Strategies to Reduce HF Readmission 2016

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Aurora Grafton Heart Failure Clinic
No financial disclosures
Objectives

1. Identify two strategies that can be implemented to reduce HF readmissions.

2. Verbalize research related to effective interventions in decreasing readmissions with heart failure.

3. State at least two interventions related to best practices to decrease heart failure readmissions and improve quality of life.
Grafton Heart Failure Clinic
• One HF board certified cardiologist
• One NP
• 9 referring cardiologist

ASLMC Heart Failure Clinic
• 4 HF board certified cardiologist
• One outpatient NP
• ASLMC cardiologists
Dr. Thohan
Center of Excellence

• To improve the quality of life for heart failure patients
• Provide best practice interventions for heart failure patients
• Located AAH Grafton
• Available Monday thru Friday
Aurora’s Strategic Goal

Provide people with better health care than they can get anywhere else

1. Provide national best-in-class clinical quality care
   - Decrease HF readmissions  *Value-Based payment structure
   - Improve core measures

2. Superior Differentiated Delivery Model
   - Make each patient’s experience the best possible.
   - Advance innovative, patient-centered and evidence based approaches to care delivery that meet the needs of individuals, families, populations and improve quality and service.

3. Superior Differentiated Patient Experience
   - Provide efficient follow up post hospitalization
   - Provide same day clinic appointments for “immediate access” to care
   - easy for consumers to understand
Rehospitalization for Heart Failure: Predict or Prevent?

- 30 day readmission rate after heart failure admission is 24%
- 6 month readmission rate is 50%
- $17 billion spent by Medicare annually
- It is predicted that 75% of heart failure admissions may be preventable.

Redesign of heart failure clinic = success
- Clinic focus:
  - multi disciplinary
  - medication management
  - education - starting in hospital
  - allowing for frequent follow ups
  - educating ED staff to triage patient to HF clinic instead of admission (80% of ER visits for HF result in admission)
Purpose Statement: To implement standard processes for the evaluation, risk stratification and delivery of care for patients with congestive heart failure (CHF).

- enhance the care received

Vision Statement: To provide comprehensive interdisciplinary (NP, pharmacy, social services, cardiac rehabilitation, dietary etc.) (Palliative care added 4th quarter 2015) support to optimize quality of life, reduce disease burden and re-hospitalization for the patient who suffers with CHF
Grafton Heart Failure Clinic

• Access to AHF specialist Dr. Thohan
• Enhanced up titration of medications based on Best Practice AHA/ACC guidelines
• Same day HF visits
• Education to help patient understand self management and decrease re-admissions
Grafton Heart Failure Clinic: Advantages

- Advantages of collaborative HF-NP clinic for your patients

Interdisciplinary Team Approach

- PCP, cardiologist, NP, pharmacist, social services, RN, dietician, cardiac rehab (Palliative care)
- Access to AHF specialist Dr. Thohan
- Structured hospital to home clinic to optimize transition of care (not TCM)
- Same day clinical access for heart failure symptom management
- Provide same day access to IV diuretic therapy
- Decrease hospitalizations for HF
Grafton Heart Failure Clinic: Advantages

• Titration and monitoring of goal directed optimal medical therapy
• Provide 6-minute walk
• Provide access to cardiology
• Consistent patient education and reinforcement
• Organize home care resources for patients to succeed with CHF
• Risk stratify patients with CHF for advanced heart failure therapy
Grafton Heart Failure Clinic: Advantages

- Advantages of collaborative HF-NP clinic for your patients
  - Interdisciplinary Team Approach
  - PCP, cardiologist, NP, pharmacist, social services, RN, dietician, cardiac rehab
  - Access to AHF specialist Dr. Thohan
  - Structured hospital to home clinic to optimize transition of care (not TCM)
  - Collaborative care with cardiologist
  - Same day clinical access for heart failure symptom management
  - Provide same day access to IV diuretic therapy
  - Decrease hospitalizations for HF
Heart Failure Is Associated with High Hospitalization and Average Length of Stay Readmission Rates

- In 2010, there were 1 million hospitalizations in the US with HF as the principal diagnosis.\(^1\)
  - Hospitalization rate did not change significantly from 2000.\(^1\)
- Average length of hospital stay
  - Approximately 5 days (US)\(^2\)
  - 11 days (Europe)\(^3\)
- HF is also associated with high readmission rates:
  - ~25% all-cause readmission within 30 days\(^4\) and ~50% within 6 months\(^5,7\)

1. CDC NCHS National Hospital Discharge Survey, 2000-2010

Data from Organization for Economic Cooperation and Development, 2009.
Literature review on prevention of HF readmissions

• Akshay S. Desai, MD, MPH; Lynne W. Stevenson, MD. Rehospitalization for Heart Failure Predict or Prevent?. *Circulation*. 2012;126:501-506.


