IMPLEMENTATION OF A HEART FAILURE (HF) PATHWAY IN LONG TERM CARE (LTC)
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Objectives
- Identify challenges to manage HF in the LTC and Sub-Acute Rehab population.
- Identify Operational Interventions to manage HF.
- Identify and analyze data to measure HF management.

Prevalence of HF in the LTC population
- More Medicare dollars are spent on the diagnosis and treatment of HF than other diagnosis in beneficiaries older than 65 (Harrington)
- The prevalence of diastolic HF is approximately 50% in LTC patients, most common type of HF in this population(Harrington)
- Most SNF patients with HF also have COPD, diabetes, HTN, kidney disease (AMDA)
HF Definitions

- HF is a global term that includes the following specific types of Heart Failure:
  - Left Sided Heart Failure – Systolic or Diastolic: failure to properly pump out blood to the body
  - Right Sided Heart Failure – Usually occurs as a result of Left Sided Failure: blood backs up into the venous system, seen as swelling in legs and ankles
  - Congestive Heart Failure (CHF) – often used interchangeably with heart failure: this diagnosis requires seeking medical attention
    - Venous congestion, can cause fluid collection in the lungs and around the heart. Affects breathing when laying down, causes dyspnea, also affects the kidneys – water and sodium cannot be eliminated – water retention

Management Challenges LTC

- Heart Failure mimics other disease process such as Pneumonia, COPD, Asthma, ARI*.
- Lack of a Protocol, Pathway or Process to guide assessment and intervention.
- Staying current with best practice and evidence based interventions for HF by the LTC staff
- *ARI Acute Respiratory Infection

IS IT HEART FAILURE?

- **HEART FAILURE**
  - Shortness of breath with exertion or laying down
  - Fatigue greater than usual
  - Cough, wheeze with pink tinged or frothy sputum
  - Lack of appetite – 3-5 days before other symptoms
  - Swelling in legs, ankles or feet – new onset/worsening or absent (right side failure)
  - Tachycardia
  - Nocturia or Oliguria – 3-5 days before other symptoms

- **PNEUMONIA / ARI**
  - Shortness of breath
  - Fatigue greater than usual
  - Cough, sputum may be thick and sticky
  - Lack of appetite
  - Swelling in legs but not a change from baseline
  - Fever or lower than normal body temp
Initial Management

- Until the disease process is diagnosed by MD or test results, we may treat HF symptoms as an Acute Respiratory Infection (ARI)
  - F441, Federal SNF Regulation. “The facility must establish and maintain an infection control program designed to provide a safe, sanitary and comfortable environment and to help prevent the spread of disease and infection”.
  - Facility Policy: An ARI outbreak is 3 or more residents or staff with any 2 of the following symptoms: fever, cough, runny nose or nasal congestion, sore throat, muscle aches

TREATMENT OPTIONS

HEART FAILURE
- Oxygen
- Monitor I&O
- Monitor Vital Signs
- Orthostatic BP
- Weight gain 3# day or 5# week
- Elevate swollen extremities
- Medications
  - Diuretics
  - Loop diuretics
  - ACE-1
- Lab/testing
  - CXR
  - CBC, K, BUN, Creat
  - BNP

PNEUMONIA/ARI
- Oxygen
- Monitor I&O
- Monitor Vital Signs
- Medications
  - Nebulizers
  - Antibiotics
- Lab/testing
  - CXR
  - CBC

ACE-1 in HF
- Mainstay of HF Therapy
  - Decrease afterload, decrease volume
  - Decreased BP, decrease Lasix, increase Ace-1
- Weekly titration to maximize benefit
  - Start low, go slow
  - Titrate Ace-1 up, wean diuretic down
- Monitor side effects
- Captopril, Enalapril, Lisinopril
- Did you know? NSAIDS can increase HF
  - (Gloth 2015)
**B-type Natriuretic Peptide test (BNP)**

- Diagnostic test of choice
- BNP is a hormone in our blood
- Higher number means increase fluid or high pressure inside the heart
- Value of 100 = daily activity does not cause symptoms
- Value of 300 = slight limitations of physical activity
- Value of 600 = marked limitations of physical activity
- Value of 900 = unable to carry out physical activity without discomfort

