Welcome to the Kidney Health Strategic Clinical Network’s (KH SCN) quarterly newsletter.

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We want to hear from you!
Submit your ideas and feedback to:
kidneyhealth.scn@ahs.ca

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Terry Smith
Karen Ray

Our Mission:
Optimal kidney health for all Albertans

Our Vision:
The Kidney Health Strategic Clinical Network partners with Albertans to achieve excellence in sustainable quality kidney care & outcomes. Through innovation and use of best evidence, we will optimize prevention, early identification & appropriate management across all ages & stages of kidney health.

Our Goals:
- Reduce risk of kidney disease through early identification & management
- Improve management & outcomes in kidney disease
- Optimize treatment in advanced kidney failure
Kidney Health SCN Scientific Directors

We are very pleased to announce that effective July 13, 2017, Dr. Scott Klarenbach and Dr. Neesh Pannu have jointly accepted the role of Scientific Director for the Kidney Health Strategic Clinical Network.

Scott Klarenbach MD, MSc, FRCPC
Dr. Scott Klarenbach is a Nephrologist and Professor in the Department of Medicine at the University of Alberta. He received his medical training at the University of Alberta and completed his MSc in Health Economics at the University of York, United Kingdom. His research interests include health outcomes and health economics research, and he has conducted numerous economic evaluations and health technology assessments for both chronic and acute conditions. He holds the Kidney Health Research Chair, is the Chair of the Alberta Expert Committee on Drug Evaluation and Therapeutics, is Chair of the Canadian Society of Nephrology Clinical Practice Guideline Committee, President of the Canadian Organ Replacement Registry Board, Scientific Co-Director of the Kidney Health Strategic Clinical Network and serves on the Canadian Task Force on Preventative Health Care.

Neesh Pannu, BSc, MD, SM, FRCPC
Dr. Neesh Pannu is a Nephrologist and Professor in the Department of Medicine at the University of Alberta. She received her medical training at the University of Alberta, Stanford University and completed her Master of Science (SM) in Epidemiology and Biostatistics at Harvard University. Her research interests are primarily in the areas of diagnosis, management and outcomes of acute kidney injury. She is member of the Alberta Kidney Disease Network (AKDN) and the Interdisciplinary Chronic Disease Collaboration (ICDC). She also holds positions as Scientific Co-Director of the Kidney Health Strategic Clinical Network and is Assistant Dean of Clinical Research Platforms at the University of Alberta.

The Kidney Health SCN Advisors’ Voices:

We’ve been Family/Patient Advisors for the Kidney Health SCN for more than a year now. It never ceases to amaze us how a group as large as this one manages to move together with one purpose - to improve the lives of patients living with Chronic Kidney Disease. We don’t pretend we understand all of the topics that are covered in any given SCN meeting. What we do understand is, if there is a topic that we think needs input from a Family/Patient Advisor, our concern(s), thought(s), question(s) are listened to, given consideration and responded to with respect. Respect goes a long way and pays a lot of bills.

Bob and Marilyn Stallworthy
Student-led Research Projects in Kidney Health

Student-led research projects were showcased at a recent Kidney Health SCN Core Committee meeting in Calgary on June 9th. The goals of the session were to:

- Increase awareness of student-led innovative research projects underway in the Province;
- Provide students with feedback from Kidney Health SCN experts to improve projects;
- Provide opportunities for students and KH SCN Core Committee members to network and
- Identify opportunities to support student-led research projects that align with the KH SCN’s priorities.

The student-led projects are briefly summarized below and applicable posters are available on the Kidney Health SCN’s website under the Research, Innovation tab. Please direct questions and requests for additional information to the Kidney Health SCN at kidneyhealth.scn@ahs.ca.

