EDITORIAL

By 2025, nobody should die of preventable and treatable AKI

The Oby25 initiative has grown since its launch in Hong Kong. In two years, ISN has taken important steps to find globally applicable strategies helping a timely treatment and diagnosis of Acute Kidney Injury (AKI).

Perhaps one of the most significant and successful achievements is the “Global Snapshot.” This far-reaching, cross-sectional, global cohort study was designed to better understand this growing burden and make sure it is identified, managed and treated globally.

Through a dedicated online platform, we received AKI data from hundreds of centers worldwide, while raising awareness and showing how ISN is reducing the number of preventable deaths. Thanks to ISN Regional Board members and associated kidney societies, Oby25 is now endorsed by more than 20 national, regional and international kidney societies.

This year, ISN’s fight against AKI has gained strength. At the World Congress of Nephrology 2015, The Lancet launched a major new Commission on the ISN 0by25 Initiative, endorsing our goal to eliminate preventable deaths from AKI by 2025. The article, which appeared in the printed edited of The Lancet on June 27, 2015 and written by ISN leaders and members, presents the global challenges of the AKI burden, key goals and future activities.

In the coming months, we will launch pilot implementation projects in selected centers in Africa, Asia and South America. By testing interventions, we hope to develop a sustainable infrastructure to prevent, educate and train as well as detect and manage AKI according to local needs and resources.

I look forward to these times ahead and working with the nephrology community to make a difference in the fight against AKI.

Ravindra Mehta, ISN Oby25 Project Leader
News in brief

Canada honors ISN President Adeera Levin

ISN is delighted to announce that the Government of Canada has appointed Adeera Levin as a Member of the Order of Canada - the country’s highest honor. It is a wonderful recognition of her contribution, through nephrology, to the development of her nation.

Dr. Levin’s research focus is to improve health outcomes and quality of life for kidney patients. In addition to her contributions to the global body of knowledge about kidney disease, Dr. Levin has helped design a sustainable provincial model of renal care delivery that has received global recognition, and introduced evidence-informed changes to public health policy and clinical practice. She has nearly 300 publications in peer-reviewed journals, and has mentored clinicians, researchers, and academics.

Aside from her duties as ISN President, Dr. Levin is Professor and Head, Division of Nephrology, and a consultant nephrologist at Providence Health Care. She also serves as the executive director of the BC Renal Agency, which oversees the care and planning for kidney services in British Columbia. She is an outstanding clinician scientist in kidney disease who leads a strong group with international impact on nephrology. Her significant contributions to understand the determinants of kidney health and disease have ensured knowledge is shared with chronic kidney disease (CKD) patients and their healthcare providers.

Membership

ISN Membership - make a difference

ISN connects science and humanitarian efforts. Through education, ISN is reaching out to global medical communities, giving them the knowledge and support to reduce the impact of kidney disease worldwide. Membership to ISN supports these activities and provides member specific benefits including exclusive eligibility for ISN capacity building programs, online and print subscription to Kidney International and Nature Reviews Nephrology, online training and education, and reduced registration fees to ISN events. Membership is now free for trainees.

Not yet a member? Visit: www.theisn.org/join

Update your membership and profile

To ensure you receive all your benefits, please keep your profile up to date and renew your membership in a timely manner. Access or update your profile at: www.theisn.org/memberlogin
Since the launch of the 0by25 initiative in 2013, ISN has made considerable progress in its fight against Acute Kidney Injury (AKI), notably in 2015 with the publication of a new 0by25 Lancet Commission and the results of the Global Snapshot study. Building on this success, the next phase of the initiative will deliver new, targeted activities, including on the ground in developing countries. This will permit a more timely treatment and diagnosis of AKI for patients with potentially reversible diseases.

The 0by25 human rights initiative, which aims to eliminate preventable deaths from AKI by 2025, is focused on three main streams of activity: evidence, awareness and action.

