



## **The Role of Early Patient Recognition of Signs and Symptoms in Reducing Readmissions of HF and AMI Patients**

### **How to use this presentation**

After viewing this presentation, you will be able to:

- Understand the benefits of promoting patient recognition of signs and symptoms in your hospital
- Be able to explain the importance of patient recognition of signs and symptoms to others
- Use these slides as notes or visual aids for your own presentation on the topic

# The Importance of Patient Recognition of Signs and Symptoms for Reducing Readmissions

## Reduce Risk and Cost

HF often requires frequent hospitalizations for symptom management.<sup>5</sup> Patient failure to recognize and respond to worsening symptoms before they reach an acute level is a common cause of preventable readmissions<sup>15,16</sup>

**Self care for managing signs and symptoms helps to reduce:**

- **Hospitalization:** Studies have shown that self-care activities can significantly reduce HF hospitalizations.<sup>20</sup>
- **Mortality:** HF patients who carry out self-care at an above average level are much less likely than patients who are below average in self-care ability to die or be admitted to the hospital.<sup>20</sup>
- **Cost:** HF patients who are confident in their ability to perform self-care have lower inpatient costs than patients who do not perform self-care or those with low confidence.<sup>20</sup>



## Improve Patient Quality of Life

Successful management of heart failure requires patient behavior change through healthy choices.<sup>23</sup> Symptom management is key to managing heart failure and improving patient quality of life.

Most HF patients have poor symptom recognition.<sup>16, 21</sup> HF Patients need to have the ability to recognize symptoms in order to successfully manage their heart failure.<sup>16</sup> Patients who can recognize symptoms are able to participate in other self-care behaviors successfully.<sup>16</sup>



## Signs and Symptoms of Heart Failure and Patient Recognition

## Signs and Symptoms of Heart Failure

Symptom management should address the frequency and severity of symptoms, and the distress level of patients while experiencing these symptoms.<sup>28</sup>

Common HF Symptoms can include:<sup>28,1,23,25</sup>

**Dyspnea**

**Fatigue**

Pain

Orthopnea

**Edema**

Loss of appetite

Anxiety

Depression

Sleep disruption

Changes in weight

Dizziness

**Confusion**

**Increased swelling in hands or feet**

Constipation

**Nausea**

**Cough**

Impotence

Muscle cramps

Weakness

Coldness

Palpitations

Gout

Effects on eye sight

Hot flashes

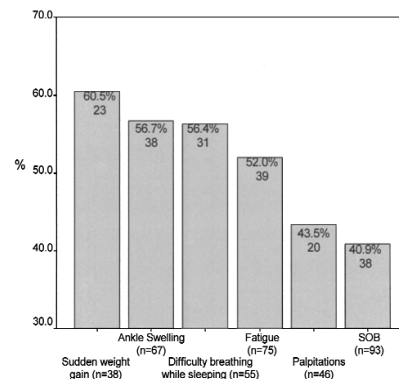
Unsteadiness

Decreased urination

## Understanding Symptoms

- Heart failure patients often do not have adequate knowledge about the causes, symptoms, and effects of chronic heart failure.<sup>6,20</sup> Studies have shown that over 50% of HF patients did not know the cause of their symptoms.<sup>5,16</sup> Similarly, one-third of HF patients attributed their HF symptoms to unrelated conditions.<sup>5</sup>
- This may be because HF symptoms may be subtle at first and easily mistaken with normal signs of aging or drug side effects.<sup>16</sup> Because of their lack of knowledge about what causes symptoms, patients are unable to prevent intensification of symptoms.<sup>6,20</sup>

Patients reporting an inability to easily recognize their symptoms as evidence of heart failure <sup>2</sup>



## Monitoring Symptoms

- HF patients often delay seeking care after HF symptoms begin.<sup>20</sup> They may wait days or weeks after symptoms appear to seek medical attention.<sup>20,23</sup> The cause of the delay may be due to patients not monitoring their symptoms or not being able to recognize their HF symptoms.<sup>5,15,6</sup> Patients report that they rarely monitor their symptoms.<sup>3</sup>



