
Horizon Tower, No. 6 Zhichun Road
Haidian District, Beijing 100088
PR CHINA
Telephone +86 10 8280 0577
Facsimile +86 10 8280 0177
www.georgeinstitute.org.cn

INDIA
Plot No. 839C
Road No. 44 Jubilee Hills
Hyderabad 500 033
INDIA
Telephone +91 40 2355 8091
Facsimile +91 40 2354 1980
www.georgeinstitute.org.in

UNITED KINGDOM
George Centre for Healthcare Innovation
Level 2, New Richards Building
University of Oxford, Old Road Campus
Headington Oxford
OX3 7LF UNITED KINGDOM
Telephone +44 207 313 4420
Facsimile +44 207 313 4426
www.georgeinstitute.org