<table>
<thead>
<tr>
<th>Research Project Title</th>
<th>Project Objectives</th>
<th>Primary Author</th>
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<tbody>
<tr>
<td>Identification of Quality Indicators in the Conservative Management of Advanced Chronic Kidney Disease: Phase One Results and Future Directions</td>
<td>This multi-phase study will use focus groups and the Delphi survey method to identify and prioritize quality indicators that may be used to assess conservative management.</td>
<td>Tyrone Harrison</td>
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<td>Reducing the Incidence and Severity of Post-Operative Acute Kidney Injury – A Quality Improvement Initiative at the University of Alberta Hospital</td>
<td>To reduce the incidence and severity of post-operative acute kidney injury at the University of Alberta Hospital in Edmonton through quality improvement measures.</td>
<td>Cameron Herman</td>
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<td>Assessing the Risk of Deterioration in a Dialysis Population: A Multidisciplinary Approach to Person-Centered Care</td>
<td>To identify patients at risk of deteriorating and to share our clinical concerns with them so that care goals and wishes can be established and support services mobilized accordingly.</td>
<td>Rachel Lewis</td>
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<td>Nephrology Referrals: Who to Refer, When to Refer and Impact on Outcomes of People with Chronic Kidney Disease</td>
<td>To examine the effects of nephrology referral and its timing on outcomes in people who should be referred according to guidelines; to identify who would benefit most from current nephrology referral criteria, if benefits exist.</td>
<td>Ping Liu</td>
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<td>A Process Analysis on the Engagement of Patients and Providers in Defining Barriers and Facilitators to Adoption of e-Consult in Alberta</td>
<td>To investigate perceptions on barriers to, and facilitators for, the use of e-Consult to improve access to quality kidney care and to identify system-level and primary care provider barriers for uptake and user satisfaction on the use of e-Consult after implementation.</td>
<td>Mohamed Osman</td>
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<td>Comparison of Survival Among Older Adults with Kidney Failure Treated Versus Not Treated with Chronic Dialysis</td>
<td>To compare time to all-cause mortality among older adults with kidney failure treated versus not treated with chronic dialysis.</td>
<td>Helen Tam-Tham</td>
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Carol Easton, Sandi Vanderzee, Dan Muruve and Kailash Jindal

As the sole provider of renal services in the Province of Alberta and its population of nearly 4.3 million people, Alberta Kidney Care (AKC) is dedicated to providing a full spectrum of care for all of its patients throughout their renal journey. Alberta Kidney Care is a unified Provincial program, consisting of two operational units: the Northern Alberta Renal Program (NARP) and the Southern Alberta Renal Program (SARP). Alberta Kidney Care is directed by the Alberta Kidney Care Leadership Coordinating Council which is comprised of senior leadership from all zones, dyad partners in NARP and SARP and dyad leadership from the Kidney Health Strategic Clinical Network. While operationally NARP reports to the Edmonton Zone leadership and SARP reports to the Calgary Zone leadership team, there is abundant Provincial interaction and standardization, where possible, between the two operational units.

The goals of Alberta Kidney Care are to:
- Prevent kidney failure through education, early detection and management of high risk individuals.
- Delay the onset of dialysis in chronic kidney disease patients.
- Direct the appropriate timing of dialysis initiation and assess all patients for suitability of home-based therapies.
- Ensure access to appropriate treatments and supportive care as patients move through the continuum of kidney care.
- Improve the quality of life for patients and families living with kidney disease.
- Plan for future operational, financial, business and clinical needs in an environment that is sustainable and accessible.

### Alberta Kidney Care: Key Statistics

(Prevalence data as of March 31, 2017)

