Complete Summary

GUIDELINE TITLE

Disease management in heart failure: HFSA 2006 comprehensive heart failure practice guideline.

BIBLIOGRAPHIC SOURCE(S)

Heart Failure Society of America. Disease management in heart failure. J Card Fail 2006 Feb;12(1):e58-69. [135 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Heart Failure Society of America. Heart Failure Society of America (HFSA) practice guidelines. HFSA guidelines for management of patients with heart failure caused by left ventricular systolic dysfunction--pharmacological approaches. J Card Fail 1999 Dec;5(4):357-82.

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SCOPE

DISEASE/CONDITION(S)

Heart failure

GUIDELINE CATEGORY

Management

CLINICAL SPECIALTY

Cardiology
Family Practice
Internal Medicine

INTENDED USERS

Advanced Practice Nurses
Dietitians
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To provide recommendations for the education and counseling for patients with heart failure

TARGET POPULATION

Patients with heart failure

INTERVENTIONS AND PRACTICES CONSIDERED

1. Individualized education and counseling
2. Referral and comprehensive disease management
3. End-of-life care

MAJOR OUTCOMES CONSIDERED

- Quality of life
- Functional status
- Hospitalization rates

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases
Searches of Unpublished Data

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Databases searched included Medline and Cochrane. In addition, the guideline developers polled experts in specific areas for data.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Level A: Randomized, Controlled, Clinical Trials
May be assigned based on results of a single trial

Level B: Cohort and Case-Control Studies
Post hoc, subgroup analysis, and meta-analysis
Prospective observational studies or registries

Level C: Expert Opinion
Observational studies – epidemiologic findings
Safety reporting from large-scale use in practice

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The Heart Failure Society of America (HFSA) Guideline Committee sought resolution of difficult cases through consensus building. Written documents were essential to this process, because they provided the opportunity for feedback from all members of the group. On occasion, consensus of Committee opinion was sufficient to override positive or negative results of almost any form or prior evidence.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

"Is recommended": Part of routine care
Exceptions to therapy should be minimized.

"Should be considered": Majority of patients should receive the intervention.
Some discretion in application to individual patients should be allowed.

"May be considered": Individualization of therapy is indicated

"Is not recommended": Therapeutic intervention should not be used

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The process of moving from ideas of recommendations to a final document includes many stages of evaluation and approval. Every section, once written, had a lead reviewer and 2 additional reviewers. After a rewrite, each section was assigned to another review team, which led to a version reviewed by the Committee as a whole and then the Heart Failure Society of America (HFSA) Executive Council, representing 1 more level of expertise and experience. Out of this process emerged the final document.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The strength of evidence (A, B, C) and strength of recommendations are defined at the end of the "Major Recommendations" field.

Education and Counseling

- It is recommended that patients with heart failure (HF) and their family members or caregivers receive individualized education and counseling that emphasizes self-care. This education and counseling should be delivered by providers using a team approach in which nurses with expertise in HF management provide the majority of education and counseling, supplemented by physician input and, when available and needed, input from dieticians, pharmacists, and other health care providers. All HF patients benefit from education and counseling, but patients in New York Heart Association (NYHA) functional class III or IV need the most intensive education, while patients in NYHA I or II need less intensive education. (Strength of Evidence = B)

  Teaching is not sufficient without skill building and specification of critical target behaviors. Essential elements of patient education to promote self-care with associated skills are shown in Table 8.1, below. (Strength of Evidence = B).

Table 8.1: Essential Elements of Patient Education With Associated Skills and Target Behaviors

Elements of Education	Skill Building and Critical Target Behaviors

Elements of Education	Skill Building and Critical Target Behaviors
Definition of HF (linking disease, symptoms, and treatment) and cause of patient's HF	Discuss basic HF information, cause the patient's HF, and how symptoms are related
Recognition of escalating symptoms and selection of appropriate treatments in response to particular symptoms	Monitor for specific signs and symptoms (e.g., increasing fatigue doing usual activities, increasing shortness of breath with activity, shortness of breath at rest, need to sleep with increasing number of pillows, waking at night with shortness of breath, edema) Perform and document daily weights Develop action plan for how and when to notify the provider Institute flexible diuretic regimen, if appropriate
Indications and use of each medication	Reiterate medication dosing schedule, basic reason for specific medications, and what to do if a dose is missed
Importance of risk factor modification	Smoking cessation State blood pressure goal and know own blood pressure from recent measurement Maintain normal HgA1c, if diabetic Maintain specific body weight
Specific diet recommendations: individualized low-sodium diet; recommendation for alcohol intake	Reiterate recommended sodium intake Demonstrate how to read a food label to check sodium amount per serving and sort foods into high- and low-sodium groups Reiterate limits for alcohol consumption or need for abstinence if history of alcohol abuse
Specific activity/exercise recommendations	Reiterate goals for exercise and plan for achieving Reiterate ways to increase activity level
Importance of treatment adherence and behavioral strategies to promote	Plan and use a medication system that promotes routine adherence Plan for refills

