



# MEDICINE

## Hospital Medicine, Kidney Health, Respiratory Health

Shared Leadership	<b>SENIOR PROVINCIAL DIRECTOR</b> <b>Louise Morrin</b> , BSc (PT), MBA	<b>SENIOR MEDICAL DIRECTOR</b> <b>Dr. Anna Purdy</b> , MD, University of Calgary <b>Dr. Jeffrey Schaefer</b> , MD, University of Calgary (to July 2021)	<b>EXECUTIVE DIRECTOR</b> <b>Anita Kozinski</b> , BSc, MHA	<b>ASSISTANT SCIENTIFIC DIRECTORS</b> <b>Dr. Marni Armstrong</b> , PhD, University of Calgary <b>Dr. Lesley Soril</b> , PhD, University of Alberta
Hospital Medicine	<b>SECTION LEADS</b> <b>Dr. Jim Eisner</b> , MD, University of Calgary	<b>SCIENTIFIC DIRECTORS</b> <b>Dr. Raj Padwal</b> , MD, MSc, University of Alberta	<b>MANAGERS</b> <b>Chris Roach</b> , BSc, Dip HEP	
Kidney Health	<b>Dr. Jennifer MacRae</b> , MD, MSc, University of Calgary	<b>Dr. Neesh Pannu</b> , MD, SM, University of Alberta <b>Dr. Scott Klarenbach</b> , MD, MSc, University of Alberta	<b>Terry Smith</b> , BSc, MN	
Respiratory Health	<b>Dr. Ron Damant</b> , MD, University of Alberta	<b>Dr. Michael Stickland</b> , PhD, University of Alberta	<b>Eileen Young</b> , BSc	

## Major initiatives and achievements, 2021-2022

The Medicine SCN (MSCN), which launched in April 2020, builds on past achievements in kidney and respiratory health, while extending its scope and relationships to hospital medicine. Bringing these communities together as one network enables us to advance common priorities, undertake cross-cutting projects, tackle complex, multidisciplinary challenges, and accelerate innovation and health system improvements on a provincial scale.



### Medicine SCN Cross-Cutting Projects

#### Enhancing the safe and effective use of point-of-care ultrasound

Current technology now allows for point-of-care ultrasound (POCUS) to be performed at the bedside and this has become the recommended standard of care. Led by Drs. Irene Ma, Elaine Dumoulin and Ada Lam, the MSCN is supporting the development of a provincial approach to using POCUS for consultation or to perform a bedside procedure for adult patients admitted to hospital. Provincial quality indicators and metrics are being developed to monitor and measure progress and to ensure that this technology is accessible to all patients in Alberta and used according to consistent quality standards.

#### Understanding the early impact of and care for post-COVID conditions

An estimated 10-20% of Albertans who contract COVID-19 will face debilitating sequelae and disabilities from long-COVID that impact their quality of life and capacity to work. The MSCN has supported a standardized data collection and evaluation system for the pulmonary-led and Inter-professional Outpatient Programs (IPOP) long-COVID clinics across the province. In 2021, the MSCN helped complete a descriptive evaluation of access and patient characteristics for the pulmonary-led post-COVID clinics. This information will be used to inform future evaluation and planning for the IPOP clinics, supporting access to high-quality, patient-centred care.



### Hospital Medicine

#### Reducing lab test overuse among hospitalized medical patients

Research suggests that, on average, 21% of laboratory tests are over-utilized, which has been associated with preventable harm through hospital-acquired anemia and subsequent blood transfusions, leading to poorer patient outcomes. There is also a substantial financial impact of unnecessary testing and increased risk of false positive results, leading to a cascade of further unnecessary testing. The Hospital Medicine Section is helping implement and evaluate a research project (led by Dr. Anshula Ambasta and Pam Mathura) that applies strategies such as clinical decision supports, adapted order sets, physician audit and feedback, and patient education to help reduce unnecessary laboratory testing.



### Kidney Health

#### Implementing a patient-centred approach to hemodialysis care

The current standard of treatment for patients starting dialysis is 4 hours, 3 times per week, the same dose for everyone without consideration of remaining kidney function or patient preference. Incremental dialysis is a 'gentler' approach to

hemodialysis care that involves less frequent dialysis (e.g. 2 sessions per week), where patients are closely monitored and their dialysis time increased only as their kidney function indicates.

This implementation project, led by Dr. Neesh Pannu (SD), has been co-designed with patients, clinicians and operations managers and may result in a decrease in treatment costs for these patients in their first year of hemodialysis. Details on patient clinical outcomes, quality of life and experience are being captured. By the end of the 2021-2022 fiscal year, the project had been implemented at 8 key sites and there were approximately 50 patients on incremental dialysis on any given day across Alberta.

*“For someone that had residual kidney function when they started dialysis, I believe I was the perfect candidate for the program. I have a job and family that bear a lot of responsibility, so my time is precious! Incremental dialysis was such a great option.”*

Incremental Dialysis Project Participant



## Respiratory Health

A standardized transition bundle to optimize COPD acute care

Chronic Obstructive Pulmonary Disease (COPD) is a leading reason for hospitalization in Alberta, as well as acute care readmissions and emergency department (ED) revisits. Minimizing care variability and improving coordination across the care continuum may lower COPD hospitalization and ED visits while improving quality and continuity of care.

The Respiratory Health section and Dr. Michael Stickland (SD), led a PRIHS-funded project to adapt, implement, and assess a clinical pathway and discharge bundle for patients with COPD to facilitate smooth transition from hospital and prevent returns to hospital and/or the ED. Results of this project were accepted in the journal *CHEST* (see [full publication](#)). In addition, the COPD discharge bundle and pathway have been integrated into Connect Care as a standardized care path and form part of the foundational elements of the Provincial Acute Care Bundle Improvement (ACBI) initiative.

## Other highlights

Informing pandemic care and physician-level quality indicators

In support of the COVID-19 pandemic response, the Scientific Offices of the MSCN led and chaired several scientific reviews for the [Scientific Advisory Group](#) to provide important, up-to-date evidence on the management and treatment of COVID-19. The MSCN used the available evidence to develop clinical guidelines and worked with operational partners to create tools to support pandemic-related planning and decision making.

The Kidney Health Section, in collaboration with the Alberta Medical Association, disseminated an annual audit and feedback report to Alberta nephrologists with individualized data on appropriate medication use in nephrology patients.

## Areas of impact and focus

- Empower patients to improve their experience and health outcomes
- Enhance integration to improve acute and chronic disease management and transitions between community and the hospital
- Identify opportunities and address gaps in care, enable clinical best practices and reduce unwarranted variation to support quality health care

## MEDICINE

### Grants and Publications



31

Peer-reviewed Publications



21

Workshops & Presentations

### Outcomes and Impact

\$42K

in Grants Awarded for Respiratory Health Research



\$2.7M

Research Grants



249

Research Members

150

Audit & Feedback reports disseminated to physicians

[www.ahs.ca/medicinescn](http://www.ahs.ca/medicinescn)