Heart Failure Disease Management in a Vulnerable Population

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Elements of HF Disease Management

- Multidisciplinary teams
- Nurse case management
- Evidence-based guideline-recommended therapy
- Patient / family education and self-management
- Enhanced access to specialized services (e.g., nutrition, rehabilitation, exercise)
- Early evaluation and aggressive intervention
- Home health services
- Referral for advanced care
Benefits of HF Disease Management

- Fewer hospitalizations
- Lower healthcare costs
- Improved functional status
- Improved symptoms
- Better quality of life
AHA Disease Management Guidelines

1. Main goal should be to improve quality of care and patient outcomes.

2. The basis should be scientifically-derived, peer-reviewed guidelines.

3. Should help to increase adherence to treatment plans based on best available evidence.

4. Should include consensus-driven performance measures.

5. Must include ongoing and scientifically-based evaluations.

AHA Disease Management Guidelines

6. Should exist within an integrated and comprehensive system of care in which the patient-provider relationship is preserved.

7. Should address the complexities of comorbidities.

8. Should be developed for all populations and should particularly address underserved or vulnerable populations.

9. Should scrupulously address potential conflicts of interest.

Boston Medical Center

- Largest safety net hospital in Massachusetts.
- Serves an urban core of high-risk, vulnerable residents.
- Culturally diverse community - 41% are African American and 12% are Spanish-speaking.
- In 1996 and 1997, provided free care services to over 90,000 unduplicated individuals.
- Mission is to provide consistently excellent and accessible health services to all in need of care, regardless of status and ability to pay.
BMC HeartNet: A Pilot Disease Management Program for Uninsured Patients with HF

• Underserved populations present major challenges related to socioeconomic factors (e.g., lack of insurance, home situation, language, education, culture, telephone, etc).

• Therefore, the advantages of HF disease management observed in various published trials can not be assumed to apply to underserved populations.

• BMC HeartNet: A pilot disease management program for underinsured patients with HF was undertaken

• Funded by the Massachusetts State Division of Health Care Finance and Policy
BMC HeartNet: Organization

Primary MD

Outpatient
- Cardiac Rehabilitation
- Home Care
- Nutrition
- Social Service

Nurse Manager

Inpatient
- Cardiac Rehabilitation
- Home Care
- Nutrition
- Social Service

HF Specialist
BMC HeartNet: Initial Cohort

- Patients: 41 (M:F = 30:21)
- Age: 51 ± 11 yrs
- AA = 29, Caucasian = 7, other = 5
- Etiology of HF: Mostly non-ischemic (IDC, HTN, EtOH)
- NYHA: I = 16; II = 19; III = 6
BMC HeartNet: Follow-up and Interactions

Follow-up:
Mean: 1.5 yr
Range: 1 wk to 2.5 yr
Total follow-up = 67 patient-years

Average interactions / patient:
6 MD visits per year
7 RN/NP visits per year
13 telephone calls per year
HeartNet: NYHA Class

Pre HeartNet

Post HeartNet
HeartNet: Hospital Usage

visits per patient year

Admit Short Stay Emergency

Pre Post

*
HeartNet: All Hospitalizations

Per Patient Year

Pre

Post

*
Annual Cost of HF: FreeCare and CareNet Patients

- Patients with diagnosis: 584
- Admissions for Heart Failure: 262
- Unique patient Admissions: 179
- Cost (Charges): $5,537,199
Total Charges / Patient / Year

Pre HeartNet

Post HeartNet

Total Charges per Patient Year

$0  $4,000  $8,000  $12,000  $16,000

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HF Disease Management in a Vulnerable Population

In an underinsured, vulnerable urban population a nurse-based, multidisciplinary HF disease management program,

• Improved medication use
• Improved functional class
• Reduced hospitalization
• Reduced health care costs