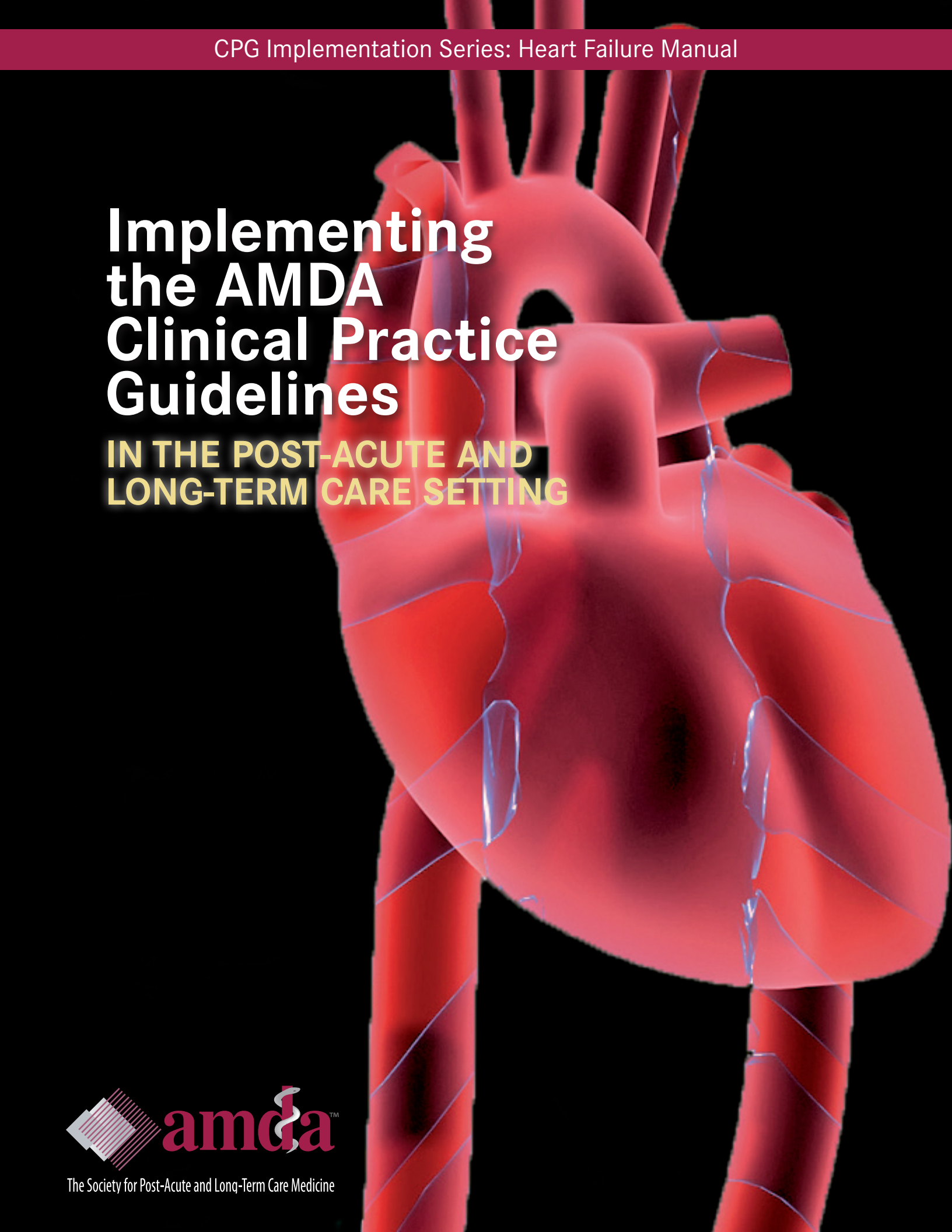
CPG Implementation Series: Heart Failure Manual

Implementing the AMDA Clinical Practice Guidelines

IN THE POST-ACUTE AND LONG-TERM CARE SETTING



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The Society for Post-Acute and Long-Term Care Medicine

AMDA – The Society for Post-Acute and Long-Term Care Medicine™, the professional association of medical directors, attending practitioners, and others practicing in the post-acute and long-term care (PA/LTC) continuum, is dedicated to excellence in patient care and provides education, advocacy, information, and professional development to promote the delivery of quality PA/LTC medicine.

It is with great pleasure that AMDA releases the second edition of its Clinical Practice Guideline (CPG) Implementation Series. This manual is a comprehensive resource, grounded in theory, research, and experience. It brings practical processes, strategies and tools to clinicians and others committed to initiate and sustain practice change in PA/LTC, and support the creation of healthy and thriving work environments. AMDA is delighted to provide this key resource which walks you through each step of implementing the specific CPG.

Now, it is your turn — the health care provider and the organization at which you work — to put these tools and the specific CPG into action, ensuring successful implementation. Creating excellence in PA/LTC and healthy work environments is both an individual and collective responsibility. Evidence and compassion are central pillars to secure quality patient care.

Disclaimer

This Implementation Manual is provided for discussion and educational purposes only. The information in this manual is not intended and should not be construed as a substitute for a practitioner's medical advice or judgment.

The utilization of this CPG implementation manual does not preclude compliance with State and Federal regulation as well as facility policies and procedures. This manual is not a substitute for the experience and judgment of clinicians and caregivers. The AMDA CPGs are not to be considered as standards of care but are developed to enhance the clinicians' ability to practice.

AMDA expressly disclaims responsibility for any adverse effects or consequences resulting from the use of any of the advice or procedures presented or discussed in this Implementation Manual and the corresponding CPG. AMDA shall not be liable for any damages whatsoever resulting from use of this Implementation Manual and the corresponding CPG. The AMDA, its heirs, executors, administrators, successors, and assigns hereby disclaim any and all liability for damages of whatever kind resulting from the use, negligent or otherwise, of this Implementation Manual and the corresponding CPG.

The authors and publisher have made every effort to ensure that the information contained in this manual and the corresponding CPG reflects accepted standards and practices at the time of publication. However, because research evidence and clinical standards continually evolve, the reader is urged to check recent publications and monographs for guidance on treatment decisions where the CPG is concerned.

For more information about the AMDA clinical practice guidelines and implementation manuals or to order copies of these implementation manuals, call 800/876-2632 or 410/740-9743 or visit our web site at www.amda.com.

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[Both appendices reprinted from Registered Nurses' Association of Ontario. (2012). Toolkit: Implementation of best practice guidelines *(2nd ed.).* *Toronto, ON: Registered Nurses' Association of Ontario.]*

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CPG Implementation Manuals
The implementation manuals walk you through each step of implementing the specific clinical practice guideline (CPG). This manual delineates a systematic, well-planned implementation process and is designed to assist nurses and other health care professionals to support evidence-informed clinical and management decision making. It is intended to accompany the CPGs developed by AMDA in order to facilitate their implementation and sustained use in health care settings.

Users will also find this manual helpful in all types of evidence-informed clinical innovation. This manual is based on emerging evidence that the likelihood of achieving successful uptake of clinical practice in health care increases when:

- Leaders at all levels are committed to support facilitation of CPG implementation
- CPGs are selected for implementation through a systematic, participatory process:
  - Barriers and facilitators to CPG use are assessed and addressed
  - Interventions are selected that:
    1. Promote CPG use
    2. Address the barriers
    3. Reinforce the facilitators
- Evaluation of the impacts of CPG use is an integral part of the entire process
- There are adequate resources to complete the activities related to all aspects of CPG implementation

The manuals include:
- Template letters to the care team and family members informing them of your initiative
- A letter to the attending practitioner along with an at-a-glance summary of practitioner responsibilities
- A Task Assignment Grid to select care team members for performance of specific tasks within the CPG, a policies and procedures (P&P) document that lists those P&Ps needed to implement the specific CPG, and a one-page checklist for training staff on those P&Ps
- A list of Quality Measures for the CPG, to use in your facility's quality process
- A Measurement Tool for Clinical Practice Implementation that contains a quantitative process and clinical outcomes measures related to implementation of the CPG, to use pre- and post-implementation
- Three inservices on CD-ROM, one for practitioners, one for licensed nurses, and one for certified nursing assistants, that cover Heart Failure and that discipline's role in carrying out the steps in the CPG
- Slide notes so that anyone can present them
- An instructor's manual
- A CD-ROM with customizable tools

These manuals are a "must have" for medical directors to demonstrate their mastery of F-Tag 309 Quality of Care and F-Tag 240 Quality of Life

- Guided by these premises, this comprehensive manual – grounded in theory, research and experience – brings practical processes, strategies, and tools to clinicians and others committed to initiating and sustaining evidenced based practice change in PA/LTC.
- The manual was developed as a user-friendly resource to facilitate systematic identification and implementation of CPGs. Since the content relies on currently available knowledge, the manual will undergo regular review and updating.

Using the Manual

What is the Purpose of this Manual?

Manual Objective(s)
- To improve the quality of care delivered to patients with heart failure in the PA/LTC settings
- To guide care decisions and to define roles and responsibilities of appropriate care staff
- To serve as a foundation for a systematic approach to recognition, assessment, treatment, and monitoring of heart failure in patients in PA/LTC settings

Target Population
Elderly patients of PA/LTC facilities with heart failure and those at risk for heart failure.

Who is the Manual Designed for?

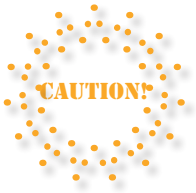
Intended Users

Advanced Practice Nurses	Nursing Assistants	Physician Assistants
Allied Health Personnel	Occupational Therapists	Social Workers
Dietitians	Pharmacy Consultants	Other Practitioners
Medical Directors	Physical Therapists	
Nurses	Physicians	

Icon Identification

IDEA
Specific approaches or new strategies are shared to assist you further when moving knowledge to action through CPG implementation.

These can be shared with your team to assist you as you proceed along your journey.



CAUTION
There are areas that require your close attention to avoid risk.

Remember the goal at hand and understand that you may not please everyone, all the time, know there will be delays, and keep communication clear, consistent, and regular.

Being prepared for these requirements in any change process will assist you to have a positive experience in implementing your chosen CPG.

EVALUATION
Become familiar with the various stages of evaluation, the methods of evaluation, the tools and the time you will need to evaluate your process, progress and the implementation of the CPG.

SUSTAINABILITY
Once the CPG and Implementation Manual has been implemented it is important to build a process for sustainability that may include evaluation, audit, celebration, re-training, publication, presentations.

The sustainability process may require additional resources and these should be identified as part of the entire process for implementation.

Clinical Practice Guideline (CPG) Implementation Series: Heart Failure Manual

Instructor's Guide

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1. Preparing for the Project

Why use CPGs in PA/LTC?

CPGs have been developed to help systematically assess and manage diseases and conditions. They are based on research, evidence and expert consensus.

Facilities caring for the elderly and chronically ill should use evidence-based care wherever possible. A primary objective of geriatrics is not to do harm while trying to do good. Although there is usually more than one approach to manage most conditions and problems, much is also known about inappropriate and harmful interventions that should be avoided.

CPGs are a convenient way to identify both desirable and problematic approaches to caring for PA/LTC patients. CPGs help busy staff and practitioners, who may not have time to keep up with the literature or the training, to interpret what this information means for the care of individual patients.