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<thead>
<tr>
<th></th>
<th>NARP</th>
<th>SARP</th>
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<tr>
<td>Number of peritoneal dialysis patients¹</td>
<td>289 (20.3%)</td>
<td>244 (20.6%)</td>
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<tr>
<td>Number of home hemodialysis patients²</td>
<td>86 (6%)</td>
<td>77 (6.5%)</td>
</tr>
<tr>
<td>Number of facility based nocturnal patients¹</td>
<td>11 (0.7%)</td>
<td>32 (2.7%)</td>
</tr>
<tr>
<td>Number of facility based hemodialysis patients¹</td>
<td>1036 (73%)</td>
<td>854 (72.1%)</td>
</tr>
<tr>
<td>Number of renal replacement therapy patients¹</td>
<td>1422</td>
<td>1183</td>
</tr>
<tr>
<td>Number of hemodialysis units¹</td>
<td>22</td>
<td>14</td>
</tr>
<tr>
<td>Average number of stations in units¹</td>
<td>Urban – 18,</td>
<td>Urban – 17.4</td>
</tr>
<tr>
<td></td>
<td>Rural – 6</td>
<td>Rural – 6</td>
</tr>
<tr>
<td>Average GFR at start of RRT¹</td>
<td>7.8</td>
<td>8.3</td>
</tr>
<tr>
<td>Number of new kidney transplants patients²</td>
<td>100</td>
<td>83</td>
</tr>
<tr>
<td>Total number of kidney transplant patients²</td>
<td>1,308</td>
<td>956</td>
</tr>
<tr>
<td>Percent of end stage renal replacement patients who have a kidney transplant²</td>
<td>48%</td>
<td>45%</td>
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¹Data sources: NIS (NARP) & PARIS (SARP)
²Data sources: OTTR (Northern Alberta) & ALTRABase (Southern Alberta)
How Alberta Kidney Care does it...

**Alberta Kidney Care has a network of Kidney Clinics across the Province**

Some clinics are located in large urban cities (Edmonton, Red Deer, Calgary, Medicine Hat and Lethbridge) with multi-disciplinary care providers (nurses, physicians, support workers, social workers and others), while other clinics are located in remote areas or with at-risk populations.

For example: Alberta Kidney Care - SARP (Elbow River Healing Lodge, Calgary Urban Project Society, Siksika Nation, Levern Clinic) has a nurse practitioner and a nephrologist guiding. Alberta Kidney Care - NARP - has Rural Clinics where a nephrologist visits six remote locations to see patients affected by kidney disease. Diabetic Nephropathy Prevention Clinics are managed by a nurse and dietitian team with consultation from a nephrologist and a diabetologist.

Data helps to drive decisions about care and where services should be located.

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**Alberta Kidney Care Promotes Home Therapies**

Home therapies are peritoneal dialysis and home hemodialysis. Home therapies provide renal replacement therapy to approximately 27% of patients requiring this therapy. Patients must be able to meet certain cognitive and physical requirements to qualify for home therapies.

There are 36 hemodialysis units strategically located across Alberta, with the largest unit consisting of 30 stations offering dialysis seven days a week, three runs throughout the day as well as nocturnal dialysis for those patients who are more independent, work or cannot alter their home environment to accommodate their dialysis needs. The smallest unit, in a more remote community, provides renal replacement therapy for three patients and operates for one shift three days a week.

For those patients who either want to withdraw from renal replacement therapy or don’t wish to start, comprehensive conservative care resources are provided.

Approximately 45% of patients who require renal replacement therapy go on to receive a kidney transplant.
Electronic Patient-Reported Outcomes in Clinical Kidney Practice (ePRO Kidney)
Frances Reintjes and Kara Schick-Makaroff

The goal of our patient-and-clinician-led research in home dialysis across Alberta is to understand how to best support clinicians and administrators in routinely utilizing electronic patient-reported outcomes and experiences (ePROs) to enhance person-centered care and satisfaction with care.

Patient-reported outcome and experience questionnaires (referred to as PROs) allow patients to provide information about their quality of life, symptoms and experiences with care. Embedding feedback from patients into routine clinical practice is important in end-stage kidney disease because of the quality of life challenges patients face when living with kidney failure.

In spite of mounting support for PROs, collection and reporting is not routinely integrated into kidney care in Canada. The problem is that we don’t know how to integrate PROs into care. There is a pressing need for knowledge about how to best support clinicians in using PROs as the basis for enhancing person-centered care.

In this research, we will address this gap. Home dialysis patients will complete electronically-administered PROs (ePROs) and home dialysis clinicians in the Northern Alberta Renal Program will receive education about how to use this information. Upon project completion, the project will expand to the Southern Alberta Renal Program practitioners.

