Disclosures:
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Targeted Intervention
Improved Knowledge
But Not Self-Care or Readmission Rates in Heart Failure Patients with Mild Cognitive Impairment

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Background

• Heart Failure (HF)
  – Most common reason for readmissions in the Medicare population
  – 25% readmitted within 30 days of discharge
  – Estimated cost in US >39 billion

• Cognitive Impairment
  – Prevalence ranges from 25%-80%
  – Hypo perfusion=cerebral ischemia or infarction
  – Higher readmission rates and mortality

• Mild Cognitive Impairment (MCI)
  – Syndrome defined as cognitive decline beyond the changes that would be expected for a person’s age
  – Difficulty with complex tasks
  – General cognition is maintained
• **30-day Readmissions: A Target HF Measure**
  – Policymakers see reducing unplanned readmissions as a way to improve quality and cut costs
  – Reducing payments to hospitals with high 30-day readmission rates proposed
  – Hospitals are focusing on HF interventions designed to avoid readmissions

• **Improving HF self-care is the challenge**
  – Self-care is the cornerstone of HF disease management
  – Poor self-care is a major contributor to readmissions
  – Patients who adhere to treatment plan, monitor changes in signs and symptoms, and act on changes can avoid readmissions

• **How does cognitive impairment complicate this?**
  – Relationship between MCI and self-care and readmissions has not been studied
  – We don’t know what interventions would help patients with MCI improve self-care and avoid readmission
  – Most intervention studies exclude patients with impairment
Purpose and Methods

• **Purpose of Study**
  - To determine the effect of a targeted intervention for HF patients with MCI on knowledge, self-care, and 30-day hospital readmissions.

• **Randomized controlled trial with pretest-posttest control group design**
  - Patients entered the study if they screened positive for MCI
  - Treatment group received a HF education intervention designed for patients with MCI
  - Collected data in the hospital and at 30-days post discharge

• **Study Participants**
  - English speaking adults admitted to the hospital for HF
  - Patients with dementia, psychiatric illness, or impaired vision or hearing exclude

• **Measures**
  - Montreal Cognitive Assessment (MoCA)
  - Self-care of HF Index (SCHFI)
  - Dutch HF Knowledge scale
Components of Cognitive Training Intervention

- **In-hospital Training**
  - Customized teaching based on individual needs (alter demands on patients)
  - Interactive problem solving drills (repetition)
  - Self-care actions broken down into a series of tasks with prompts and cues (teach cues to initiate action)

- **Information Delivery**
  - Personal audio tape of all teaching sessions and drills
  - Based on theory that self-generated information and hearing one’s own voice repeating information is more likely to be remembered

- **Reinforcement**
  - Creation of a personalized self-care schedule and symptom tracker using pictograms
  - Post-discharge teach back phone call (Target HF Measure)
# TAKE CARE OF YOUR HEART

Daily Schedule for: ________________________________

<table>
<thead>
<tr>
<th>Time</th>
<th>Medicine/Dose</th>
<th>What’s it For?</th>
<th>Daily Activity</th>
<th>Reminders</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORNING</td>
<td></td>
<td></td>
<td>Weigh yourself every morning, after using the bathroom but before eating, drinking, bathing or dressing.</td>
<td>Call your doctor:</td>
</tr>
<tr>
<td>NOON</td>
<td></td>
<td></td>
<td>Write in log book every morning: 1. Your weight 2. Symptoms you are having</td>
<td>If your weight increases by 3-4 pounds in 1 to 2 days</td>
</tr>
<tr>
<td>EVENING</td>
<td></td>
<td></td>
<td>Exercise!</td>
<td>Use Mrs. Dash instead of salt!</td>
</tr>
<tr>
<td>BEDTIME</td>
<td></td>
<td></td>
<td>Rest if you get short of breath</td>
<td>Limit sodium to less than 2,000mg a day.</td>
</tr>
</tbody>
</table>

Limit Fluid.

Don’t smoke or drink alcohol.

<table>
<thead>
<tr>
<th>Doctor’s Name</th>
<th>Date of Appointment</th>
<th>Kind of Doctor</th>
</tr>
</thead>
</table>
**SYMPTOM TRACKER:** If you have any of the symptoms listed below, circle YES. Be sure to take this to your doctor’s appointments.