AMDA–The Society for Post-Acute and Long-Term Care Medicine CPGs emphasize common problems and conditions in the PA/LTC population and factors that influence practices in that setting. CPGs from other sources often limit or omit considerations that are relevant to the LTC population, especially, the frail elderly. For example, many nursing facility patients are at or near the end of life, so care goals may shift from cure of disease or functional improvement to palliation or comfort care. The AMDA CPGs address such situations and suggest appropriate care plan modifications.

The AMDA CPGs are developed by an interdisciplinary workgroup to guide everyone's participation in the care delivery process, including: (1) nurses (2) practitioners (3) directors of nursing, (4) medical directors (5) consultant pharmacists (6) social workers (7) dietitians (8) nursing assistants (9) therapists, and 10) other support workers. Each CPG follows a consistent format. The introduction explains the purpose, development process, and terminology used in the CPGs. The main text covers a definition and the steps of recognition, assessment, treatment, and monitoring of the condition. An algorithm summarizes the steps involved in addressing the condition. The algorithm illustrates key actions and decision points to facilitate its use and reinforce learning.ng.

Evaluate your facility's data sources for potential problems with heart failure management.

Identify areas of potential concern related to heart failure management. Review actual cases as the primary source of information. For example, ascertain if new admissions were screened for risk factors and evaluated for signs and symptoms of heart failure and if the findings were documented in the clinical record. Determine if appropriate interventions were ordered by practitioners and if patients were monitored over time. Conduct both random reviews and selected reviews of individuals with known heart failure. The quality improvement data related to heart failure management will be derived from these collective reviews. Conduct both concurrent reviews (completed while the individual is receiving care or having symptoms) and retrospective reviews (completed on discharged patients, after previous episodes or on closed records).

Other sources of information might include internal quality indicator reports as well as quality assurance reports, Minimum Data Set (MDS) data, medication review issues and pattern of patient or family concerns. Review MDS reports and resident level summaries for patients who flag in areas of concern related to heart failure. For example, look at patients with heart failure to see if they have common risk factors for heart failure exacerbation such as chronic lung disease, uncontrolled hypertension or anemia. Also, check for appropriate follow-up of patients who have or trigger for conditions commonly associated with heart failure such as ascites or increased abdominal girth, dyspnea at rest and tachycardia. Determine if staff and practitioners

are consistently identifying and addressing signs and symptoms that may suggest heart failure or heart failure exacerbation.

Finally, discuss areas of clinical concern with the medical director and consultant pharmacist to determine, for example, how many heart failure patients are on non-steroidal anti-inflammatory drugs (NSAIDS) since these drugs may increase blood pressure and promote sodium and water retention. Also, some calcium channel blockers should be avoided in heart failure patients because their inotropic effects may exacerbate heart failure.

What is your facility's heart failure culture?

Your facility leadership should be committed to improving heart failure, including using the processes and approaches in the Heart Failure CPG. In turn, their commitment will influence the staff and practitioner decisions.

First, review and compare your current approaches to heart failure. How do they compare to those in the AMDA Heart Failure CPG? Are they based on comparable information and evidence from the literature? Do they include similar key steps? Discuss how the information in this CPG could help improve current care approaches.

Use the Heart Failure CPG to help identify risk factors regarding heart failure among your staff and practitioners (see the AMDA Heart Failure CPG, pp. 4-6); for example, staff may not recognize that heart failure can present in various ways or they may not know how to use a common assessment tool.

Your facility probably has a culture of caring, but could nevertheless improve aspects of the current management of heart failure. This manual can help your facility achieve that improvement.

***Familiarize yourself with the AMDA CPG* Heart Failure in the Post-Acute and Long-Term Care Setting.**

As you read the AMDA Heart Failure CPG, its relevance to your PA/LTC setting should become clearer. The CPG implementation project should be a critical component of your overall quality improvement program.

After you read the Heart Failure CPG, you should be prepared to employ the heart failure implementation manual. You will find it helps get the job done while making CPG implementation more practical and less burdensome.

Share Frequently Asked Questions (FAQs) with staff.

As a supplement to the CPG and related policies and procedures, share the Frequently Asked Questions (FAQs) - Heart Failure in the PA/LTC Setting document with supervisors and managers of direct care disciplines in your facility. For example, you might distribute and discuss it at a weekly management meeting or team conference.

It is difficult to estimate just how long it will take to decide to implement this particular CPG. However, you will at least know you are on the right track when the administrator, director of nursing, and medical director all recognize and agree how CPGs and protocols can help improve care. Other key facility managers also need to identify and agree on the value of reviewing and improving care processes and practices.

Introduce CPG implementation to appropriate parties.

The decision to use this CPG to help revamp your approaches to managing heart failure needs to be communicated. The manual contains Template Letters to use (as is or modified) to introduce the Heart Failure CPG implementation project to the practitioners and members of the treatment team. It is best to wait to send out the family letters until after the staff has been trained and the CPG has been implemented to avoid raising family expectations prematurely. The letter introduces the project as a means to improve heart failure management, including many issues not covered by nursing home regulations.

2. Training

The AMDA CPG process systematically follows these steps:

1. **Recognition** – identifying the presence of a risk or condition

2. **Assessment** – clarifying the nature and causes of a condition or situation and identifying its impact on an individual

3. **Treatment** – selecting and providing appropriate interventions for the individual

4. **Monitoring** – reviewing the course of a condition or situation as the basis for deciding to continue, change, or stop interventions

All of the AMDA CPGs follow this "medical care process" as the best way to incorporate scientific information and medical knowledge into the actual care environment. The AMDA CPGs are unique in recommending actions to be taken by various treatment team members in a defined sequence.

Review and reinforce the care process for heart failure.

Heart Failure in the Post-Acute and Long-term Care Setting CPG Implementation Manual contains three sets of "ready-to-use" PowerPoint presentations for training practitioners, licensed nurses and certified nursing assistants. These presentations discuss, in detail, expected actions related to the heart failure process. They should also help identify relevant skills and information prior to beginning the implementation process. (See presentations with speaker notes for Medical Directors and Practitioners, Licensed Nurses, and Certified Nursing Assistants [CNAs].)

The first presentation is intended for medical directors and practitioners. The slides review all steps in the Heart Failure CPG, since the practitioner is involved with all 4 areas of the care process, especially in selecting and prescribing appropriate treatments; the practitioner should also coordinate overall patient management of heart failure. Other presentations cover CPG steps pertinent to nurses and CNAs. The nurse slides provide detail about signs and symptoms of heart failure as well as monitoring the effectiveness and contraindications of drug therapy. The CNA slides cover aspects of the CPG appropriate to their training and responsibilities; primarily observation, reporting, and providing comfort measures for individuals with heart failure.

The following table provides a Summary of the "R.A.T.M." process for heart failure:

Summary of the Heart Failure "R.A.T.M."

Recognition, Assessment, Treatment and Monitoring

RECOGNITION Patients with a history of heart failure are identified and systematically evaluated for risk factors. The process described in the following steps should be conducted, at a minimum:	**ROLE**
• Upon a patient's admission to an PA/LTC facility 1. Does the patient have a previous diagnosis of heart failure? 2. Does documentation suggest or support a diagnosis of coronary artery disease, diabetes or hypertension? 3. Have other diagnoses (e.g. ischemic heart disease, valvular heart disease, etc.) which may be indicative of heart failure, been identified? 4. Is there evidence of previous treatment or hospitalization for heart failure? 5. Have those patients who currently have heart failure been identified and evaluated for signs and symptoms? • Recognition of heart failure in the PA/LTC setting may be complicated by common comorbidities such as COPD or venous insufficiency. • After unexplained weight gain, unexplained cough, increased fatigue	Licensed Nurses Practitioners Others
ASSESSMENT Assessment of the severity of heart failure is important to help guide treatment and to establish realistic care goals. Two characteristic schemes are currently utilized: the New York Heart Association (NYHA) and the American College of Cardiology/American Heart Association (ACC/AHA) classification schemes.	**ROLE**
• Perform a pertinent history and physical • Are the causes of heart failure identified? • Perform further diagnostic testing as indicated • Are risk factors for heart failure identified? • Obtain additional evaluation or consultation as necessary	Licensed Nurses Practitioners Others
TREATMENT All patients with heart failure should be cared for in an environment that is as comforting and supportive as possible. Additional interventions include the following:	**ROLE**
• Adopt a person-centered and goal-guided interdisciplinary care plan describing the treatment approaches for those goals • Set goals for managing signs and symptoms of heart failure • Set goals for the prevention of exacerbations • Implement the care: 1. Medications are one approach to treating heart failure. When medication use is appropriate, individualize selection and administration to meet the patient's needs, taking into account his or her existing conditions and medication regimen.	CNAs Licensed Nurses Practitioners Others

continued

CONTINUED

Summary of the Heart Failure "R.A.T.M."

Recognition, Assessment, Treatment and Monitoring

TREATMENT (continued)

2. Treat exacerbating conditions such as diabetes, hyperthyroidism, anemia, cardiac arrhythmia, fever, infection, ischemic heart disease, uncontrolled hypertension and obstructive sleep apnea

- Address the consequences of the patient's failing heart
- Provide education to facilitate heart failure self-care (e.g., dietary modifications, physical activity, etc.)
- Fluid restriction in acute heart failure is not beneficial and thus unnecessary
- Initiate cardiac rehabilitation for appropriate individuals
- Initiate other appropriate interventions as indicated (e.g., Advance Directives)

MONITORING

Ongoing monitoring of the patient's condition and response to treatment is vital.

ROLE

CNAs
Licensed Nurses
Practitioners
Others

- For heart failure patients, assessment of fluid volume can be achieved by monitoring the patient's weight at least three times per week or as the practitioner prescribes
- Weight gain in a known heart failure patient may be a "clue" the patient may be going into heart failure
- The practitioner should specify the weight change at which he or she wishes to be notified (generally 3-5 lbs.)
- Nursing staff should notify the practitioner if the patient exceeds the specified weight change
- Assessment of the patient's general functional status is also important in the monitoring of the PA/LTC patient with heart failure

SUMMARY

Education regarding heart failure and treatment is an essential element of training and orientation programs for all employees and affiliated professionals in PA/LTC facilities. By implementing the steps described in this Implementation Manual, health care providers can meet the expectations of patients, their families, substitute decision makers and policy makers for adequate compassionate heart failure management in the PA/LTC setting.

Following is an outline of the specific Steps of the "R.A.T.M." process for heart failure.

