THANKS FOR SUPPORTING 2022 CME COURSE AND ASM

Before anything else, I must acknowledge that activities of the Hong Kong Society of Nephrology HKSN would not be successful without your participation. On behalf of HKSN, I would like to thank the Asian Pacific Society of Nephrology APSN for co-organizing CME Course with us; we also appreciate the speakers who have been unflinchingly supportive.

This year, we had moved to face-to-face meeting cautiously, with the government social distancing regulations in mind. The attendance rate for the Annual Scientific Meeting - 264 on Sunday 2 October 2022 - is very encouraging.

Choice of CME topics is as important as the quality of the speakers. We are grateful for the two key persons for this important task: Dr. Gary Chan and Dr. Jack Ng. Besides update on ISPD peritonitis guidelines, the course covered quite a few important glomerular diseases of interest, including debate on immunosuppression for IgA nephropathy, complement-mediated disease like C3 glomerulopathy, haemolytic uraemic syndrome.

We are grateful to two named lecture speakers: Prof. Michelle Josephson (Richard Yu Endowment Fund Award) and Prof. Olivier Devuyst (Chan Woon Cheung Memorial Fund Award). Their lectures on transplant and aquaporins for precision medicine reminded our members the way to transform medicine: from bench to bedside, academia to policy, local to global.
Further to our Annual General Meeting during which we have elected our Council, HKSN have invited Prof. Sydney Tang, Dr. Lui SF, Dr. Andrew Wong to be our advisors. We also wish to thank our outgoing Council members, Dr. CY Yung, Dr. Matthew Tong, Dr. Samuel Fung and Prof. S Tang, for all their contribution.

Warm welcome to the new Council members and Co-opt members: Dr. Gary Chan, Dr. Yuen Sze Kit, Dr. Ho Lo Yi.

As of the end of 2022, the Hong Kong Society of Nephrology has 200 full members and 719 associate members.
To broaden the horizon of the audience, two Keynote Lectures delivered by Prof. CC Szeto and Dr. PN Wong addressed the cross talk of kidneys with organs like adrenal glands and the gut.

Annual scientific meeting means a chance for members to meet and learn. And what better is there than a face-to-face meeting?
With the composition of our HKSN members in mind, the ASM program has dedicated a session for young fellows and nurses who wish to pursue research. We believe sharing of tips on clinical research and nurse-led research, synergy with academic team, are key to success for young researchers. We also wish to congratulate all the successful applicants of HKSN Research Grant this year.

Dr. Gordon Chan has received the highest score, entitling him to receive the Research Grant from Hong Kong Society of Nephrology and Hong Kong Kidney Foundation. His research topic is “Circulating osteokines and the association with bone mass, frailty, vascular stiffness, and outcomes in peritoneal dialysis patients.”
Other awardees include Dr. Winston Fung, Dr. Jack Ng, Dr. Arthur Tang and Ms. Yuchen Feng. Their research topics ranged from urinary biomarkers in membranous glomerulonephritis, gene-sequencing for peritoneal dialysis-associated peritonitis, statin use in IgA nephropathy, translocator protein in TGF β-induced tubulointerstitial fibrosis and mitochondrial dysfunction.
There is no question that a full-day meeting can be a challenge to our attention span. By tradition, presentation of the Hong Kong Renal Registry in the afternoon is one of the highlights. In case you’d missed the talk given by Dr. John Chan, we are aware of the fact that peritoneal dialysis represented 82.8% of the replacement therapy of incident end-stage renal disease patients in 2021. The incidence rate of peritoneal dialysis renal replacement therapy was 163 per million population (pmp); the incidence rate of all end-stage renal disease was 197 ppm in 2021, indicative of 13.4% increase compared to 2020.
Musical Appreciation for Patients

In collaboration with the International Association of Chinese Nephrologists (IACN), HKSN have organized a musical appreciation event for the patients with kidney disease.

The musical commissioned by the Freespace and produced by Hong Kong Repertory Theatre, “The Impossible Trial”, is an unusually high quality local production. On 25 September 2022, we have provided free tickets to patients (and their family members) from all renal units, with a view for them to enjoy the beautiful performance at Grand Theatre, Xiqu Centre.

This original musical’s script and music have been developed a devoted team over three years. The performance has been interrupted repeatedly owing to the pandemic effect, including that on cast members. We are grateful that our show remained unaffected and was smooth.

