WORKSHOP 3:
Access, Adherence and Literacy: New Partnership Opportunities to Improve Health Outcomes
Speaker

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Optimizing the Continuum Of Care for Patients with Heart Failure: A Multidisciplinary Approach

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Disclosures

• None
Objectives

• Review the magnitude of the heart failure problem

• Highlight the importance of comprehensive heart failure management programs in facilitating transitional care for at risk populations.

• Discuss the multidisciplinary approach to heart failure management using culturally tailored strategies in a large safety net hospital.
Outline

• Introduction- Why Heart Failure
• Magnitude of the HF Problem
• Disparities Exist
• The Case for a Comprehensive Heart Failure Management Program
• Introducing the Grady Heart Failure Program
Why Heart Failure?

• Heart failure is the final common pathway for all heart disease.
• Rising burden of heart failure (HF).
• Only CVD that hasn't experienced a substantial decline in both incidence and prevalence over the past 25 yrs.
  – Population Aging - the incidence of heart failure increases with advancing age.
Why Heart Failure?

- Improvements in diagnostic imaging techniques such as echocardiography, MRI, have enhanced the ability to make a definitive diagnosis.
- Advances in treatment of myocardial infarction - patients who previously died, now survive.
- Heart failure treatment are keeping patients alive longer.
Magnitude of the HF Problem

• ~ 5.7 million adults in the United States have HF.
• Projections show that the prevalence of HF will increase 46% from 2012 to 2030, resulting in >8 million adults with HF.
• 870,000 new cases of HF are diagnosed yearly.
• HF is the primary cause of more than 55,000 deaths each year.

Mozaffarian D et al. Circulation. 2015;131:e29-e322
Magnitude of the HF Problem

- About half of people who have HF die within 5 years of diagnosis.
- Contributing cause on death certificate in >280,000 deaths (1 in 9) in 2011.
- ~1 million HF hospitalizations occur annually- (6.5 million hospital days).
- HF hospitalization is a marker for morbidity and mortality with readmission and mortality rates approaching 30% and 15%, within 30 to 60 days post-discharge

Mozaffarian D et al. Circulation. 2015;131:e29-e322
Magnitude of the HF Problem

• One of the most resource-intensive conditions
  – Estimated total costs - $30.7 billion in 2012.
  – 68% attributable to direct medical costs.

• Projections
  – Btw 2012 and 2030, the total cost will increase almost 127% to $69.7 billion.
  – ≈$244 for every US adult.

• Readmissions
  – $17.4 billion annually (Medicare).
  – HF is the largest contributor.
Disparities Exist!

- Age
- Gender
- Race/Ethnicity
- Geography
Incidence of Heart Failure by Age & Sex (Framingham Heart Study: 1980–2003)

Go A S et al. Circulation 2013;127:e6-e245
Prevalence of Heart Failure by Sex and Age (NHANES 2009-12)

Mozaffarian D et al. Circulation. 2015;131:e29-e322
First Acute Decompensated Heart Failure Annual Event Rates per 1000 (2005–2011)*ARIC

Mozaffarian D et al. Circulation. 2015;131:e29-e322

* Atherosclerosis Risk in Communities Community Surveillance
Hospital Discharges for Heart Failure by Sex (United States: 1980–2010)

Mozaffarian D et al. Circulation. 2015;131:e29-e322
Geography matters!
From: National and Regional Trends in Heart Failure Hospitalization and Mortality Rates for Medicare Beneficiaries, 1998-2008

Age-adjusted rate for mortality (per 100,000 patients) from heart failure and stroke in the United States (1979 through 1998) by state for all ages, men and women.
Age-adjusted rate for mortality (per 100,000 patients) from heart failure in African-Americans and whites in the United States (1979 through 1998) by state
Using Spatial Analysis to Investigate Geographical Variations in Heart Failure Hospitalizations among Medicare Beneficiaries

Hospitalization Rates for Heart Failure as First-listed Discharge Diagnosis among Medicare Beneficiaries, Stratified by Urban and Rural Counties
Tennessee Catchment Area, 2000 - 2004