1. **Recognition**
   - **Step 1** – *Identify individuals with a history of heart failure.* Review the transfer summary and other referral data including the PA/LTC facility data. Copies of laboratory tests [e.g., B-type natriuretic peptide (BNP), electrocardiograms, etc.] may be useful when the patient is transferred from the hospital.
   - **Step 2** – *Identify individuals who currently have symptoms of heart failure.* Practitioners and nurses should evaluate the patient for signs and symptoms of heart failure and document the findings in the patient's medical record. Accurate weights are crucial in the patient with heart failure as weight changes can alert staff to subtle changes in patient condition.
   - **Step 3** – *Evaluate the patient for the presence of risk factors for heart failure exacerbation.*

2. **Assessment**
   - **Step 4** – *Decide if a workup is appropriate.* The goal of evaluation for congestive heart failure (CHF) is to determine if the symptoms are caused by preserved or reduced ventricular function, to assess comorbid diseases that may impact the CHF course or require treatment and to guide treatment.
   - **Step 5** – *Perform appropriate imaging studies to help to elucidate the etiology or severity of heart failure.*
   - **Step 6** – *Decide if interventions for modifiable risk factors and treatment of potentially reversible etiologies are appropriate.*

3. **Treatment**
   - **Step 7** – *Develop an individualized care plan and define treatment goals.*
   - **Step 8** – *Optimize treatment for comorbid and contributing factors as well as cardiac factors as appropriate.*
   - **Step 9** – *Treat fluid volume overload if present.*
   - **Step 10** – *Treat heart failure with reduced LVEF.*
   - **Step 11** – *Treat heart failure with preserved LVEF.*
   - **Step 12** – *Initiate cardiac rehabilitation.*
   - **Step 13** – *Initiate other appropriate interventions as indicated.*
   - **Step 14** – *Determine when the patient has end-stage heart failure.* For patients at or near the end of life, it may be appropriate to switch to a mode of care in which maintaining quality of life is the primary goal. The patient should also be counseled regarding end-of-life planning and encouraged to prepare advance directives if this has not already been done.

4. **Monitoring**
   - **Step 15** – *Monitor the patient's condition and response to treatment.* Different tools can help ensure the front-line nursing staff is trained for prompt recognition and communication of changes to the clinicians. The assessment of fluid volume status by monitoring daily weight at least three times per week (or more at the clinician's discretion) is crucial, as weight gain in a known heart failure patient may indicate the patient is going into heart failure.
   - **Step 16** – *Monitor the facility's management of heart failure.* Included in this Heart Failure Implementation Manual are process and outcome indicators for measuring facility performance in the **R**ecognition, **A**ssessment, **T**reatment and **M**onitoring of heart failure. Facilities may wish to select the indicators most relevant to their population and staff for inclusion in their quality improvement process.

Summarize Practitioner Responsibility

The Summary of Practitioner Responsibilities - Implementing the AMDA Heart Failure CPG document identifies key practitioner roles and tasks in managing heart failure. This document should help practitioners recognize how they can best help the staff and their patients in addressing heart failure.

3. Assessing the Capability of your Facility Infrastructure and Clinical Team

Strategies to remedy knowledge and skill gaps.

As noted previously, a CPG presents a step-wise approach to care that requires specific competencies. Therefore, it will help you to define the knowledge and skills needed to implement the steps in this CPG. For example, heart failure requires the ability to (1) assess heart failure (2) identify signs and symptoms that may suggest heart failure in individuals who currently have heart failure (3) describe risk factors for heart failure exacerbation and (4) determine if the current treatment is effective by seeking information regarding decreased dyspnea at rest or on exertion, decreased fatigue, stable weight within prescribed parameters and lab values relevant to the degree of heart failure. After identifying knowledge and skills related to heart failure and showing the presentations, ask the staff and practitioners to evaluate their current knowledge and skills and to advise you as to where they think they might need help. Important: You will need to reinforce this information through practical "hands on" demonstration in practice sessions or actual patient situations.

"Spot training" can be an efficient way to reinforce your CPG training by offering 15-20 minute in-services on one segment of the CPG. For example, heart failure can be broken into these smaller topics:

- Signs
- Symptoms
- Common risk factors for heart failure exacerbation
- New York Heart Association Heart Failure Classification Scheme
- Indicators of poor prognosis

Also, consider using games to help maintain interest in these sessions, e.g., hangman, concentration, word puzzles etc. (For assistance in creating such games, refer to the web site www.edcreate.com/learnmore.php.

- Make the spot training sessions interactive and creative. For example, you may want to role play being a "Heart Failure Detective." Review the clinical record for conditions related to heart failure and factors that may cause exacerbation of heart failure. Conduct a basic physical assessment for heart failure.
- Finally, the medical director and attending practitioners should be encouraged to take nursing staff with them on clinical rounds to observe and assess specific cases and to identify and document any signs or symptoms of heart failure. Important lessons can be reinforced in 10 minutes or less!

Select team members and assign staff.

The Task Assignment Grid – Heart Failure in the PA/LTC Setting – Staff Selection document allows you to assess and assign tasks to members of the interdisciplinary team, such as the nursing assistant or physical therapist. The key here is to assign tasks to individuals who have the necessary knowledge and skills, as well as knowledge of state scope of practice laws, and to assign and identify those who need to improve knowledge and skills related to specific tasks. This checklist (found on the CD-ROM) can be used to record the evaluation of each person's qualifications and ability to perform the following steps:

- Assess for the presence of heart failure

- Define the causes of heart failure
- Select appropriate treatment for heart failure
- Select and interpret diagnostic studies
- Perform a relevant history and physical
- Identify the risk factors of heart failure
- Select and incorporate appropriate consultations
- Summarize causes of heart failure and assess impact of heart failure on function and quality of life
- Develop and coordinate an interdisciplinary care plan
- Set goals to decrease the risk factors for heart failure
- Reevaluate heart failure signs and symptoms over time
- Adjust treatment as necessary

Remember, assign tasks related to heart failure based on the appropriate scope of practice and licensure, skills and knowledge, and responsibilities identified in protocols and job descriptions.

Develop policies and procedures for heart failure

In addition to matching skills to required clinical competencies, pertinent policies and procedures need to be in place to help standardize these desired approaches. Management and administration should support a systematic approach as identified in the CPG as a means to achieve success. The document entitled Policies and Procedures for the Heart Failure CPG should help to identify key policies and procedures and their content. Next, move to the Checklist for Policies and Procedures To Implement the Heart Failure CPG document. This is a supplemental tool to help identify policies that may need to be revised or developed in order to manage heart failure consistent with the Heart Failure CPG. It can also be used to help track topics for in-service education. Don't forget to involve your medical director in the selection or modification of policies and procedures related to heart failure.

Consider these tips for overcoming obstacles

Organizational "buy in" is crucial before beginning to use a CPG to review and improve care. Time spent establishing a strong foundation is time well spent. Make sure that your key administrative and clinical management staff understand and support the notion of using CPGs to help review and improve care. This will help you to:

- Strengthen your policies and procedures to help ensure compliance with federal and state requirements
- Estimate the time and cost needed to review and modify existing approaches
- Give nurses and practitioners time to review and discuss their responsibilities so they will support, not obstruct, desired approaches
- Measure how changes in processes and practices impact care results
- Implement changes more effectively and efficiently
- More effectively deploy individuals to review and modify processes and practices
- Identify how key facility management and staff can help implement programs to improve care

4. Implementing the CPG

Use indicators for reviewing heart failure to help review processes.

Set a date and have a "kick-off" event to begin the process of improving heart failure management in your facility by using the Heart Failure CPG.

Subsequently, you will want to validate whether the steps in the AMDA Heart Failure CPG are being followed effectively. The Quality Indicators for Reviewing Heart Failure worksheet can help to identify and

document, as part of quality improvement activities, whether desired steps and approaches are being done correctly and consistently.

For example, consider the recognition phase of the CPG.

- Have the staff and practitioners considered or ruled out other significant causes of non-specific symptoms such as unexplained weight gain, new or increasing lower extremity swelling, etc. that could also represent heart failure?
- Or, consider the treatment phase. In performing chart reviews, is there evidence that treatment goal(s) (for example, prevention of exacerbation) have been identified?

Methodical use of this tool should help identify how well the staff and practitioners are following the desired steps.

This worksheet can also be utilized monitor compliance over time. Auditing the records of individuals with heart failure or risk factors for heart failure is an excellent way to determine whether the desired care process is now "standard operating procedure".

5. Evaluating Performance

Use a tool to measure CPG implementation.

You will want to collect data to compare actual to desired performance and results. Staff and practitioners should know what is being measured and how it relates to their assigned functions and tasks. Periodically, you can then interpret the findings for them and identify whether practices and performance are optimal. This can be done partially by establishing "thresholds" for results; for example, compare results to industry norms or to identified best practices.

One widely used approach to measuring performance is to calculate both process and outcome measures as percentages. Measurement Tool for CPG Implementation: Measures for Heart Failure lists such measures. For example, one ***process measure*** in the recognition phase is the percentage of patients who have had a documented heart failure assessment on admission. The percentage is derived by dividing the numerator (the number of individuals with a heart failure assessment on admission) by the denominator (total number of admissions) and then multiplying by 100 to obtain a percent. An example of an ***outcome measure*** is the percentage of patients receiving specific interventions to manage heart failure exacerbations whose frequency and severity of episodes has decreased. It is derived by dividing the number of individuals whose exacerbations have decreased by the number of individuals who have exacerbations and then multiplying the result by 100.

Next, interpret the findings for each audit period and over time, look for trends and patterns. Identify and address individual accountability, i.e., staff and practitioners who have totally or partially met expectations. While it is often difficult to be objective when looking at accountability issues, sustained improvement depends on doing so fairly and objectively. While case mix, seasonal variations, and other factors may be relevant to your interpretations of results, it is important to remain objective and not underestimate the importance of your care delivery processes.

Provide objective feedback regarding performance and relate it to specific job responsibilities; that is, offer enough detail to show individuals what they have done well and how they can improve specific aspects of performance. Communicate findings to staff and practitioners frequently and respectfully. However, do not

gloss over real issues and do emphasize acceptance of legitimate responsibility. Also report general findings in writing to the QA committee and have QA committee documentation summarize corrective actions.

6. Summary

CPG implementation simply means, systematically using recognized management principles and practices to check and improve a facility's care processes and practices, based on the approaches recommended in a CPG. Good CPGs represent current thinking in the management of common conditions and challenges in the PA/LTC population. CPGs also reflect a basic care delivery model that never goes out of style. Thus, the effective use of CPGs is a primary route to efficient, effective care that meets the needs of a facility's population while complying with relevant laws and regulations in an increasingly challenging health care environment.

Good Luck!

To All Practitioners:

This facility is reviewing and striving to improve the care we deliver. One area selected for review is heart failure. Heart failure in frail elderly patients can often be reliably detected and effectively treated, despite the challenges it presents. Our success in addressing heart failure is an important indicator of quality of care. Applying relevant medical and geriatric principles should help to refine and improve the care we deliver.

A key tool in this initiative is the AMDA clinical practice guideline (CPG) on Heart Failure. The CPG gives us a relevant process that we can all utilize. It offers us current information about practices and it covers many issues that the nursing home regulations omit. We want to use the information in this CPG in our education and training programs and in our policies and procedures, to help everyone coordinate their efforts. The main purpose of this collaboration is to ensure adherence to the Heart Failure CPG and to identify barriers to management and treatment. Our responsibility is to provide the necessary support services for the treatment and management of heart failure.

Please review the attached summary of practitioner responsibilities in relation to managing heart failure, as well as the clinical information within the CPG. We need everyone's commitment in order for this project to succeed. I am counting on each of you to help. Our success can help show that we can improve care through voluntary efforts.

Sincerely,

Medical Director

To All Interdisciplinary Care Team Members:

We wish to review and strengthen our approach to heart failure at this facility. Heart failure in frail elderly patients often can be reliably detected and treated effectively, despite the challenges it presents. Our success at managing heart failure in our patients is an important indicator of our quality of care. Applying geriatric principles in all aspects of care should help us meet our patients' needs. In turn, this will help us ensure we are meeting the intent of the nursing home regulations.

