KRC Newsflash

Research advances, awards and upcoming events in the kidney research community

December 2017

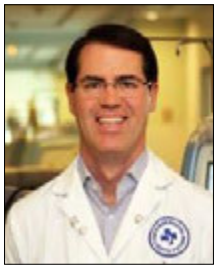
Research Advances

Spironolactone is effective in treating hypokalemia among peritoneal dialysis patients.

Patients on peritoneal dialysis can develop low blood potassium levels, a potentially serious condition. Many peritoneal dialysis patients need to take potassium supplements which can cause stomach upset. **Dr. Brendan McCormick** and colleagues found that the use of the weak diuretic, spironolactone, was very effective at raising low blood potassium and had the added benefit of significant blood pressure lowering. These results should encourage nephrologists to consider spironolactone as an alternative to potassium supplements when treating low blood potassium in peritoneal dialysis patients.

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0187269

Familial consent for deceased organ donation among immigrants and long-term residents in Ontario, Canada: A population-based retrospective cohort study.



Many families choose not to consent to organ donation at the time of their loved one's death. It was unclear whether these decisions vary by ethnicity. **Dr. Greg Knoll** and colleagues compared the proportion of families of Ontario immigrants who consented for deceased organ donation with families of long-term Ontario residents. The results concluded that in Ontario, families of immigrants are less likely to consent to deceased organ donation. Further study is needed to better understand the reasons for lower consent among certain immigrant groups.

http://journals.sagepub.com/doi/full/10.1177/2054358117735564

Risk and complications of venous thromboembolism in dialysis patients.

Data on the occurrence of blood clots (venousthrombo-embolism, VTE) in dialysis patients is limited. **Dr. Manish Sood** and colleagues examined the risk and complications caused by VTE among dialysis patients. The study looked at data from 2004 and 2010 to determine the number of occurrences of VTE, pulmonary embolism (PE) and deep venous thrombosis (DVT). The study determined that VTE is common among dialysis patients and results in a high risk of major bleeding and death.

https://academic.oup.com/ndt/advance-article/doi/10.1093/ndt/gfx212/3959783

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The Ottawa Hospital Kidney Research Centre
2518-451 Smyth Road
Ottawa ON K1H 8M5

Kidney Fact

Each day 15 people are told that their kidneys have failed.

~Kidney Foundation of Canada

The KRC Newsflash is published by scientists and staff at the KRC. For more information, please contact the KRC Administrative Assistant, Jennifer Brownrigg.
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The dedicated laboratory scientists and clinician investigators at the Ottawa Hospital Research Institute's Kidney Research Centre (KRC) work together to improve the lives of people affected by kidney disease.

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Research advances, awards and upcoming events in the kidney research community

American Society of Nephrology Conference

The American Society of Nephrology (ASN) Conference, also known as "Kidney Week" is an annual international meeting and scientific exposition, featuring advances in treatment, research, and technology in the fight against **kidney** disease. The 2017 event was held in New Orleans, Louisiana. The KRC was well represented with 24 presentations by KRC Clinicians, Scientists, Fellows and Students.

KRC staff members Drs. Greg Knoll, Chris Kennedy and Manish Sood were honoured by being invited speakers at Kidney Week. Finally, Drs. Kevin Burns, Richard Hébert and Swapnil Hiremath were chosen by the ASN to present their work during poster sessions.

Highlighted Presentations and Posters by KRC Researchers

Dr. Ayub Akbari (*Senior Clinician Investigator OHRI*)

1. Impact of inter-laboratory variability of serum creatinine assays on KFRE risk scores. [Poster]
2. GFR measurement method: A critical determinant in estimation equation assessment. [Poster]
3. The risk of adverse events in polycystic kidney disease patients with advanced CKD. [Poster]

Dr. Kevin Burns (*Senior Scientist, OHRI, Director, KRC*)

4. Biodistribution and homing of human endothelial colony forming cell-derived exosomes in ischemia-reperfusion AKI. [Oral presentation]

Dr. Richard Hébert (*Full Professor, University of Ottawa*)

5. PGE2 EP1 receptor regulates renal aquaporin and sodium transporter expression and inhibits AVP-dependent water reabsorption and sodium transport in mouse collecting duct. [Poster]

Dr. Swapnil Hiremath (*Senior Clinician Investigator OHRI*)

6. The effect of N-Acetylcysteine on serum creatinine: A systematic review of the evidence. [Poster]
7. Prevalence and predictors of orthostatic hypotension at a tertiary care hypertension clinic with new diagnostic thresholds. [Poster]

Dr. Greg Knoll (*Senior Scientist OHRI, Head of Division of Nephrology*)

8. Recipient candidacy: Who is a candidate for a kidney transplant in 2017? [Speaker]
9. Validation of living donor nephrectomy codes. [Poster]
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Dr. Chris Kennedy (*Senior Scientist OHRI*)

11. Role of mechanical stretch in diabetic injury. [Presentation]
12. Chronic ASA administration exacerbates renal damage in hypertensive rats. [Poster]
13. PBI-4050 reduces renal injury and anemia in a mouse model of adenine-induced CKD. [Poster]
14. NADPH-Oxidase NOX5 aggravates renal injury in human diabetic nephropathy. [Poster]
15. Expression of hepatic cytochrome P450 drug-metabolizing enzymes in a mouse model of diabetic nephropathy. [Poster]

Dr. Manish Sood (*Associate Scientist OHRI, Jindal Research Chair for Prevention of Kidney Disease*)