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
<th>SATURDAY</th>
<th>SUNDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>Date:</td>
<td>Date:</td>
<td>Date:</td>
<td>Date:</td>
<td>Date:</td>
<td>Date:</td>
</tr>
</tbody>
</table>

- **Weight and time of day**
- **Weight gain** YES / NO
- **Shortness of breath** YES / NO
- **Frequent coughing** YES / NO
- **Fast heart rate or heavy heart beat** YES / NO
- **Tired/weak** YES / NO
- **Swollen ankles** YES / NO
- **Swollen legs** YES / NO
- **Swollen belly** YES / NO
- **Nausea** YES / NO
- **Loss of appetite** YES / NO

Use this space to write notes, or to record any other symptoms you may be having:

---

**Your Action Plan**

Use this guide to help you report changes in your symptoms to your doctor or home care provider.

*Reporting symptoms early may keep you out of the hospital.*

**You are doing WELL when:**
- Your weight is stable
- You have no trouble breathing
- You can do your normal activities
- You have no changes in your symptoms

**Call ______ in the next 24 hours when:**
- Your weight goes up _____ pounds in _____ days
- You have new swelling in your feet, ankles, hands or belly
- You have a dry, harsh cough that does not go away
- You use 2 or more pillows or a recliner to breathe better at night if this is different from how you usually sleep
- You feel more tired or have less energy than usual
- You have side effects from your medications

**Call your doctor RIGHT AWAY when:**
- You have trouble breathing –
  - Call 911 for severe shortness of breath
- You feel dizzy
- You feel very anxious
- Call 911 if you have chest pain that does not go away
Refrigerator Magnet with Self-Care Reminders using Pictograms
Patients screened for eligibility
n=298
Meet inclusion criteria (n=278)
Did not meet inclusion criteria (n=20)

Patients approved to consent for screening (n = 278)

Declined Consent (n=102)

Patients screened for MCI (n =176)

Patients Excluded (n = 51)
Patients with > 25 on MoCA (n=31)
Patients with < 17 on MoCA (n=15)
Patients who screened 17-25 but declined to enter the study (=5)

Reason for Exclusion
Language barrier (n = 3)
No telephone (n = 5)
Plan to discharge to rehab or nursing home (n = 4)
Psychiatric Illness (n = 4)
Hearing Loss (n = 4)
Blind (n = 1)
Weight > 350lbs (n = 1)
End of life care (n = 1)
## Results: Socio-Demographics (n=125)

<table>
<thead>
<tr>
<th>Demographics and Characteristics</th>
<th>Control n=62</th>
<th>Intervention n=63</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age mean(SD)</td>
<td>57(13)</td>
<td>60(13)</td>
<td>.261</td>
</tr>
<tr>
<td>Sex n(%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>35(56)</td>
<td>31(49)</td>
<td>.417</td>
</tr>
<tr>
<td>Women</td>
<td>27(44)</td>
<td>32(51)</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td>.895</td>
</tr>
<tr>
<td>Black</td>
<td>41(66)</td>
<td>43(68)</td>
<td></td>
</tr>
<tr>
<td>Non-Black</td>
<td>21(34)</td>
<td>20(32)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than HS</td>
<td>18(29)</td>
<td>11(17)</td>
<td>.422</td>
</tr>
<tr>
<td>HS grad/GED</td>
<td>21(34)</td>
<td>23(37)</td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td>13(21)</td>
<td>14(22)</td>
<td></td>
</tr>
<tr>
<td>College grad</td>
<td>10(16)</td>
<td>15(24)</td>
<td></td>
</tr>
<tr>
<td>Time since HF Dx</td>
<td></td>
<td></td>
<td>.261</td>
</tr>
<tr>
<td>Less than 3 months</td>
<td>11(18)</td>
<td>14(22)</td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>6(10)</td>
<td>4(6)</td>
<td></td>
</tr>
<tr>
<td>1-5 years</td>
<td>27(43)</td>
<td>24(38)</td>
<td></td>
</tr>
<tr>
<td>&gt;5 years</td>
<td>18(29)</td>
<td>21(34)</td>
<td></td>
</tr>
</tbody>
</table>
## Results: Socio-Demographics (n=125)