One of our key tools is the AMDA Heart Failure Clinical Practice Guideline (CPG). The CPG gives us a framework for our practices and offers information not found in the nursing home regulations. We want to apply the information in this CPG to our policies and procedures, as well as to our education and training programs, to ensure that everyone understands and follows the key steps. The main purpose of this collaboration is to ensure adherence to the heart failure CPG and to identify barriers to completion of management and treatment. Our responsibility is to provide the necessary support services to manage heart failure.

Please review the attached information, including information that is relevant to your responsibilities. For example, nursing assistants and others who have direct patient contact will want to know how they can better recognize when someone is experiencing signs or symptoms of heart failure; licensed nurses will want to be sure they can identify common causes of heart failure.

The success of this project requires everyone's commitment. I am counting on each of you to participate. Our success in this area can help demonstrate that we can improve care through voluntary efforts.

Sincerely,

Administrator

Dear Family Member / Legally Authorized Representative,

We are in the process of improving our patient care. The management of heart failure is one key area we have identified. We have provided our staff, management, and practitioners with information and training regarding the identification and management of heart failure.

If you believe your family member or friend is experiencing heart failure symptoms, please observe and let us know how we are doing. For example, how often do you see staff asking the person about whether they are having difficulty breathing or how well heart failure treatments are working? Do you see your family member making progress in symptom management of heart failure; for example, do they have less shortness of breath on exertion or at rest?

The goal of early identification and treatment of heart failure and prevention of exacerbation of symptoms are the cornerstone of our Heart Failure Clinical Practice Guideline. Achieving these goals requires the participation of family members throughout the course of an individual's care. If you would like more information about the recognition and management of heart failure, or how we are approaching our project to improve our management of heart failure, please let us know.

Your support will help us improve our care.

Sincerely,

Administrator

Policies and Procedures for the Heart Failure CPG

I. Policies and procedures related to **recognition** of heart failure should include:
   a. A common vocabulary to describe heart failure
   b. Important heart failure signs and symptoms that should be included in nursing and practitioner progress notes (ascites, rales, lower limb edema not due to venous insufficiency, etc.)
   c. Instructions regarding heart failure assessment, including a Functional Assessment: who should do it, where it should be documented, how often the assessment should be completed, and desired content
   d. Previous interventions for heart failure and their results, if known
   e. Physical conditions that may affect a person's heart failure (e.g., COPD, coronary artery disease, diabetes, hypertension, etc.)
   f. Medications that may affect heart failure (e.g., ACE inhibitors and βeta-blockers)

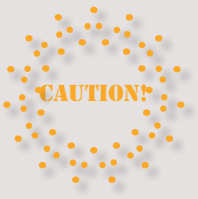
II. Policies and procedures related to the **assessment** of heart failure should include:
   a. Who is responsible for seeking the cause(s) of heart failure, risk factors for heart failure and what is to be documented
   b. How to decide if the cause of a patient's heart failure can or should be treated and what should be documented if it is concluded that the cause cannot or should not be treated
   c. What to document if the practitioner determines the cause of heart failure cannot be identified or it would not make a significant difference if the cause(s) was identified

III. Policies and procedures related to the **treatment** of heart failure should include:
   a. Who is responsible for selecting approaches to heart failure and how will these approaches be completed
   b. How to document appropriate goals for heart failure
   c. When and how to identify and address possible side effects or complications resulting from the treatment of heart failure
   d. Prevention and management of heart failure exacerbation risk factors (e.g., fever, increased salt intake, infection, uncontrolled hypertension, valvular heart disease, etc.)
   e. When and how to offer heart failure interventions

IV. Policies and procedures related to the **monitoring** of heart failure should include:
   a. How often and what is to be included in documentation to demonstrate follow-up monitoring of heart failure
   b. How the staff monitors exacerbation episodes
   c. The approach to adjusting heart failure medications and other interventions appropriately

Checklist for Policies and Procedures
To Implement the Heart Failure CPG

Policies and Procedures	*P&P OK as is*		*P&P revised*		Staff education planned		Staff education complete	
	Yes	No	Yes	No	Yes	No	Yes	No
Recognition								
Assessment								
Treatment								
Monitoring								



- Be sure to write in the date under the Yes or No areas.
- Use with the Policies and Procedures for the Heart Failure CPG.
- Write in the policies and procedures you will need to implement this CPG under each phase of the process.

Recognition – Assessment – Treatment – Monitoring

Possible Heart Failure "Clues" in the MDS 3.0

In addition to section I on the MDS, a combination of MDS "clues" could indicate that the patient is having heart failure. To assess for hidden "clues" look at the patient's MDS to complete the following. One or more checks could indicate the presence of heart failure and should prompt further investigation (although most of them do not by themselves prove that heart failure is present).

	Diseases and conditions that may affect heart failure (diagnosis or signs/symptoms present)
☐	**Anemia** (I0200)
☐	**Atrial Fibrillation or Other Dysrhythmias** (e.g., bradycardias and tachycardias) (I0300)
☐	**Coronary Artery Disease (CAD)** (I0400)
☐	**Hypertension** (I0700)
☐	**Pneumonia** (I2000)
☐	**Septicemia** (I2100)
☐	**Urinary Tract Infection (UTI)** (I2300)
☐	**Wound Infection** (other than foot) (I2500)
☐	**Diabetes Mellitus (DM)** (I2900)
☐	**Thyroid Disorder** (I3400)
☐	**Chronic Obstructive Pulmonary Disease (COPD)** or **Chronic Lung Disease** (e.g. chronic bronchitis) (I6200)
	Associated signs and symptoms
☐	**Abdominal distension or ascites**
☐	**Acute confusion, delerium**
☐	**Decline in functional status**
☐	**Decreased exercise tolerance**
☐	**Dyspnea on exertion**
☐	**Fatigue**
☐	**Increased jugular venous pressure**
☐	**Lower limb edema not due to venous insufficiency**
☐	**Orthopnea**
☐	**Paroxysmal nocturnal dyspnea**
☐	**Rales**
☐	**Third heart sound (S3)**
☐	**Unexplained cough or wheezing, especially at night**
☐	**Weight gain**

A NEW LEAF: A Screening Tool for Direct Caregivers

A: **A**cute agitation /anxiety

N: **N**ighttime shortness of breath or increase in nighttime urination
E: **E**dema in lower extremities
W: **W**eight gain (2 to 4 pounds per week)

L: **L**ightheadedness
E: **E**xtreme shortness of breath lying down
A: **A**bdominal Symptoms (nausea, pain, decreased appetite, distension)
F: **F**atigue

Source: Harrington CC. Evidence-based Guideline: Assessing Heart Failure in Long-Term Care Facilities. J Gerontological Nursing 2008; kg34:9-14.

Heart Failure Flow Sheet

Patient Name: _____

Baseline weight: _____

Baseline BUN/Creatinine: _____

Date	SOB	Cough	Weight	BP	Pulse	Leg edema	Lung exam Rales/wheezing	BUN/Creatinine	K	Diuretic/dose

HEART FAILURE FLOW SHEET

Quality Measures for the Heart Failure CPG

Recognition:

1. Is there evidence of a history or current heart failure documented on admission?
2. Have the signs and symptoms that may suggest heart failure been determined and documented?
3. Has the patient been evaluated for the presence of risk factors for heart failure exacerbation?

Assessment:

1. Has the patient had an appropriate assessment of heart failure using one of the two classification schemes currently utilized?
2. Has the patient received the appropriate workup to determine if the CHF symptoms are caused by preserved or reduced ventricular function, to assess for comorbid diseases that may impact the CHF course and to guide treatment?
3. Is the workup to be considered for prognostication purposes?

Treatment:

1. Is there a care plan for heart failure? Does it define treatment goals?
2. Is treatment for comorbid and contributing factors as well as cardiac factors being optimized?
3. Is fluid volume overload treated?
4. Is the heart failure, especially in those with reduced LVEF, treated with an ACE inhibitor?
5. If plan is to treat with an ACE inhibitor, is the excessive use of loop diuretics avoided since loop diuretics can result in volume depletion resulting in hypotension if an ACE inhibitor is initiated?
6. Is the patient a candidate for an Implantable Cardioverter Defibrillator (ICD) or Cardiac Resynchronization Therapy (CRT)?
7. Does the treatment of heart failure with preserved LVEF include decreasing fluid overload and treating elevated filling pressures?
8. Has cardiac rehabilitation been initiated?
9. Has it been determined if the patient has end-stage heart failure?
10. Has the patient/family been provided with the opportunity for support through hospice or palliative care?

Monitoring:

1. Is the patient's weight monitored at least three times per week?
2. Are electrolytes, renal function, magnesium and BNP (in select patients) monitored?

Quality Indicators for Reviewing Heart Failure

SUPPORTING EVIDENCE FOR AN EFFECTIVE PROCESS	Met	Partial	Not Met	N/A
RECOGNITION				
Identifying the presence of heart failure - There is an effort to identify the presence of heart failure or documentation on admission supports or suggests a diagnosis of CAD, DM or HTN				
- Evaluated for the presence of risk factors for heart failure (e.g., anemia, arrhythmia, CAD, infection, thyroid disease, etc.)				
- Accurate weights, i.e., same time of day, same state of dress and same scale				
ASSESSMENT				
Identifying causes of heart failure - Causes of heart failure are sought **OR** reasons why the individual should not be tested or evaluated are indicated **OR** the reason why identifying causes would not change the treatment is documented				
TREATMENT				
Rationale for treatment - Goals for treating heart failure and its causes are identified				
- Selection of treatment approaches is targeted to the individual's conditions, causes, risks, ability to cooperate, etc.				
- If the heart failure is not readily controlled by initial interventions, other feasible approaches are identified **OR** there is evidence as to why other potentially relevant options were not chosen				
Symptoms and causes - If an identified underlying cause of an individual's heart failure is not treated, there is a documented explanation as to why not				
Rationale for medication selection in presence of adverse drug reaction (ADR) or high ADR risk - If a higher-risk heart failure medication or a dose more likely to be associated with undesired side effects is used, reasons are identified why benefits were considered to outweigh risks, or why another lower-risk medication could not be used				

continued

CONTINUED
Quality Indicators for Reviewing Heart Failure

SUPPORTING EVIDENCE FOR AN EFFECTIVE PROCESS	Met	Partial	Not Met	N/A
MONITORING				
Basis for continuing treatments - There is periodic reassessment of status of the heart failure				
- Anticipated goals of heart failure management are modified based on changes in condition and response to treatment				
- Periodically, there is documentation regarding the success of current treatment and if the treatment should be continued, adjusted or discontinued				
Managing ADRs - There is periodic monitoring for significant effects and complications of the heart failure medication(s)				
- A significant ADR related to a heart failure medication is identified and managed in a timely manner, by changing or discontinuing pertinent medication(s) **OR** there is a clinically relevant explanation as to why alternatives are not feasible				

Measurement Tool for Clinical Practice Guideline Implementation: Measures for Heart Failure

Establish process and clinical outcomes measures before implementing the *Heart Failure in the Post-Acute and Long-Term Care (PA/LTC) Setting Clinical Practice Guideline* (CPG). As much as possible, identify measurable (quantitative) indicators.

