Healthy Heart Initiative: An APN Model of Care for Reduction in CHF Readmissions

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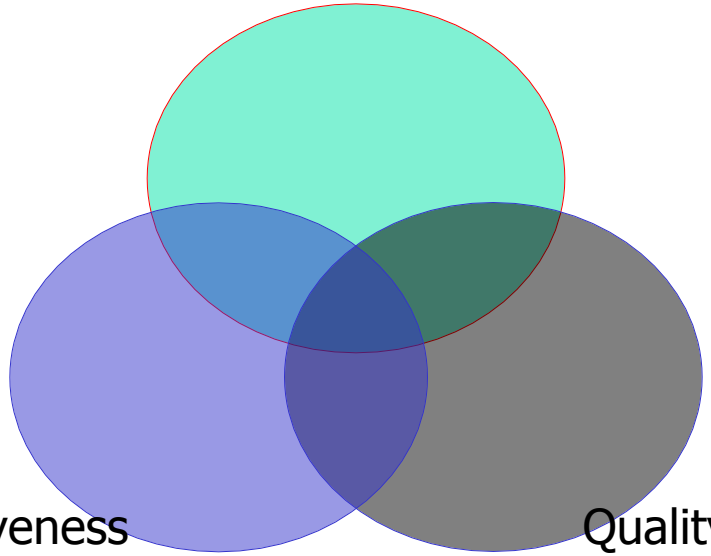
Objectives

Financial Performance



Operational Effectiveness

Quality Patient Outcomes

Study Objectives

- *Operational Effectiveness*: APN directed patient education promotes increased disease self-management in patients with HF
- *Quality Patient Outcomes*: Educating patients about their disease motivates adherence to therapy and promotes positive outcomes
- *Financial Performance*: Minimize 30-day hospital readmissions by 11%

Background of the Problem

Etiology

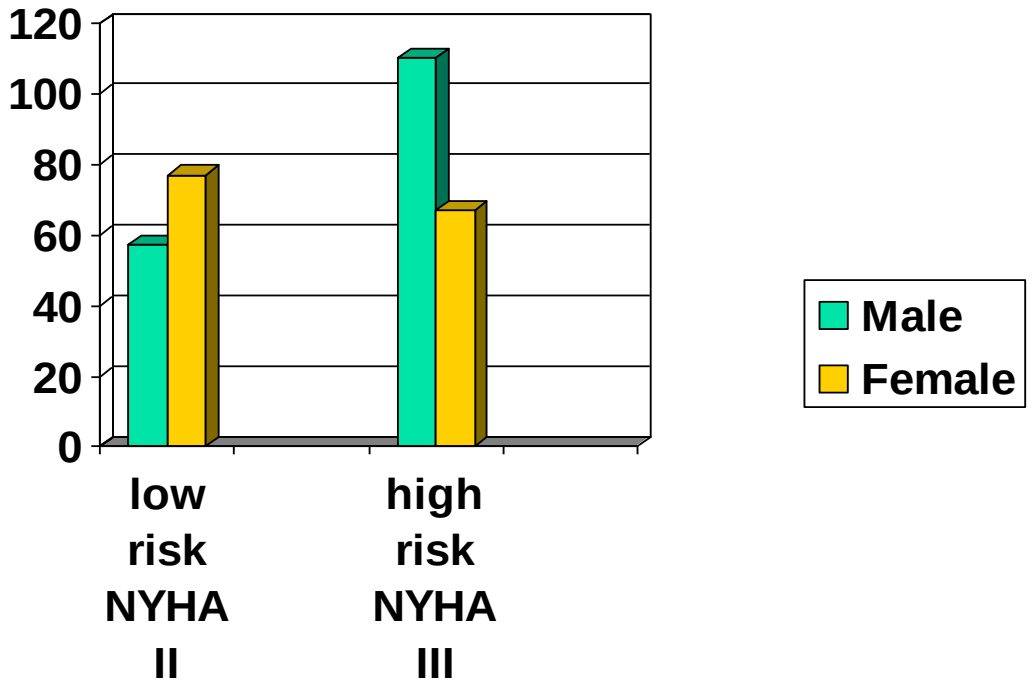
- Approximately 5.5 million American's have HF
- 550,000 new cases are diagnoses yearly
- HF is the most common diagnosis in hospitalized patients >65 years
- Estimated cost per patient admission is $11,993.00
- HNMC 30 day readmission rate is 23%