<table>
<thead>
<tr>
<th>Demographics and Characteristics</th>
<th>Control n=62</th>
<th>Intervention n=63</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co morbidity Index n(%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None (0)</td>
<td>11(18)</td>
<td>9(14)</td>
<td>.635</td>
</tr>
<tr>
<td>Low (1-2)</td>
<td>31(50)</td>
<td>27(43)</td>
<td></td>
</tr>
<tr>
<td>Moderate(3-4)</td>
<td>19(31)</td>
<td>25(40)</td>
<td></td>
</tr>
<tr>
<td>High (&gt;4)</td>
<td>1(1)</td>
<td>2(3)</td>
<td></td>
</tr>
<tr>
<td>NYHA Classification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>2(3)</td>
<td>1(2)</td>
<td>.460</td>
</tr>
<tr>
<td>II</td>
<td>29(47)</td>
<td>28(44)</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>30(48)</td>
<td>29(46)</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>1(2)</td>
<td>5(8)</td>
<td></td>
</tr>
<tr>
<td>Depressive Symptoms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No depressive symptoms</td>
<td>27(44)</td>
<td>30(48)</td>
<td>.651</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>35(56)</td>
<td>33(52)</td>
<td></td>
</tr>
<tr>
<td>Social Support mean(SD)</td>
<td>30(4)</td>
<td>29(6)</td>
<td>.708</td>
</tr>
</tbody>
</table>
Results: Self-Care and HF Knowledge Change Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control n=62 Mean(SD)</th>
<th>Intervention n=63 Mean(SD)</th>
<th>* P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Care Maintenance</td>
<td>-13.75(17.78)</td>
<td>-14.60(17.50)</td>
<td>.711</td>
</tr>
<tr>
<td>Self-Care Management</td>
<td>-3.75(21.44)</td>
<td>-7.73(18.88)</td>
<td>.430</td>
</tr>
<tr>
<td>Self-Care Confidence</td>
<td>0.55(17.86)</td>
<td>-0.39(18.41)</td>
<td>.692</td>
</tr>
<tr>
<td>Heart Failure Knowledge</td>
<td>0.04(1.69)</td>
<td>-0.66(1.56)</td>
<td>.001</td>
</tr>
</tbody>
</table>

When controlling for other factors, black race was related to lower HF knowledge scores \((p=.030)\)

*Independent samples t-test comparing mean change scores

Results: Hospital Readmission Rates

<table>
<thead>
<tr>
<th>Readmission</th>
<th>Control n=62 N(%)</th>
<th>Intervention n=63 N(%)</th>
<th>* P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 30 Days</td>
<td>12(19)</td>
<td>14(22)</td>
<td>.826</td>
</tr>
<tr>
<td>Within 15 Days</td>
<td>5(8)</td>
<td>10(16)</td>
<td>.271</td>
</tr>
<tr>
<td>Within 7 Days</td>
<td>2(3)</td>
<td>5(8)</td>
<td>.440</td>
</tr>
</tbody>
</table>

Hospital readmission rate for HF during the study time period was 23%

*Chi-square or fisher’s exact test
Summary

- It is feasible to conduct a study with patients experiencing MCI

- High prevalence of MCI in this sample

- Readmission rates in MCI were consistent with the general population

- Targeted intervention improved HF knowledge but not self-care or readmissions
Implications

- Reducing readmissions may require more intensive interventions focused on in-home management and pre-admission strategies.

- Consider screening for cognitive impairment as a standard of care in HF using a standardized tool appropriate for HF patients in the clinical setting.

