Empowering the Patient at The Shoulder Centre: A Two-Year Experience of Patient Reported Outcomes Measures for All Shoulder Procedures

Background
The Shoulder Centre (TSC) at Lakeridge Health System is transforming shoulder care through the implementation of a Patient Centered Specialty Practice that builds on novel partnerships between community providers and the Centre’s multi-disciplinary clinical team and leverages technology solutions to deliver evidence-based care.

Within the Central East Local Health Integration Network (CE-LHIN), TSC serves as the central operating facility (hub) hosting a multidisciplinary provider team, including orthopedic surgeons, non-surgeon specialists, primary care providers (PCP), physician assistants, and physiotherapists. The team is part of a shared-care network with community providers that is available to manage all patients with shoulder-related conditions using the appropriate and required level of clinical expertise as required by each patient. Each year approximately 18,000 patients experience shoulder pain within TSC’s CE-LHIN catchment area.

In alignment with the innovative model of care, TSC has implemented Patient Reported Outcome Measures (PROMs) to capture the post-procedure health performance of the patient using a web-based surgical outcome registry that requires patients to document their pain and physical functionality during the course of their ongoing treatment and recovery periods. PROMs provide valuable and essential information from the patient’s perspective which is critical in understanding whether the health care services and/or procedures have made a positive impact on the patients’ health status and quality of life. PROMs provide insight on the effectiveness of care from the patient’s perspective and complement existing information on the quality of care and services provided. PROMs are implicit in supporting the Patient-Centred Specialty Practice, empowering the patient in clinical decision-making and self-care management and for achieving health system goals.

Changes Made
In traditional models of care for shoulder treatments, the patient’s health functionality and on-going complaints of pain are only addressed during face-to-face visits with the attending physician. Often patients wait a lengthy time period to be seen by a physician, especially when being managed by specialists, and then wait further time periods for follow up visits. These delays in routine assessment due to lengthy wait times often results in the patient living in pain and the inability to have treatment plans adjusted on a more timely basis based on their clinical outcomes. In addition, delayed adjustments to treatment plans can result in increased health system costs as patients’ conditions may deteriorate while waiting for assessments, or patients may report secondary issues such as reliance on prescription medication and harm from ineffective or improper treatment routines.

To help surgeons manage the post-operative needs of a patient, TSC has implemented the use of PROMs to record and evaluate the patients ongoing care needs. The innovative method of managing improves the quality of care patients receive, thus enabling the time to assess patients’ clinical progress, allows monitoring and adjustment of current treatment plans and reduces the health system costs.

Project Rationale
To implement an electronic PROM system for The Shoulder Centre patients to be managed for clinical results post-surgeon surgeries in order to:
• Empower the shoulder patients in ‘clinical decision-making’ and ‘self-care management’.
• Empower the TSC surgeons to make clinical observations and decisions regarding the optimal use of expensive surgical implants.
• Reduce unnecessary post-operative visits via the remote monitoring of the surgical patients.
• Participate in a Global PROM Registry for Shoulder Surgery, including the tracking of all implants utilized in procedures.

Project Design and Implementation
The following steps were taken to implement PROMs for TSC patients:
Step 1: TSC’s clinical team evaluated leading commercially available electronic PROM software solutions and chose SOS™ – Surgical Outcomes System (Arthrex, USA), which is an email and web-portal based solution.
Step 2: TSC identified both a PROM clinical and clerical lead for implementing PROMs (SOS™).
Step 3: The clinical lead completed hospital IRB approval for SOS™.
Step 4: The clerical lead implemented an in-office protocol for patient education and consenting.
Step 5: All TSC surgeons (including the clinical lead) implement the use of SOS™@ TSC.
Step 6: All TSC surgeons implement the use of SOS™ in pre-operative patient ‘clinical decision-making’.
Step 7: All TSC surgeons implement the use of SOS™ in patient ‘self-care management’.
Step 8: One TSC surgeon implements the use of SOS™ in reducing unnecessary post-operative visits.

Demonstrated Benefits
Illustrations below are examples of PROM results for Rotator Cuff Repairs for patients managed at TSC in the past 24 months:

Figure 1 illustrates the patient’s self reported pain at 6 months to be lower than the comparative groups, globally and from within region. Based on this information treating physician can adjust pain reliever and physiotherapy plans.

Patient Feedback
Example of patient’s feedback on the PROM system having completed 6 months of feedback on surgical outcomes: “All is good. I have totally forgotten that I had shoulder surgery and don’t feel it at all. I am just working on building strength and getting that last 5% of flexibility back. I assume, unless I hear differently, that I do not need to book any other follow-up appointments.”

Conclusion
After a two-year experience of having implemented Patient Reported Outcomes Measures (PROMs) for all Shoulder Procedures at The Shoulder Centre, we conclude that PROMs have transformed the way we understand our patients’ response to treatment, and how we empower, educate and engage our patients in clinical decision-making and self-management.

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