Theoretical Framework: Social Cognitive Theory

- Human behavior is defined as: a triadic, dynamic and reciprocal interaction of personal factors, behavior and the environment
- An individual's cognition actively constructs reality, encodes information, and performs behavior on the basis of values and beliefs
- Understanding processes involved in an individual's construction of reality enables human behavior to be understood, predicted and changed

Albert Bandura (1991)

HHI Statistics: Gender 2010



Rational for Intervention

- High Risk
- High Volume
- Problem Prone
- Cost

Literature Review

- LOE I: Andre de la Porte, et al (2007) in a randomized control Vs interventional group to determine whether and intensive intervention by a HF clinic reduces the incidence of hospitalization for worsening HF and improves functional status in patients with NYHA class II or IV with 1 year intervention. **Results**: Showed that during the study period, the number of admissions for worsening HF and/or all cause deaths in the intervention group was lower than the control group (23 Vs 47, p=0.001).

- LOE II: Kasper, et al (2002) sought to determine whether a multidisciplinary program decreases chronic HF readmissions and mortality over a 6-month period when compared to usual care. **Results**: Demonstrated that a 6-month multidisciplinary approach can improve important clinical outcomes with equivalence in costs of care when compared to hospitalized high-risk patients.

Literature Review

- LOE II: DeWalt, et al (2002) in a randomized control trial compared the efficacy of a HF self-management program designed for patients with low literacy Vs usual care. **Conclusion:**that there was a reduced risk of hospitalizations and death in a primary-care based HF program for patients with low literacy than those patients not in a HF self-management program
- LOE II: Wright, et al, (2003) in a randomized study of control Vs usual care included197 patients with primary diagnosis of HF. Control group received educational materials, attended a HF clinic, and attended 3 educational sessions; and the usual care group received routine care from general practitioners. **Results**: Implementation of self-management strategies were higher in the control group which exhibited higher levels of knowledge for monitoring their condition using daily weights at 12 months follow-up than the usual care group.

Hypothesis for Intervention

- **Hypothesis**: Patients who participate in a self-management approach to HF treatment will experience fewer readmissions; improved functional capacity; and will demonstrate increased knowledge of self-care management than patients who do not participate in self-management.
- **Research Design**: Quantitative design comparing APN directed self-management (NC), and ususal care group (UC)
- **Sample**: 150 adult patients 60-85 years of age admitted to the hospital with the primary diagnosis of HF from January 1, 2010 to December 31, 2010.

Plan of Action

- The APN starts the patient education within 24-48 hours of admission
- The patient and/or significant other receives individualized HF disease self-management education by the HHI APN
- The program is based on comprehensive disease management across the continuum of care services

Methodology

Sample

- Inclusion Criteria
  - All patients with the diagnosis of HF
  - NYHA Class II/III
  - Echo confirms evidence of systolic dysfunction or diastolic dysfunction
  - All patients discharged to home
- Exclusion Criteria
  - NYHA Class IV
  - All patients with illnesses that could compromise survival (e.g.cancer)
  - All patients with cognitive impairment or DNR
  - All patients discharged to LTAC or SNIF facility