Evidence
The first aim is to collect new data to improve the evidence of the global burden of AKI. This data is a key first step to building a strong case for action on AKI worldwide and raise awareness about AKI in the global healthcare community.

The Global Snapshot, launched in 2014, has already delivered important new data on AKI. The study, which was designed to better understand the growing burden of AKI in hundreds of centers globally, was the first time ISN carried out a web-based, prospective data collection exercise. The findings of the study are now available and expected to be published by the end of 2015.

Building on the data provided by the Snapshot, as well as existing published AKI data, the 0by25 Project Team are now working to establish AKI as an identified outcome in the Global Burden of Disease (GBD).

Awareness
ISN is also working to raise awareness about AKI across the global healthcare community, among healthcare professionals, patients and, more widely, governments and public health institutions and the private sector.

One of the key objectives during this phase will be to map the existing education and awareness raising tools about AKI aimed at patients, healthcare professionals and governments. By identifying and developing the best available AKI educational tools, these can be adapted for use in every region of the world.

Action
The third stream and a major focus for the initiative is establishing a sustainable infrastructure for AKI prevention, education and training, detection and management, which can be implemented according to local needs and resources.

ISN is now in the process of developing pilot implementation projects, designed under a common framework, to be carried out in selected centers in low-income settings in Africa, Asia and South America. Initial results are expected to be available for the World Congress of Nephrology in 2017.
Oby25 pilot projects in brief

What?
ISN aims to develop and implement pilot project interventions to improve the prevention, identification, and care for people with AKI.

How?
By testing healthcare interventions such as educational and training tools, clinical decision support systems and the use of point of care testing to improve the identification, care and management of people with AKI.

The interventions will cover each element of the Oby25 5R approach to managing AKI (Risk, Recognition, Response, Renal Support, Rehabilitation).

The pilot interventions will include:
• An observational phase to identify cases of suspected or definite AKI, and follow their outcome
• A training phase to ensure that healthcare staff receive an educational program on the significance, identification, and protocol-based management of AKI, appropriate to the setting in which they work.
• An interventional phase where healthcare staff will be asked to use their new skills and work to the agreed protocols.

Where?
In selected centers identified in low-resource settings in Africa, Asia and South America.

When?
Throughout 2016-17, with a view of presenting the main findings and results at the World Congress of Nephrology in 2017.

Attend the Oby25 information and poster sessions at ASN Kidney Week. More information on page 15.
Russia’s doctors learn more about AKI

Doctors at Moscow City Nephrology Center got a refresher course from Italian sister center on Acute Kidney Injury and the frontier view on some kidney diseases.

Since 2009, the ISN Sister Renal Center partnership between the Mario Negri Institute for Pharmacological Research and Moscow City Nephrology Center has offered valuable training to physicians and nurses.

This June, Past ISN President Giuseppe Remuzzi lectured on the latest understandings of thrombotic thrombocytopenic purpura (TTP), hemolytic uremic syndrome (HUS) and gave new insights into defining and treating membranoproliferative glomerulonephritis (MPGN).

“It was a unique opportunity to get an expert view from the person who implemented this term in nephrology,” adds Boris Bikbov, Associate Professor and Chair of Nephrology at the Moscow State University of Medicine and Dentistry.

The Mario Negri Institute for Pharmacological Research in Bergamo, Italy, has led research on these syndromes and recently helped to implement a novel diagnostic test for measuring complement C5b-9 complex activity in the solid phase. This provides the crucial information to define the pathophysiological state of the complement activation and adjust the treatment for HUS.

Prof. Remuzzi also discussed certain aspects of diagnostic and treatment facilities in Russia. Bikbov adds: “The collaboration between our centers has helped in the global improvement of prevention, detection, management and awareness of Chronic Kidney Disease and Acute Kidney Injury.”

Experts from both centers have played a key role in the Global Burden of Disease (GBD), Injuries and Risk Factors Study by modeling global epidemiology estimates for the burden of Chronic Kidney Disease (CKD) and Acute Kidney Injury (AKI).