Heart Failures per 1,000 Beneficiaries

<table>
<thead>
<tr>
<th>Urban</th>
<th>Rural</th>
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<tbody>
<tr>
<td>20.00 - 29.99</td>
<td>20.00 - 29.99</td>
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<tr>
<td>30.00 - 39.99</td>
<td>30.00 - 39.99</td>
</tr>
<tr>
<td>40.00 - 48.22</td>
<td>40.00 - 83.03</td>
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Source: CDC/NCHS Urban/Rural Codes
Urban = 1, 2, 3, and 4
Rural = 5 and 6

Hospitalization Rates for Hypertension as Secondary Discharge Diagnosis among Medicare Beneficiaries, by County, Tennessee Catchment Area, 2000-2004

Age-adjusted hospital rates (per 1000 Medicare enrollees) with HF as primary discharge diagnosis, by race and year in catchment area

Number of Primary Care Physicians per 10,000 Medicare Beneficiaries, by County, Tennessee Catchment Area, 2004

Primary Care Physicians per 10,000 Medicare Beneficiaries (2004)

- No primary care physicians
- 0.1 - 9.9
- 10.0 - 24.9
- 25.0 - 49.9
- 50.0 - 192.1

Number of Cardiologists per 10,000 Medicare Beneficiaries, by County, Tennessee Catchment Area, 2004

Cardiologists per 10,000 Medicare Beneficiaries (2004)

- 0.0
- 0.1 - 4.9
- 5.0 - 9.9
- 10.0 - 49.8

THE CASE FOR A COMPREHENSIVE HEART FAILURE MANAGEMENT PROGRAM
Vicious Cycle of Conventional Care

1. Patient neglects to seek timely help from caregivers
2. Physician office-based management inadequate to meet CHF patient needs
3. In acute crisis, patient turns to only alternative - hospital ED
4. Rapid discharge increases odds of early readmission

Conventional CHF Care

All CHF patients presenting to ED: 90% admitted

Courtesy NHEFT Program
Disease Management Programs

• Multidisciplinary efforts to improve health through coordinated systems of care, delivery system support, support for patient self-care, identification of at-risk populations, and a continual feedback loop between patients and care providers.

• HF disease management programs have been shown to be effective in reducing all-cause readmissions for HF.

American Heart Association
Why do HF Programs work?

• Rescue the most vulnerable ("at-risk")
  – Recently and frequently hospitalized patients
  – Multiple comorbidities

• Titration of life saving medications to optimal doses
  – Some HF patients are not on these medications at all
  – Of those who are, most are not on doses shown to provide mortality benefit
INTRODUCING THE
GRADY HEART FAILURE PROGRAM
Grady Memorial Hospital

• Safety net hospital, opened in 1892 to provide medical care to Atlanta’s indigent population of Fulton and DeKalb counties
• 953 licensed bed facility with nearly 30,000 inpatients and more than 600,000 outpatients annually.
• Staffed by Emory and Morehouse Schools of Medicine faculty, fellows and residents.
The geographic area served by Grady is largely comprised of minority populations in Fulton and DeKalb counties.

- **DeKalb County**
  - 54.3% black - 33.3% White
  - 9.8% Hispanic/Latino

- **Fulton County**
  - 44.6% Black - 48.1% White
  - 5.9% Hispanic/Latino
Grady Heart Failure Program

• HF Task Force
  – established in September 2010
  – Multidisciplinary Team of Stakeholders
    • Administration, Physicians, Nurses, Pharmacy, Social Work, Financial Services, QI Team

• HF Clinic
  – Established in March 2011
Grady Heart Failure Program

Goals

• Improve patient outcomes and reduce hospital readmission rates for patients with ADHF.
• Ensure comprehensive outpatient follow-up of HF patients through collaboration with the referring physician and multi-disciplinary HF team.
• To enhance the quality of care and patient satisfaction by facilitating a continuum of care for patients with NYHA Class I-IV heart failure.
• To serve as an intermediary care site between the physician's office and the acute care institution.
Grady Heart Failure Program

- **Staffing**
  - 3 nurse practitioners (NPs) under the supervision of Emory and Morehouse Physicians.
  - NPs coordinates transition from hospital to home, rehab, nursing home, or shelters.