Methodology

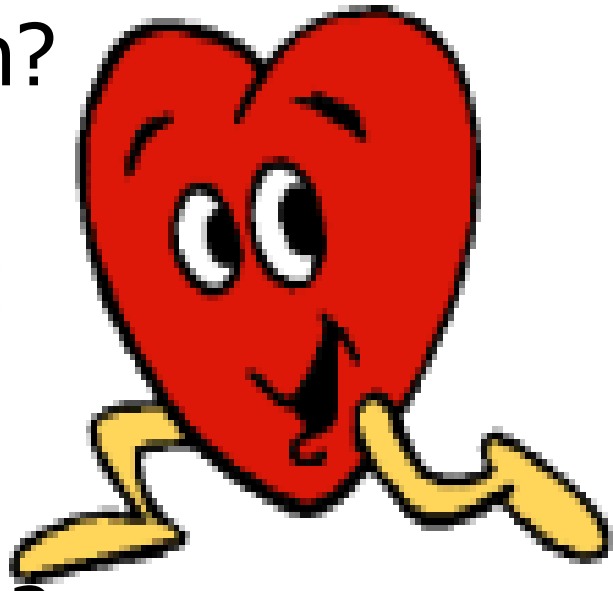
- APN evaluates the patient's HF knowledge base within 24-48 hours of admission and initiates individualized education
- Patient education includes non-pharmacological disease self management, and symptom recognition of changes in condition status that would warrant medical attention
- Baseline functional capacity is measured through a 6-minute walk test by the APN before discharge to assess ability for self-care
- Scales are provided to patients as needed before discharge
- Weekly telephone monitoring begins within 1-week of hospital discharge

What Can Cause Heart Failure?

- When the heart can not pump or fill normally with blood
- A heart attack
- Problems with the heart valves
- High blood pressure
- Diabetes
- Drinking too much alcohol

What questions should I ask?

- Do I have blockages in my arteries?
- Is my blood pressure high?
- Do I have damaged heart valves?
- What is my heart function?



What does a LOW SALT diet mean?

- No more than 2,000 to 2,500 mg of salt per day

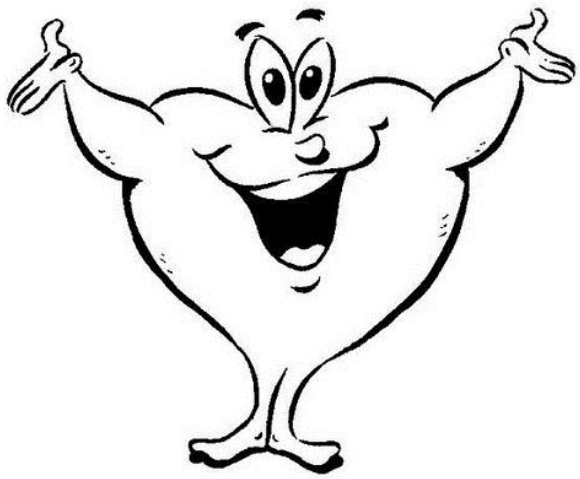
- **1 tsp of salt = 2,300 mg!!**

A low salt diet is **VERY IMPORTANT** to your health

How do I follow a low salt diet?

Use the following 4 steps:

- Stop adding salt to your food
- Change the foods you like to LOW salt
- Pick the foods that are naturally low in salt
- Learn to read food labels



Step 1: Do not add salt

- Stop adding salt when you cook
- Take the salt shaker off the table
- Use seasonings low in salt: BLACK PEPPER, LEMMON PEPPER, GARLIC, GARLIC POWDER, ONION POWDER, DILL, PARSLEY, and ROSEMARY
- **Always** pick the label that says "salt-free"

