Improving care and outcomes for patients with chronic kidney disease

The Challenge: Improve information management to advance chronic-disease care

In Nova Scotia, the healthcare system has struggled to cope with increasing amounts of information, which has often resulted in information overload and inefficiencies at many levels. In the area of chronic-disease management (kidney disease in particular) healthcare staff had a history of relying predominantly on paper-based information systems. A compelling need existed in the province to manage information more efficiently so that the system could gather and retain more robust data for program planning and expansion, improve quality assurance, increase the capacity for clinical research, and improve day-to-day patient care.

The Improvement Project: Use the Wagner model to design an information management overhaul

Dr. Steven D. Soroka, Medical Director of the Renal Program, currently Professor, Faculty of Medicine, Dalhousie University and Vice President of Medicine, Capital Health, pursued his EXTRA improvement project at the Capital Health Renal Program, which provides healthcare services for most individuals with kidney disease in Nova Scotia. Dr. Soroka recognized that individuals with chronic kidney disease would benefit from the information management component of the Wagner Chronic Disease Care Model, which includes clinical information systems and decision support. His project involved implementing three phases of a program to build a robust database, engaging as many healthcare professionals as possible by transitioning them away from a paper-based system, and spreading the system throughout the province.

The Result: A three-phase program for rebuilding information management systems

In the first phase of his project, Dr. Soroka developed an infrastructure for databases—14 databases were completed and then integrated into a common platform with six more modules in various stages.

“This EXTRA improvement project has shown the absolute need and value for information management systems that enable and support multiple aspects of healthcare within a system.”

– Dr. Steven D. Soroka, Medical Director, Renal Program Professor, Faculty of Medicine Dalhousie University Vice President of Medicine, Capital Health
of development—to enhance day-to-day care for renal patients. The large data system, called My Nephrology, is also used for program planning, to support quality and patient safety as well as outcomes research. The work of building the system was iterative to move healthcare professionals from a paper system to electronic systems. The second phase expanded to engage a wider group, including the CEO and information technology department of the organization. The resulting partnership fostered chronic disease management supported by IT. The third phase of Dr. Soroka’s project brought together all the renal programs within Nova Scotia in a collective vision for implementing a single information management strategy for renal care within the province.

**The Impact: Project will likely spur a provincial roll-out**

Dr. Soroka and his team envision implementing a single information management strategy for renal care in Nova Scotia, which will also inform the provincial Department of Health and Wellness about trends in chronic kidney disease in the province, in addition to supporting clinical care, program planning, quality initiatives and research. Strong leaders are needed to achieve this goal. Dr. Soroka’s project has built critical skills among healthcare staff and has helped develop an overarching philosophy in favour of making evidence-informed decisions in the implementation and ongoing development of this initiative.

To learn more about the EXTRA program, please visit cfhi-fcass.ca/EXTRA or email us at info@cfhi-fcass.ca.