

# Utilizing an Interactive Performance Dashboard to Improve Patient Care

\* Farah Nabi, BSc, CPA, Stephen Gallay, BSc, MD, FRCSC, Joel Lobo, MD, FRCSC, Amelia McCutcheon, BSc, MSc, PhD, Jesse Slade-Shantz, BSc, MD, FRCSC, MBA

Division of Orthopaedic Surgery, Rouge Valley Health System, Ajax, Ontario, Canada  
Email: fnabi@rougevalley.ca; stephengallay@gmail.com; joellobomd@rogers.com;  
amccutcheon@rougevalley.ca; jesse@mdcommons.com

## Introduction

The Shoulder Centre (TSC) at Rouge Valley Health System (RVHS) is transforming shoulder care through the implementation of an innovative and comprehensive model of care that builds on novel partnerships between community providers and the Centre's clinical team and leverages technology solutions to deliver evidence based treatments.

Appropriate management of patients based on their care needs, will result in the capacity to manage a higher volume of patients requiring both surgical and non-surgical interventions. The Shoulder Centre's goal is to fulfil the Ontario Ministry of Health's mandate to provide the right care at the right place at the right time.

The Centre's model of care leverages the work completed to date from the Ontario Wait Time Strategy (Cancer Care Ontario), the Orthopaedic Hip/Knee Central Intake Assessment Centre model, the ISEAC model for low back pain, and the HQO-QBP Clinical Handbook on Degenerative Disorders of the Shoulder.

## Objectives

The Shoulder Centre recognized the need to develop and implement an interactive performance dashboard to achieve its primary service goals and demonstrate the Centre's performance achievements to three primary target groups: the users (e.g; patients), the providers (e.g. referring physicians and internal resources) and the system administrators (e.g: Central East Local Health Integration Network). Through near real time performance reporting the Centre's management team would be able to:

1. Report, analyze and implement improvement strategies to increase efficiency, quality of care and patient satisfaction
2. Leverage the demonstrated evidence as an early detection tool to provide preemptive interventions
3. Demonstrate progress on the Centre's primary goal of transforming specialized care to make the health system more sustainable

## **Methodology**

The interactive dashboard would consolidate data from different health information management system applications and report actual performance achievements for SMART metrics that have collaboratively been agreed on by the Centre's management team. Each reporting metric on the performance dashboard would be distinctly aligned with a focus on user, provider or system perspective. This alignment will provide clarity on the key stakeholders that are interested in the reported performance and the change management that will be activated to manage any variances from intended target.

TSC's performance dashboard is designed to be an analytic tool for decision making and a strategic tool from which information for decision making can be extrapolated. Appendix A provides an example of the monthly performance dashboard; metrics illustrated are published on internal and external reporting forums. An example of a key reporting metric and the associated analysis on the outcome results is provided:

Activity by Appointment Types – this is a provider focused metric, which reports on the number of clinic visits within each service activity category (e.g; new consults, follow up etc). This metric is indicative of the care provider resource utilization to ensure providers within the hub are being matched appropriately with the Centre's patient activity. Reported performance on this metric also permits cost analysis to determine the cost of servicing patients with alternative providers (e.g. the cost associated with utilizing a surgeon for low-acuity patient assessment versus a physician assistant)

## **Results**

Utilization of the performance dashboard in TSC has resulted in improved operational efficiency, workflow management, quality of care and team collaboration. The performance dashboard has been used to report on compliance with performance targets and early identification of any performance variances. Further, TSC's clinical care team leverages the reported information for effective team communication and implementation of methodologies and strategies for effective daily operations management.

## **Conclusions**

As a result, the key objectives realized from implementing the performance dashboard have been: increased system access, system learnings and patient satisfaction while demonstrated reduction in system costs. The performance dashboard aids in the identification of service and system gaps providing TSC's management the ability to continue improving the Centre's services as improvement opportunities become recognized.

# Appendix A