• Hernandez, AF NIH: Relationship between early physician follow-up and 30-day readmission among Medicare beneficiaries hospitalized for heart failure. *JAMA*. 2010 May 5;303(17):1716-22..


- **Forty-seven trials** were included. Most enrolled
- adults with moderate to severe HF and a mean age of 70 years.
Interventions to Prevent Readmissions for Persons with Heart Failure

Feltner, C. et al

Favors Treatment

Home health
Nurse run heart failure clinic
Multidisciplinary heart failure (MDS-HF) clinic interventions reduced all-cause readmission
Heart Failure/cardiology follow up
Structured telephone support

“Favors Usual Care” Not EFFECTIVE

cognitive training
education
Primary care follow up
Feltner, C. et al
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cognitive training
education
Primary care follow up
Mortality
Interventions to Improve Mortality for Persons with Heart Failure

Feltner, C. et al

Favors Treatment

Home health
Nurse run heart failure clinic
**Multidisciplinary heart failure (MDS-HF) clinic interventions reduced all-cause readmission**
Heart Failure/cardiology follow up
Structured telephone support
cognitive training
education
Primary care follow up

“Favors Usual Care” Not EFFECTIVE
Multidisciplinary care improves HF


- The number of re-admissions for HF was reduced by 56.2% in the treatment group
- Treatment group had a 28.5% lower 90 day readmission rate for all causes and a 56% reduction in readmissions for heart failure, as compared to control group.
- Patients scored their quality of life higher in the study group (likely due to feeling healthier, less hospitalizations, and less financial burden)
- Reduced cost of care was an average of $460 less per patient in the treatment group over the duration of the study.
Team Management of Patients with Heart Failure

Nurse practitioner - led heart failure clinic - San Juan Veterans Administration Hospital

- Study of patients with NYHA class 3 and 4 HF patients
- followed up closely as outpatient, returning to clinic at least every 3 weeks
- emphasized medication optimization and education
- After 12 months, there was a 60% reduction in readmissions and an 85% reduction in number of hospital days.
Grafton Heart Failure Clinic: Advantages

- Advantages of collaborative HF-NP clinic for your patients

Interdisciplinary Team Approach

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Grafton Heart Failure Clinic: Advantages

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- Risk stratify patients with CHF for advanced heart failure therapy
Heart Failure Readmissions: A BIG problem.

Table 2. Ten conditions with the most all-cause, 30-day readmissions for Medicare patients (aged 65 years and older), listed by total number of readmissions in descending order, 2011

<table>
<thead>
<tr>
<th>Principal diagnosis for index hospital stay*</th>
<th>Number of all-cause, 30-day readmissions</th>
<th>Readmissions as a percentage of total Medicare readmissions</th>
<th>Total cost of all-cause, 30-day readmissions (in millions), $</th>
<th>Readmission total cost as a percentage of total costs of Medicare readmissions</th>
<th>Readmission rate (per 100 admissions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestive heart failure; nonhypertensive</td>
<td>134,500</td>
<td>7.3</td>
<td>1,747</td>
<td>7.3</td>
<td>24.5</td>
</tr>
<tr>
<td>Septicemia (except in labor)</td>
<td>92,900</td>
<td>5.1</td>
<td>1,410</td>
<td>5.9</td>
<td>21.3</td>
</tr>
<tr>
<td>Pneumonia (except that caused by tuberculosis or sexually transmitted disease)</td>
<td>88,800</td>
<td>4.8</td>
<td>1,148</td>
<td>4.8</td>
<td>17.9</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease and bronchiectasis</td>
<td>77,900</td>
<td>4.2</td>
<td>924</td>
<td>3.8</td>
<td>21.5</td>
</tr>
<tr>
<td>Cardiac dysrhythmias</td>
<td>69,400</td>
<td>3.8</td>
<td>835</td>
<td>3.5</td>
<td>16.2</td>
</tr>
<tr>
<td>Urinary tract infections</td>
<td>56,900</td>
<td>3.1</td>
<td>621</td>
<td>2.6</td>
<td>18.1</td>
</tr>
<tr>
<td>Acute and unspecified renal failure</td>
<td>53,500</td>
<td>2.9</td>
<td>683</td>
<td>2.8</td>
<td>21.8</td>
</tr>
<tr>
<td>Acute myocardial infarction</td>
<td>51,300</td>
<td>2.8</td>
<td>693</td>
<td>2.9</td>
<td>19.8</td>
</tr>
<tr>
<td>Complication of device; implant or graft</td>
<td>47,200</td>
<td>2.6</td>
<td>742</td>
<td>3.1</td>
<td>19.0</td>
</tr>
<tr>
<td>Acute cerebrovascular disease</td>
<td>45,800</td>
<td>2.5</td>
<td>568</td>
<td>2.4</td>
<td>14.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>718,100</strong></td>
<td><strong>39.1</strong></td>
<td><strong>9,371</strong></td>
<td><strong>39.0</strong></td>
<td><strong>19.6</strong></td>
</tr>
</tbody>
</table>

