Introduction

What is Telemonitoring?

Telemonitoring is the use of telecommunication devices placed in the patient’s home that take vital signs and relay the information back to the home health agency. When readings are outside the parameters set by the physician, an immediate home intervention takes place to address the patient’s needs.

Telemonitoring is different than telehealth (telemedicine) which generally refers to the use of video conferencing, often by physicians, to provide diagnostic information.
Simple but Effective
Telemonitoring allows the agencies to collect vital patient data and to transmit the data to nurses and to the patients’ physicians for daily review. It asks a series of evaluative health-related questions tailored to meet each patient’s unique ailment and quickens the response times when action is needed. Telemonitoring data, available as-needed, gives physicians and discharge planners confidence that they can safely discharge their high risk patients to the home.

Telemonitoring is particularly helpful for patients with congestive heart failure (CHF) and chronic obstructive pulmonary disease (COPD) where the condition of the patient may change rapidly. A review of the data generated allows the nurse to identify those who need the most help immediately. Telemonitoring also helps teach patients how to live with and self-manage their heart failure.
1. **Lower Costs** - There is ample evidence that telemonitoring reduces the number of hospitalizations.

2. **Higher Quality Care** - There is ample evidence that telemonitoring improves the quality of the care delivered. Objective data is received by the home health agency on a daily basis and is acted upon quickly when a problem is detected.

3. **Patient Satisfaction** - Most patients strongly approve telemonitoring service and, more importantly, patients using telemonitoring are more actively involved in the management of their health care.

*Telemonitoring is consistent with the triple aim of health care reform and is one of many tools home care agencies use to improve health outcomes, enhance the patient experience and reduce the cost of health care for Vermonters.*
Central Station

One nurse can monitor several dozen patients
Telemonitoring Totals

Telemonitors Usage by VAHHA Members

Average number of machines in use each day: 222

Of the patients receiving telemonitoring services, on average, 53% suffered from heart failure (CHF) and 23% chronic obstructive pulmonary disease (COPD).
Easy to Use
The use of telemonitoring has proved very effective in reducing hospitalization and rehospitalization rates for high-risk patients. Since the Central Vermont Home Health and Hospice started using telemonitoring monitors, the agency’s rehospitalization rate dropped from 29% to 15%, among the lowest rates in the country. There are similar results from the other Vermont agencies using telemonitoring monitoring.

Telemonitoring has been effective in supporting healthy lifestyles changes by providing timely feedback on the impact of patient behaviors. Healthy lifestyles changes are key factors in reducing emergency room visits and hospital admissions.
Benefits of Telemonitoring

Telemonitoring lets healthcare professionals work more efficiently since the system allows one nurse to observe the clinical health of numerous patients and effectively direct medical attention to those who need it. Healthcare professionals can detect and address even the slightest abnormalities before they become serious, preventing emergency room visits and hospitalizations. This is especially important in a time of nursing shortages.
Telemonitoring Costs

**Average Cost - $350 month.** Costs include staff time, mileage for equipment set-up and patient education, Nurse follow-up, tech support, and RN staff at central station (7 days a week).

Example – Central Vermont Home Health and Hospice

- Equipment – (56 monitors, 1 tablet) lease & purchase: $49,208
- Transmission fees: $10,260
- Parts, Maintenance: 500
- Total Equipment: $59,968
- Personnel: $125,208
- Total Cost: 185,176
- Total Patient Count: 226
- Average Annual Cost Per-patient: $819
Proven Results

Rehospitalization Rates - Central Vermont Home Health & Hospice

- National Average 16% (for all diseases)
- CVHHH Telemonitoring Totals
  - Congestive Heart Failure - 9%
  - All patients with telemonitors - 8%
  - Medicare patients - 7%
  - COPD - 4%
Proven Results

Rehospitalization Rate – Rutland Area VNA & Hospice

- All patients: 9.75%
- Non CHF patients with telemonitors: 8.7%
- CHF patients with telemonitors: 2.75%
Agency Directors

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