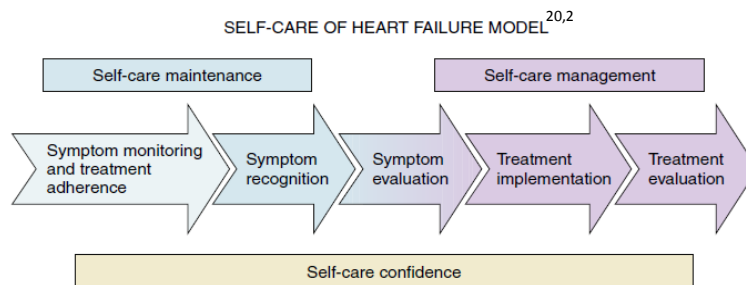
- In a study about heart failure patients seeking medical care for symptoms, though 87% of HF patients believed their symptoms could be serious, 80% waited for the symptoms disappear.<sup>5</sup> However, research shows that 50% of HF patients who delay seeking treatment for worsening symptoms did not realize that their health status was deteriorating.<sup>15,16</sup>

## Patient Self-care

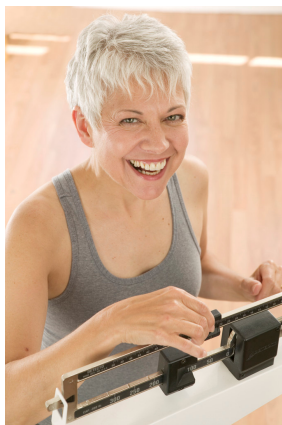
## Defining Self-Care

Self-care is the decision making process that patients use in the real world regarding behaviors such as monitoring and responding to symptoms and adhering to treatment.<sup>20,2</sup> Self care includes the recognition of classic and atypical symptoms.<sup>23</sup>

Patients may find it difficult to engage in self-care due to the necessary behavior changes.<sup>20</sup> “Such changes may include altering diet, alcohol intake and smoking behaviors, and adapting everyday routines to accommodate regular exercise.”<sup>21</sup>



## Self-Care Model of Heart Failure



- **Maintenance** entails symptom monitoring and treatment adherence. Patients who monitor themselves are more likely to seek treatment in a timely manner.<sup>16</sup>
- **Symptom recognition** entails recognizing when HF symptoms have changed. This will help patients to be able to respond to serious issues more quickly.<sup>16</sup>
- **Symptom evaluation** describes the process a patient uses to distinguish between important and unimportant symptom changes.<sup>16</sup>
- **Treatment implementation** entails taking action in response to change in symptoms. Action may require guidance from healthcare providers.<sup>16</sup>
- **Treatment evaluation** will ensure that patients are receiving the most effective treatments.<sup>16</sup>

## Recognizing Symptoms and Self-Care

Patients who are able to recognize early signs and symptoms are more likely to engage in self care.<sup>20</sup>

**Areas of self care for HF patients include:** <sup>20,18</sup>

- Dietary Adherence
- Fluid Restriction
- Alcohol Restriction
- Weight Loss
- Exercise
- Smoking Cessation
- Preventive Behaviors
- Nonprescriptive Medication



## Foundation for Self-Care

- **Skill Development:** People may need to learn how to prepare healthy meals, or read food labels.<sup>20</sup>
- **Behavior change:** Motivational interviewing creates an increased confidence and understanding of HF in patients.<sup>20</sup>
- **Family support:** Social support is associated with increased medication adherence and reduced readmission rates. HF patients lacking social support more often have psychological distress, which contributes to poor self-care.<sup>20,16</sup>
- **Systems of care:** Disease management and care coordination can ease patient transitions into different care settings.<sup>20</sup>



# Health Literacy and Patient Readiness

## Health Literacy



Health literacy describes an individual's cognitive and social skills determining their motivation and ability to gain access to, understand and use information for improving and maintaining health. Health literacy creates empowerment through increasing access to health information and increasing a person's ability to use information.<sup>26</sup>

In a study that measured the effects of a self-care program including symptom management and self-monitoring for heart failure patients, patients who received a health literacy-raising intervention within the program had better outcomes than those who did not.<sup>4</sup>



## Assess Patient Readiness

Patients need to feel ready and able to make healthy changes in order to adhere to their treatment. A healthcare professional should take the time to establish whether a patient is motivated to change their habits and accept a new form of therapy.

### **In a positive and patient tone:<sup>17</sup>**

- Ask the patient about their understanding of their condition.
- Ask about their personal reasons and specific goals for wanting to recover or control their condition.
- Ask what you can do to help.
- If a patient is not ready to make change, it is best to educate them more on their condition and benefits of symptom management.
- If a patient is not sure if they are ready to change, remind them why change is important and educate them on the skills and tools to achieve behavior change.
- If a patient is ready to make changes to improve their health, help them to set goals, create a medication plan. Continue to motivate them and recognize their achievements during each visit.