These study results have already been published in The Lancet. In collaboration with the Institute of Health Metrics and Evaluation in Seattle (USA), the group will produce more detailed estimates of CKD burden and its global relationships with cardiovascular diseases, as well as worldwide AKI burden.

Find out more about the ISN Sister Renal Center Program, visit: www.theisn.org/src
Nepal’s dedicated nephrologists

ISN Fellows are actively changing the state of care for Nepal’s growing number of kidney patients.

In many developing countries, the burden of non-communicable diseases is increasing. In Nepal, it is estimated that there are 2900 new cases of end-stage renal disease (ESRD) every year. This means 100 cases per million people. With no registry, the exact incidence and prevalence of ESRD is still not known.

Hemodialysis has been available for almost 30 years, with high drop out rates due to the treatment’s cost. In the last few years, the Nepalese Government has partially supported the cost of maintenance hemodialysis and Peritoneal Dialysis (PD).

ISN has funded training for doctors from Nepal since 1998. There are few qualified nephrologists in the country. ISN Fellows are improving the state of nephrology care in the capital Kathmandu and in the periphery of the country.

Expanding PD and transplant programs

Live donor transplants have been possible since 2008. Former ISN Fellow Dibya Singh Shah, after training in Australia, led the first successful renal transplant program at Tribhuvan University Teaching Hospital. Transplants have also taken place at Bir Hospital and the Human Organ Transplant Centre in Kathmandu.

However, a regular renal transplant service is not available outside Kathmandu. Shailendra Shrestha, consultant nephrologist and associate professor at the Nobel Medical College and Teaching Hospital got advanced exposure to Dr. Singh’s work and the renal transplantation program at Monash Medical Center. He hopes to keep the collaboration going to bring transplantation to patients at his institution in Eastern Nepal.

He adds: “The ISN Fellowship Program has made me more confident and competent as a nephrologist and renal transplant physician.” Dr Shrestha also learned more about the adequacy and membrane characteristics of chronic PD patients and endovascular interventions in vascular access.

Based at the Charak Memorial Medicare Hospital in Pokhara, Klara Paudel’s experience echoes how ISN helps doctors learn new skills and encourages them to set up new programs. After training at the Royal London Hospital (UK), Dr. Paudel established a PD program in Western Nepal and will conduct a community study to screen the region’s population for signs of kidney disease.

On expanding PD and the plans for developing a training program, she insists on training “the whole team,” including nephrologists, physicians, surgeons and nurses.

“ISN Fellowship Program has made me more confident and competent as a nephrologist and renal transplant physician.”
Dr. Shailendra Shrestha

Read more about Klara Paudel’s story on page 10.
Better kidney care for the less fortunate

Nephrology training in a low-cost setting is more effective in understanding how to treat the poorest kidney patients in the world.

ISN Fellow Sudakshina Ghosh from Tanzania trained at the Madras Medical Mission and got involved with India’s Tanker Foundation – an organization helping the country’s poorest kidney patients.

Host mentor and Tanker Foundation Founder Georgi Abraham believes the training and experience has provided Dr. Ghosh with a platform for increasing care for kidney disease patients in her country.

He adds: “More fellows from Africa and South Asia should be encouraged to train in India. This adds value to their training by seeing and experiencing nephrology care in a low-cost setting.”

Dr. Ghosh’s gained hands-on training in Chronic Ambulatory Peritoneal Dialysis (CAPD), hemodialysis and renal biopsy, and learned about awareness and prevention programs at the Tanker Foundation. Finally, she was lucky to present clinical research at the World Congress of Nephrology 2015 in Cape Town, South Africa.

Ghosh believes there is a need for nephrologists in Tanzania: “I now feel able to set up a CAPD program in my region and teach junior doctors to motivate them to take up nephrology as a career.”