- It is recommended that patients' literacy, cognitive status, psychologic state, culture, and access to social and financial resources be taken into account for optimal education and counseling. Because cognitive impairment and depression are common in HF and can seriously interfere with learning, patients should be screened for these. Appropriate interventions, such as supportive counseling and pharmacotherapy, are recommended for those patients found to be depressed. Patients found to be cognitively impaired need additional support to manage their HF. (Strength of Evidence = C)
- It is recommended that educational sessions begin with an assessment of current HF knowledge, issues about which the patient wants to learn, and the patient's perceived barriers to change. Address specific issues (e.g., medication nonadherence) and their causes (e.g., lack of knowledge vs cost vs forgetting) and employ strategies that promote behavior change, including motivational approaches. (Strength of Evidence = B)
- It is recommended that the frequency and intensity of patient education and counseling vary according to the stage of illness. Patients in advanced HF or with persistent difficulty adhering to the recommended regimen require the

most education and counseling. Patients should be offered a variety of options for learning about HF according to their individual preferences:

- Videotape
- One-on-one or group discussion
- Reading materials, translators, telephone calls, mailed information
- Internet
- Visits

Repeated exposure to material is essential because a single session is never sufficient. (Strength of Evidence = B)

- It is recommended that during the care process patients be asked to:
  - Demonstrate knowledge of the name, dose, and purpose of each medication
  - Sort foods into high- and low-sodium categories
  - Demonstrate their preferred method for tracking medication dosing
  - Show provider daily weight log
  - Reiterate symptoms of worsening HF
  - Reiterate when to call the provider because of specific symptoms or weight changes (Strength of Evidence = B)
- During acute care hospitalization, only essential education is recommended, with the goal of assisting patients to understand HF, the goals of its treatment, and posthospitalization medication and follow-up regimen. Education begun during hospitalization should be supplemented and reinforced within 1-2 weeks after discharge, continued for 3-6 months, and reassessed periodically. (Strength of Evidence = B)

Disease Management Programs

- Patients recently hospitalized for HF and other patients at high risk should be considered for referral to a comprehensive HF disease management program that delivers individualized care. High-risk patients include those with renal insufficiency, low output state, diabetes, chronic obstructive pulmonary disease, persistent New York Heart Association class III or IV symptoms, frequent hospitalization for any cause, multiple active comorbidities, or a history of depression, cognitive impairment, or persistent non-adherence to therapeutic regimens. (Strength of Evidence = A)
- It is recommended that HF disease management programs include the components shown in Table 8.3, below, based on patient characteristics and needs. (Strength of Evidence = B)

Table 8.3: Recommended Components of a HF Disease Management Program

• Comprehensive education and counseling individualized to patient needs • Promotion of self care, including self-adjustment of diuretic therapy in appropriate patients (or with family member/caregiver assistance) • Emphasis on behavioral strategies to increase adherence • Vigilant follow-up after hospital discharge or after periods of instability • Optimization of medical therapy • Increased access to providers • Early attention to signs and symptoms of fluid overload

- Assistance with social and financial concerns

- It is recommended that HF disease management include integration and coordination of care between the primary care physician and HF care specialists and with other agencies, such as home health and cardiac rehabilitation. (Strength of Evidence = C).
- It is recommended that patients in a HF disease management program be followed until they or their family/caregiver demonstrate independence in following the prescribed treatment plan, adequate or improved adherence to treatment guidelines, improved functional capacity, and symptom stability. Higher risk patients with more advanced HF may need to be followed permanently. Patients who experience increasing episodes of exacerbation or who demonstrate instability after discharge from a program should be referred again to the service. (Strength of Evidence = B)

Advance Directives and End-of-life Care

- Patient and family or caregiver decisions about quality of life and prognosis are recommended as part of the disease management of HF. (Strength of Evidence = C)
- It is recommended that the patients' status be optimized medically and psychologically before discussing the possibility that end-of-life care is indicated. The decision to declare a patient as an appropriate candidate for end-of-life care should be made by physicians experienced in the care of patients with HF. End-of-life management should be coordinated with the patient's primary care physician. As often as possible, discussions regarding end-of-life care should be initiated while the patient is still capable of participating in decision-making. (Strength of Evidence = C)
- End-of-life care should be considered in patients who have advanced, persistent HF with symptoms at rest despite repeated attempts to optimize pharmacologic and nonpharmacologic therapy, as evidenced by 1 or more of the following:
    - Frequent hospitalization (3 or more per year)
    - Chronic poor quality of life with inability to accomplish activities of daily living
    - Need for intermittent or continuous intravenous support
    - Consideration of assist devices as destination therapy (Strength of Evidence = C)
- It is recommended that end-of-life care strategies be individualized, include effective symptom management and avoid unnecessary testing and interventions. (Strength of Evidence = C)
- It is recommended that, as part of end-of-life care, patients and their families/caregivers be given specific directions concerning their response to clinical events if they decide against resuscitation. Inactivation of an implantable defibrillation device should be discussed. (Strength of Evidence = C)
- It is recommended that patients with severe and unresponsive advanced HF have their wishes concerning treatment options and end-of-life care reassessed often, because decisions about resuscitation and palliative care may change over time. (Strength of Evidence = B)