## Patient Activation

Education and Counseling can help to individualize addressing a patient's barriers and provide the opportunity to address a patient's misperceptions about the management of their condition.<sup>16,24</sup> Education should include an assessment of a patient's knowledge, learning abilities, learning styles, cognitive level, and motivation.<sup>18</sup>

### **Education and counseling for patient and family/ caregiver should include:<sup>16</sup>**

- Normal symptoms vs. symptoms of worsening condition
- Self-monitoring
- What to do if symptoms increase
- Dietary recommendations
- Medications and possible side effects
- Management of activities and exercise
- Methods of decreasing risk, such as smoking cessation or weight control

### **Methods and Tools:<sup>16</sup>**

The teach-back method has shown positive results in patient self-management. Visual aids such as medication schedules have shown improving patient understanding, reducing in medication errors, and improving health outcomes.

# Symptom Management

## General Symptom Management Tips

Strategies for enabling patients to perform self-care related for recognizing of signs and symptoms include:<sup>16,7</sup>

- Provide a list of worrisome symptoms, including when it is necessary to contact the office or go to the ER
- Encourage patients to keep daily logs of weight, symptoms, exercise, and medications
- Refer the patient to a smoking, alcohol, or other substance abuse cessation program if needed
- Teach methods for monitoring fluid retention
- Provide written materials at an appropriate literacy level and in large font if necessary.



## Dietary Changes

In a study about heart failure patient misconceptions, patients did not realize that restricting salt intake can help relieve HF symptoms.<sup>6</sup> Patients may need clinician assistance to learn behavioral skills, adherence strategies, and overcome barriers related to a change in diet.<sup>16</sup>

### Dietary behavior changes:

- Follow basic healthy diet by eating fruits and vegetables, whole grains and protein.<sup>25</sup>
- Sodium should be restricted to less than 2 to 3 g daily.<sup>8,16</sup> Reading food labels, cooking at home, using spices herbs and other seasonings can help to reduce sodium intake.<sup>25</sup>
- Patients should manage fluid intake as needed.<sup>16, 6</sup>
- Alcohol intake should be limited to no more than 1 drink per day.<sup>16</sup>

### Clinicians should:

- Clinicians can teach patients how to make low-sodium choices while eating out<sup>6</sup>
- Identify high and low sodium foods.<sup>16,6</sup>
- Adapt low-sodium diet, acknowledging cultural and religious influences.<sup>16,6</sup>
- Supply patients with a daily sodium tracker.<sup>16,6</sup>



## Exercise

- Patients should manage their physical activities. This includes activities that are normal to daily living, activities related to work and leisure, exercise programs, and sexual activity.<sup>16</sup>
- Engaging in an exercise program has been shown to ease the rate of progression of HF.<sup>8</sup> In a study on the long-term effects of physical conditioning in patients with HF, exercise was associated with a reduction in the risk of hospitalization and death.<sup>8</sup>
- Exercise should be advised for all stable HF patients who are physically able. Exercise training should be used to compliment drug therapy and a healthy diet.<sup>8</sup>



- Patients and clinician's should identify strategies and methods for overcoming barriers and adhering to an exercise program.<sup>16</sup> Clinicians can provide patients with a pedometer for motivation.<sup>7</sup>

## Monitoring Weight

It is important for patients to weigh themselves and record their weight daily.<sup>20,8</sup> However, fewer than half of HF patients report doing so.<sup>20</sup>

Research demonstrates that increases in body weight of heart failure patients are associated with hospitalization for heart failure. Weight gain generally begins at least 1 week before admission for serious symptoms. If patients monitor their weight daily they can identify this high-risk period early.<sup>3</sup>

Patients may not understand that symptoms such as unintentional weight loss of 3 or more lbs and sudden weight gain of 3 or more lbs can indicate significant deterioration.<sup>20</sup>

Clinicians must educate patients on the importance of weighing themselves daily and what to do if they rapidly lose or gain weight.