During the event, we also advised our patients on staying healthy by exercise and updated vaccination. Since the start of the pandemic in 2020, many chronic kidney disease patients have been unfortunately infected. Post-acute sequelae of COVID-19 has impacted their daily life. There is still myth that infection-induced immunity can replace vaccination. We wish our message of vaccine effectiveness can be conveyed.

Even if the patients might not remember every message from our educational materials, we are certain that the audience will leave the theatre with a clear message that musical is highly entertaining and mind-blowing. After all, doctors and nurses are not solely providing medical knowledge to patients; we are there to help them stay healthy, stay positive and stay active. When we look at the Standardised Outcomes in Nephrology-Peritoneal Dialysis SONG-PD process, life participation has been identified as the single most important core outcome. Defined as the ability to participate in activities that are meaningful and important to patients, life participation should include recreational activities such as attending the musical with family members, given the positive impact on their physical and mental health.
As mentioned by our guest of honor, Mr. Fan Hung Ling Henry, SBS, JP, the musical performance and Xiqu Centre are icons that Hong Kong people should be proud of.

Our thanks to the organizing committee: Dr. Terence Yip, Lorraine Kwan, Jack Ng, KM Chow, Prof. Philip Li, Anita Wong and Alice Tin. We remain indebted to the generous sponsorship from different companies and donors.
With the end of calendar year 2022, you might have found many lists: the best books of the year, the most influential people or company, the top journalism photos, the best places to travel. What about scientific publications for the nephrologists? Should we also pick the top ten peer-reviewed publications that are relevant to kidney diseases?

Here are my personal choices that you might wish to have a look. Feel free to disagree, but they are definitely of high impact for those of us who look after patients with kidney diseases, or work in areas of nephrology. I hope you’re nose-deep in at least some of these top picks in 2022.


The EMPA-KIDNEY randomized controlled trial RCT confirmed the game changer status of sodium-glucose co-transporter 2 SGLT2 inhibitor in nondiabetic kidney disease, in addition to its benefit in diabetic kidney disease. This trial included 6609 patients with estimated glomerular filtration rate eGFR 20 to 44 ml/min/1.73 m² (regardless of albuminuria) or 45 to 89 ml/min/1.73 m² (if albumin-to-creatinine ratio was at least 200 mg/g). At two years, empagliflozin 10 mg daily reduced the risk of progression of kidney disease or death from cardiovascular causes by 28% when compared with placebo. Treatment effect was independent of diabetes status, and was larger in patients with urinary albumin-to-creatinine ratio ≥ 300 mg/g. A subsequent meta-analysis published in *Lancet* estimated that for every 1000 patients with chronic kidney disease treated for one year with an SGLT2 inhibitor, 11 first kidney disease progression events would be prevented in patients with diabetes, and 15 prevented in patients without diabetes.


After the STOP IgAN trial published in 2015, this multicenter RCT evaluated the efficacy and safety of high-dose oral methylprednisolone versus supportive therapy for patients with IgA nephropathy with eGFR 20 to 120 ml/min/1.73 m² and proteinuria of ≥ 1 g daily. The study consisted of 2 RCTs: full-dose trial of 262 patients (96% Chinese; stopped for safety reasons, and subsequent reduced-dose trial of 241 patients (53% Chinese; median follow-up, 2.5 years). Overall, the primary endpoint (composite of end-stage kidney disease, death due to kidney failure, or a 40% decrease in eGFR) occurred in fewer patients in glucocorticoid group than placebo group (29 versus 43%). We are uncertain if SGLT2 inhibitors should be used (after renin-angiotensin system blockade), before consideration of systemic glucocorticoid.

Many doctors including nephrologists would stop angiotensin – converting-enzyme ACE inhibitor or angiotensin-receptor blocker ARB when their patients’ kidney function is severely impaired. Should we keep or should we stop? This question is addressed in a RCT recruiting 411 nondialyzed patients with advanced CKD (eGFR <30 ml/min/1.73 m²) who had been on renin-angiotensin system inhibition therapy; they were randomized to continue or to stop ACE inhibitors and ARBs and then followed up for 3 years. Continuing these drugs — compared with stopping them — was not associated with any harms. Those who continued had lower risk for progression to end-stage kidney disease that just missed statistical significance (56% vs. 62%). We should perhaps be less afraid of continuing ACE inhibitor or ARB.