Ghosh’s home institution, the Kilimanjaro Christian Medical Center in Moshi, Tanzania, already collaborates with its sister center, Queens University, Canada. She was motivated to train in nephrology thanks to the work that both centers carry out through the Saving Young Lives (SYL) program. SYL helps set up acute Peritoneal Dialysis programs and the center in Moshi was the first center to get involved in the initiative.

So, there are definitely many opportunities to work together. With this training, Ghosh also hopes to manage and respond to post-transplant patients suffering from early graft failure.

“I now feel able to set up a CAPD program in my region and teach junior doctors to motivate them to take up nephrology as a career.”

Dr. Sudakshina Ghosh
Kidney disease in children ranges from treatable disorders without long-term consequences to life-threatening conditions.

Hemolytic uremic syndrome is a common cause of Acute Kidney Injury (AKI) in children. It develops when red blood cells are destroyed and block the kidneys’ filtering system. If the kidneys stop functioning, a child can develop AKI. Traumas such as burns, dehydration, bleeding, injury or surgery can cause very low blood pressure, which in turn can result in insufficient blood supply to the kidneys leading to AKI.

Up to the age of four, birth defects and hereditary diseases are also the leading causes of kidney failure. Between ages 5 and 14, hereditary diseases such as nephrotic syndrome, and systemic diseases most commonly cause kidney failure. Between ages 15 and 19, diseases that affect the glomeruli are the leading cause of kidney failure.

So, it is crucial to encourage and facilitate education, early detection and a healthy life style in children to combat the increase of preventable kidney disease. Virág Bőcsei, from the National Kidney Program in Hungary and a WKD Champion, says: “We believe that the best way to change the attitude of society is to educate the next generation, the children. It’s a long process, but well worth it.”

Get inspired from WKD Champions

Many WKD Champions have organized activities worldwide for many years and have valuable tips to share. Molly Fabé from the Cape Kidney Association began the first World Kidney Day 5km Sunset Walk five years ago. In 2015, 650 walkers took part. “We promote the event through our contacts data base, renal units and hospitals, media opportunities, friends and family and running clubs,” she adds.

ISN Young Nephrologist Manisha Sahay, from the Osmania hospital in India, says spreading the information is a big challenge. Involving hospital staff was valuable in gathering people for the event. Ayşe Onat, from the Turkish Kidney Foundation, stresses the importance of planning early when creating a national awareness campaign. She says: “After a brainstorming session, we decided how to design our campaign and scheduled assignments with deadlines.”

Knowing the needs of your community is a great source of inspiration and support. Ludovico La Peccheria, a nephrologist from Benevento near Naples in Italy, organized a public screening. He says: “Some 20 volunteers from Padre Pio and the Sanniomedia Dialysis Center monitor members of the public.”

Find out more about WKD 2016, visit: www.worldkidneyday.org
Klara Paudel’s dedication to nephrology is changing kidney patient care and research across Nepal.

In the developed world, you can rely on someone senior for guidance. Almost all specialists in emerging countries have to work on their own, relying on their own judgment and what they read in literature.

It was similar for me. Born in Hungary, I studied medicine in Budapest, moved to Nepal with my husband and was immediately assigned to a dialysis unit in Pokhara. I had to learn on my own.

In 2013, I trained as an ISN Fellow for a year at the Royal London Hospital in London, UK. With this training, I gained more knowledge and confidence in practicing nephrology. I wanted to learn more about chronic ambulatory peritoneal dialysis (CAPD), one of the most cost-effective forms of treatment for kidney disease patients in emerging countries.

Returning to Nepal in 2014, I started working as the only nephrologist in the region. I felt a lot more responsibility and set up the first peritoneal dialysis program in Western Nepal. In the first month, eight patients began peritoneal dialysis and this increased to 25 within the first year. The partnership with the Royal London Hospital in London, UK is leading to more peritoneal dialysis training programs, expanding CAPD throughout Nepal.

I wanted to work with all other centers in the city and organize programs. I helped the nurses establish the Dialysis Nurses Association of Pokhara and provide some educational support for them. I also set up social and educational activities for CAPD patients.

