



# North Bay Regional Health Centre Reduces Length of Stay by 50%, Readmissions by 78%, and ED Visits by 54% by Deploying Digital Care Journeys Across Multiple Service Lines

## Key Results:

- ↓ 78% in 30-day Readmissions
- ↓ 54% in 30-day ED Visits
- ↓ 50% in Length of Stay
- ✓ 66% of patients reported that SeamlessMD prevented 1+ calls to the hospital
- ✓ 95% would recommend SeamlessMD
- ✓ 99% of patients found the information easy to read
- ✓ 96% felt SeamlessMD helped them feel more confident before surgery
- ✓ 88% felt SeamlessMD helped them feel less worried before surgery

## 8 Care Plans Deployed:

- Breast
- Colorectal
- Hernia
- Hip
- Hysterectomy
- Knee
- Shoulder
- Urology

*“SeamlessMD has been a terrific partner in helping us deliver our hospital’s strategy to provide a cutting edge, digital experience throughout the patient journey to ultimately reduce ED visits, hospital length of stay, and readmission rates.”*



**Chantal Voyer,**  
Director of Surgery and Inpatient Services,  
North Bay Regional Health Centre

North Bay Regional Health Centre (NBRHC) is a 397-bed hospital serving the North Bay and surrounding area. The hospital has three main roles: it provides acute care services to North Bay and its surrounding communities; it is the district referral centre providing specialist services for smaller communities in the area; and it is the specialized mental health service provider serving all of northeast Ontario. It is one of four major acute care hospitals serving northeast Ontario (along with Sault Area Hospital, Timmins and District Hospital, and Health Sciences North).

With a focus on increasing same-day surgery as well as providing patients with access to a digital patient engagement solution that enables them to seamlessly navigate through their surgical care journey from pre-op to post-discharge, NBRHC partnered with SeamlessMD, a leading Digital Care Journey platform, to launch a surgical remote monitoring platform to shorten hospital length of stay, optimize patient education, and enable safer transitions from hospital to home, leading to decreased readmissions and ED visits.

By using a digital health solution like SeamlessMD, NBRHC provides patients access to personalized just-in time patient education and care teams monitor patients to ensure they are adherent to their care pathways, to keep them on track with recovery, and to intervene sooner for patients at risk.

## Collaborating with SeamlessMD to Customize Pre-Built Digital Care Journeys

Since the initial launch of SeamlessMD for hip, knee, colorectal and hysterectomy surgery programs in early 2022, NBRHC has deployed Digital Care Journeys across a total of eight care pathways.

General Surgery	Orthopedic Surgery	Women’s Health
Colorectal Hernia Breast Urology	Hip Knee Shoulder	Hysterectomy

SeamlessMD collaborated with a broad interdisciplinary team at NBRHC to customize protocols and content on the platform, which enabled the care team to:

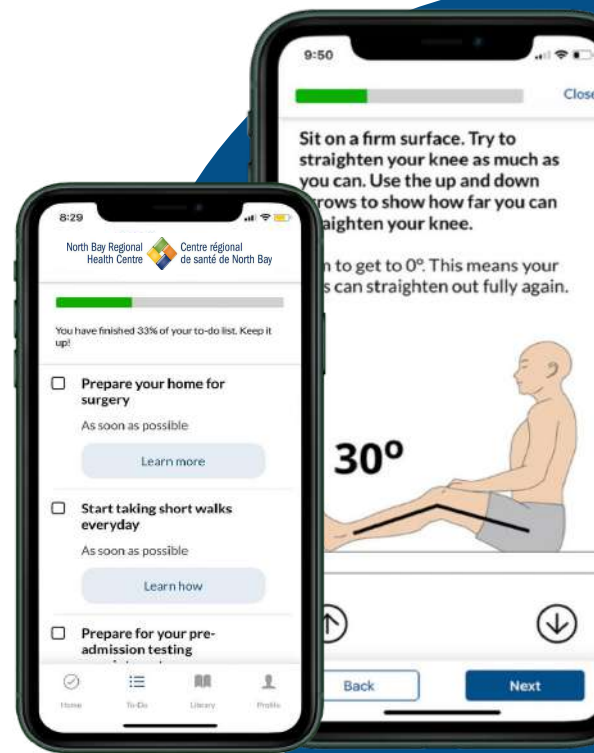
- Engage patients with a mobile and web-enabled, virtual companion – guiding them from pre-admission preparation through post-discharge recovery
- Deliver comprehensive information and evidence-based pathways in the form of multimedia education, reminders, to-do lists and tasks to patients to inform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

Over the past 12 months since partnering with SeamlessMD to provide surgical patients with access to the digital care journey platform, NBRHC has boasted a **94% activation rate and 95% satisfaction rate** among patients.