Clinicians can provide patients with a large, digital scale and encourage them to place it in an unavoidable location and weight themselves at the same time every day.<sup>16,7</sup>

Physicians should also refer the patient to a dietician for weight reduction if necessary.<sup>16,7</sup>

## Patient Medication Management

Medication management includes ensuring that self-administered medications are safely and accurately administered.<sup>19</sup>

Patients and caregivers must be given information about what medication they are taking, a description of the method for administering it, expected actions and adverse effects, and the method for monitoring side effects. Follow-up should be used to monitor the treatment.<sup>19</sup>

Post-discharge medication management includes the initial evaluation of the patient's need for medications, the provision of a prescription, and ongoing medical monitoring/evaluation as necessary.<sup>14</sup>

### **Medication Management includes:**

- Medication adherence (system level definition)
- Medication reconciliation (system level definition)
- Optimal medication therapy (clinician-level definition)
- Health literacy (patient-level definition)



## Barriers

### Patient Barriers to Recognizing Signs and Symptoms

Potential barriers to symptom recognition include:<sup>6</sup>

- Lack of symptom monitoring
- Lack of understanding the significance of certain symptoms
- Belief that symptoms are not severe<sup>6</sup>
- Belief that symptoms are caused by medication or other conditions
- Lack of self empowerment: Patients may not know that they are capable of controlling their symptoms

Potential barriers to self care for HF patients include:<sup>20</sup>

- Mental illness
- Age
- Cognitive impairments
- Sleep disturbances
- Poor health literacy
- Issues with healthcare



## Patient Barriers to Receiving Care



Common barriers to patients receiving care for recognition of signs and symptoms include<sup>6</sup>:

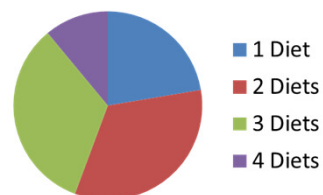
- Patients who recognize worsening symptoms often do not know how to obtain medical care outside of the ER and patients may want to avoid going to the ER.
- If patients try to get in touch with their physician, they may wait hours for a response or weeks to get an appointment.
- There are a number of doctors that the patient has seen and the patient is unsure who to contact.
- The patient might be too debilitated to go to their doctor's office.
- They may be concerned about the cost.
- They may worry about their continuity of care if they see a new doctor.

## The Effect of Comorbidities on Self-Care

Comorbidities effect patient self-care:

- Patients with HF and comorbidities might be taking over a dozen pills per day and don't necessarily understand what they are taking and why.<sup>20,23</sup>
- It can be more difficult for a patient with comorbid conditions to adhere to a low sodium diet because of dietary restrictions for other conditions.
- Symptom monitoring is more difficult when symptoms may be caused by another condition.<sup>20</sup>
- Patients might not understand how to manage their comorbidities or might not understand instructions on caring for all of them.<sup>20</sup>

**HF Patients Following Multiple Diets**



*One-third of HF patients are attempting to adhere to 2 different diets, one-third are attempting to adhere to 3 different diets, and 11% are supposed to be following 4 different diets.<sup>23</sup>*

## Facilitators and Interventions

### Multidisciplinary Teams

A Multidisciplinary team can ensure comprehensive support for patients and families throughout their stages of treatment and care.<sup>10</sup>

Team members for addressing recognition of signs and symptoms<sup>10</sup>:

**Physician**

**Nurse**

**Social worker**

**Occupational therapist**



## The Roles of Physicians and Nurses

### The role of the Physician :

Physicians can be a key source of support for HF patients. Many patients struggle with negative emotions and complexity of the self-care regimen. **Physicians have an important role in providing social support to patients and increasing their motivation to engage in healthy behaviors.**<sup>21</sup>

It is also important for the physician to **put HF patients in touch with social workers, counselors,** and other care providers that can provide support to the patient.<sup>21</sup>

### The role of the Nurse:

Nurses play a key role in patient education.<sup>1</sup>

In a study about cardiovascular disease, readmission rates were 4 times higher in patients who did not receive an education intervention from a nurse prior to discharge and in follow-up.<sup>1</sup>

The development of a trusting relationship of a patient with a nurse aids in self-care.<sup>1</sup>



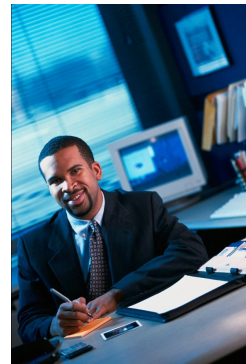
## The Roles of Social Workers and Occupational Therapists

### The role of the Social Worker:<sup>13</sup>

- Explaining health-care resources to HF patients and family/caregivers.
- Helping plan for post-hospital patient needs.
- Helping patients and families receive needed follow-up care and other resources.