**Operational Interventions LTC**

- Recognition
  - Diagnosis history / H&P / care plan interventions
- Assessment
  - Severity / diagnostic tests
- Treatment
  - Person centered
- Monitoring
  - Realistic, daily weights in LTC? Orthostatic BP?
- Evaluation

**Operational Intervention
INTERACT 4.0**

- INTERACT 4.0 is a quality improvement program
- Focused on management of an Acute Change in Condition
  - “Stop and Watch”
  - “SBAR”
  - “Care Path”
Operational Interventions LTC

- Care Plan – What to Care Plan?
- Utilize the INTERACT Care Path
  - Schedule daily weights on the aide task list and document in the TAR or EMR
  - Consider daily/weekly vital signs including POX
  - Consider daily progress note to include: lung sounds, Jugular Vein Distension (JVD), peripheral edema, activity tolerance
  - Routine Lab work, BMP, CBC
    - Individualize frequency based on stability of disease process for that individual

Operational Interventions Evaluation / QA

- Individual Resident Evaluation:
  - Number of residents with exacerbations over time
  - Contributing factors to exacerbations
  - Quality of life
  - Advanced Care Planning

- Facility Wide Evaluation of HF Program
  - Number of resident with exacerbation of HF (numerator)
  - Number of resident with diagnosis of HF (denominator)
  - Trends over time – causative factors

Operational Interventions Evaluation / QA

- Organizational Wide Evaluation of HF Program
  - Comparison between facilities
  - Risks for Residents?
  - Risk for Payer sources?
  - QA, internal and external boards?
LTC Case Study

- Resident "A" 90 year old with dementia, ESRD, CHF, Anemia, Osteoarthritis.
- Long Term memory problems, able to communicate needs.
- Transfers with mechanical lift, dependent for all ADL's, incontinent and wears incontinent product.
- Requires assistance with meals, appetite 50%

C.N.A. Andy reports that Patient “A” is more sleepy today, did not eat breakfast and has developed a loose cough but does not bring up any phlegm.

What should you assess?

LTC Case Study

- Assessment:
  - Vital signs: BP, P, RR, T, POX, WT
  - Findings: BP WNL 98/60, P=90, RR 26 shallow with crackles in the bases, T96.4, POX 88 RA. SOB when answering yes/no questions. Last month WT stable. 24 hour report states she rolled out of bed last night and was restless the entire night.
LTC Case Study

- Next Steps: Critical thinking
  - Restless all night, but rested / slept once up in chair
  - No appetite
  - Cough without expectorant
  - Increased SOB

- What tools will help you evaluate this change in condition?
  - SBAR Documentation and physician notification
  - INTERACT CHF Care Path

- Manage in house or send to ER?

Well done!

- You avoided hospitalization and Resident “A” was able to stay in her home.
Challenges Sub Acute / Rehab Population

- Sub Acute Rehab population are those folks who plan to be discharged from the SNF after resolution of acute illness
- HF may not be primary diagnosis for admission however we may have to manage their multiple co-morbidities
- Lack of a Protocol, Pathway or Process to guide assessment and intervention
- Transition of Care process / Care Hand Off
- Prevent Readmission to Hospital

Prevalence of HF in Rehab Population

- Medicare population is responsible for 55% of 30 day total Hospital Readmissions
- 76% of the HF population and only 21% of non-HF population have 3 or more comorbidities
- Since 2012 Hospitals are fined for HF readmission within 30 days of discharge

Managing Comorbidities

- Admission diagnosis is rarely HF alone
- Most common admission diagnosis are fractures, joint replacements, abdominal surgeries, stroke, chronic disease management, wounds.
Managing Comorbidities

- 20% all cause readmission rate for Medicare Fee for Service clients.

- Our Partner hospitals benchmark is 10% for all cause 30 day readmissions.

Managing Comorbidities

- Do you know your organizations rate for 30 day readmits?
- Do you know your organizations readmit rate for HF patients?
- Do you see a value in knowing this data?