*Clinical Classifications Software (CCS) label

Note: Shaded conditions are currently targeted by the CMS Hospital Readmissions Reduction Program.

Source: Weighted national estimates from a readmissions analysis file derived from the Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), State Inpatient Databases (SID), 2011
Why Should We Care About Readmissions?

• National average for 30-day readmits following a Heart Failure Admission: 22% (Down from 24.8% in 2012)

• Medicare’s Hospital Readmission Reduction Program:
  – Penalizes hospitals that have above average readmission rates
  – In 2014 – the penalty was to withhold 2% of ALL Medicare reimbursement for these hospitals

Source: CMS Hospitals Readmissions Reductions Program of the Patient Protection and Affordable Care Act (PPACA)
The results:

• This **2% withholding** in 2014 resulted in the **closure of over 70 hospitals nationwide**.

• In 2015 and beyond: The penalty is going up to **3%**

• This means risk of **HUGE $$$$ loss** for area hospitals with high Medicare populations: **ex: Elderly**

Source: CMS Hospitals Readmissions Reductions Program of the Patient Protection and Affordable Care Act (PPACA)
Where Do We Fall?

Rates of 30 day readmissions after a Heart Failure Discharge:

* National Average: **22%**

- Aurora Medical Center – Grafton: **22.2%**
- Aurora St Luke’s Medical Center: **20.1%**
- Aurora Washington County: **21.6%**
Rate of unplanned readmission for heart failure patients

Why is this important?

Hide Graph
Death rate for heart failure patients

Why is this important?

Hide Graph

Number of included patients:

AURORA MEDICAL CENTER: 148
AURORA MEDICAL CTR WASHINGTON COUNTY: 127
AURORA ST LUKE'S MEDICAL CENTER: 1439

National death rate for heart failure patients = 11.6%
Grafton Heart Failure Clinic
Re-admission rates

Prior to Aug 2014: 24.8%
Aug 2014 to Jan 2016: 13.1%
Grafton Heart Failure Clinic

Re-admission rates

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to Aug 2014</td>
<td>24.8%</td>
</tr>
<tr>
<td>Aug 2014 to Jan 2016</td>
<td>13.1%</td>
</tr>
<tr>
<td>Aug 2014 to June 2016</td>
<td>5%</td>
</tr>
</tbody>
</table>
## Financial Impact: Readmission Costs

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cost Per Readmission</th>
<th>Readmission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestive Heart Failure (CHF)</td>
<td>$13,000</td>
<td>25.1%</td>
</tr>
<tr>
<td>All-Cause Readmission</td>
<td>$11,200</td>
<td>21.2%</td>
</tr>
<tr>
<td>Heart Attack</td>
<td>$13,200</td>
<td>17.1%</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>$13,000</td>
<td>15.3%</td>
</tr>
<tr>
<td>COPD</td>
<td>$8,400</td>
<td>7.1%</td>
</tr>
<tr>
<td>Joint Replacement: Total Hip</td>
<td>$12,300</td>
<td>8.2%</td>
</tr>
<tr>
<td>Joint Replacement: Total Knee</td>
<td>$10,200</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