### The role of the Occupational Therapist:<sup>12</sup>

- Customizing treatment programs so HF patients can carry out the activities of daily living.
- Providing information on adaptation to daily life with heart failure.
- Performing skill and knowledge assessments
- Guiding family members and caregivers

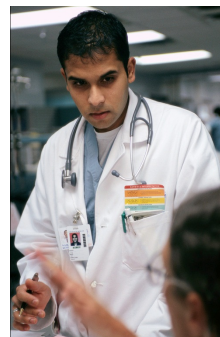




## Patient Interventions

## Provider Communication

- Healthcare professionals can address barriers by ***helping patients to understand HF symptoms, review treatment, and establish a positive relationship*** between patients and their healthcare providers.<sup>27</sup>
- Providers should, “***communicate in an empathetic, non-judgemental, collaborative way*** and ask open-ended questions.”<sup>17</sup>
- Studies show improved communication between providers and patients resulted in a 16% reduction in mortality, and a 31% decrease in HF related rehospitalizations.<sup>19, 22</sup>
- Providers should treat patients and family/ caregivers as partners and not pupils when communicating about care.<sup>19</sup>



## Patient Monitoring

- Patients should be encouraged to keep a daily log and record symptoms, medications, and diet and activities.<sup>25</sup> A flyer demonstrating heart failure zones and accompanying symptoms can prove helpful.<sup>9</sup>

HEART FAILURE ZONES	
<b>EVERY DAY</b>	<b>EVERY DAY:</b> <ul style="list-style-type: none"> <li>• Weigh yourself in the morning before breakfast, write it down and compare to yesterday's weight.</li> <li>• Take your medicine as prescribed.</li> <li>• Check for swelling in your feet, ankles, legs and stomach.</li> <li>• Eat low salt food.</li> <li>• Balance activity and rest periods.</li> </ul> <b>Which Heart Failure Zone are you today? GREEN, YELLOW or RED?</b>
<b>GREEN ZONE</b>	<b>ALL CLEAR – This zone is your goal</b> Your symptoms are under control. You have: <ul style="list-style-type: none"> <li>• No shortness of breath.</li> <li>• No weight gain more than 2 pounds (it may change 1 or 2 pounds some days).</li> <li>• No swelling of your feet, ankles, legs or stomach.</li> <li>• No chest pain.</li> </ul>
<b>YELLOW ZONE</b>	<b>CAUTION – This zone is a warning</b> Call your doctor's office if: <ul style="list-style-type: none"> <li>• You have a weight gain of 3 pounds in 1 day or a weight gain of 5 pounds or more in 1 week.</li> <li>• More shortness of breath.</li> <li>• More swelling of your feet, ankles, legs, or stomach.</li> <li>• Feeling more tired. No energy.</li> <li>• Dry hacky cough.</li> <li>• Dizziness.</li> <li>• Feeling uneasy, you know something is not right.</li> <li>• It is harder for you to breathe when lying down. You are needing to sleep sitting up in a chair.</li> </ul>
<b>RED ZONE</b>	<b>EMERGENCY</b> Go to the emergency room or call 911 if you have any of the following: <ul style="list-style-type: none"> <li>• Struggling to breathe. Unrelieved shortness of breath while sitting still.</li> <li>• Have chest pain.</li> <li>• Have confusion or can't think clearly.</li> </ul>

It is important that patients know who to call if they experience new or worsening symptoms. They can keep a physician contact card in a convenient location so they know who to call if necessary.<sup>25</sup>

Medical Contact:	_____
Telephone Number:	_____
Pager/Afterhours:	_____
Alternate Contact (if first contact is unavailable):	_____
Contact:	_____
Telephone Number:	_____
Pager/Afterhours:	_____

## A Comprehensive Intervention

A successful comprehensive intervention should include: <sup>17,16,1,11</sup>

- Identify and target patients who are at high risk for rehospitalization
- Assess and address patient factors that affect ability to engage in self-care
- Education about medication and symptom management
- Follow-up care and reminders
- Positive relationships with healthcare providers
- Patients are involved in the decision-making process
- Patients and providers work together to set goals
- Rewards for achieving goals
- Ongoing reinforcement, motivation, and support at every step in the health care system
- Social support, include family members and caregivers in education
- Self-care management training to increase the patients ability to understand and promote patient self-care
- Teach skills, don't just present information

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