Process measures evaluate how well a facility is implementing related processes of care, e.g., number of patients admitted that are assessed for heart failure. Outcomes measures look at measurable changes in a patient's condition as a result of treatment or other interventions (e.g., number of patients with documented reduction of exacerbations). In the past, health care facilities have relied on process measures. Recently, however, quality improvement organizations (QIOs) have begun to demand outcomes measures. Both are important.

Following are suggested quantitative process and clinical outcomes measures related to implementing the AMDA Heart Failure CPG in a PA/LTC facility. These measures are based on the four components of the AMDA care process: Recognition, Assessment, Treatment, and Monitoring. Where noted, certain terms will require additional definition by the facility.

All process and clinical outcomes measures should be defined using selected benchmarks (e.g., national norms or the facility's historical norms), if others are not available.

General Process Measures

Note: "Documentation" refers to written evidence as to whether a procedure/discussion was indicated/done or not indicated/not done.

*Rates (percentages) are obtained by multiplying each calculated fraction by 100. For example, if 15 people were assessed for heart failure out of 45 who should have been assessed for heart failure, then the rate is 15/45 = .33 * 100 = 33.3%.*

All measures marked with an asterisk (*) are applicable for practitioners only.

Heart Failure

Recognition

Measure	Numerator (N) Denominator (D)	Pre-Implementation Rate	3 Month Post-Implementation Rate	6 Month Post-Implementation Rate	9 Month Post-Implementation Rate	12 Month Post-Implementation Rate
% of patients with history of heart failure on admission	N = # of patients with history of heart failure on admission D = # of all new admissions					
% of patients with documentation on admission that supports or suggests a diagnosis of CAD, DM or HTN	N = # of patients with documentation on admission that supports or suggests a diagnosis of CAD, DM, or HTN D = # of all new admissions					
% of patients with signs and symptoms suggestive of heart failure	N = # of patients with signs and symptoms suggestive of heart failure D = # of all new admissions					
% of current heart failure patients weighed accurately, i.e., same time of day, state of dress, same scale	N = # of current heart failure patients weighed accurately, i.e., same time of day, state of dress, same scale D = # of patients weighed with heart failure					
% of patients evaluated for the presence of risk factors for heart failure exacerbation	N = # of patients evaluated for the presence of risk factors for heart failure exacerbation D = # of patients with heart failure					

Assessment

Measure	Numerator (N) Denominator (D)	Pre-Implementation Rate	3 Month Post-Implementation Rate	6 Month Post-Implementation Rate	9 Month Post-Implementation Rate	12 Month Post-Implementation Rate
% of patients assessed for the severity of their heart failure using ability to perform ADLS and participate in activities	N = % of patients assessed for the severity of their heart failure using ability to perform ADLs and participate in activities D # of patients with heart failure					
% of patients with heart failure assessed for need for supplemental O_2 during exercise or at rest	N = # of patients with heart failure assessed for need for supplemental O_2 during exercise or at rest D = # of patients with heart failure					
% of heart failure patients with workup for prognostication purposes	N = # of heart failure patients with workup for prognostication purposes D = # of patients with heart failure					
% of patients with new heart failure ordered chest x-ray to identify presence of effusions, infiltrates and vascular congestion	N = # of patients with new heart failure ordered chest x-ray to identify presence of effusions, infiltrates and vascular congestion D = # of patients with new heart failure					
% of heart failure patients assessed as to whether interventions for risk factors or treatment for reversible etiologies are appropriate	N = # of heart failure patients assessed as to whether interventions for risk factors or treatment for reversible etiologies are appropriate D = # of patients with heart failure					

Treatment

Measure	Numerator (N) Denominator (D)	Pre-Implementation Rate	3 Month Post-Implementation Rate	6 Month Post-Implementation Rate	9 Month Post-Implementation Rate	12 Month Post-Implementation Rate
% of patients with heart failure who have an individualized plan of care with defined treatment goals in collaboration with the patient and caregiver	N = # of patients with heart failure who have an individualized plan of care with defined treatment goals in collaboration with the patient and caregiver D = # of patients with heart failure					
% of heart failure patients with Advance Directives	N = # of heart failure patients with Advance Directives D = # of patients with heart failure					
% of patients with heart failure whose contributing factors such as cardiac arrhythmia, fever, anemia, hyperthyroidism, infection, uncontrolled hypertension, and obstructive sleep apnea, etc. are being treated	N = # of patients with heart failure whose contributing factors such as cardiac arrhythmia, fever, anemia, hyperthyroidism, infection, uncontrolled hypertension, and obstructive sleep apnea, etc. are being treated D = # of patients with heart failure and contributing factors					
% of patients with heart failure who received pneumococcal vaccine	N = # of patients with heart failure who received pneumococcal vaccine D = # of patients with heart failure					
% of patients with heart failure who were offered annual influenza vaccine	N = # of patients with heart failure who were offered annual influenza vaccine D = # of patients with heart failure					
% of patients with chronic heart failure with salt restriction	N = # of patients with chronic heart failure with salt restriction D = # of patients with chronic heart failure					
% of patients with fluid restrictions	N = # of patients with fluid restrictions D = # of patients with heart failure					
* % of heart failure patients with fluid volume overload treated with loop diuretics	N = # of heart failure patients with fluid volume overload treated with loop diuretics D = # of patients with fluid volume overload					

Measure	Numerator (N) Denominator (D)	Pre-Implementation Rate	3 Month Post-Implementation Rate	6 Month Post-Implementation Rate	9 Month Post-Implementation Rate	12 Month Post-Implementation Rate
* % of heart failure patients with reduced LVEF treated with ACE inhibitor	N = # of heart failure patients with reduced LVEF treated with ACE inhibitor D = # of patients with reduced LVEF					
* % of patients with heart failure treated with βeta-blockers	N = # of patients with heart failure treated with βeta-blockers D = # of patients with acutely decompensated heart failure					
* % of patients with heart failure prescribed Digoxin who received a good risk/benefit ratio analysis	N = # of patients with heart failure prescribed Digoxin who received a good risk benefit ratio analysis D = # of patients with heart failure					
* % of heart failure patients with LVEF < 35 referred for ICD (implantable cardioverter-defibrillator) or CRT (cardiac resynchronization therapy)	N = # of heart failure patients with LVEF < 35 referred for ICD (implantable cardioverter-defibrillator) or CRT (cardiac resynchronization therapy) D = # of patients with LVEF < 35					
* % of heart failure patients with target SBP < 150 and target DBP < 90	N = # of heart failure patients with target SBP < 150 and target DBP < 90 D = # of patients with heart failure					

Monitoring

Measure	Numerator (N) Denominator (D)	Pre-Implementation Rate	3 Month Post-Implementation Rate	6 Month Post-Implementation Rate	9 Month Post-Implementation Rate	12 Month Post-Implementation Rate
% of patients with heart failure monitored for condition and response to treatment	N = # of patients with heart failure monitored for condition and response to treatment D = # of patients with heart failure					
% of heart failure patients on ACE inhibitors monitored for adverse side effects (e.g., angioedema, cough, hyperkalemia, hyponatremia, hypotension and renal failure)	N = # of heart failure patients on ACE inhibitors monitored for adverse side effects (e.g., angioedema, cough, hyperkalemia, hyponatremia, hypotension and renal failure) D = # of heart failure patients on ACE inhibitors					
% of heart failure patients on βeta-blockers monitored for adverse side effects (e.g., depression, exacerbation of heart failure, increased shortness of breath, profound fatigue, symptomatic bradycardia or heart block, symptomatic hypotension and sexual dysfunction)	N = #of heart failure patients on βeta-blockers monitored for adverse side effects (e.g., depression, exacerbation of heart failure, increased shortness of breath, profound fatigue, symptomatic bradycardia or heart block, symptomatic hypotension and sexual dysfunction) D = # of heart failure patients on βeta-blockers					
% of heart failure patients with heart failure flow sheet	N = # of heart failure patients with heart failure flow sheet D = # of patients with heart failure					

Clinical Outcome Measures

Measure	Numerator (N) Denominator (D)	Pre-Implementation Rate	3 Month Post-Implementation Rate	6 Month Post-Implementation Rate	9 Month Post-Implementation Rate	12 Month Post-Implementation Rate
% of patients with heart failure who experience adverse effects of pharmacologic therapy	N = # of patients with heart failure who experience adverse effects of pharmacologic therapy D = # of patients prescribed pharmacologic therapy					
% of heart failure patients achieving the target SBP < 150 and target DBP < 90	N = # of heart failure patients achieving the target SBP < 150 and target DBP < 90 D = # of heart failure patients with a target SBP < 150 and target DBP < 90					
% of heart failure patients who are sent to the hospital with an exacerbation	N = # of heart failure patients who are sent to the hospital with an exacerbation D = # of patients with heart failure					

Measures for Heart Failure

Summary of Practitioner Responsibilities

Implementing the AMDA Heart Failure CPG

RECOGNITION
Identifying the presence of heart failure - Periodically ask the nursing staff if the patient is having signs or symptoms of heart failure, especially if they have predisposing risk factors for heart failure exacerbation (e.g., arrhythmia, chronic lung disease, infection, thyroid disease, valvular heart disease, etc.)
- On rounds, ask responsive patients about signs and symptoms of heart failure (e.g., abdominal distension, dyspnea on exertion, dyspnea at rest, decreased exercise tolerance, tachycardia, etc.) that might represent pain
ASSESSMENT
Identifying causes of heart failure - In conjunction with nursing staff, look for or confirm cause(s) of heart failure **OR** explain why the individual should not be tested or evaluated **OR** explain why identifying causes would not change the treatment
TREATMENT
Rationale for treatment - Identify goals (correcting cause, relieving symptoms, increase in tolerance to activity and exercise) in relation to a patient's heart failure - If pertinent, explain why cause(s) of a patient's heart failure should not be treated
Management of heart failure - Select heart failure management approaches (including medication) with the lowest possible risk or likelihood of complications based on the individual's condition, risk factors, ability to cooperate, etc.
- If the heart failure is not readily controlled, help identify other feasible options for heart failure management **OR** identify why continuing current approaches is warranted
Rationale for medication selection in presence of an adverse drug reaction (ADR) or high ADR risk - If a higher-risk heart failure medication or a dose more likely to be associated with undesired side effects is used, explain why benefits outweigh significant risks or why a lower-risk medication could not be used
MONITORING
Basis for continuing treatment - Periodically document status of heart failure
- Evaluate basis for continuing, changing, or discontinuing current heart failure management
Managing ADRs - Seek and manage significant ADRs related to heart failure medication by changing or discontinuing the medication(s) or doses **OR** explain why alternatives are not feasible

Frequently Asked Questions (FAQs)

Heart Failure in the PA/LTC Setting

What is the cost of heart failure in the United States?

The cost of heart failure in the United States was estimated to be $30.7billion and is projected to increase almost 127% to $69.7billion by 2030.

What is the primary diagnosis among patients with heart failure related to hospital admissions?

Congestive Heart Failure (CHF) is the primary diagnosis in more than 1.1 million hospitalizations annually. Among patients with heart failure, in one large population study, hospitalizations were common after heart failure diagnosis with 83% of patients hospitalized at least once and 43% hospitalized at least four times.

What are the symptoms of heart failure?