16. Preventing unnecessary renal replacement therapy for AKI: A quality improvement project. [Poster]
17. The risk of stroke with atrial fibrillation in CKD patients. [Oral Abstract]
18. The association of beta-blockers and all-cause mortality by eGFR in patients with heart failure. [Oral Abstract]
19. Incident atrial fibrillation and the risk of subsequent adverse outcomes in patients with a decreased eGFR. [Oral Abstract]
20. Incidence and outcomes of syncope in patients with CKD. [Poster]
21. The risk of adverse events in polycystic kidney disease patients with advanced CKD. [Poster]
22. The risk of venous thromboembolism in patients with albuminuria and normal or reduced kidney function. [Poster]
23. Association between routine newborn metabolic profiles, CKD, and the need for dialysis in infants and children. [Poster]

Dr. Deb Zimmerman (*Clinician Investigator OHRI*)

15. Buttonhole versus stepladder cannulation for arteriovenous fistulas for home hemodialysis patients: A randomized controlled feasibility trial. [Poster]

Newsflash CRMR

Les progrès de la recherche, les prix et les événements concernant les maladies rénales touchant la population

Les progrès de la recherche

décembre 2017

L'efficacité du spironolactone dans le traitement de l'hypokaliémie chez les patients en dialyse péritonéale.

Les patients sous dialyse péritonéale peuvent développer des taux de potassium sanguin bas, une maladie potentiellement grave. De nombreux patients en dialyse péritonéale doivent prendre des suppléments de potassium qui peuvent causer des maux d'estomac. Le **Dr Brendan McCormick** et ses collègues ont découvert que l'utilisation d`un diurétique faible, la spironolactone, était très efficace pour augmenter le taux de potassium sanguin et avait l'avantage supplémentaire d'abaisser significativement la tension artérielle. Ces résultats devraient encourager les néphrologues à considérer la spironolactone comme une alternative aux suppléments de potassium dans le traitement du potassium sanguin chez les patients sous dialyse péritonéale.

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0187269

Consentement familial au don d'organes de personnes décédés chez les immigrants et les résidents de longue durée en Ontario, Canada : étude de cohorte rétrospective fondée sur la population.

De nombreuses familles choisissent de ne pas consentir au don d'organes au moment de la mort de leur proche. On ne sait pas si ces décisions varient selon l'origine ethnique. Le **Dr Greg Knoll** et ses collègues ont comparé la proportion de familles d'immigrants de l'Ontario ayant consenti au don d'organes décédés et celles de familles de résidents de longue date de l'Ontario. Les résultats concluent qu'en Ontario, les familles d'immigrants sont moins susceptibles de consentir au don d'organes décédé. D'autres études sont nécessaires pour mieux comprendre les raisons de la baisse du consentement chez certains groupes d'immigrants.

http://journals.sagepub.com/doi/full/10.1177/2054358117735564

Risque et complications de la thromboembolie veineuse chez les patients dialysés.

Les données sur l'apparition de caillots sanguins (thromboembolie veineuse, TEV) chez les patients dialysés sont limitées. Le **Dr Manish Sood** et ses collègues ont examiné le risque et les complications causés par la TEV chez les patients dialysés. L'étude a examiné les données de 2004 et de 2010 pour déterminer le nombre d'occurrences de TEV, d'embolie pulmonaire (EP) et de thrombose veineuse profonde (TVP). L'étude a déterminé que la TEV est fréquente chez les patients dialysés et entraîne un risque élevé de saignement majeur et de décès.

https://academic.oup.com/ndt/advance-article/doi/10.1093/ndt/gfx212/3959783

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L'Institut de recherche de l'Hôpital d'Ottawa
Centre de recherche sur les maladies du rein
2518-451 Smyth Road
Ottawa ON K1H 8M5

Fait important à propos des reins

Chaque jour, on dit à 15 personnes que leurs reins ont échoué.

~ Fondation Canadienne du rein

Le Newsflash CRMR est publié par des scientifiques et personnel du CRMR. Pour plus d'informations, veuillez contacter l'adjointe administrative du CRMR, Jennifer Brownrigg.

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http://eepurl.com/c4m1hj

Les scientifiques de laboratoire spécialisés et les chercheurs cliniciens du Centre de recherche sur les maladies du rein (CRMR) de l'Institut de recherche de l'hôpital d'Ottawa travaillent ensemble pour améliorer la vie des personnes atteintes de maladies rénales.

Conférence de La Société Américaine de Néphrologie

La conférence de La Société Américaine de Néphrologie également connue sous le nom de « Kidney Week » est une rencontre annuelle scientifique internationale qui présente des percées scientifique intéressantes dans le traitement, la recherche et la technologie dans la lutte contre les maladies rénales. L'événement de 2017 a eu lieu à La Nouvelle-Orléans, en Louisiane. Le CRMR était bien représenté avec 24 présentations par des cliniciens, des scientifiques, des fellows et des étudiants du CRMR.

Les Dr Greg Knoll, Chris Kennedy et Manish Sood ont été honorés en présentant chacun leurs résultats scientifique au congrès. Finalement les Drs. Kevin Burns, Richard L. Hébert et Swapnil Hiremath ont aussi présentés leurs résultats scientifique par affiche.

Présentations et affiches mises en évidence par des chercheurs du CRMR *(Disponible en anglais seulement)*

Dr. Ayub Akbari (*Chercheur clinicien principal l'IRHO*)

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Dr. Manish Sood (*Scientifique adjoint, Chaire de recherche Jindal pour la prévention des maladies du rein*)

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