Guidelines

Heart Failure Management in Skilled Nursing Facilities

A Scientific Statement From the American Heart Association and the Heart Failure Society of America

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Heart failure (HF) is a complex syndrome in which structural or functional cardiac abnormalities impair the filling of ventricles or left ventricular ejection of blood. HF disproportionately occurs in those ≥65 years of age.[1] Among the estimated 1.5 to 2 million residents in skilled nursing facilities (SNFs) in the United States, cardiovascular disease is the largest diagnostic category, and HF is common.[2,3] Despite the high prevalence of HF in SNF residents, none of the large randomized clinical trials of HF therapy included SNF residents, and very few included patients >80 years of age with complex comorbidities.

Several issues make it important to address HF care in SNFs. The healthcare environment and characteristics of SNF residents are distinct from those of community-dwelling adults. Comorbid illness unrelated to HF (eg, dementia, hip fracture) increases with age >75 years, and these conditions may complicate both the initial HF diagnosis and ongoing management.[4–6] Morbidity and mortality rates are significantly increased for hospitalized older adults with HF discharged to SNFs compared with those discharged to other sites.[7] Transitions between hospitals and SNFs may be problematic.[8] SNF 30-day rehospitalization rates for HF range from 27% to 43%,[7,9,10] and long-term care residents sent to the emergency department are at increased risk for hospital admission and death.[11] The purpose of this scientific statement is to provide guidance for management of HF in SNFs to improve patient-centered outcomes and reduce hospitalizations. This statement addresses unique issues of SNF care and adapts HF guidelines and other recommendations to this setting.

Methods

This scientific statement on HF management in SNFs was developed by a writing group of experts representing nursing, medicine (cardiology, geriatrics, nursing home physicians, and palliative medicine), pharmacology, physical therapy, dietary clinical management, research, and quality of care. Sponsors

See page 286 for disclosure information.

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Table 1. Classification of Recommendations and Level of Evidence

ESTIMATE OF CERTAINTY (PRECISION) OF TREATMENT EFFECT	SIZE OF TREATMENT EFFECT			
	CLASS I *Benefit >>> Risk* Procedure/Treatment **SHOULD** be performed/ administered	**CLASS IIa** *Benefit >> Risk* *Additional studies with focused objectives needed* **IT IS REASONABLE** to perform procedure/administer treatment	**CLASS IIb** *Benefit ≥ Risk* *Additional studies with broad objectives needed; additional registry data would be helpful* Procedure/Treatment **MAY BE CONSIDERED**	**CLASS III** *No Benefit* or **CLASS III** *Harm* Procedure/ Test / Treatment COR III: No benefit — Not Helpful — No Proven Benefit COR III: Harm — Excess Cost w/o Benefit or Harmful — Harmful to Patients
LEVEL A Multiple populations evaluated* Data derived from multiple randomized clinical trials or meta-analyses	■ Recommendation that procedure or treatment is useful/effective ■ Sufficient evidence from multiple randomized trials or meta-analyses	■ Recommendation in favor of treatment or procedure being useful/effective ■ Some conflicting evidence from multiple randomized trials or meta-analyses	■ Recommendation's usefulness/efficacy less well established ■ Greater conflicting evidence from multiple randomized trials or meta-analyses	■ Recommendation that procedure or treatment is not useful/effective and may be harmful ■ Sufficient evidence from multiple randomized trials or meta-analyses
LEVEL B Limited populations evaluated* Data derived from a single randomized trial or nonrandomized studies	■ Recommendation that procedure or treatment is useful/effective ■ Evidence from single randomized trial or nonrandomized studies	■ Recommendation in favor of treatment or procedure being useful/effective ■ Some conflicting evidence from single randomized trial or nonrandomized studies	■ Recommendation's usefulness/efficacy less well established ■ Greater conflicting evidence from single randomized trial or nonrandomized studies	■ Recommendation that procedure or treatment is not useful/effective and may be harmful ■ Evidence from single randomized trial or nonrandomized studies
LEVEL C Very limited populations evaluated* Only consensus opinion of experts, case studies, or standard of care	■ Recommendation that procedure or treatment is useful/effective ■ Only expert opinion, case studies, or standard of care	■ Recommendation in favor of treatment or procedure being useful/effective ■ Only diverging expert opinion, case studies, or standard of care	■ Recommendation's usefulness/efficacy less well established ■ Only diverging expert opinion, case studies, or standard of care	■ Recommendation that procedure or treatment is not useful/effective and may be harmful ■ Only expert opinion, case studies, or standard of care
Suggested phrases for writing recommendations	should is recommended is indicated is useful/effective/beneficial	is reasonable can be useful/effective/beneficial is probably recommended or indicated	may/might be considered may/might be reasonable usefulness/effectiveness is unknown/unclear/uncertain or not well established	COR III: No Benefit is not recommended is not indicated should not be performed/ administered/ other is not useful/ beneficial/ effective COR III: Harm potentially harmful causes harm associated with excess morbidity/mortality should not be performed/ administered/ other
Comparative effectiveness phrases†	treatment/strategy A is recommended/indicated in preference to treatment B treatment A should be chosen over treatment B	treatment/strategy A is probably recommended/indicated in preference to treatment B it is reasonable to choose treatment A over treatment B		

A recommendation with Level of Evidence B or C does not imply that the recommendation is weak. Many important clinical questions addressed in the guidelines do not lend themselves to clinical trials. Although randomized trials are unavailable, there may be a very clear clinical consensus that a particular test or therapy is useful or effective.

*Data available from clinical trials or registries about the usefulness/efficacy in different subpopulations, such as sex, age, history of diabetes, history of prior myocardial infarction, history of heart failure, and prior aspirin use.

†For comparative effectiveness recommendations (Class I and IIa; Level of Evidence A and B only), studies that support the use of comparator verbs should involve direct comparisons of the treatments or strategies being evaluated.

(the American Heart Association [AHA] and the Heart Failure Society of America) identified specific members of the writing group, and others were selected on the basis of known expertise. A literature search was performed using the key words *skilled nursing facility*, *long-term care facility*, *nursing home*, *palliative medicine*, *rehabilitation*, *exercise*, *discharge*, *post-hospital*, and *post-acute* meshed with the key word *heart failure* in PubMed and Ovid. Peer review was performed by experts from scientific societies (American Association of Heart Failure Nurses, AHA, and Heart Failure Society of America). The Classification of Recommendations and Level of Evidence for this statement are described in Table 1.

Definitions

The nomenclature of long-term care facilities varies with locality and region.[12] Long-term care encompasses multiple venues defined by the level of services provided and reimbursement. For the purpose of this scientific statement,