Symptoms that may suggest heart failure are:
- Abdominal distention
- Acute confusional state, delirium
- Anorexia
- Anxiety or restlessness
- Decline in functional status
- Decreased exercise tolerance
- Dizziness
- Dyspnea at rest
- Dyspnea on exertion
- Fatigue
- Orthopnea
- Paroxysmal nocturnal dyspnea (sensation of shortness of breath that awakens the patient and is usually relieved in the upright position)
- Unexplained cough (typically a dry, nonproductive cough) or wheezing, especially at night

What are risk factors for heart failure exacerbation?

Common risk factors for heart failure exacerbation include:
- Anemia (severe anemia of rapid progressive onset)
- Arrhythmia (e.g. atrial fibrillation)
- Chronic obstructive pulmonary disease
- Coronary artery disease (angina or myocardial infarction)
- Fever
- Increased salt intake
- Infection
- Medication noncompliance
- Medications (e.g. megestrol acetate, NSAIDs, doxorubicin)
- Pulmonary embolism
- Pulmonary hypertension
- Renal failure
- Sleep-disordered breathing
- Thyroid disease (hypo- or hyperthyroidism)
- Uncontrolled hypertension
- Valvular heart disease (e.g. aortic stenosis, mitral regurgitation)

What are the goals of a diagnostic workup?

- Determine the underlying etiology of heart failure, such as an arrhythmia; disease of the pericardium, myocardium, or endocardium; valvular disease; or disease of the great vessels
- Determine whether the symptoms are caused by preserved or reduced ventricular function
- Assess comorbid diseases that may impact the course of CHF or require further treatment
- Provide information for prognostication
- Guide treatment

What are the medications for treating heart failure with LVEF?

- ACE inhibitors (ARBs if patient cannot tolerate ACE inhibitors)
- Aldosterone antagonists (in selected patients)
- βeta-blockers
- Digoxin (in selected patients)
- Diuretics
- Isosorbide dinitrate/hydralazine (in NYHA class III or IV and selected African American patients)

Is heart failure curable?

No, heart failure is not curable. It is a progressive disease associated with decreased life expectancy.

Is palliative or hospice care appropriate for the patient with end-stage heart failure?

The goal of palliative care and hospice care is to maximize the patient's quality of life as they approach life's end and to allow optimal time to provide psychological and physical support for the patient and family.

AMDA HEART FAILURE
Clinical Practice Guideline (CPG)

SLIDE NOTES

For Medical Directors and Attending Practitioners

SLIDE 1: No Notes

SLIDE 2: No Notes

SLIDE 3: No Notes

SLIDE 4:

1. *Yancy et a.l 2013 ACCF/AHA Guideline. Circulation. 2013:128:e240-e327.*

SLIDE 5:

2. *Go AS, Mozaffarian D, Roger VL, et al. Heart disease and stroke statistics–2014 update: A report from the American Heart Association. Circulation 2014; 129: e28-e292. doi: 10.1161/01.cir.0000441139.02102.80 01.cir.0000441139.02102.80 [pii]*
3. *Masoudi FA, Havranek EP, Krumholz HM. The burden of chronic congestive heart failure in older persons: Magnitude and implications for policy and research. Heart Fail Rev 2002; 7(1): 9- 16.*
4. *Adams KF, Jr., Fonarow GC, Emerman CL, et.al. Characteristics and outcomes of patients hospitalized for heart failure in the United States: Rationale, design, and preliminary observations from the first 100,000 cases in the Acute Decompensated Heart Failure National Registry (AD-HERE). Am Heart J 2005; 149: 209-216. Doi: S0002870304004995 [pii] 10.1016 / j.ahj.2004.08.005.*

SLIDE 6: No Notes

SLIDE 7: No Notes

SLIDE 8: No Notes

SLIDE 9: No Notes

SLIDE 10: No Notes

SLIDE 11: No Notes

SLIDE 12:

The NYHA classification scheme – the severity of heart failure is classified symptomatically using functional classification which groups patients according to the amount of effort needed to produce heart failure symptoms (5)

5. *The Criteria Committee of the New York Heart Association. Diseases of the heart and blood vessels: Nomenclature and criteria for diagnosis. 6th edition. 1964. Boston: Little, Brown.*

SLIDE 13: No Notes

SLIDE 14: No Notes

SLIDE 15: No Notes

SLIDE 16: No Notes

SLIDE 17: No Notes

SLIDE 18:

Notes for step 4

Consider the effects of the workup on the patient as unnecessary testing may lead to physical and emotional burdens on patients and their family members and, therefore, may not be indicated.

SLIDE 19: No Notes

SLIDE 20: No Notes

SLIDE 21: No Notes

SLIDE 22:

Determine if the interventions for risk factors or treatment for reversible etiologies are appropriate, available and consistent with the patient's wishes.

SLIDE 23: No Notes

SLIDE 24: No Notes

SLIDE 25:

Define care goals by taking into account the patient's comorbidities, prognosis, life expectancy, cognitive status and preferences, including those expressed in advance care directives. The Seattle Heart Failure Model calculator (http://depts.washington.edu/shfm/) for prognostication of mortality may be helpful when discussing goals with the family.

SLIDE 26:

6. *He J, Ogden LG, Bazzano LA, et al. Risk factors for congestive heart failure in US men and women: NHANES I epidemiologic follow-up study. Arch Intern Med 2001; 161(7): 996-1002.*
7. *Guerci AD, Gerstenblith G, Brinker JA, et al. A randomized trial of intravenous tissue plasminogen activator for acute myocardial infarction with subsequent randomization to elective coronary angioplasty. N Engl J Med 1987; 317(26): 1613-1618.*
8. *Effects of treatment on morbidity in hypertension. II. Results in patients with diastolic blood pressure averaging 90 through 114 mm Hg. JAMA 1970; 213(7): 1143-1152.*
9. *Kostis JB, Davis BR, Cutler J, et al. Prevention of heart failure by antihypertensive drug treatment in older persons with isolated systolic hypertension. SHEP Cooperative Research Group. JAMA 1997; 278(3): 212-216.*

SLIDE 27:

10. *McKelvie RS, Teo KK, McCartney N, et al. Effects of exercise training in patients with congestive heart failure: A critical review. J Am Coll Cardiol 1995; 25(3): 789-796.*

SLIDE 28: No Notes

SLIDE 29: No Notes

SLIDE 30: No Notes

SLIDE 31: No Notes

SLIDE 32: No Notes

SLIDE 33:

11. *Aliti et al. JAMA Intern Med. 2013; 173(12):1058-1064*

SLIDE 34: No Notes

SLIDE 35: No Notes

SLIDE 36: No Notes

SLIDE 37: No Notes

SLIDE 38:

12. *Granger CB, McMurray JJ, Yusuf S, et al. Effects of candesartan in patients with chronic heart failure and reduced left-ventricular systolic function intolerant to angiotensin-converting-enzyme inhibitors: The CHARM-Alternative trial. Lancet 2003; 362(9386): 772-776.*
13. *Cohn JN, Tognoni G. A randomized trial of the angiotensin-receptor blocker valsartan in chronic heart failure. N Engl J Med 2001; 345(23): 1667-1675.*

SLIDE 39: No Notes

SLIDE 40:

14. *Packer M, Colucci WS, Sackner-Bernstein JD, et al. Double-blind, placebo-controlled study of the effects of carvedilol in patients with moderate to severe heart failure. The PRECISE Trial. Prospective Randomized Evaluation of Carvedilol on Symptoms and*

βeta-blockers are indicated for all patients with stable heart failure caused by reduced LVEF in the absence of a contraindication to their use and should only be started in patients with euvolemic and compensated status.

SLIDE 41:

15. *Epstein SE, Braunwald E. The effect of beta adrenergic blockade on patterns of urinary sodium excretion. Studies in normal subjects and in patients with heart disease. Ann Intern Med 1966; 65(1): 20-27.*
16. *Weil JV, Chidsey CA. Plasma volume expansion resulting from interference with adrenergic function in normal man. Circulation 1968; 37(1): 54-61.*
17. *Gaffney TE, Braunwald E. Importance of the adrenergic nervous system in the support of circulatory function in patients with congestive heart failure. Am J Med 1963; 34: 320-324.*

SLIDE 42: No Notes

SLIDE 43:

18. *Comparative effects of therapy with captopril and digoxin in patients with mild to moderate heart failure. The Captopril-Digoxin Multicenter Research Group. JAMA 1988; 259(4): 539-544.*
19. *Dobbs SM, Kenyon WI, Dobbs RJ. Maintenance digoxin after an episode of heart failure: Placebo-controlled trial in outpatients. Br Med J 1977; 1(6063): 749-752.*
20. *Lee DC, Johnson RA, Bingham JB, et al. Heart failure in outpatients: A randomized trial of digoxin versus placebo. N Engl J Med 1982; 306(12): 699-705.*
21. *Guyatt GH, Sullivan MJ, Fallen EL, et al. A controlled trial of digoxin in congestive heart failure. Am J Cardiol 1988; 61(4): 371-375.*
22. *DiBianco R, Shabetai R, Kostuk W, et al. A comparison of oral milrinone, digoxin, and their combination in the treatment of patients with chronic heart failure. N Engl J Med 1989; 320(11): 677- 683.*
23. *Uretsky BF, Young JB, Shahidi FE, et al. Randomized study assessing the effect of digoxin withdrawal in patients with mild to moderate chronic congestive heart failure: Results of the PROVED trial. PROVED Investigative Group. J Am Coll Cardiol 1993; 22(4): 955-962.*
24. *Packer M, Gheorghiade M, Young JB, et al. Withdrawal of digoxin from patients with chronic heart failure treated with angiotensin-converting-enzyme inhibitors. RADIANCE Study. N Engl J Med 1993; 329(1): 1-7.*

SLIDE 44:

25. *The effect of digoxin on mortality and morbidity in patients with heart failure. The Digitalis Investigation Group. N Engl J Med 1997; 336(8): 525-533.*

SLIDE 45:

26. *Matsuda M, Matsuda Y, Yamagishi T, et al. Effects of digoxin, propranolol, and verapamil on exercise in patients with chronic isolated atrial fibrillation. Cardiovasc Res 1991; 25(6): 453-457.*
27. *David D, Segni ED, Klein HO, Kaplinsky E. Inefficacy of digitalis in the control of heart rate in patients with chronic atrial fibrillation: Beneficial effect of an added beta adrenergic blocking agent. Am J Cardiol 1979; 44(7): 1378-1382.*
28. *Farshi R, Kistner D, Sarma JS, et al. Ventricular rate control in chronic atrial fibrillation during daily activity and programmed exercise: A crossover open-label study of five drug regimens. J Am Coll Cardiol 1999; 33(2): 304-310.*
29. *Khand AU, Rankin AC, Martin W, et al. Carvedilol alone or in combination with digoxin for the management of atrial fibrillation in patients with heart failure? J Am Coll Cardiol 2003; 42(11): 1944-1951.*

SLIDE 46:

Beers Criteria – This clinical tool, based on T*he AGS 2012 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults (AGS 2012 Beers Criteria)*, has been developed to assist healthcare providers in improving medication safety in older adults.

The list catalogues medications that cause adverse drug events in older adults due to their pharmacologic properties and the physiologic changes of aging. In 2011, the AGS undertook an update of the criteria, assembling a team of experts and funding the development of the AGS 2012 *Beers Criteria* using

an enhanced, evidence-based methodology. Each criterion is rated (quality of evidence and strength of evidence) using the American College of Physicians' Guideline Grading System, which is based on the GRADE scheme developed by Guyatt et al.

