

eVisits for Preoperative and Postoperative Orthopedic Care

Thunder Bay Regional Transfer Avoidance Fracture Clinic

Background:

The Thunder Bay Regional Health Sciences Centre's Fracture Clinic services patients from across the North West North West Local Health Integration Network (LHIN). The North West LHIN is one of the largest LHINs within Ontario, serving communities that spread across 458,010 kilometres. Patients rely on the Fracture Clinic for access to orthopaedic surgeons for fracture and joint replacement assessment, setting and casting, and consultation, and must travel long distances to visit an orthopaedic surgeon for pre-op care and post-surgery follow up.

Objective:

Reduce patient travel between hub hospitals by providing preoperative and postoperative appointments for orthopedic patients in their home communities.

Solution:

Thunder Bay Regional Health Sciences Centre's Fracture Clinic has partnered with telemedicine sites across the North West LHIN to replace in-person visits between orthopedic surgeons at the clinic and patients with eVisits (real-time video visit using videoconferencing technology). Instead of traveling - often long distances - into the clinic, patients visit with a nurse at a local telemedicine site and videoconference their orthopedic surgeon from the comfort of their local community.

Benefits:

Healthcare providers and patients involved in the program identify the following benefits to this virtual approach:

- Less patient travel
- Less patients in the hospital
- Shorter wait times
- Greater patient satisfaction
- Less money – clinic saves clinic maintenance fees, such as housekeeping, security and administrative costs
- Builds relationships across hospitals and clinics
- Increased knowledge sharing and collaboration

Patient Journey:

Without Telemedicine

- Patients needing orthopedic care are identified (patients include the geriatric population, who often rely on taxis

Key Elements of a Telemedicine Program:

Telemedicine Nurse:

The Government's "Open Ontario Plan" to provide more access to healthcare services while improving quality and accountability for patients, resulted in the recruitment of 191 full-time nursing positions focused on delivering clinical telemedicine at member sites across Ontario.

Telemedicine Site:

Telemedicine sites are equipped with OTN's videoconferencing technology and a Telemedicine Nurse and/or a Telemedicine Scheduler who manages the scheduling and coordination of an appointment.

Telemedicine Solution: eVisits

OTN's videoconferencing solution for eVisit is just one of the many virtual tools available to members of the OTNhub. eVisits can be conducted over a computer, mobile device or room-based videoconferencing system.

OTN Representative:

OTN has a field team available across the LHINs who specialize in change management and can provide support as organizations identify virtual solutions right for them, secure support from decision makers, and integrate telemedicine into their practice.

Partnerships:

OTN is one of the largest telemedicine networks in the world. This network has grown through evolving partnerships which unite and empower Ontario's healthcare community. Developing strong working relationships with those in your patients' circle of care is integral to the success of any telemedicine program. Providers using OTN's products and services can connect and collaborate on OTNhub.ca – a private and secure online community for practicing telemedicine.

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or ambulances to get to the clinic)

- Patients travel up to 5 hours to the Thunder Bay Regional Transfer Avoidance Fracture Clinic
- Once the patient arrives at the clinic, they have to wait even longer for their appointment due to high-patient volumes
- Patient see their orthopedic physician for as little as 15 minutes, before making the long drive home

With Telemedicine

- Patients needing orthopedic care are identified
- A local Telemedicine Nurse is notified and schedules an eVisit with the orthopedic physicians from Thunder Bay Regional Transfer Avoidance Fracture Clinic. Patient visits their local telemedicine site (hospital, FHT etc..) for an eVisit
- Patient returns home in less time than it would take to travel to the clinic

How it works:

1. A local Telemedicine Nurse at a host site (patient site) receives a referral that a patient needs orthopedic care through from the Thunder Bay Regional Transfer Avoidance Fracture Clinic
2. Thunder Bay Regional Transfer Avoidance Fracture Clinic is notified and a Telemedicine Nurse, or administrative staff, schedules an eVisit
3. Patient visits local telemedicine site (patient site) for eVisit
4. Fracture Clinic staff prompts the videoconferencing software on the clinic room's desktop computer (host site)
5. The physician arrives in the exam room as usual at the time of the scheduled appointment, but sees the patients through an eVisit on a laptop or desktop computer
6. In this case, the host site (attending physician) uses personal computer videoconferencing technology to see their patients, and the host site (patient location) uses a room-based videoconferencing system.

Resources:

Human Resources

No employees were hired as part of the program's implementation, however, existing staff (i.e. administrative staff and nurses) adopted greater responsibility as a result of the new model of care. Employees were trained on the telemedicine technology, including OTN's scheduling software.

Technology

eVisits are conducted over a computer, mobile device or room-based videoconferencing system. In this case, all clinical exam rooms are equipped with a desktop computer and videoconferencing peripherals (i.e. microphone, speakers and camera), and all physicians are also signed up for the OTNhub.

Training/Change Management

OTN worked with the Fracture Clinic and regional telemedicine sites to identify the opportunity for virtual care, obtain buy-in from physicians and allied health, and implement virtual process seamlessly and securely.

Financial Investments

The clinic had planned to redesign its physical space at the same time telemedicine was being considered as a tool to enhance care delivery. The redesign incorporated telemedicine considerations. Every exam room was equipped with a desktop computer for eVisits.

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Implementation

1. **Start small.** A few physicians at North West LHIN expressed a keen interest in saving their patients the time and stress associated with travel. These physicians incorporated the Thunder Bay Regional Transfer Avoidance Fracture Clinic's telemedicine program into their practice, and launched the first patient site at the St. Joseph Health Care Group. With its success, the program expanded across the region.
2. **Identify a Champion:** Dr. David Puskas an orthopedic surgeon at Thunder Bay Regional Health Centre was a key champion of telemedicine after witnessing the negative impacts, and risks associated with patient travel. Since then, Dr. Puska works closely with OTN to ensure all orthopedic patients in the region benefit from telemedicine.
3. **Scale the program.** OTN's regional representative, JJ Hupka, identified the program's potential and worked with Thunder Bay Regional Hospital's Telemedicine Department and Fracture Clinic to scale the program.
4. **Maintain Regional-Wide Support.** OTN is the go-between between patient sites and host sites and constantly works to maintain a strong working relationship between the two.

Overcoming Barriers:

Scheduling Requirements

Due to the wide-catchment area, the clinic receives a high-volume of patients which results in long wait times. Physicians and nurses at the clinic felt overwhelmed at the thought of integrating additional scheduling tasks into their schedules so OTN encouraged patient and their host sites to share scheduling responsibilities. In this case, Telemedicine Nurses, and/or administrative staff, at the patient site maintain a lead role scheduling and coordinating eVisits.

Physician Support

Initially, the clinic found it difficult to obtain wide-spread support for telemedicine across the LHIN from orthopedic specialists whose time was limited. Many successful programs start by identifying an internal champion or project manager. OTN suggests identifying someone who will help motivate peers by highlighting the benefits of telemedicine. This is especially important among regional organizations, such as the LHIN. Once physicians realize the benefits of telemedicine, they are more likely to invest the time to familiarize themselves with it to seamlessly integrate it into their practice.

Result:

By leveraging OTN's virtual solutions, unnecessary patient travel is eliminated. The Thunder Bay Regional Health Sciences Centre's Fracture Clinic hosts, on average, 5,000-8,000 eVisits, or telemedicine events, per year. One orthopedic surgeon can complete over 1000 events in a year alone. The clinic now has eight orthopedic surgeons providing follow up care to orthopedic patients across the region.

Additional Resources:

- [Referral form.pdf](#)
- [Referral process.pdf](#)