

# Brant Community Healthcare System Increases Same-Day Surgeries for Hip and Knee Replacement with Digital Care Journeys

## Key Results:

- ↑ 2300% Same-Day Surgeries
- ↓ 51% Average Readmission Length of Stay
- ↓ 12% Average Length of Stay (in-patient cases)
- ✓ 85% of patients would recommend SeamlessMD
- ✓ 79% of patients reported SeamlessMD made them more confident during recovery

## Care Plans Deployed:

- Hip Replacement
- Knee Replacement
- Shoulder

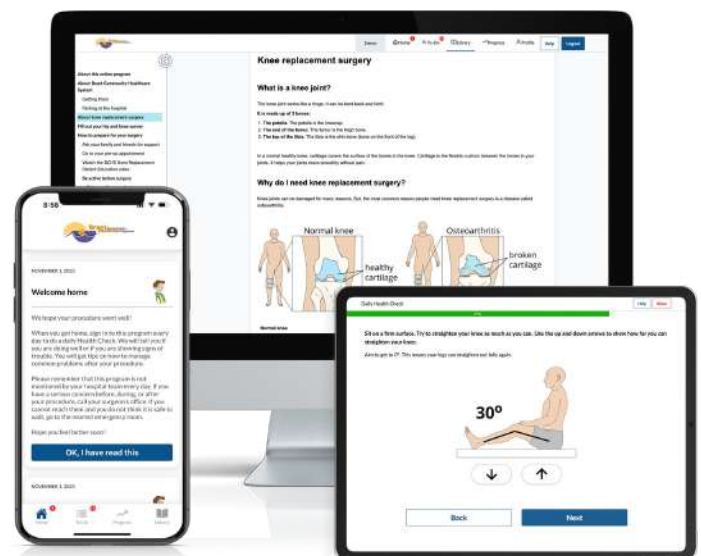
Brant Community Healthcare System (BCHS) works together to build a healthier community. Their vision is to provide exceptional care by exceptional people, grounded through our “CARE” values of compassion, accountability, respect and equity.

BCHS is a primary acute care facility located in Brantford and Paris, Ontario, is comprised of two sites, has a total of 324 beds and has more than 2,200 staff, physicians and volunteers. The system serves over 150,700 residents in Brantford, the County of Brant, Six Nations of the Grand River, Mississaugas of the Credit First Nation, and surrounding communities.

BCHS is an affiliated teaching site of McMaster University Michael G. DeGroote School of Medicine. They are also the regional centre for Paediatrics, Mental Health, Obstetrics, Gynaecology, CT Scanning, Critical Care, Surgical Services, Ambulatory Care and Emergency Medicine, the site of the Brant Community Cancer Clinic and the S.C. Johnson Dialysis Clinic for patients throughout Brant County and Haldimand-Norfolk.

## Leveraging a Clinically Validated Digital Care Journey Platform to Reduce Surgery Wait Times and Optimize the Patient Experience

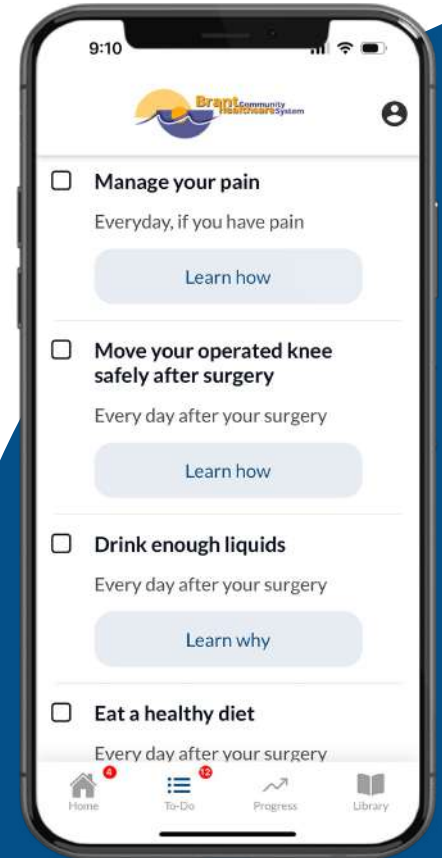
With a vision to reduce surgery wait times and increase same-day surgery volume for joint replacement surgeries, in 2021 Brant Community Healthcare System partnered with SeamlessMD, a leading Digital Care Journey solution, to launch a surgical remote monitoring platform to support patients undergoing hip, knee and/or shoulder surgery. With SeamlessMD, BCHS has been able to leverage technology to discharge patients sooner, increase surgical throughput and enable safer transitions from hospital to home.