Source: Healthcare Cost Utilization Project
Keys to improving Heart failure Care

- Interdisciplinary collaboration
- Guideline directed therapy
- Close Follow-up
- Responsiveness
- Education, Education, Education
- Patient Empowerment
- Passion for HF patients: We LOVE what we do!
Key: Interdisciplinary collaboration
Pharmacist

- Medication histories
- Medication review
- Assess the patient compliance
- Optimizing dosing of key medications
- Test and investigations
- Tailoring therapy
- Close monitoring of response to drug therapy
- Dealing with adverse effects
- Medication supplies: set up medications
• Social issues

• Cardiac Rehab (next door to HF clinic)
Key: Guideline Directed therapy

• ACC/HF 1016 Guidelines

• Rapid up titration of heart failure medications
Key: Guideline Directed therapy

Newest medications added to ACC HF guidelines 2016

1) Corlanor (Ivabradine)
2) Entresto
Key: Close follow up

- TCM visit by PCP 1 week post discharge
- HF NP visit 2 weeks post discharge
- Follow up with HF NP at 4 weeks
Key: Close follow up

- Ensure cardiology follow up appointment
- PCP clinic RN Health coaches
- Monitor high risk patients by phone
Key: Responsiveness/Close follow up

• RN Nurse Coordinator: Monica RN

Same day answers to patient calls
Key: Responsiveness/Close follow up

Same day clinic appointments for IV diuretics
HEART FAILURE CLINIC
Ann, NP
or
Monica, RN
262-329-8150

Key: Heart Failure Education

My Heart Failure Action Plan

**Green**
- No change in symptoms
- No cough or wheeze
- Breathing is good
- Usual strength and activity
- Weight is stable

**Yellow**
- Weight gain of more than 3 pounds in 1 to 2 days
- Weight gain of more than 5 pounds in 1 week
- Have to sleep sitting up
- Start coughing at night
- Notice swelling in your ankles or any part of your body
- Have pain or bloating in your stomach and lose your appetite
- Become tired faster or feel yourself losing energy
- Wheezing (noisy breathing)
- Have side effects from your pills
- Weight loss of more than 5 pounds in 2 days

**Red**
- Trouble breathing
- Pain or tightness in chest
- Dizzy spells or feel faint
- Feel anxious or like something bad will happen

1. **Green means go** – I am meeting my goals for heart failure management.
   - Stay on your treatment plan.
   - Stay active.

2. **Yellow means Caution – Be alert to changes.**
   - If you have any of the symptoms in the yellow circle:
     - Call your doctor within 24 hours – even on weekends and holidays.
     - Have your medicine list handy.
     - Have your pharmacy phone number handy.

   **For weight gain:**
   - Ask your doctor about taking medication (you may already have been told about this).
   - Limit activity.
   - Limit salt.
   - Raise legs on pillows or footrest when resting.

   If you have questions or are unsure of what to do, you may speak with a nurse 24 hours a day (toll free) at 888-676-7812.

3. **Red means I need to Stop and get help. I should call and talk with my health care provider immediately.**
   - Call your doctor right away. If you think this is an emergency, call 911.
Empowerment and responsibility for self care
Passion for HF patients: We LOVE what we do!
Benefits of Heart Failure Clinic

At Each Appointment:
(In addition to advanced practice interventions and medical management)

- Provide comprehensive and extensive education and counseling for patients.
- Increase level of safety and self-confidence in patients’ ability to care for themselves
- Increase motivation in patients resulting in high level of compliance, increased quality of life, and less need for hospitalization, leading to reduce cost for the heart failure care
Non pharmacological interventions & Education

1. Cessation of smoking.

2. Restriction of alcohol consumption; avoidance of illicit drug use (eg, cocaine).

3. Sodium restriction

4. Fluid restriction (1.5 to 2 L/day) may be helpful in patients with refractory HF, particularly those with hyponatremia

5. Exercise/cardiac rehab
QUESTIONS?
REFERENCES

• Akshay S. Desai, MD, MPH; Lynne W. Stevenson, MD. Rehospitalization for Heart Failure Predict or Prevent?. Circulation. 2012;126:501-506.


• Hernandez, AF NIH: Relationship between early physician follow-up and 30-day readmission among Medicare beneficiaries hospitalized for heart failure. JAMA. 2010 May 5;303(17):1716-22.