Reading labels

Regular Soup

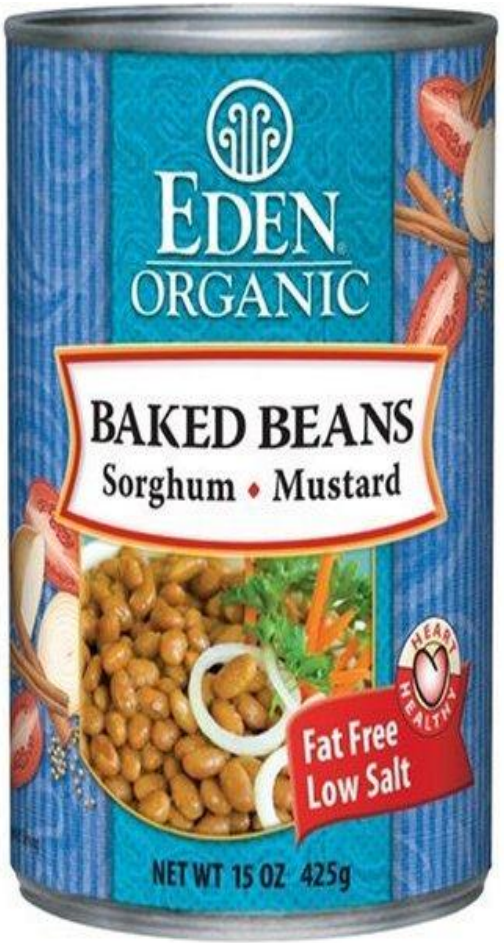
Nutrition Facts	
Serving Size 1 cup	
Servings Per Container 2	
Amount Per Serving	
Calories 352	Calories from Fat 112
	% Daily Value
Total Fat 13g	19%
Saturated Fat 5g	23%
Trans Fat 1g	
Cholesterol 51mg	17%
Sodium 795mg	33%
Total Carbohydrate 37g	12%
Dietary Fiber 10g	41%
Sugars 9g	
Protein 24g	
Vitamin A 19%	Vitamin C 42%
Calcium 12%	Iron 32%

Reduced Sodium Soup

Nutrition Facts	
Serving Size 1 cup	
Servings Per Container 2	
Amount Per Serving	
Calories 352	Calories from Fat 112
	% Daily Value
Total Fat 13g	19%
Saturated Fat 5g	23%
Trans Fat 1g	
Cholesterol 51mg	17%
Sodium 220mg	10%
Total Carbohydrate 37g	12%
Dietary Fiber 10g	41%
Sugars 9g	
Protein 24g	
Vitamin A 19%	Vitamin C 42%
Calcium 12%	Iron 32%

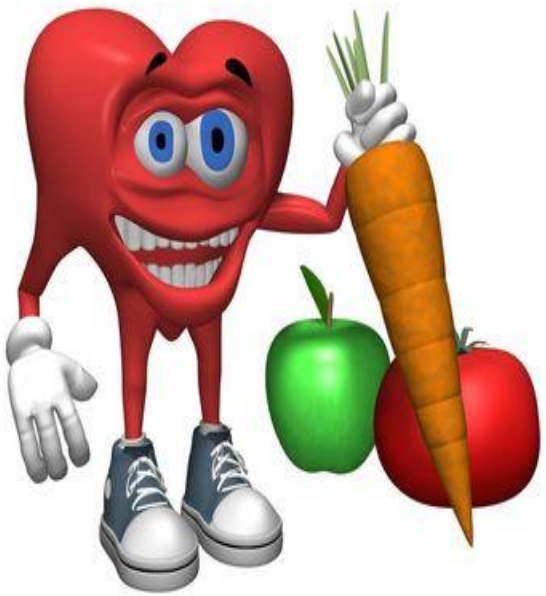
Step 2: Change the foods you eat

- Cook meat without using salt
- Avoid eating lunchmeats
- Look for salt free labels: “Salt-free”, “No Salt”, “Low Salt”
- Pick low salt cheeses when making sauces



Step 3: Pick foods low in salt

- Pick Fresh foods to eat as much as possible
- Drink freshly squeezed fruit and vegetable juices
- Eat more fresh fruits and vegetables
- Dried beans, peas, rice and lentils are very good low salt foods



Step 4: Learn to read food labels

- Food labels tell you how much salt is added to the food
- Most frozen, canned or boxed foods are processed and have a lot of salt
- AVOID eating TV dinners, frozen snack foods like pizza or egg rolls
- AVOID canned vegetables and hot cereals