Improving Medication Safety in Hemodialysis Patients Using an Innovative Approach to Pharmacy Care
Southern Alberta Renal Program Quality Improvement Committee

Medication reconciliation is a key foundation to medication safety and is an Accreditation Canada Required Organizational Practice. The ability to perform medication reconciliation is dependent on a high-quality Best Possible Medication History.

To improve the accuracy of medication lists, the Southern Alberta Renal Program will be hiring a pharmacy technician to support the collection of quality, best possible medication histories. This innovative model of care will be piloted on a hemodialysis unit in Calgary.

A pharmacy technician was selected as the healthcare professional most uniquely qualified to fill this gap, as they will have the time, the singular responsibility and the knowledge to accurately complete medication histories. They have the practice experience to focus on fine details of medication naming, description, availability, pharmacy operations and seamless care. Additionally, the technician’s role allows dedicated time to educate and support staff in medication best practice.

If proven to be impactful, this model has the potential to be expanded to other units. The addition of a pharmacy technician to the team will promote the development of an integrated system where staff can collaborate, share expertise and work collectively to provide high quality patient care. Ideally, there will be increased confidence in the accuracy of medication lists and ongoing medication safety initiatives such as de-prescribing and dosing for level of kidney function. The focused attention of the pharmacy technician will also allow more time for the care providers to spend on equally important patient-centered activities.
Patients with chronic kidney disease are often prescribed many medications. This, along with reduced renal function, puts them at an increased risk of inappropriate medication prescribing and dose selection. After discussions with a representative from the Alberta College of Pharmacists, the Southern Alberta Renal Program Medication Safety Committee initiated a strategy to better engage community pharmacies that serve renal patients. Three separate letters were drafted, each targeted at patients from Chronic Kidney Disease, Hemodialysis and Peritoneal Dialysis clinics in the Southern Alberta Renal Program. Letters, including details about the clinic caring for the patient, as well as general information pertinent to treating patients with kidney disease were faxed to the community pharmacies of the patients from these clinics in Calgary, Medicine Hat and Lethbridge.

Pharmacists were encouraged to flag the patient as having reduced renal function in their computer system to alert the pharmacy team to monitor for renal dosing and to avoid nephrotoxic drugs. A number of resources were included to help facilitate these interventions.

The importance of helping patients maintain current and accurate medication lists was also stressed. Finally, a fax-back form was included, with the letter for the community pharmacy, to communicate any questions or concerns back to the clinic.

Data was collected regarding the frequency and variety of the fax-backs received by the Southern Alberta Renal Program clinics. Most of the feedback from community pharmacies was regarding drug dosing, but drug safety and patient compliance also featured prominently.

The information and resources provided to the community pharmacies in these letters often results in better communication between care providers, and improved medication safety for renal patients.
Planning for Alberta Kidney Days 2018 is underway. The theme for this year’s symposium is Connections Across the Care Continuum. The Planning Committee is developing the program, inviting speakers and securing a date and venue for early March 2018 in Edmonton.

Registration is expected to open in October 2017. Keep an eye out for the “Save the Date” announcement in early September 2017. Updated information, once registration is open, will be found on the Kidney Health SCN website.

The Strategic Clinical Networks turned five!

On June 13, 2012, the first six Strategic Clinical Networks were launched and the stage was set for a fundamental change in healthcare innovation in Alberta.

On January 8, 2016, the Kidney Health SCN became the 12th member of the SCN family. Through your collective efforts, and the efforts of our frontline operations teams and other stakeholders, we have achieved a huge amount of success. It’s amazing what can be achieved in five short years, when teams of people put patients at the heart of healthcare and put their heads together to improve the healthcare system, improve quality and spread innovation.

Kidney March is fast approaching!

Kidney March 2017 takes place September 8, 9 and 10. For more information, or to sponsor a team (like the Kidney Health SCN’s Blistering Nephrons), visit the Kidney March website.