This adequately powered RCT provides high-quality evidence for a web-based decision aid for patients older than 70 years and advanced chronic kidney disease. The literacy-sensitive online interactive aid Decision-Aid for Renal Therapy, DART, uses multimedia (voice, illustration and animation)] at a sixth-grade reading level, and takes between 30 and 60 minutes to complete. Using 1:1 randomized trial design, 363 patients were recruited from 8 outpatient nephrology clinics in the United States. Patients randomized to DART showed improved decision quality at 3 and 6 months, including better knowledge and less decisional conflict scale DCS score. This underscores the need to address older patients’ informed decision making, with the aim to reduce treatment regrets.

Efforts to minimize immune rejection of pig-to-human kidney transplant appear promising, as reported in two brain-dead human recipients of animal organs without the development of hyperacute rejection. Kidneys from α-1,3-galactosyltransferase-knockout pigs help to avoid hyperacute rejection mediated by antibodies targeting α-gal carbohydrate epitopes. Another strategy included transplanted thymic autografts from the pigs under the kidney capsules to mitigate the risk of recipient T cell-mediated immune activation. These two genetically modified kidney xenografts produced urine and remained viable throughout the 54-hour study period without signs of hyperacute or antibody-mediated rejection in serial biopsy samples.


Although early fluid resuscitation is essential for patients with sepsis and pancreatitis, more recent studies have demonstrated harm in administering massive amounts of fluid, compared with more restricted volume repletion. With the concern for aggressive fluid replacement, a RCT WATERFALL Trial randomized 249 patients with acute pancreatitis to either aggressive or moderate fluid resuscitation with lactated Ringer’s solution. Patients with shock or organ failure were excluded. Patients in the aggressive and moderate fluid group received a median of 7.8 and 5.5 liters of lactated Ringer’s solution during the first 48 hours respectively. The trial was stopped early, because 20% of the aggressively resuscitated patients developed fluid overload (compared with 6% of the moderate group) but aggressively resuscitated group did not have hypothesized benefit in disease-specific outcomes. Although fluid replacement should be individualized, we should now default to a more conservative approach after an initial bolus.

We have been witnessing an explosive growth of artificial intelligence AI. So much so that *Kidney International* has dedicated a series of in-depth reviews on the power of big science, large consortia, and machine in the field of nephrology. Renal transplant pathology is one of the areas for application of deep-learning-based classification. This proof-of-concept study is the largest retrospective analysis of kidney transplant pathology decision support based on whole slide images of allograft biopsies alone. Classifying the biopsy result into three main overarching classes in kidney transplants (namely, normal, rejection, and other diseases), the AI system achieved area under the receiver operating characteristic curve AUROCs from 0.61 to 0.86.


Positive drug trial for managing hypertension is long awaited, until a recent phase 3 trial on oral dual endothelin receptor antagonist aprocitentan. Targeting endothelin-1, a potent vasoconstrictor acting on the endothelin receptor A and B, has been proven useful in treating pulmonary arterial hypertension, and now shown to be valuable in managing systemic hypertension in this industry-supported, randomized, phase 3 trial for resistant hypertension. After 4 weeks, patients had a reduction in systolic blood pressure of −11.5 mm Hg with placebo, whereas the intervention arms showed greater declines with an additional −3.8 mm Hg for the 12.5-mg dose and −3.7 mm Hg for the 25-mg Hg dose. Clinical relevance of the statistically significant blood pressure effect of aprocitentan needs to be further confirmed. On another note, the remarkable placebo effect seems consistent with other studies including the sham control arm of renal denervation studies.

Organ donation after circulatory death has been difficult because mammalian cell death ensues after hours of circulatory interruption. This innovative study questioned the inevitability of cell death after ischaemia. Towards the goal of achieving cellular recovery after prolonged warm ischaemia, a perfusion-based technology, OrganEx, has been developed using synthetic acellular cytoprotective perfusate applicable for whole-body use in mammals. The research team perfused pigs for 6 hours under hypothermic conditions following 1 hour of warm ischaemia. In contrast to perfusion with extracorporeal membrane oxygenation ECMO (which resulted in low or no flow states and inadequate organ perfusion), OrganEx induced robust whole-body perfusion, including restoration of flow in renal arteries. In addition to correction of physiological imbalances such as hyperkalaemia, a comprehensive single-cell transcriptomic analysis was conducted to study the molecular level of protection by OrganEx. Kidney samples from OrganEx-perfused pigs showed higher levels of transcripts encoding proximal tubule transporters and lower levels of injury markers. Hopefully, OrganEx can extend the limits of allowable warm ischaemic times, thus expanding the organ pool for transplantation.