Reading Food Labels

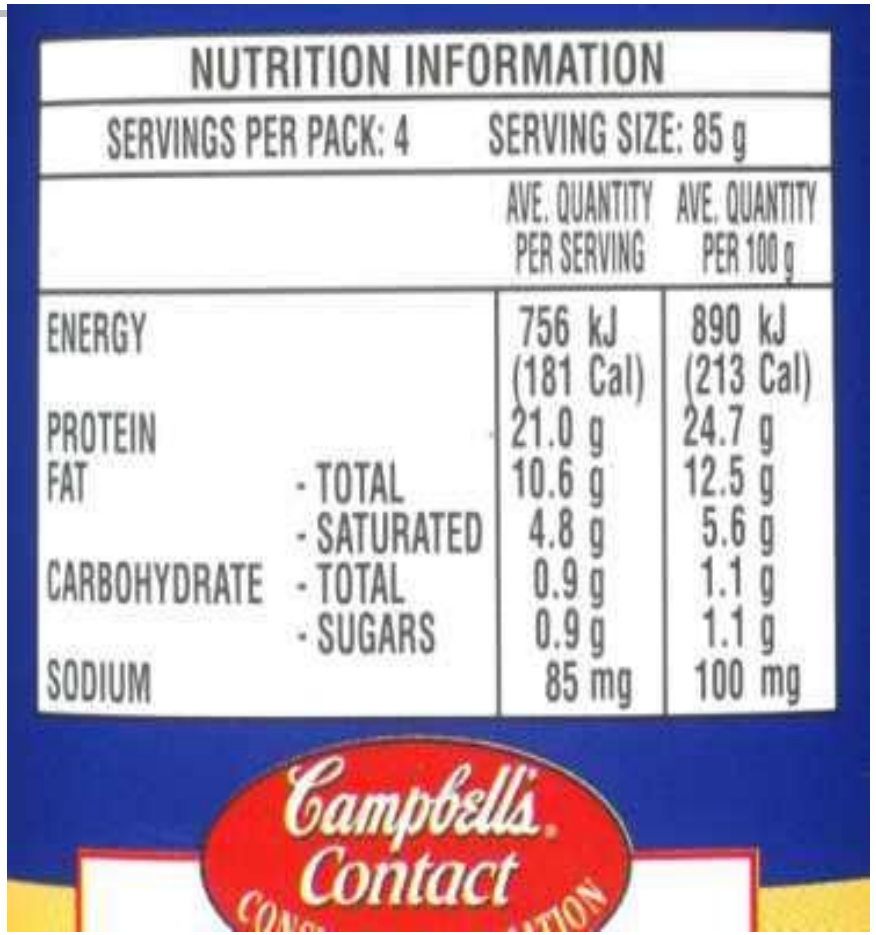
Nutrition Facts

Serving Size 1/2 cup (125g)
Servings Per container about 3.5

Amount Per Serving	
Calories 45 Calories from Fat 0	
	% Daily Value*
Total Fat 0g	**0%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 25mg	**1%**
Total Carbohydrate 9g	**3%**
Dietary Fiber 1g	**4%**
Sugars 3g	
Protein 1g	

Vitamin A 60% • Vitamin C 4%
Calcium 2% • Iron 4%

*Percent Daily Values are based on a 2,000 calorie diet.



Helpful Tips for Success

- **SLOWLY** make changes in your diet **NOT** all at once
- Keep a list of low salt foods in the kitchen
- **DO NOT** buy foods that are high in salt
- Make a list of the amount of salt you eat with each meal for a few days to help you learn to control your salt intake

How can I take charge?

- **TAKE YOUR MEDICATION**
- Limit eating salty foods
- Do not use salt on your food
- Keep your blood pressure under control
- Exercise is **GOOD**!!
- **WEIGH** yourself every day