- **Source of referral**
  - inpatient or outpatient providers
  - ER / Clinical Decision Unit
Grady Heart Failure Program

In Patient Consultation

• Each patient given HF survival guide
  – receives comprehensive education on heart failure, diet, symptoms, medications,
  – follow up care within 7 days of discharge

• Identify barriers to care
  – Lack of insurance
  – transportation, housing
  – ability to obtain medications
  – mental health, drug/alcohol abuse
  – illiteracy/low literacy
Heart Failure Survival Guide
Please bring your guide to every visit with your health care team
Bring all of the medicines you are taking to each visit

This Guide belongs to:

Enrollment date:

Questions or problems please contact your Heart Failure Manager Michele Edwards NP (404-616-5695) or Barbara Rhoads NP (404-616-4665). Clinic number is 404-616-4327.

Clinic hours are: Monday-Friday 8-4:30 After hour emergencies please call nurse call center at 404-616-0600 or toll free at 1-800-447-6032. If the on call nurse cannot assist you she will direct you to the emergency room.
QUESTIONS FOR MY MANAGER

Write notes here to remember to talk with your manager about at your next visit:

Medicine: ____________________________________________
______________________________________________________

Diet: _________________________________________________

Heart Failure symptoms: ________________________________
______________________________________________________

Activity: _____________________________________________

Other: ________________________________________________
______________________________________________________

Medication Schedule for ________________________________

Please do not use anti-inflammatory drugs like ibuprofen

<table>
<thead>
<tr>
<th>What time of day do I take this medicine?</th>
<th>Why do I take this medicine?</th>
<th>Name and dosage of medicine</th>
<th>I take this many pills</th>
<th>I take this pill by....</th>
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</table>
Grady Heart Failure Program

• Pharmacy
  – For patients that are unable to afford medications, a one-time 30 day supply of essential medications may be obtained through the pharmacy.

• Social Services
  – Home health and tele-health for patients that need close monitoring for heart failure decompensation.
  – Assistance with applying for Medicaid and disability, when applicable.
  – **NEW:** HF Support Group
Grady Heart Failure Program

• **Post discharge**
  
  – NP calls patients within 3 days of discharge to assess for medication compliance and possible signs of decompensation.
  
  – Arranges/confirms an appointment in the outpatient HF Clinic with the NP within 7-10 days of hospital discharge.
Grady Heart Failure Clinic

• Focus on four pillars of HF management
  – patient education
  – medication titration and optimization
  – improving the process of care
  – individualized care focusing on the patient and their comorbidities
Grady Heart Failure Clinic

• Integrated in this personalized model
  – facilitating follow up in the cardiology and primary care clinics (medical home)
  – blood pressure management
  – lipid control
  – diabetic clinic referral
  – depression screening and referral, when appropriate
Grady Heart Failure Program

• Clinic visit
  – NP performs a clinical assessment, medication reconciliation and dose adjustment of medications
  – Patients may require multiple visits
  – Reinforce education/watch HF videos
Grady Heart Failure Program

• Clinic visit
  – Once the patient is stable and optimized on therapy they are returned to the appropriate medical home - cardiology or primary care.
  – Patients can always call HF Clinic for worsening HF signs/symptoms
HEALTHY HEART SUPPORT GROUP
For People with Heart Failure

When: 1st Tuesday of every month, starting March 3rd, 2015
Time: 11:00 am-12:30 pm
Where: Cardiac Clinic, 2nd floor
80 Jesse Hill Jr. Drive, Atlanta, GA 30303
For more information contact: Tracy Daniels, LCSW
404-616-4959
Email: tdaniels@gmh.edu

Healthy Heart
Healthy You
Impact
Baseline Data

– Retrospective analysis of all-cause HF admissions in patients with primary or secondary discharge diagnosis of HF from November 1, 2009 to October 31, 2010

– A total of 1436 HF admissions occurred among 708 patients over the one year period.
Baseline data