- Patients with HF undergoing end-of-life care may be considered for hospice services that can be delivered in the home, a hospital setting, or a special hospice unit. (Strength of Evidence = C)
- Discussions about the possibility of sudden unexpected cardiac death are recommended for patients with HF. The extent and intensity of the discussion should vary according to the level of risk present. Discussions about the advance directives and cardiopulmonary resuscitation (CPR), including education for family members, should be provided on an individualized basis. (Strength of Evidence = C)

Definitions:

Strength of Evidence

Level A: Randomized, Controlled, Clinical Trials
May be assigned based on results of a single trial

Level B: Cohort and Case-Control Studies
Post hoc, subgroup analysis, and meta-analysis
Prospective observational studies or registries

Level C: Expert Opinion
Observational studies – epidemiologic findings
Safety reporting from large-scale use in practice

Strength of Recommendations

"Is recommended": Part of routine care
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"Should be considered": Majority of patients should receive the intervention.
Some discretion in application to individual patients should be allowed.

"May be considered": Individualization of therapy is indicated

"Is not recommended": Therapeutic intervention should not be used

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations").

The recommendations are supported by randomized controlled clinical trials, cohort and case-control studies, and expert opinion.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- The goals of education and counseling are to help patients, their families and caregivers acquire the knowledge, skills, strategies, and motivation necessary for adherence to the treatment plan and effective participation in self-care.
- Several studies consistently show that heart failure (HF) patients receiving care in a heart failure clinic experience a reduction in subsequent hospitalizations and hospital days, higher quality of life, and an improvement in functional status.

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

It must be recognized that the evidence supporting recommendations is based largely on population responses that may not always apply to individuals within the population. Therefore, data may support overall benefit of 1 treatment over another but cannot exclude that some individuals within the population may respond better to the other treatment. Thus guidelines can best serve as evidence-based recommendations for management, not as mandates for management in every patient. Furthermore, it must be recognized that trial data on which recommendations are based have often been carried out with background therapy not comparable to therapy in current use. Therefore, physician decisions regarding the management of individual patients may not always precisely match the recommendations. A knowledgeable physician who integrates the guidelines with pharmacologic and physiologic insight and knowledge of the individual being treated should provide the best patient management.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Pocket Guide/Reference Cards
Slide Presentation

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

End of Life Care
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Heart Failure Society of America. Disease management in heart failure. J Card Fail 2006 Feb;12(1):e58-69. [135 references] PubMed

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1999 (revised 2006 Feb)

GUIDELINE DEVELOPER(S)

Heart Failure Society of America, Inc - Disease Specific Society

SOURCE(S) OF FUNDING

Heart Failure Society of America, Inc

GUIDELINE COMMITTEE

Comprehensive Heart Failure Practice Guideline Committee

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Committee members and reviewers from the Executive Council received no direct financial support from the Heart Failure Society of America (HFSA) or any other source for the development of the guideline. Administrative support was provided by the Heart Failure Society of America staff, and the writing of the document was performed on a volunteer basis by the Committee. Financial relationships that might represent conflicts of interest were collected for all members of the Guideline Committee and of the Executive Council, who were asked to disclose potential conflicts and recuse themselves from discussions when necessary. Current relationships are shown in Table 1.5 of the "Development and Implementation" companion document (see the "Availability of Companion Documents" field).

GUIDELINE STATUS

This is the current release of the guideline.

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GUIDELINE AVAILABILITY

Electronic copies: Available from the Heart Failure Society of America, Inc. Web site.

Print copies: Available from the Heart Failure Society of America, Inc., Court International - Suite 240 S, 2550 University Avenue West, Saint Paul, Minnesota 55114; Phone: (651) 642-1633

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Heart Failure Society of America. Executive summary: HFSA 2006 comprehensive heart failure practice guideline. J Card Fail 2006 Feb;12(1):10-38.
- Heart Failure Society of America. Development and implementation of a comprehensive heart failure practice guideline. J Card Fail 2006 Feb;12(1):e3-9.

- Heart Failure Society of America. Conceptualization and working definition of heart failure. J Card Fail 2006 Feb;12(1):e10-11.

  Electronic copies: Available from the Heart Failure Society of America, Inc. Web site.

- PowerPoint slides. HFSA 2006 comprehensive heart failure guideline.

  Electronic copies: Available from the Heart Failure Society of America, Inc. Web site.

The following is also available:

- Heart Failure Society of America. Pocket guide. HFSA 2006 comprehensive heart failure practice guideline.

Electronic copies: Not available at this time.

Print copies: Available from the Heart Failure Society of America, Inc., Court International - Suite 240 South, 2550 University Avenue West, Saint Paul, Minnesota 55114; Phone: (651) 642-1633

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on July 31, 2006. The information was verified by the guideline developer on August 10, 2006.

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