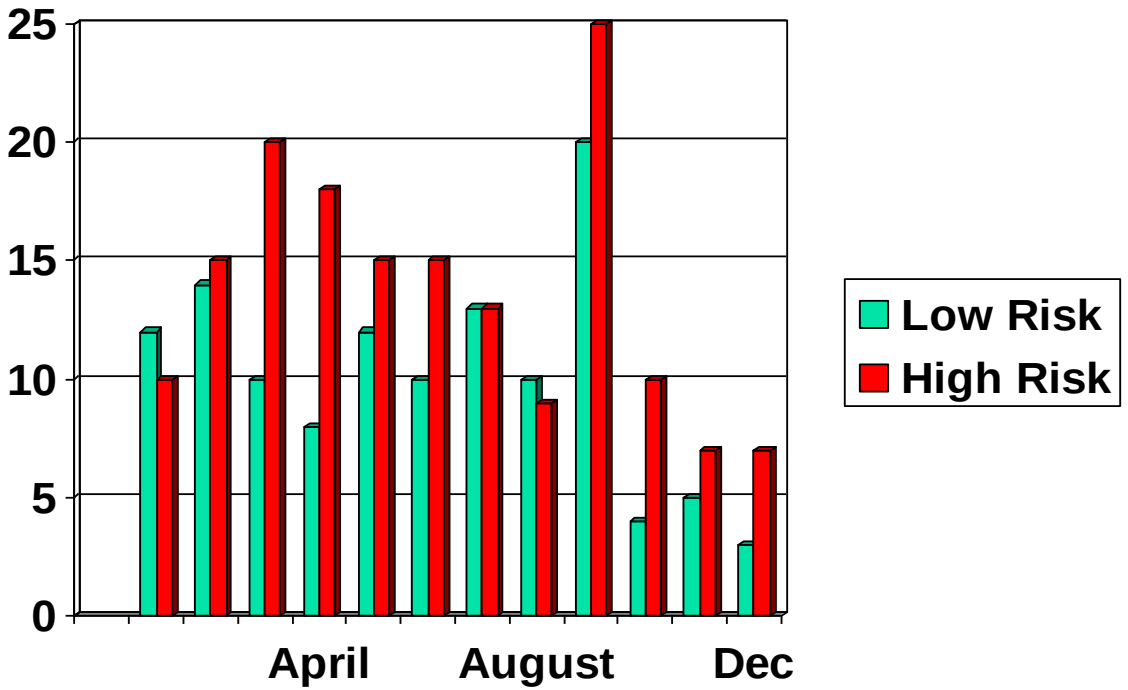
Follow a "Healthy Heart" Lifestyle

- Lifestyle changes are especially important if you have heart failure
- If you smoke or chew tobacco, STOP!!
- Limit foods that have sugar, saturated fats and cholesterol
- Increase physical activity
- AVOID alcohol