- Mean age 61.5 years
- Race/ethnicity: African Americans 94.8%
- Gender: Females 45.6%
- Insurance status
  - Medicare beneficiaries 26.2%
  - Medicaid 18.1%
  - Medicare and Medicaid 7.5%
  - Private insurance 10%
  - Uninsured 38.4%
Baseline data

- Systolic HF was present in 71%.
- Non-ischemic cardiomyopathy was the leading cause of HF (75%).
- 93% of the patients had hypertension.
- 50% had chronic kidney disease.
- HF exacerbation (ADHF) was the primary reason for readmissions, accounting for 78% of readmissions.
Baseline data

- 30-day heart failure readmission rate: 18.3%
  - high HF readmission rate compares to the national average of 24.9%
- Follow up
  - Patients kept the outpatient appointment 25% of the times.
  - PCP clinics (51%), Cardiology clinics (40%) and HF clinic (9%).
Baseline data

- 81 patients (7%) accounted for 25% of all CHF admissions

- Average scheduled follow up appointment time post discharge = 3 weeks

- Average time to actual first clinic visit = 5 weeks
Impact - as of February 28, 2015

• **Inpatient Consults**
  – 7-8 consults /day
  – 15 consults (Mondays)
  – Monthly average: 180 consults
  – About 40 patients are seen in the HF clinic weekly
Impact - as of February 28, 2015

- **HF Clinic**
  - Approximately 2,250 patients have received care since its inception in March 2011.
  - 40 patients per week are seen in clinic

- **Clinical Decision Unit (CDU) Consults**
  - 2-3 consults/day
Financial Implications

- HF Clinic
  - Grady Utilization Data 2013 vs. 2014
    - Inpatient admissions
    - ED utilization
    - Inpatient cost of care
A simple comparison of the HF Clinic Patient Cohort for 2013 and 2014 indicates a decline in utilization and a decrease in cost per admission.

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td>Inpatient admissions</td>
<td>79</td>
<td>13</td>
</tr>
<tr>
<td>ED visits</td>
<td>347</td>
<td>37</td>
</tr>
<tr>
<td>IP Cost / Admission</td>
<td>$14,577</td>
<td>$10,856</td>
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AHA Get With The Guidelines-HF

- Achievement Measures
- Quality Measures
ACE/ARB at Discharge

Percent of Patients

Time Period

Beta Blockers at Discharge

[Bar chart showing the percentage of patients on beta blockers from January to December 2014]
Measure LV Function

The chart shows the percent of patients over time from January 2014 to December 2014. The data is consistent across all months, indicating a steady rate of patients.
Post Discharge Appointment for HF Patients
America’s Essential Hospitals

• Formerly the National Association of Public Hospitals and Health Systems
  — Leading association and champion for hospitals and health systems dedicated to high-quality care for all, including the most vulnerable.

Grady Health System

2013 NAPH Gage Award Winner For Quality !!!
UNIVERSITY HEALTH SYSTEM CONSORTIUM
Challenges

• Measuring Our Outcomes
  – Mortality
  – Readmission rates
  – Functional Status/Quality of Life
• Referral for Advanced Heart Failure Therapies
• Referral to Cardiac Rehabilitation
• Palliative Care
• Social Issues
Next Steps/ Future Plans

- Silver Achievement Status—“Get With The Guideline” (GWTG)—(American Heart Association)
- National Quality Recognition for advanced certification in heart failure from The Joint Commission and AHRQ
- Pilot Program in the Emergency Department to reduce HF readmissions
Future Plans/ Next Steps

- Apply for funding to evaluate outcomes and develop research network
- Patient Navigator System
- Grady Heart Failure University
- Explore partnerships with Community-Based Organizations
- Integrate Heart Failure Program with neighborhood clinics
References

References


• National Center for Health Statistics. NCHS urban-rural classification scheme for counties. [Internet] [cited November 13, 2009]. Hyattsville (MD): US Department of Health and Human Services; 2006.


Acknowledgements

• Grady Heart Failure Working Group
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  – Faresa Zarreenn, MD      Brian Howard, MD
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• Florence Fouts- AHA- GWTG
Nanette K. Wenger, M.D.
Patient Education Center
An ounce of prevention is worth a pound of cure”
-Benjamin Franklin
Questions/ Comments
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