

Remote Presence Technology - Pelican Narrows Pilot

About Remote Presence Technology

- Remote presence technology is an advanced robotics telemedicine platform that provides the sense that the user is “present”, enabling physicians to provide real-time clinical services remotely.
- The technology consists of mobile robots and portable hand held devices:
 - both types of systems have high resolution cameras and video and can connect to multiple peripheral diagnostic devices such as stethoscope, dermatoscope, otoscope and ultrasonography.
 - the robotic devices are typically used in health care facilities or surgical operating rooms. The robot can be controlled for direct visualization, examination, and diagnosis of the patient, as well as communication with local healthcare professionals and family members.
 - the robot emulates the size of an adult with a height of 165 cm, has a charging dock and an eight-hour rechargeable battery and can be driven independently by the clinician at approximately 3km/hour to the location of the patient to be assessed.
 - the portable device is the size of a laptop and can be taken to patients’ homes or bedside, sites of trauma, ambulances or wherever the patient is.
- The specialist or physician uses a laptop with high resolution camera to connect remotely with the robotic devices through a secure wireless network.
- Diagnostic information gathered at the point of care is transmitted in real time to the physician’s laptop.

Pelican Narrows Pilot

- Pelican Narrows is a remote community with limited access to health services and a high incidence of disease.
- Children (<18 years) make up 50.8% of Pelican Narrows' population compared to 23.3% of Saskatchewan's population overall.
- The nearest community hospital is in Flin Flon, Manitoba (121 km – 2 hour drive).
- Typically, acutely ill children in Pelican Narrows are transported by air to the Royal University Hospital in Saskatoon.
- During the 13-month duration of the pilot thirty-eight (38) acutely ill children were assessed, triaged and managed using remote presence technology.
- Of the 38 children 24 (63%) were effectively treated in Pelican Narrows and only 14 (37%) required transport. All (100%) equally ill control children in remote locations such as Pelican Narrows required transport to Saskatoon.
- The hospital lengths of stay were significantly greater in the control group when compared to the children in Pelican Narrows assessed, triaged and managed using remote presence technology.
- A medical air transport from Pelican Narrows to Saskatoon is about \$10,000, the savings in this study were of \$ 240,000 in transportation alone strongly suggesting that this technology has potential for a significant cost benefit.

Remote presence technology benefits

- Helps address distance and time barriers in providing health care services in rural and remote areas.
- Offers increased and timely access to specialist care providers and a broader range of health services.
- Reduces the need of costly transportation out of the community for medical services.
- Increases patient and family quality of life by facilitating medical care in patients' own community.

What remote presence technology equipment looks like