More than 52,994 library pages have been viewed and patients have spent more than 2,650 hours viewing various types of content.

**Popular content includes** instructions for breathing exercises, pain control options, mobility and home exercises, how to pack a hospital bag, how to check-in, and getting ready to go home.

Example Patient “To Do”  
Pre & Post surgery



*“By automating preoperative and postoperative care delivery with SeamlessMD, we can deliver high quality, person-centred care more efficiently. With the ability to deliver personalized interactive patient education that patients can access day or night, they feel more informed about what to expect before and after hospitalization which ultimately reduces their anxiety and increases adherence to their care plans and improves outcomes. Patients that access the platform feel more empowered to play an active role in their healthcare journey.”*



**Joanne Laplante,**  
Vice President, Clinical Services and Chief Nursing Executive,  
North Bay Regional Health Centre

# Improving Outcomes with Digital Care Journeys & Remote Monitoring

With SeamlessMD, the care team at NBRHC can remotely monitor patients, helping them stay connected and engaged with their care team and feeling less anxious throughout their healthcare journey – even after leaving the hospital. This enables the care team to address patient concerns sooner and provide personalized care recommendations to improve patient outcomes. SeamlessMD also gives patients access to an evidence-based education library that they can access day or night, allowing patients to self-manage their own care more effectively from home.

## Here's what patients like most about the program:

- *“That the information went directly to the healthcare team and kept them updated on my progress. And when I answered the question that I was feeling lightheaded/dizzy a nurse called me the next day to check in...”*
- *“I felt confident that if I needed outside reassurance or information, it was just a phone call away. It also kept me on my toes to do my exercises and self assessment as time went on post surgery. I feel strong and healthy and feel I am ready to deal w"ith the next steps in my recovery from breast cancer.”*
- *“The ability to have any issues addressed quickly and without having to try to see my Dr or the surgeon or having to go to emergency. It also kept me accountable and reminded me daily that I have limits to my activities. It also let me see my daily progress.”*
- *“It felt like someone really cared as to how I was doing. Usually, you leave the hospital and there is no contact until your follow up appointment in which case you feel all alone. Also, nurse Amanda even called me once to discuss a minor issue in my daily response to the questions.”*
- *“I’m very impressed with how quickly a follow up phone call came after I posed a question in the comments section. The conversation I had with Amanda answered my concerns about whether the discomfort I was experiencing was fairly normal for this type of surgery but to not hesitate to call if anything were to change. I had a knee replacement in March and used SeamlessMD and was equally impressed with it that time as well. This is really a valuable innovation.”*

## Results

### 1. Outcomes Analysis: Hospital Wide Reducing Readmissions, ED Visits and LOS

Across all care pathways

Feb. 2022 – June 2023	Control	SeamlessMD	Change
Sample Size	409	1075	–
30-day Readmissions	6.8%	1.5%	↓78%
30-day ED Visit Rate	17.1%	7.9%	↓54%
Avg. Length of Stay	2.55 days	1.27 days	↓50%

## Results (continued)

### 2. Improved Patient Engagement and Satisfaction

#### Call and Visit Avoidance

Percent of Patients Who	Total
reported that SeamlessMD prevented 1+ calls to their healthcare team	66%
reported that SeamlessMD prevented 1+ visits to the hospital	26%

#### SeamlessMD Satisfaction

Percent of Patients Who	Total
would recommend SeamlessMD	95%
felt SeamlessMD helped them feel more confident before surgery	96%
felt SeamlessMD helped them feel less worried before surgery	88%
felt SeamlessMD helped them feel more confident at home after surgery	91%
felt SeamlessMD helped them feel less worried at home after surgery	88%

### 3. Accessibility and Health Literacy

Metric	Total
% Patients found the information they needed easy to read	99%
% Patients found the information they needed easy to find	95%

#### Expansion to Other Surgical Service Lines

With the ongoing success of the surgical remote monitoring program, NBRHC is now actively implementing SeamlessMD for patients undergoing C-sections.

*“With SeamlessMD, a very user-friendly platform, we can effectively guide and monitor our patients to ensure they remain on-track to recovery. The platform enables us to detect potential complications early and intervene sooner for patients at risk reducing the need for ED visits and readmissions.”*



**Amanda Gauthier,**  
Registered Nurse -  
Patient Monitoring Lead,  
North Bay Regional  
Health Centre