- More research in larger samples is needed to test the effect of cognitive training interventions on self-care and readmissions, and explore the racial differences in HF knowledge.
Health Literacy Influences Knowledge Attainment but not Self-Care or Self-Efficacy Longitudinally in Patients with Heart Failure

Karen Yehle, PhD, MS, RN
Health Literacy and Self-Care in Heart Failure

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Health Literacy and Self-Care in Heart Failure

- Inadequate health literacy may:
  - Be a barrier to self-care
  - Prevent patients from understanding instructions
- Negative outcomes are preventable through self-care
- Interventions that decrease adverse outcomes will lead to significant cost savings

<table>
<thead>
<tr>
<th></th>
<th>2010¹,²</th>
<th>2030³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence</td>
<td>5.7</td>
<td>25% increase</td>
</tr>
<tr>
<td>Cost</td>
<td>$35.1</td>
<td>$77.2 billion</td>
</tr>
</tbody>
</table>
Health Literacy and Self-Care in Heart Failure

- Patients may have not have adequate heart failure knowledge
  - Diagnosis may have been secondary to another health problem\(^1,7\)
  - Education received during hospitalization when too ill or overwhelmed
  - Heart failure is a complex condition to self-manage\(^5,7,8\)

- Prevalence of low health literacy in heart failure patients ranges from 17.5-41%\(^9-11\)

- Conflicting results in literature regarding the impact of health literacy in heart failure\(^13\)
Study Objective

- To examine the influence of health literacy on heart failure knowledge, self-efficacy for self-care, and adherence to self-care longitudinally.
Methodology

• Correlational, longitudinal study

• Inclusion criteria
  – ≥ 18 years of age
  – Can read/speak English
  – No cognitive impairment

• Patients recruited from three heart failure clinics:
  – Cleveland Clinic heart failure clinic in the Heart and Vascular Institute (Cleveland, OH)
  – Indiana University Health-Bloomington Hospital HEARTTEAM Cardiopulmonary Rehab and Congestive Heart Failure Center (Bloomington, IN)
  – Community Health Network-Indiana Heart Hospital Healthy Hearts Center (Indianapolis, IN)
Methodology

TIMING OF ASSESSMENTS

TIME 0 (BASELINE)
First clinic visit (prior to education)

PATIENTS WITH HEART FAILURE

Demographic Information
- Health Literacy
- Heart Failure Knowledge
- Self-Efficacy & Self-Care

TIME 1 (2 MONTHS)

Heart Failure Knowledge
- Self-Efficacy & Self-Care
- Additional Education Received

TIME 2 (4 MONTHS)

Heart Failure Knowledge
- Self-Efficacy & Self-Care
- Additional Education Received
- Hospitalizations in Past 4 Months

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*a* as measured by the S-TOFHLA (Short-Form Test of Functional Health Literacy in Adults)

*b* as measured by the HFKQ (Heart Failure Knowledge Questionnaire)

*c* as measured by the SCHFI (Self-Care Heart Failure Index)
## Results

### Sample Characteristics  
Baseline N=81; Longitudinal N=51

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean (SD), y</td>
<td>64.68 (13.042)</td>
</tr>
<tr>
<td>Years of Education, mean (SD), y</td>
<td>13.72 (2.771)</td>
</tr>
<tr>
<td>Prescription Medications, mean (SD)</td>
<td>8.78 (4.277)</td>
</tr>
<tr>
<td>Male, N(%)</td>
<td>29 (56.9)</td>
</tr>
<tr>
<td>Marital Status, N(%)</td>
<td>34 (66.7)</td>
</tr>
</tbody>
</table>
| Ethnicity/Race, N(%)   | Black/African American 3 (5.9)  
|                        | White/Caucasian 45 (88.2) |
|                        | Hispanic/Latino 3 (5.9) |
| Health Literacy Category, N(%) | Inadequate 10 (19.6)  
|                        | Marginal 5 (9.8) |
|                        | Adequate 36 (70.6) |
Results

Patients with inadequate and marginal health literacy had a lower knowledge score.

Figure 1. Changes in Knowledge by Health Literacy Level

- Inadequate
- Marginal
- Adequate

Indicates statistical significance, as compared to inadequate health literacy.
Results

- Adequate self-efficacy was associated with greater self-care maintenance over time (p=0.006).

- Higher health literacy was associated with greater heart failure knowledge (p<0.001), but not self-efficacy or adherence to self-care.
Discussion

• Disease-specific education has been found to improve knowledge in heart failure.⁹

• Traditional education may not reduce knowledge disparity.
  – Low health literacy patients continued to have less heart failure knowledge across all assessments

• No longitudinal effects of knowledge on self-efficacy or self-care.
  – Clinic-based education may not further self-efficacy or self-care
Implications/Conclusions

- Clinicians may need to adjust their educational efforts for patients with low health literacy.