Operational Interventions

- Recognition
- Assessment
- Treatment
- Monitoring
- Evaluation
Sub Acute/Rehab Admission with a Diagnosis of Heart Failure (HF):

HF Admission Guidelines: Check the box of those interventions initiated upon admission and included in the Patient/Resident Plan of Care

- If present, the post-admission determined Heart Failure Classification (American Heart Association): Stage A, Class II, NYHA Functional Class I-IV is recorded on care plan Note: A-AH Stage D classification with specific advanced care planning directives may override this following guidelines.
- Upon admission, a comprehensive nursing assessment is to be completed within the Assessment Reference Data (ARD) timeframe. The comprehensive assessment will include observations specific to heart failure symptoms.
- Twice daily documentation for the first 7 days and then daily documentation, will include at a minimum Assessment areas specific to the following diagnosis: e.g., wound, surgical, medical complications, etc. and HF symptom identification: Vital signs, pulse, respiration, lung sounds, Jaundice, pain detection, peripheral edema and activity tolerance. (NY Heart Association Functional Classification Classes I-IV)
- Observation of sleep pattern, position of comfort and respiratory rate while awake will be documented daily. If abnormal, consult deep sternal and sternal with physician for post-discharge follow-up.
- Weight is measured daily in the AM before breakfast.
  - Weekly physician of a weight gain of 2 lbs in 1 day (24 hours) or a weight gain of 5 lbs in one week before and recorded every 5 months.
  - To ensure adequate fluid intake, but to minimize the cardiac system, initial parameters are 1500-2000 mL/24 hours otherwise established by the physician or Registered Dietitian.

Sub Acute/Rehab Admission with a Diagnosis of Heart Failure (HF):

HF Admission Guidelines: Check the box of those interventions initiated upon admission and included in the Patient/Resident Plan of Care

- Heart Failure Assessment observations include all established parameters will be discussed with physician's NYHA for further activity/description. See current SBAR communication guidance and involved
- Cardiac output (COP) estimation will be included for the week unless otherwise determined by physician or RN.
- Therapy evaluation and level will consider HF history, current NYHA and AHA classifications. If known when plans of care is developed.
  - Cardiac Prescriptions with Pal and Draw Care per ED and post therapy sessions
  - Energy Conservation Protocol
- Request pharmacy review of current medications prescribed within 48 hours post admission.
- A single Medication Formulary (MFM) and CCSS is requested from the attending physician within 24 hours if non-admission lab results are incomplete or if problematic BPM and CBC were not obtained within 48 hours of admission. If prescription results are available a repeat (HF) and CCSS will be requested in 48 hours following admission or as otherwise ordered by the attending physician/NP/PA.
- Within 48 hours after admission, the national patient education using the national model with patient from hospital form and document (as needed) and facility understanding of heart failure and heart failure with heart failure. Special attention should be placed on understanding of medication administration. post discharge and symptoms reducing prompt physician follow-up.

Sub Acute/Rehab Admission with a Diagnosis of Heart Failure (HF):

HF Admission Guidelines: Check the box of those interventions initiated upon admission and included in the Patient/Resident Plan of Care

- If the resident is a patient of the
- Local Heart Failure Clinic, contact clinic to order of admission.
- Discharge planning will include:
  - Verification that medication prescriptions have been provided and a plan in place for obtaining the medications.
  - Verification that a follow-up appointment has been made with the resident’s Primary Care Physician and other consulting physicians if necessary e.g. cardiology, nephrology, etc.
  - If Home Care is involved, a nurse home care report prior to discharge will be completed and will include the provision of the following materials used for resident education by the home care nurse.
  - Notification to the resident’s Primary Care Physician of resident’s discharge back to the community. Include in making a copy of the discharge summary, and other pertinent information if necessary, e.g. medication list.
  - Admission results, consultation notes, etc.
- Within 48-72 hours of discharge, the Skilled Nursing facility will contact the discharged resident family as a follow-up to ensure the transition process.
Sub Acute Heart Failure Pathway

**Recognition:**
- Pre-admit/admit: determine Heart Failure Classification (NYHA or AHA/ACC)
  - Thorough history and course of care from referring hospital/clinic
- Health History: course of disease, treatment, participate in HF clinic
- Community partners or providers