The full document together with accompanying resources can be viewed online at www.americangeriatrics.org.

SLIDE 47: No Notes

SLIDE 48: No Notes

SLIDE 49: No Notes

SLIDE 50:

1. *Yancy et a.l 2013 ACCF/AHA Guideline. Circulation. 2013:128:e240-e327.*

SLIDE 51: No Notes

SLIDE 52:

Despite the prevalence of morbidity and mortality related to heart failure with preserved LVEF, no results are available from prospective, randomized, blinded multicenter trials to guide treatment decisions.

SLIDE 53: No Notes

SLIDE 54: No Notes

SLIDE 55: No Notes

SLIDE 56:

Note that many LTC patients possess multiple comorbidities and may have been functioning outside of "normal" laboratory value or vital sign ranges for many years. Guidance from the physician on patient-specific ranges is critical for proper exercise prescription and safe patient progress.

SLIDE 57: No Notes

SLIDE 58:

When a patient who has a DNR/AND (Do Not Resuscitate/Allow Natural Death) order is hospitalized, the facility should strive to communicate to the staff treating the patient in the hospital and making them aware of the patient's wishes with regard to life-sustaining treatment in the event of a cardiopulmonary arrest. Many states now implement programs such as the Physician Orders for Life- Sustaining Treatment (POLST; POST; MOST and others).

SLIDE 59: No Notes

SLIDE 60: No Notes

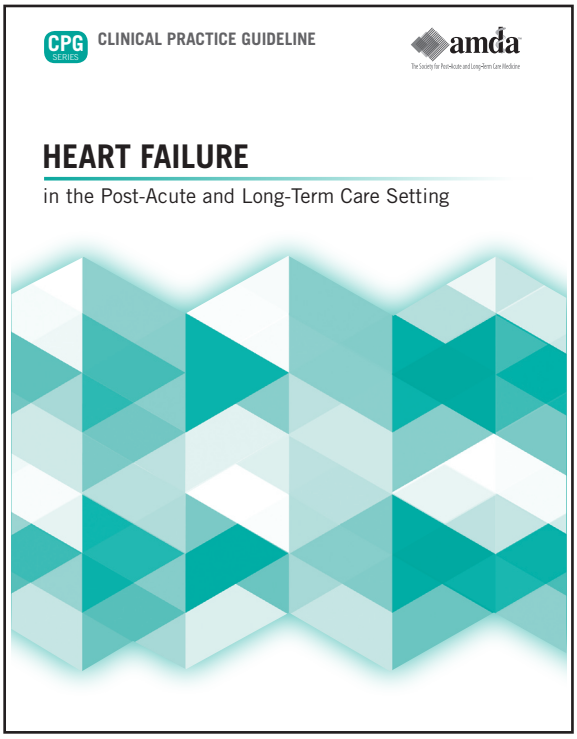
SLIDE 61: No Notes

SLIDE 62: No Notes

AMDA HEART FAILURE Clinical Practice Guideline (CPG)

SLIDE NOTES

For Licensed Nurses



SLIDE 1: No Notes

SLIDE 2: No Notes

SLIDE 3: No Notes

SLIDE 4:

1. *Yancy et a.l 2013 ACCF/AHA Guideline. Circulation. 2013:128:e240-e327.*

SLIDE 5:

2. *Go AS, Mozaffarian D, Roger VL, et al. Heart disease and stroke statistics–2014 update: A report from the American Heart Association. Circulation 2014; 129: e28-e292. doi: 10.1161/01.cir.0000441139.02102.80 01.cir.0000441139.02102.80 [pii]*
3. *Masoudi FA, Havranek EP, Krumholz HM. The burden of chronic congestive heart failure in older persons: Magnitude and implications for policy and research. Heart Fail Rev 2002; 7(1): 9- 16.*
4. *Adams KF, Jr., Fonarow GC, Emerman CL, et.al. Characteristics and outcomes of patients hospitalized for heart failure in the United States: Rationale, design, and preliminary observations from the first 100,000 cases in the Acute Decompensated Heart Failure National Registry (AD-HERE). Am Heart J 2005; 149: 209-216. Doi: S0002870304004995 [pii] 10.1016 / j.ahj.2004.08.005.*

SLIDE 6: No Notes

SLIDE 7: No Notes

SLIDE 8: No Notes

SLIDE 9: No Notes

SLIDE 10: No Notes

SLIDE 11: No Notes

SLIDE 12: No Notes

SLIDE 13:

The NYHA classification scheme – the severity of heart failure is classified symptomatically using functional classification which groups patients according to the amount of effort needed to produce heart failure symptoms (5)

5. *The Criteria Committee of the New York Heart Association. Diseases of the heart and blood vessels: Nomenclature and criteria for diagnosis. 6th edition. 1964. Boston: Little, Brown.*

SLIDE 14: No Notes

SLIDE 15: No Notes

SLIDE 16: No Notes

SLIDE 17: No Notes

SLIDE 18: No Notes

SLIDE 19: No Notes

SLIDE 20: No Notes

SLIDE 21: No Notes

SLIDE 22:

The practitioner should determine if the interventions for risk factors or treatment for reversible etiologies are appropriate, available and consistent with the patient's wishes.

SLIDE 23: No Notes

SLIDE 24: No Notes

SLIDE 25:

Define care goals by taking into account the patient's comorbidities, prognosis, life expectancy, cognitive status and preferences, including those expressed in advance care directives.

SLIDE 26:

6. *He J, Ogden LG, Bazzano LA, et al. Risk factors for congestive heart failure in US men and women: NHANES I epidemiologic follow-up study. Arch Intern Med 2001; 161(7): 996-1002.*
7. *Guerci AD, Gerstenblith G, Brinker JA, et al. A randomized trial of intravenous tissue plasminogen activator for acute myocardial infarction with subsequent randomization to elective coronary angioplasty. N Engl J Med 1987; 317(26): 1613-1618.*
8. *Effects of treatment on morbidity in hypertension. II. Results in patients with diastolic blood pressure averaging 90 through 114 mm Hg. JAMA 1970; 213(7): 1143-1152.*
9. *Kostis JB, Davis BR, Cutler J, et al. Prevention of heart failure by antihypertensive drug treatment in older persons with isolated systolic hypertension. SHEP Cooperative Research Group. JAMA 1997; 278(3): 212-216.*

SLIDE 27: No Notes

SLIDE 28:

10. *McKelvie RS, Teo KK, McCartney N, et al. Effects of exercise training in patients with congestive heart failure: A critical review. J Am Coll Cardiol 1995; 25(3): 789-796.*

SLIDE 29: No Notes

SLIDE 30: No Notes

SLIDE 31: No Notes

SLIDE 32: No Notes

SLIDE 33: No Notes

SLIDE 34:

11. *Aliti et al. JAMA Intern Med. 2013; 173(12):1058-1064*

SLIDE 35: No Notes

SLIDE 36: No Notes

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Other medications for the treatment of heart failure include:

- Aldosterone antagonists
- Isosorbide dinitrate/hydrlazine
- Calcium channel blockers

SLIDE 50: No Notes

SLIDE 51:

1. *Yancy et a.l 2013 ACCF/AHA Guideline. Circulation. 2013:128:e240-e327.*

SLIDE 52: No Notes

SLIDE 53:

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SLIDE 54: No Notes

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SLIDE 60: No Notes

SLIDE 61: No Notes

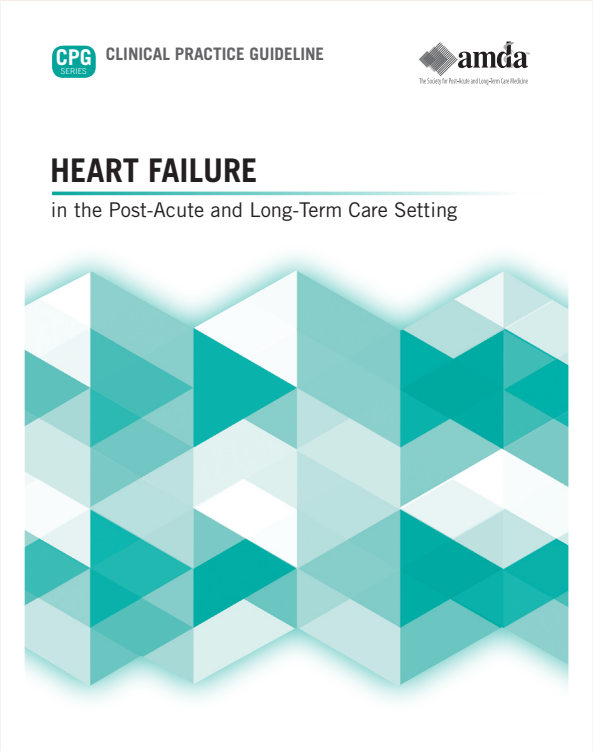
SLIDE 62: No Notes

SLIDE 63: No Notes

AMDA HEART FAILURE Clinical Practice Guideline (CPG)

SLIDE NOTES

For Certified Nursing Assistants



SLIDE 1: No Notes
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SLIDE 3: No Notes
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SLIDE 12: No Notes

Heart Failure: Resources

Consumer Tools

1) Understanding your risk for Heart Failure:

   http://www.heart.org/HEARTORG/Conditions/HeartFailure/UnderstandYourRiskforHeartFailure/Understand-Your-Risk-for-Heart-Failure_UCM_002046_Article.jsp

2) What IS Heart Failure? Downloadable PDF for Consumer Education:

   http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300315.pdf

3) An interactive view of Heart Failure in progress:

   http://watchlearnlive.heart.org/CVML_Player.php?moduleSelect=hrtflr

4) The warning signs of Heart Failure:

   http://www.heart.org/HEARTORG/Conditions/HeartFailure/WarningSignsforHeartFailure/Warning-Signs-of-Heart-Failure_UCM_002045_Article.jsp

5) Heart Failure Prevention:

   http://www.heart.org/HEARTORG/Conditions/HeartFailure/PreventionTreatmentofHeartFailure/Prevention-Treatment-of-Heart-Failure_UCM_002048_Article.jsp

Appendix 1

Appendix reprinted from Registered Nurses' Association of Ontario. (2012). Toolkit: Implementation of best practice guidelines *(2nd ed.). Toronto, ON: Registered Nurses' Association of Ontario.*

Appendix 3.1 – Facilitators and Barriers: Questions to Guide You

These charts are a resource to help raise questions for the planning team as you plan for implementation. The answers to these questions will help you devise strategies to help overcome barriers and will be essential in assuring successful outcomes.

Evidence-related factors

Ensuring you have the best evidence for your clients, setting and staff will provide a solid basis for proceeding. Faith in the evidence and the ability to convince others that it is the right thing to do and the right time to do it will help in minimizing or removing barriers and facilitating your implementation

Barriers/Facilitators		Questions to consider
Accessibility	Awareness of where and how to access relevant guidelines	How might you display the guideline/recommendations to catch attention in your workplace? Posters? Bedside charts? Newsletters? Meeting rooms?
Understandability/ Complexity	Level of understanding and how to implement it in practice	Are the recommendations clear and easy to understand? If not, how might you make them so? Provide real-world examples, relevant to your setting Who has used it in your hospital? In a similar setting elsewhere? Who is the end user of the recommendations? Tailor education to their needs in a respectful and interactive way. (using principles of adult characteristics *) Are there RNAO Best Practice Champions on this team(s) that could be enlisted to help?
Ease of implementation	Ease of implementation of guideline into current practice environment	Who in your organization is looked up to, either in formal in leadership or on your team? How might you engage those people to help promote using the evidence? How can the implementation flow into current work to make it ease into practice? Does it need to be broken into steps?