- Education that addresses knowledge gaps may not be enough.
  - Patients who are confident in their self-care skills perform more self-care maintenance, which ultimately improves heart failure outcomes.
  - Clinicians may need to focus on improving self-efficacy, perhaps through:
    - Simulated self-care (allowing patients to experience success)
    - Sharing experiences in a group setting (allowing patients to see others’ success)
Health Literacy Quick Assessment for Clinicians

Rapid health literacy assessment for the clinical setting:

- “How confident are you filling out medical forms by yourself?”\textsuperscript{14-15}
- “How often do you have someone help you read hospital materials?”\textsuperscript{14-15}
- “How often do you have problems learning about your medical condition because of difficulty understanding written information?”\textsuperscript{14-15}
Health Literacy Quick Assessment for Clinicians

Single Item Literacy Screening (SILS):

- “How often do you need to have someone help you when you read instructions, pamphlets or other written materials from your doctor or pharmacy?”¹⁶
Future Research

Examining patient motivation

Testing interventions to improve self-efficacy
References


References


References


BNP and Impedance

Connection in Heart Failure:

An Inverse Relationship

Lisa Rathman MSN, CRNP, CHFN
The Heart Group of Lancaster General Health
Lancaster, PA
Disclosures

**BNP and Impedance Connection in Heart Failure: An Inverse Relationship**

- I will/will not discuss off label use and/or investigational use in my presentation.
- I have/have no financial relationships to disclose:
  - Employee of:
    - None
  - Consultant for:
    - Medtronic
  - Stockholder in:
    - None
  - Research support from:
    - None
  - Honoraria from:
    - Medtronic, Otsuka
BACKGROUND

- Some cardiac resynchronization defibrillator (CRT-D) devices can measure intrathoracic impedance between the defibrillation coil and generator.

- Decrease in impedance and associated fluid index crossing has been associated with heart failure events.

- B-type natriuretic peptide (BNP) is a cardiac neurohormone secreted in the ventricles in response to stretch and is a strong predictor of heart failure events.
BACKGROUND

Impedance and PCWP During CHF Hospitalization

Impedance (ohms)

PCWP (mmHg)

Impedance

PCWP

Time

12/30 0:00
12/31 0:00
1/10:00
1/2 0:00
1/3 0:00
1/4 0:00
1/5 0:00
• The device determines a daily impedance value

• 34 days post-implant a reference value is initiated that serves as a patient’s “control value”

• The OptiVol Fluid Index™ indicates an “event” has occurred if the daily measured impedance is consistently below the reference line
FLUID INDEX & THORACIC IMPEDANCE GRAPHS

OptiVol threshold crossed

Reference Line

Daily impedance
The purpose of this study was to evaluate the relationship between BNP levels, intrathoracic impedance and fluid index threshold crossings in patients with CRT-D devices.
METHODS

• BNP, device-recorded impedance and fluid index trends were collected from 56 CRT-D patients (73 +/- 9 yrs, 42 male)

• Patients were at least 60 days post device implant.

• BNP and impedance data were available on the same day for 244 observations (mean ± SD observations per patient = 4.4±2.9).
RESULTS

- Mean patient follow-up duration was 10 ± 3 months

- At time of enrollment, 78% of patients were NYHA class III with mean ejection fraction of 29 ± 8%

- Generalized linear model revealed an inverse relationship between impedance and BNP levels
FINDINGS

![Graph showing impedance (Ω) vs. BNP (pg/L) levels with statistical significance levels indicated.]
**FINDINGS**

![Graph showing frequency of occurrence](image)

**Impedance Index > 60 Ω-days**

- $p=0.04$
- $p=0.09$
- $p=0.44$

- Frequency of Occurrence (%)
- BNP (pg/L)
- <100
- 100-300
- >300
CONCLUSIONS

• Intrathoracic impedance and BNP levels have an inverse relationship

• Individually, both have been shown to be valuable prognostic indicators in the diagnosis of heart failure events

• Perhaps when used together BNP and impedance could improve specificity of detecting HF events

• Further work is needed to assess the utility of a combined prognostic indicator in clinical setting
Discussion of Select Abstracts from the 8th Annual Meeting of the AAHFN