An ISN Clinical Research grant will go towards conducting a community intervention study. We have come up with the idea of training local volunteers to take blood pressure and carry out urine tests to detect high-risk patients. With the help of local volunteers as peer educators, we will conduct a study to see if their intervention reduces cardiovascular risks.

I want to raise awareness about kidney disease to local health workers communities through practical nephrology courses and workshops. Humanitarian work is very important in progressing research. Humanitarian grants are neutral with the research becoming genuinely beneficial for patients.”
ISN Forefronts Symposium 2016
The Metabolome and Microbiome in Kidney Disease
September 23-25 2016
San Diego (CA), USA

www.isnforefronts.org/sandiego
Partnerships with renal societies in Brazil and Iran are leading to more opportunities to advance nephrology globally.

Collaboration with Brazilian Society of Nephrology

SN is currently in discussions with the Brazilian Society of Nephrology (BSN) to further expand its collaboration to advance nephrology around the world. President of the Brazilian Society Carmen Tzanno believes in the value of working together to face common challenges.

Brazil is a big country with many needs and different problems in each region. Training and education are some of the main goals of the Brazilian Nephrology Society. “To exchange experiences helps everyone involved learn about innovations and treatments,” she says.

There are almost 110,000 dialysis patients in Brazil. Helping to improve patient care and treatment innovation will lead to a positive economical and social impact.

Tzanno expresses strong interest to take part in the 0by25 initiative. She adds: “This year, we are encouraging our associates to attend an IRA online course sponsored by SLANH (Sociedad Latinoamericana de Nefrologia e Hipertension). We are planning educational activities and organizing meetings for health professionals and activities to laymen to clarify the importance of kidney function and preventing damage.”

ISN Programs can now support medical communities in Iran

Following a license issued by the Office of Foreign Assets Control (OFAC), the ISN Programs can now be extended to support training activities in nephrology for doctors in Iran.

On September 10, 2013, OFAC issued Iran with a general license E under the Iranian Transactions and Sanctions Regulations (ITSR), with respect to certain services in support of non-governmental organization activities in Iran. This license authorizes non-governmental organizations to export or re-export services to or related to Iran in support of certain not-for-profit activities that are designed to directly benefit the Iranian people, including humanitarian projects to meet basic human needs in the country.

ISN can also distribute newsletters, medical journals, and other informative material within Iran and to Iranian nationals, as well as provide online access to materials for meetings.
Joint support for more research into hydration and kidney health

We raise awareness about drinking plenty of water to keep our kidneys in shape. However, hydration and kidney health is an important research area that needs more support worldwide.

A collaboration between ISN and Danone Nutricia Research, the Hydration for Kidney Health (H4KH) research initiative sets out to expand new data sources. By engaging new researchers on the topic and developing further trans-disciplinary research, it hopes to create long-lasting support for researchers.

“Some five years ago, hydration was rather a new research field and the link between hydration and long-term kidney health was hardly supported by any evidence. What brought us together with the ISN was our conviction on the need to foster the prevention of kidney disease by encouraging a healthy lifestyle, including hydration and drinking water,” says Laurent Le Bellego, Head of Hydration and Health Affairs at Danone Nutricia Research.

ISN Clinical Research Program Chair Marcello Tonelli adds to this belief that working together is the best way forward: “There is real potential for these projects to create new knowledge and to build capacity in this understudied area.”

Candidates from all disciplines relevant to kidney disease (clinical, health services and population health disciplines) can apply for two research grants:

1. New investigator ($70,000 US over two years);
2. Hydration and Kidney Health grants ($50,000 US over two years).

This will help new and established researchers gain new skills in clinical research and statistical analysis. They can also begin work on research projects related to hydration for kidney health at the Kidney Clinical Research Unit in London, Ontario (Canada).

“Studying the effects of hydration on kidney health is innovative and exciting. If the effects of hydration are positive it will generate a demand to ensure access to clean water globally. That makes a difference for the world,” says H4KH Chair Louise Moist.