Believability	Quality of the evidence on which the guideline is based	How can you communicate the evidence to assure that what you are using is well founded? Has been successful elsewhere? How can you provide for time to discuss and bring forward any disagreements openly? How can you be open to opposition, provide discussion and if valid concerns, find consensus? Where could you run a pilot to either show success or provide learning on how to improve implementation?
Compatibility	Compatibility with what is already known, believed and done	What examples can you provide where the guideline fits with current thinking, beliefs, and values? For your client population? For the care providers? For the organization? How can I involve those who will be using the guideline in the implementation process? Can they be on the committee? Can they help with development of a tool? Could they provide feedback at certain points in the planning? Can they be part of a pilot?
Timing	Number of guidelines available	What other guidelines or other implementations are being planned during the timeframe you plan to implement? If there are others, is there any opportunity to combine efforts, or is an adjustment or delay needed to avoid over taxing staff?

Target audience related factors		
Barriers/Facilitators		**Questions to consider**
Health-Care Providers		
Attitudes	Attitudes towards research use in practice	What have their previous experiences been with evidence based changes in practice? What went well? What didn't go well? What can you learn from those stories to modify your approach? Has there been a positive experience within your facility/ organization that you can use to highlight?
Knowledge/Skills	Level of knowledge and skill	Who will need education? What level of education will be required? (i.e. client education is recommended to be at Gr.6 level). Do you need to educate on all recommendations? Are some recommendations already current practice? Can you focus on only those that need changing?
Comfort/confidence	Level of comfort and confidence	How can you provide a supportive environment? Are you comfortable dealing with concerns and disagreement? How will you provide positive feedback where appropriate?
Time	Time to read and implement guidelines	How can you provide time needed for the team members to read and implement the guideline? How can you reach those on shifts or those on leaves? When could you schedule sessions to reach as many members as possible?
Motivation to change	Belief in ability to bring about change	Has there been a successful change in the past? What factors helped in that success? How can you provide encouragement at all stages of the implementation? What would be an incentive in your workplace? Does the team respond well to case studies? To opportunities to highlight their area to the rest of the organization? To snacks with education?
Buy-in	Belief that guideline will make a difference	How can you show the difference between current practice and the recommendations? Would a chart help? Would a visual depiction of the current outcomes versus possible outcomes work?
Patient/Client related factors		
Knowledge	Knowledge of guideline recommendations	How will you provide client education? Are your materials accessible? (literacy level, multiple media, available to those with disabilities) Who will assure they are available at implementation and into the future? Where will they learn best? (during hospitalization, at home, in clinic)?

Access	Access to required resources	What resources are needed for clients when implementing? Will they need more labs? Supplies? Additional care? Will any current resources no longer be needed? How will you communicate to the areas/ organizations affected?
Team		
Opinions of others	Degree of consensus between / within professions	Is senior leadership openly supportive of this implementation? If not, how can you enlist their support? Can they role model the change needed? Who on the team is not directly involved in the implementation, but should be kept involved in the plans? How can you engage them in discussion and take into account their feedback?
Expectations	Clarity of expectations	How will you plan and communicate the implementation so that everyone is clear on what is changing, how it will change and their role in the change?
Exchange of information processes (i.e., communication)	Opportunities to exchange information	How is education delivered currently? How is it communicated? How well does it work? If it works well, could the education needed for implementation use this format? Do they learn well with in-services? Self-learning? Online learning? Is there funding for attending a workshop or conference? Has the health-care team been exposed to evidence-based practice? If not, could some education about research be provided? Would a journal club work in this setting? Are they able to access resources to help with clinical appraisal of research? For example, are librarian resources available? Could you link with academic partners?
Cohesiveness	Ability of team to work together	Does the team work well together? Does the team have a history of collaboration? If not, how might you build some skills doing small implementations? How might you access and use team-building activities to support the change in practice?

Resource Related Factors		
Barriers/Facilitators		**Questions to consider**
Human resources	Presence of adequate staff	How can you ensure there will be extra staff to allow for education sessions? Will additional staff be needed for those on the planning committee? During implementation? During evaluation? Do you have leadership support for needed staffing?
Financial resources	Availability of financial resources necessary to implement the guideline	What will the cost be to implement? Have you costed out not just supplies and educational materials, but also replacement costs for staffing? What will be on the ongoing costs of equipment or documentation materials? Where could you look for funding other than the operational budget? Foundations? Fundraising? Professional organizations? Government?
Time as a resource	Ensure that target audience have enough time to engage in implementation efforts	What else is going on in the unit or facility that might demand your time, and the time of those changing their practice or the leadership? How much time will be needed for the planning stage? Education stage? Evaluation? Have you built a realistic timeline (most projects take longer than expected)?
Physical resources (e.g., equipment and supplies) (3)	Access to required equipment and supplies	Do you need access to computers for education/implementation? Are they available? What supplies are needed? Who will order and put in place for implementation and ongoing? Is capital equipment needed? What is the process and timeline for getting what is needed?
Space	Adequacy of physical facilities for implementation	Where will learning take place? Do people need to get away from the clinical area to focus? Is the room big enough for the groups? Is the room equipped with necessary tables/chairs, LCD/laptop/screen, flipcharts, etc.?

Organization-related factors		
Barriers/Facilitators		**Questions to consider**
Leadership	Presence of effective leaders	Are they visible and accessible to the team members when they have concerns? Do you have leader support for team member time, educational activities and the acquisition of needed equipment and supplies?
Scope of practice	Assure guideline recommendations are consistent with relevant staff's scope of practice	Is this within staffs' scope of practice? Would a medical directive be required? Is this implementation supported by the relevant professional associations? How might you engage professional associations/unions in selecting and implementing? Do they have policies or materials that support the recommendations?
Existing policy and procedures	Fit with existing policies and procedures	What policies currently in place might support the recommendations? What will need to be changed to reflect the new practices? Are these corporate? Profession specific? Unit/clinic specific? Who owns these and needs to be involved?
Change agents/ Opinion leaders	Presence of effective change agents/opinion leaders	Do senior nurses role model positive clinical leadership? Who on this team might you target to help champion this implementation? Is someone passionate about these recommendations, this patient population, the potential outcomes that can be achieved?
Workload	Manageable workload	Does the complexity of clients impact the implementation of these recommendations? Will implementation add or decrease workload? Will the complexity of the client's condition impact measurement of outcomes?
Concurrent projects (changes)	Concurrent projects (may act as a barrier or a facilitator)	What other change projects are happening during the time frame of implementation? Too many changes at once can overwhelm a team.
Priorities	Concurrent with organizational priorities	What are the corporate priorities? Does this implementation complement the strategic goals? How can you engage stakeholders early in the guideline selection and implementation process? How can you educate senior leadership to show why the new guideline should be a priority?
Organizational approval processes	Speed at which administrative/organizational process works	Who has to approve the project? The financing?
		What is the turn-around time for decisions in the organization? How far ahead do you need to be planning?

Appendix 2

Appendix reprinted from Registered Nurses' Association of Ontario. (2012). Toolkit: Implementation of best practice guidelines *(2nd ed.). Toronto, ON: Registered Nurses' Association of Ontario.*

Action Plan Template:

Instructions: Use this template to develop your implementation action plan. You will need to complete the columns and identify specific activities under each of the major activities identified in the template.

#	Activity	Target Date	Person responsible	Outcome/ deliverables	Progress
1.	Identification of project lead, champions and/or the group who will lead the identification and implementation of a BPG: a) Identify skill and role requirements b) Communicate/recruit interested individual or group c) Secure participation of project lead d) Ensure project lead has clear mandate and resources required to start the planning process				
2.	Identification of a BPG: a) Identify stakeholders who will participate in the identification, assessment and selection of a BPG b) Access the AGREE II instrument c) Ensure understanding and knowledge about the use of the AGREE II instrument d) Search and retrieve all available BPGs in the topic area of interest to the organization e) Conduct the appraisal exercise f) Present the data to the group involved in the appraisal exercise. Decide on a BPG based on its quality and content g) Communicate the decision to relevant stakeholders.				
3.	Identification, analysis and engagement of stakeholders: a) Define scope of implementation— extent of implementation b) dentify stakeholders— use team approach to identify. c) Using team, collect data about the stakeholders–use template provided. d) Organize the data and analyze— again use a team approach— strive for consensus. e) Determine strategies that will be used to influence, support and engage stakeholders in different capacities. f) Update the action plan based on strategies identified.				

#	Activity	Target Date	Person responsible	Outcome/ deliverables	Progress
4.	Insertion of stakeholder strategies and actions once identified.				
5.	Completion of environmental readiness assessment.				
6.	Identification and planning of specific implementation strategies: a) Identify the barriers and facilitators from the environmental assessment. b) Involve your relevant stakeholders, choose intervention strategies. Choose interventions based on available information, effectiveness, and fit with the organization and its members.				
7.	Update of action plan, based on implementation strategies identified.				
8.	Development of plan for evaluation: a) Identify available sources of evaluation support—expertise, data collection, etc. (may want to start with your Quality Council) b) Develop evaluation plan. c) Operationalize the plan.				
9.	Update of action plan based on results of the evaluation plan.				
10.	Identification of resources required for implementation: a) Use budget worksheets provided on the diskette. b) Involve implementation team and relevant stakeholders to ensure support for the completed budget. c) Develop strong argument for the budget. d) Identify ways to obtain funding from non-operational sources first – e.g. revenue streams, partnerships with specific vendors, etc. (Consider any conflict of interest) e) Present budget and sources of revenue to the responsible organizational management level.				
11	Identification of monitoring processes.				
12.	Plan for celebration, marking milestones.				

Notes


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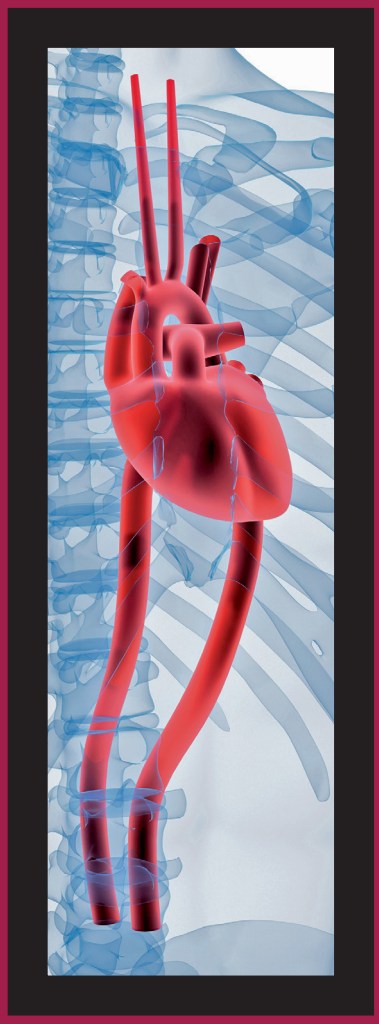

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