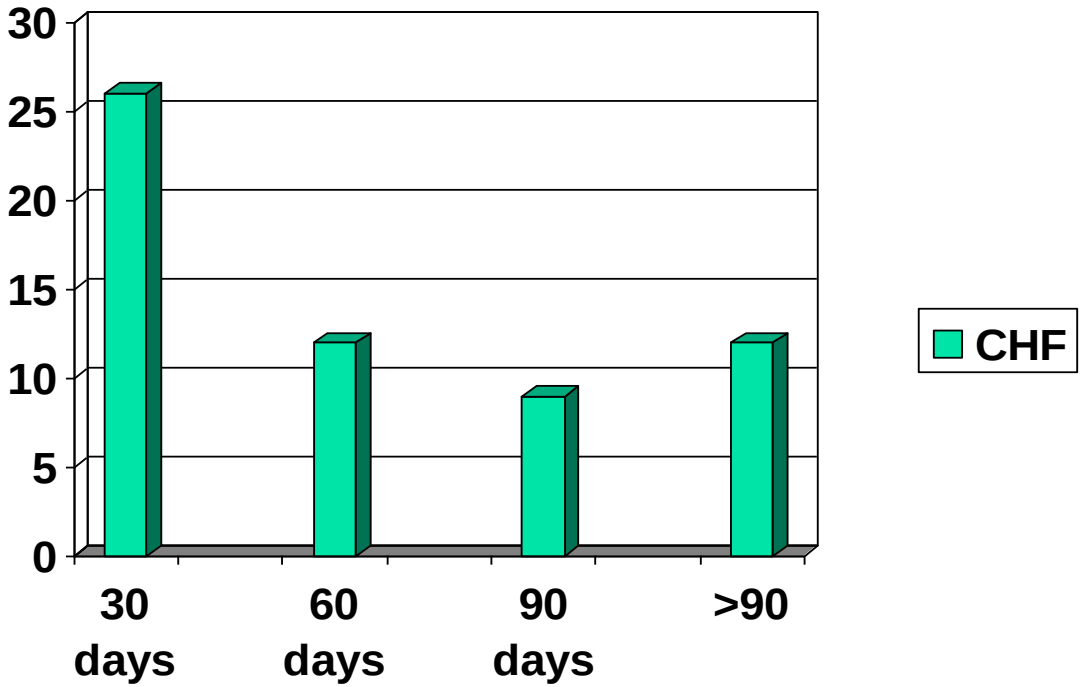
Call your doctor if…

- You have a 3 pound weight gain in one day
- You notice any swelling of your feet or ankles
- Shortness of breath has gotten worse
- You begin to feel tired and cannot finish regular activities
- Your heart rate is very fast
- Chest pain happens during activity and is relieved with rest
- You experience constant dizziness or feeling light-headed
- Difficulty breathing when you are at rest

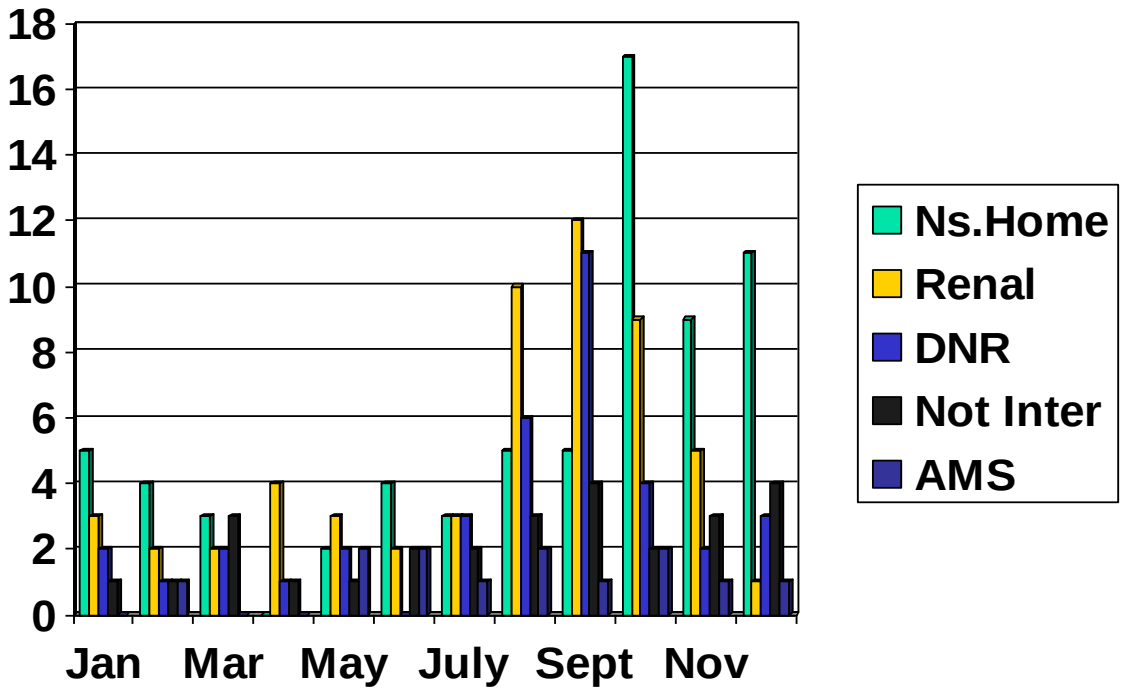
HHI Statistics – 2010 CHF Patients D/C to Home