**Assessment:**
- Upon Admit: Comprehensive, establish baseline
- Patients description of their HF disease
- Twice daily documentation x 7 days then daily
  - VS, POX, Lung sounds, JVD, peripheral edema and activity tolerance, in addition to primary assessment
- Observe sleep pattern nightly: position and comfort
- IDT assessment: therapy for exercise tolerance, dietary for heart healthy choices, pharmacy for med review

**Treatment:**
- Preferably face to face with discharging MD
- Discussion with facility nurse following assessment
- Medications
  - ACE drugs preferred for elderly
  - Right dose, right drug
  - Heart healthy diet
- Labs/Diagnostics within 48 hours
  - BNP
  - CBC
  - Ventricular Assist Devices
- Resident teaching
**Sub Acute Heart Failure Pathway**

- **Monitoring:**
  - Weigh daily before breakfast
  - Notify MD of weight gain #2 in one day
  - Notify MD of weight gain #5 in one week
  - Oral Intake (1500 – 2000) initial parameters
  - Heart Healthy Diet
  - Cardiac Precautions during therapy
  - Energy conservation protocols with therapy
  - Labs – weekly after initial 48 hours

- **Resident Teaching:**
  - Begin within 48 hours of admission
  - Review teaching material sent from hospital
  - Determine patient and families understanding of HF and how to live with HF
  - Special attention to understanding medication administration post discharge
  - Special attention to symptoms post discharge and when to call the physician

- **Preparing for Next Level of Care:**
  - Verify medication prescriptions are present and there is a plan to obtain and pay for the medications
  - Verify that a follow up appt. has been made with PCP and HF Clinic and confirm transportation
  - Home Care – coordinate teaching materials and plan, provisions for continued reinforcement of teachings
  - Notify when follow up labs have been ordered, that patient knows to go and has transportation
  - Communicate with PCP and HF Clinic as to residents discharge and continued plan of care
Sub Acute Heart Failure Pathway

Evaluation:
- Outcome measures:
  - 30 day, 60 day and 90 day readmission rates
  - Resident Satisfaction
  - Satisfaction/coordination with Home Care or care provider

Sub Acute Heart Failure Pathway

Evaluation:
- Failed readmissions – deep dive across continuum for breakdown.
- Calculate prevalence rate for HF for Rehab population, separate from LTC residents – INTERACT Hospitalization Rate Tracking Tool.

INTERACT 4.0 TOOLS

- Hospitalization Rate Tracking tool:
- Quality Improvement tool for review of Acute Care Transfers
- Quality Improvement Summary
5 Star Rating Implications cont.

- Percentage of short-stay residents who were re-hospitalized after a nursing home admission. Lower percentages are better.
  - Facility level: 14.0%
  - State level: 18.8%
  - National level: 21.1%

5 Star Rating Implications cont.

- Percentage of short-stay residents who have had an outpatient emergency department visit. Lower percentages are better.
  - Facility level: 5.7%
  - State level: 11.3%
  - National level: 11.5%

5 Star Rating Implications cont.

- Percentage of short-stay residents who were successfully discharged to the community. Higher percentages are better.

- Percentage of short-stay residents who self-report moderate to severe pain. Lower percentages are better.
Ongoing Opportunities

- Transition of Care / hand off
  - Care coordinator across the continuum of care
  - Population health management
  - NP or Care Transition team from HF clinic
  - NP or Care Transition team from payer source
- Preventing readmissions with DX of CHF
  - On site NP / MD at SNF for acute management
  - Point of Care lab tests
  - Increased management of patient acuity in SNF
  - IV starts and IV medication
  - Remote telemetry monitoring
  - Ability to access heart tests without transfer to hospital

Summary

- We identified challenges to manage HF in our LTC and sub acute population.
- We looked at two different tools to assist with operational intervention to manage our residents with HF.
- We explored the analysis of data regarding readmission rates of HF residents and how this can impact our referral partner relationships and affect on our 5 Star Quality Ratings.

References

References

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Contact Information

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“Our primary purpose in life is to help others. And if you can’t help them, at least don’t hurt them.”
— Dalai Lama