

Acute Heart Failure Backgrounder

Overview

- Acute heart failure (AHF) occurs when patients with chronic heart failure (CHF) suffer critical episodes during which their symptoms become worse and urgent hospital treatment is required¹.
- The incidence of AHF is increasing in the United States and mortality rates remain high despite available treatments².
- Within one year after hospitalization for AHF, approximately 20-30% of patients die from various causes^{3,4}.
- There remains an unmet medical need for new treatments for patients with AHF⁵.

What is heart failure?

Affecting an estimated 5.7 million people in the United States², heart failure (HF) is a life-threatening disease in which the heart is unable to pump enough oxygen-rich blood through the body. As a result, the body has trouble functioning properly.

What is acute heart failure?

Without appropriate treatment, a patient's symptoms can suddenly become worse, often requiring urgent hospital admission¹. These episodes are called acute heart failure (AHF) and are also referred to as acute decompensated heart failure¹. Fluid rapidly builds up in the lungs and patients who have an AHF episode typically experience shortness of breath⁶. Other common symptoms of AHF include swelling of the feet, ankles and legs; congestion; and fatigue¹.

HF is a progressive condition and with each subsequent AHF episode the heart is damaged, contributing to a patient's decline¹. This downward spiral may lead to worsening symptoms and further emergency hospital admissions and increases the risk of early death¹.

Who is affected by acute heart failure?

In most cases, AHF arises as a result of deterioration in patients with a previous diagnosis of HF⁷. However, the diagnosis of HF can be difficult because many of its common symptoms are not specific to HF and often occur with other medical conditions¹. Therefore, patients may be misdiagnosed or not diagnosed.

How is heart failure diagnosed and treated?

There are two types of HF, chronic heart failure (CHF) and AHF. CHF is the long-term weakening of the heart's ability to pump effectively¹. To determine whether someone has CHF, a healthcare professional may collect good family history and conduct physical examinations, blood tests, chest X-rays, electrocardiograms (EKG or ECG), echocardiography ("echo"), exercise stress tests and/or cardiac catheterizations⁸. Depending on the outcomes of these screenings, the healthcare professional may recommend lifestyle changes, medications or surgery to treat HF and to help sustain quality of life⁹.

AHF is often diagnosed based on the symptoms a person has when they come to the emergency department or hospital, such as shortness of breath, congestion, fatigue, swelling of the feet, ankles and legs and fluid buildup in the lungs. The goals of treatment are to improve symptoms, especially reduction of the fluid in the lungs¹⁰.

A major burden for patients and healthcare systems

AHF is the most frequent cause of hospitalization in patients over 65 years of age in the United States¹¹. Death rates remain high² despite currently available treatments. In 2009, there were more than 650,000 AHF hospitalizations in the United States².

Not only is AHF a major burden for patients but it also represents an enormous cost to healthcare systems. The overall economic burden of HF in the United States was \$39 billion in 2010 and more than 50% of this cost was due to hospitalizations¹².

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