Outcomes: 2010 CHF Readmissions



2010 High Risk/Volume Patients



Next Steps

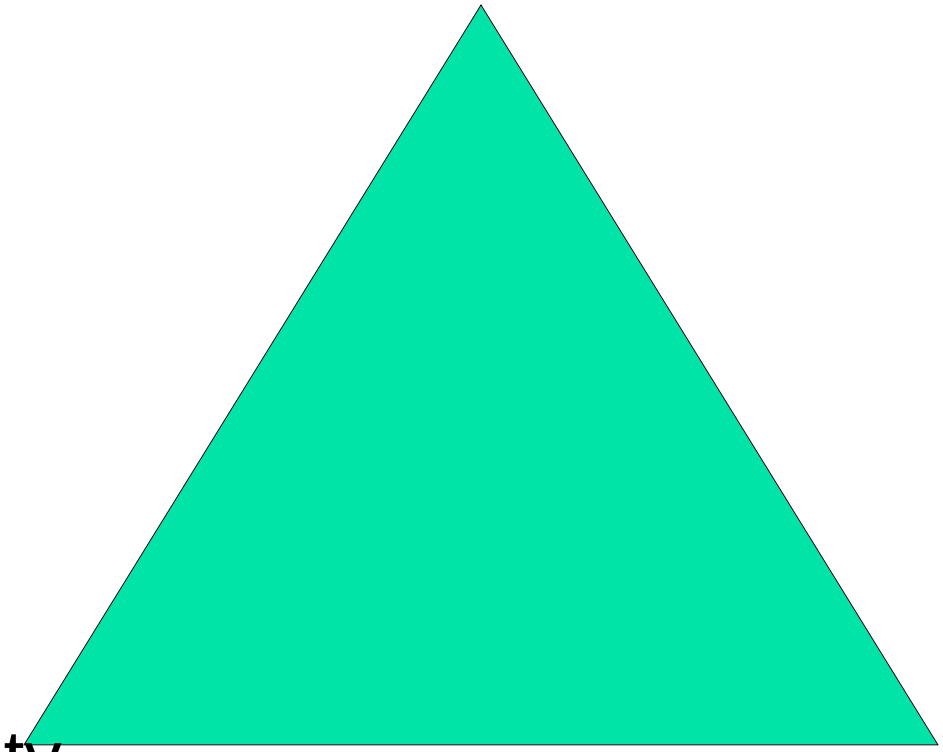
30 day Readmission Rates (Past 12 months)

- *Home Discharge Volume* had 8% (26/312 pts) readmission rate in 30 days = $311,818 expense

- *Facility Discharge Volume* had a 52% (103/197 pts) readmission rate in 30 days = $1,235,279 expense

- *Goal:* Decrease the Facility Discharge Volume to a 35% readmission rate over next 6 months - Jan 2011 - July 2011

HHI: Future


Inpatient
Community
Home Care; LTAC; SNIF Facilities
Outpatient
ED; Infusion Center

Future: Implementation of Transitional Care

- Lack of transition of care promotes safety risks
- Continuity of care is affected
- Crucial information does not transition between levels of care
- Disparities between patient management enhances failure of disease management

- Transitioning patients between levels of care avoids safety risks to the patient
- Transition periods enable provider communication to occur
- Continuity of care remains consistent
- Improved communication between providers will result in improved patient outcomes and decrease readmissions

Sustainability

- APN's work in concert *with* the PCP in patient management rather than as a *substitute* for that care
- HHI's focus is to *reduce* risk factors with HF management and return functionality to the patients
- HHI program provides *individualized* patient education on HF through a personalized booklet
- HHI program *empowers* patients to take an active role in managing their disease

Discussion

- An APN directed multidisciplinary approach to HF management will incorporate both patient monitoring and outpatient self-management of symptoms as a central strategy.
- Targeting risk factors for unplanned admissions in concert with protocol-driven medical management will improve functional capacity in people with HF.
- Education has been found to be a critical component to effective programs.
- An APN driven HF program is an effective resource use for patients and bridges the gap between the acute care setting and outpatient management.

Conclusion

- Comprehensive patient education by an APN improves patient compliance and recognition of early warning signs of HF
- HF patients who participate in the HHI program can be expected to achieve better outcomes through disease self-management
- Transitional Care Communication will be implemented at discharge to post acute care providers (Home Care; Sub-Acute; LTAC)
- The integration of "*transitional care communication*" will decrease the gap between acute care and outpatient HF management
- APN driven HF program is an effective means of decreasing re-hospitalizations

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