NICE National Institute for Health and Care Excellence

Triage Heart Failure: Preventing heart failure admissions through remote monitoring

Case studies

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Contents

Overview

Organisation: Sandwell and West Birmingham NHS Trust

Organisation type: NHS Trust

This case study explores the implementation and outcomes of a structured approach to managing people with heart failure (HF) with Medtronic devices. Before the project, there was a lack of coordination between the device team and HF teams, leading to duplicated efforts, delayed responses to device alerts, and unnecessary hospital admissions. Through a targeted intervention starting in June 2023, the HF team took over the responsibility for high-risk heart failure device alerts, streamlining care by introducing regular monitoring and clear pathways for intervention. The case study highlights the positive outcomes, including a significant reduction in HF admissions and insights into the challenges and learning throughout the process.

Reviewing current services and implementation

Reviewing current services

Before introduction of the project, people with heart failure (HF) with Medtronic devices were jointly managed by the device team and the acute or community HF teams. There was no structured pathway and often work was duplicated by the device and HF teams, causing confusion. Often heart failure related device alerts were not dealt with in a timely manner and resulted in hospital admissions. Pre-audit data November to December 2022 revealed there were a 17 patient device alerts for a total of 6 patients. Of these 3 patients there were 3 hospital admissions with heart failure. Based on the 2021/2022 tariff this is a potential cost saving of £9,645.

Implementation

The HF team took over the heart failure-related device alerts on carelink in June 2023. These alerts included OptiVol rise with reduced impedance, reduced activity. All alerts regarding arrhythmias continued to be managed by the cardiac physiologists.

All acute HF nurses were trained on using carelink and given access to the carelink system. Initially we accessed carelink twice a week and looked at the medium and high-risk alerts. Any patients were added to a remote walk-in clinic to capture the patient contacts. Patients were called to assess symptoms. If asymptomatic they were safety netted with contact numbers in case of future decompensation and a download rescheduled for 2 to 3 weeks. People with symptoms were booked for an urgent review in an acute of community HF clinic. Any unresolved issues were discussed at the advanced HF multidisciplinary team that is held weekly.

Outcomes and learning

Outcomes

Outcomes

Audit data from November 2023 showed a marked increase in alerts, which were mostly unscheduled. There were a total of 98 alerts (compared with 21 alerts in August and 11 alerts in June).

Heart failure (HF) admissions: 0

Non-HF admissions: 2

Acute HF nurse review: 1

Community HF nurse review: 11

Electrophysiology multidisciplinary team or cardiac physiologists: 2

No action required: 82

Currently total of 512 patients on HF carelink caseload.

The interventions listed above have involved reviewing patients and prevented further decompensation. There have only been 3 heart failure admissions in June to December 2023 (further audit data for 2024 is to be calculated).

Learning

1. Significant number of unscheduled downloads by patients - working alongside the device team and Medtronic patient letters are sent out to advise not to send in remote downloads, which has reduced the number we get.

2. Time consuming for staff with little yield - so we now only review high-risk alerts twice a week. This has been added to our weekly task list and allocated for 1 member of staff to do each week.

3. Duplication of work - those seen in device clinic will still alert on HF clinic on carelink. The HF team document on carelink if a patient has been contacted. The device team are emailed for any patients that have both HF-related risk and arrhythmia. All arrhythmia alerts are handled by the device team.

4. Most patients are already known to the community teams so we refer directly to the team if there is a patient alert and they are under them.

Supporting information

Additional resources are available from Sandwell and West Birmingham NHS Trust. For details contact swbh.acuteheartfailurenurses@nhs.net.

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