

## Developing a virtual shared care model for headache neurology in Toronto: A triple aim study

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**Introduction:** A “Triple Aim” study strives to improve the patient experience, population health, and reduce per capita costs within a target population. Migraine was identified to be the 6th leading cause of global years lived with disability in the Global Burden of Disease Study 2013. In Canada, the 2008 direct cost of migraine was over \$300 million.

**Methods:** A triple aim approach is being undertaken in collaboration with a virtual interprofessional health team called Seamless Care Optimizing the Patient Experience (SCOPE) to improve migraine management. Primary care physicians (PCPs) registered with SCOPE have access to specialists including specialists like neurology, diagnostic imaging, and community services through a virtual hub with a nurse navigator. A SCOPE-related headache clinic has been developed with a neurologist and nurse practitioner interacting with the patients and PCPs in a shared care model through use of a bi-directional care plan and optimized communication. Patient & provider experience will eventually be measured with surveys; developmental iterations are currently based on qualitative feedback. Patient health and function are measured with a standardized score called the Headache Impact Test (HIT-6). To improve per capita cost, opioid use and emergency department visits are being tracked.

**Outcomes:** This initiative, which started officially in February 2017, has been well received thus far by patients and PCPs. There are currently 159 PCPs enrolled in SCOPE, and 101 SCOPE patients have been registered in the clinic. The care plan is qualitatively reported as helpful, and in its fifth iteration with plans for future electronic versions. Average HIT-6 at consultation is 64/78 (very severe), and will be track over time for reduction. Average weekly ED visits at the

University Health Network for headache patients rostered with SCOPE PCPs are 5. On referral, 18% of patients were previously on opioids. We have discontinued opioids in 75% of those patients, and the remaining is being weaned.

**Discussion:** This type program is a longterm effort, and in its infancy. Significant changes are seen at the individual level, and already in per capita costs for opioid use. Changes at the population level for HIT-6 scores and per capita costs for ED visits will require a long-term analysis. Patients and PCPs are voicing approval of the shared care model. These changes will be tracked objectively and qualitatively for objective evidence of the promising patient stories thus far.

**Conclusion:** Migraine is a debilitating condition with massive cost to society. Management involves pharmacologic and lifestyle treatments that require significant counselling and co-management between the patient and healthcare team. A model of shared care between the patient, PCP, and neurology like SCOPE can improve patient experience. We plan to show improvements in the health of the headache population and decreased per capita costs as well as scale to other groups..

### Speaker Biography

Jennifer Robblee did her undergraduate degree at Dalhousie in Neuroscience, and then came to Toronto for Medical School at the University of Toronto. She completed her Residency in Neurology at the University of Toronto, and then started as a General Neurologist at UHN. While in her first year, she completed the MSc of Quality Improvement and Patient Safety (QIPS) and 2 years of the Veteran Affairs Quality Scholars (VAQS) program. She runs the Toronto Western Hospital General Neurology Clinic and the new KNC Headache Clinic. She is the Physician co-lead for the falls, which is one of the 6 hospital acquired conditions (HACs) identified as part of the Caring Safely initiative for UHN. She is also the SCOPE Neurologist. SCOPE is a program focused on family practices with high patient users of healthcare resources.

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