Heart Failure Management

Virtual Optimization Clinic

Overview

Heart failure (HF) is a chronic condition with growing incidence and prevalence in Canada, where 50,000 individuals are diagnosed each year. People with HF have symptoms including shortness of breath, fatigue, pain, swelling, depression, and anxiety, and they are highly likely to use health-care resources such as emergency room visits, hospitalizations, and long-term care.

Consultations with partners led by the Cardiovascular and Stroke Program identified that:

- Access to specialized knowledge of HF management may be limited across the province.
- Diagnosis and medical management of HF can be better optimized. More timely diagnosis and appropriate adjustments to medications could help improve the condition of many patients.

In alignment with NL Health Services' strategic objectives of increasing access to care and using virtual care tools, a **Virtual Optimization Clinic (VOC)** for HF was established in 2022. The VOC uses a collaborative, team-based approach to care, combined with the advantage of virtual tools (video appointments and remote monitoring equipment).

The first VOC visit was on October 19, 2022, and 312 visits were conducted in 2022-2023. **That number increased to 1,024 visits in 2023-2024**.

Benefits

- The VOC improves access to HF care and decreases the time needed to optimize medications used in HF management.
- Patients seen in the VOC reached optimal medical management in 4.5 clinic visits, whereas in the traditional model of in-person visits it took six-12 months.
- The VOC improves access to specialized HF care from the comfort of patients' homes. Travel is not required to visit specialists in St. John's.
- The VOC enables patients to feel better, faster and reduces the likelihood they need emergency care or hospitalization.
- The VOC uses a collaborative team-based approach. Nurses and nurse practitioners (NPs) work collaboratively and to their full scope of practice, under the guidance of a cardiologist.

Activities/Initiatives

- Engagement with key partners (e.g., primary health care, cardiologists, nurse practitioners, professional practice clinicians, innovation).
- Partnership with Remote Patient Monitoring Program.
- Creation of an HF clinical pathway with complementary educational resources to guide a consistent and evidence-based journey for HF patients within the system.
- Educational initiatives to enhance HF knowledge among primary care providers.

Measuring Progress

Short-term measures:

- Volume of patients managed remotely.
- Number of appointments/ amount of time required to reach optimal medication management.
- VOC access by patients from all five zones.
- Time to access VOC appointment.

Long-term measures:

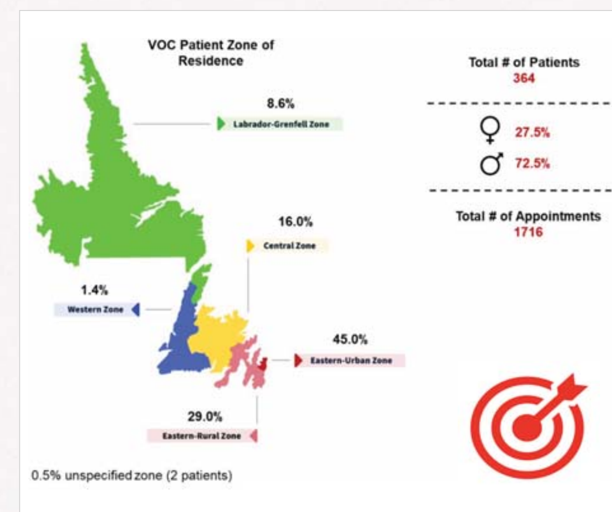
- Reduction in 30-day re-admission by HF patients treated in VOC following an initial HF hospitalization.
- Reduction in emergency visits and inpatient hospitalization by HF patients treated in VOC.
- Increase in time between initial HF hospitalization and subsequent hospitalization for HF patients treated in VOC.
- Increased usage of BNP (B-type natriuretic peptide) testing in HF diagnosis.

> "It is an awesome solution to get the guideline-directed medical therapy onboard faster. Before the virtual optimization clinic, it was challenging to achieve the recommended three-month target for guideline-directed medical therapy."
>
> \- Registered Nurse

Next Steps and Opportunities

NL Health Services Cardiovascular and Stroke Program plans to:

- Expand the VOC provincially with dedicated staff in all zones working in a spoke/hub model.
- Strengthen data collection and reporting through the development of a Cardiovascular and Stroke Program dashboard for HF management.
- Ensure that standardized, evidence-based care pathways for HF are implemented.



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