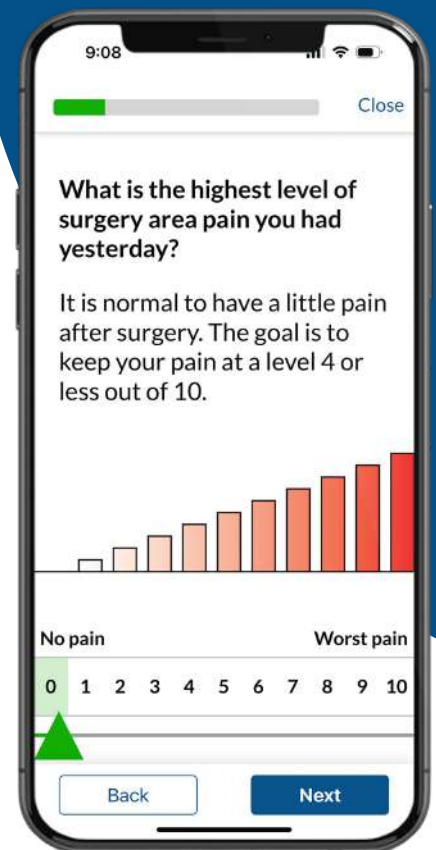
## Collaborating with SeamlessMD to Customize Digital Care Journeys For Ortho Surgery

When implementing this evidence-based technology for hip, knee and shoulder surgery, SeamlessMD worked closely with the BCHS team to customize protocols and content on the platform, which enables the care team to:

- ✓ Engage patients with a mobile and web-enabled, virtual companion – guiding them from pre-admission preparation through post-discharge recovery
- ✓ Deliver interactive evidence-based pathways in the form of multimedia education, reminders, to-do lists, and tasks
- ✓ Monitor patient compliance, symptoms, and recovery progress (e.g., knee range-of-motion, pain levels, incision photos, etc.)
- ✓ Remotely monitor patients through daily health checks during the 30-day postoperative period
- ✓ Digitally collect Patient-Reported Outcomes (PROs)
- ✓ Automate patient self-care guidance via smart algorithms and workflows (e.g., education on how to manage low-risk issues or when to escalate to a provider); and
- ✓ Receive alerts and monitor dashboards to identify when a patient's health status changes, enabling the care team to intervene sooner.



Example Patient “To Do”



Example Patient Post-op Health Check

“Since launching SeamlessMD’s Digital Care Journeys for Orthopaedics we’ve significantly increased our same-day joint replacement surgery. SeamlessMD acts as a safety net for us to discharge patients home the same day as their surgery with the ability to remote monitor them and for patients to self-report their symptoms directly back to our care teams... For those patients requiring a traditional hospital stay we’ve been able to discharge them sooner reducing their hospital stay in turn enabling us to free up inpatient beds and increase our surgery capacity.”



Caralee Bolton, RNFA  
Orthopaedic Arthroplasty & Sports Med Sr. Resource Nurse  
Brant Community Healthcare System

“Throughout a patient’s surgical journey, they are given verbal instructions and paper booklets which are easily forgotten and misplaced... With SeamlessMD, patients have digital access to this information and more on their own smart device and/or computer, leading to improved compliance and fewer post-surgical complications. SeamlessMD provides an effective alternative to in-person care that helps us optimize the patient experience, increase operational efficiencies, and improve outcomes.”



Allison McDonald  
Pre-op Clinic Nurse  
Brant Community Healthcare System

## Results

### 1. Hip and Knee Replacement Surgery Outcomes Analysis

	Control (n=517)	SeamlessMD (n=467)	Difference
Average Length of Stay for in-patient cases (days)	2.04	1.81	↓ 12%
30-day readmission rates (% Readmission)	7 (1.4%)	6 (1.3%)	↓ 5%
Average readmission Length of Stay (days)	8.97	4.37	↓ 51%
30-day ED visits (% ED visit)	43 (8.3%)	40 (8.6%)	↑ 3%
Number of same-day patients (% same day)	6 (1%)	111 (24%)	↑ 2300%

Figure 1: Non-SeamlessMD patients who had surgery between Mar 2021 - Dec 2021 (before SeamlessMD was introduced) compared to SeamlessMD patients who had surgery between Mar 2022 - December 2022 who were enrolled onto SeamlessMD.

### 2. Improved Patient Engagement and Satisfaction

Metric	Result
% Patients who recommend SeamlessMD	85%
% Patients who said SeamlessMD helped them feel more confident pre-procedure	86%
% Patients who said SeamlessMD helped them feel more confident post-procedure	79%
% Patients reported that SeamlessMD prevented 1 or more calls to the hospital	24%