Linda Baas, RN, PhD, FAHA, CHFN
President, AAHFN
THE INFLUENCE OF PHYSICAL SYMPTOMS AND MILD COGNITIVE IMPAIRMENT ON HEART FAILURE SELF CARE

J. Bidwell, C.S. Lee, School of Nsg, Oregon Health and Science University, Portland, OR.

- Secondary analysis
- Patients completed the MLHFQ (for physical symptoms),
  - The Montreal Cognitive Assessment (MoCA) (mild cognitive dysfunction)
  - The Self-Care of HF Index (SCHFlv6) (symptom management behavior)
- Sample divided into no or mild cognitive impairment
Bidwell and Lee (2)

“The average age of the sample (n=164) was 55±13 years; the sample was largely male (60.7%) and Caucasian (82.1%), and most (95%) had class II/III HF.”

“In the absence of mild cognitive dysfunction, worse physical symptom burden was associated with better symptom management (β=0.55, p=0.006).

In the presence of mild cognitive dysfunction, however, worse physical symptom burden was associated with markedly worse symptom management (β= -2.34, p=0.001).”

Different strategies for those with and without MCI are needed for self care management.
Better Symptom Management Behaviors vs. Worsening Physical Symptom Burden

- No Cognitive Dysfunction
- Mild Cognitive Dysfunction

\[ \beta = 0.55, \ p=0.006 \]
\[ \beta = -2.34, \ p=0.001 \]
Emergency Department diuretic dosing in acute decompensated heart failure and its effect on LOS and re-admission rate.

J. Fearon-Clarke, M. Betty, B. Vargas, R Montesino, S. Sheris Overlook Medical Center, NJ, R. Bustami Morristown Medical Center, NJ.

Retrospective chart review to determine whether adequate ED diuretic dose reduced LOS and readmissions of patients with heart failure. 250 charts selected randomly.

Adequate dosing defined as 1.5 X usual daily oral dose given as IV bolus or furosemide 80 mg for diuretic naïve patients.
Only 66 subjects (26%) met the criteria for adequate diuretic dosing in the ED. Those with adequate dosing had a median length of stay of 4.2 days vs 5 days in the non-adequate group (p=.12)

Those with adequate dosing had an 8% readmission rate within 30 days vs 15% in the non-adequate dosing group (p=.12)

Implications: optimization of diuretic therapy in ED is beneficial. Consider early identification and intervention if ED diuretic dosing is not adequate.
Hospitalizations and re-hospitalization rates of patients in a network of nurse-led heart failure clinics.

D. Walker, Chronic Care Services, Euclid Hospital, Euclid, OH; A.F. Jacobson, V. Sumodi, Chronic Care Services, Hillcrest Hospital, Mayfield Heights, OH

Retrospective study of 799 patients cared for at one of four sites with nurse led clinics

Mean age 72 years, 54% male, 50% systolic dysfunction
45% had at least one rehospitalization

Most were due to HF (42%), followed by acute renal failure (12%)

Only 6% of the patients were readmitted within 30 days of discharge compared to the community average of 24%

Conclusions:

Nurse led clinics were found to have a low 30 day readmission rates.
Evaluation of an educational intervention, utilizing simulation and a teach back method to increase nurses knowledge and retention of heart failure self-management principles.

T. Mahramus, S. Frewin, L. chamberlain, D. Wilson, D. Penoyer, M Sole. Orlando, FL

Four centers collaborated to provide a 3 hour education program for inpatient and outpatient nursing staff that included simulation and teach back method.

158 nurses attended. Subjects completed a pre test, immediate post test and 3 month follow up test.
T. Mahramus et al.

Mean scores were:

   Pretest 13.0
   Immediate Post test 16.1
   3 Month Follow up test 18 (p=.001)

Appropriate teach back competency assessment was 97.8% but 44% needed mediation.

Conclusions:

This was an effective method of preparing nurses to care for heart failure patients in the hospital as well as outpatient area. Teach back and simulation is effective for nursing education.
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- This is also a great site that the American Heart Association provides where you can Learn at Heart with the latest Cardiovascular and Stroke CME/CE activities.