Final applications will be accepted until November 30, 2015. Awards will be announced on February 1, 2016. To find out if you are eligible and how to apply, visit: [www.theisn.org/h4kh](http://www.theisn.org/h4kh)

For further information about hydration visit: [www.h4hinitiative.com](http://www.h4hinitiative.com)
Drug development has dramatically improved the outcome of diseases in most medical disciplines. However, this does not seem to be the case in nephrology. It will be cause for discussion at the next ISN Nexus meeting taking place in Berlin, Germany from April 14 to 17, 2016.

Despite enormous research efforts done by the basic science kidney research community, only few drug targets have been successfully validated and developed into innovative drugs for patients.

This will be the first ISN Nexus meeting on immune-mediated kidney diseases. “We are living in exciting times of drug development, and as clinicians we see improvements all around us,” explains ISN Nexus Berlin Co-Chair Hans-Joachim Anders.

Introduced in 2006, ISN Nexus Symposia bridge the gap between basic research and clinical practice by offering a profound focus on translational medicine and clinical application.

The objective is to promote interaction, collaboration and to accelerate the advancement of applied science in this area, which ISN Nexus Berlin Co-chair David Jayne, believes is of “direct value to our patients in regular clinical practice.” Hans-Joachim Anders adds: “to improve the translational flow of new targets to real drugs that get approved for use on patients, we want to bring together everyone involved in this process, from the basic scientists to the clinical scientists and the clinical trialists.” This meeting has now been granted 15 credits from the European Accreditation Council for Continuing Medical Education (EACCME).

Registration and abstract submissions are now open

**Abstract Submission Deadline:** December 13, 2015

**Early Registration Fee Deadline:** January 18, 2016

Stay up to date, visit: [www.isnnexus.org/berlin](http://www.isnnexus.org/berlin)
ISN upcoming events

ISN events connect global medical communities, giving them the knowledge and support to reduce the impact of kidney disease worldwide.

0by25 initiative sessions during ASN Kidney Week

ISN will have its usual presence at ASN Kidney Week this November. This will be an opportunity to share more information about the 0by25 initiative with the nephrology community in a couple of AKI dedicated sessions. Since the launch of the 0by25 initiative in 2013, ISN has made considerable progress in its fight against Acute Kidney Injury (AKI), notably in 2015, with the successfully conclusion of the “Global Snapshot”. This far-reaching, cross-sectional, global cohort study was designed to better understand the growing burden of AKI, including how it is identified, managed and treated in different settings around the world.

If you want to know more about the ISN 0by25 initiative and hear about the results and main findings of the Global Snapshot study, head to these events taking place during ASN Kidney Week:

• Thursday, November 5, 2015 from 4.30 to 6.30pm
  Annual Meeting - Clinical Practice Session: ‘The Global Burden of AKI’
  San Diego Convention Center (Room 20A/B)

• Friday, November 6, 2015 from 10am to 12noon
  Poster Session: AKI - Clinical Epidemiology
  San Diego Convention Center (Poster Board: FR-PO457 to FR-PO463)

Find out more about 0by25, visit: www.0by25.org

ISN Nexus 2016
Translational immunology in kidney disease and new therapies for renal immunopathology
April 14-17, 2016, Berlin, Germany
www.isnnexus.org/berlin

ISN Forefronts Symposium 2016
The Metabolome and Microbiome in Kidney Disease
September 23-25, 2016, San Diego, California
Website coming soon

ISN Forefronts Symposium 2016
Regulatory RNA’s and the Kidney
December 9-11, 2016, Vienna, Austria
Website coming soon

WCN 2017
Sustainability and Diversity
April 21-25, 2017, Mexico City, Mexico
www.wcn2017.org
ISN NEXUS SYMPOSIUM 2016
TRANSLATIONAL IMMUNOLOGY IN KIDNEY DISEASE
APRIL 14-17 2016
BERLIN GERMANY

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