White Paper: The Value of the Home Health Solution for CHF and COPD

Congestive heart failure (CHF) and chronic obstructive pulmonary disease (COPD) are two of the most serious chronic health conditions affecting the rapidly growing population of older Americans. They have no cure and are among the leading causes of death in the United States. Both are progressive diseases that can last a long time and gradually reduce quality of life for the elderly. CHF and COPD cost the nation billions of dollars and account for a significant percentage of Medicare spending. Home health treatments and therapies can help patients to effectively manage these conditions at home, avoid unnecessary and costly stays in hospitals or other institutions, and live more actively and independently for as long as possible.

The information below, drawn from authoritative sources, gives a snapshot of this national problem and what home health providers are doing about it.

Overview
- An estimated 5.7 million Americans are living with heart failure and 670,000 new cases are diagnosed each year.
- In 2004, 1 in 8 death certificates (284,365 deaths) in the United States mentioned heart failure.
- COPD is a major cause of disability and the fourth leading cause of death in the United States. More than 12 million people are currently diagnosed with COPD, while an additional 12 million likely have the disease and don't even know it.
- CHF and COPD can take a significant toll on both patients and families, in terms of quality of life.
- CHF episodes cost Medicare almost $8.6 billion in 2005.
- COPD episodes cost Medicare more than $6.8 billion in 2005.

Home Health Solutions for CHF and COPD

Home health clinical teams, under directives from physicians, are able to help patients manage these conditions effectively at home, avoid unnecessary hospitalizations and save money for Medicare and other insurers.

What is Congestive Heart Failure?
Congestive heart failure, or CHF, is a common clinical condition that represents the last stage of a number of diseases affecting the structure and function of the heart. Most patients with CHF have impaired action of the heart's left ventricle, which is known as systolic CHF. Heart failure with preserved left ventricular function is due to impaired relaxation of the left ventricle with an increase in filling pressures. This is referred to as diastolic dysfunction with CHF. In simple terms, blood flow out of the heart begins to slow down in patients with CHF. As a result, the blood returning to the heart backs up. That is often followed by swelling -- known as edema -- in the arms, legs or other parts of the body. CHF patients can also experience a shortness of breath due to fluid buildup in the lungs. This is especially true when a patient is lying down. And CHF can even affect the kidneys by preventing them from their normal disposal of salt and water.
What is Chronic Obstructive Pulmonary Disease?
Chronic obstructive pulmonary disease, or COPD, is -- according to the National Institutes of Health -- a progressive disease that makes it hard to breathe. COPD can cause coughing that produces large amounts of mucus, wheezing, shortness of breath, chest tightness and other symptoms. With COPD, less air flows in and out of the airways of the lungs because 1) the airways and air sacs in the lungs lose their elastic quality, 2) the walls between many of the air sacs are destroyed, 3) the walls of the airways become thick and inflamed, or 4) the airways are clogged when excess mucus is produced. Most people who have COPD have both emphysema (in which the walls of many of the air sacs are damaged) and chronic obstructive bronchitis (in which the lining of the airways thickens due to being constantly irritated and inflamed, and the excess mucus that is formed makes it hard to breathe).

Cigarette smoking is the leading cause of COPD. While there is no cure for COPD, treatments and lifestyle changes can help patients feel better, stay more active and slow the progress of the disease.

How Demographic and Health Issues Relate to CHF and COPD
As the population ages, America continues to see a rise in chronic health conditions, such as CHF, COPD and accompanying disabilities. The U.S. population age 65 and over is expected to increase 77.5% between 2010 and 2030, according to the U.S. Census Bureau, adding another 31.2 million people to this age group in the next two decades. Today, approximately 13% of the U.S. population is 65 or over and this figure will increase to almost 20% by 2030.

The U.S. Centers for Disease Control and Prevention says that 80% of older adults have at least one chronic health condition and half have at least two. Chronic diseases cause 7 in 10 deaths each year in the U.S. More than 75% of healthcare costs are due to chronic conditions. Approximately one quarter of individuals living with a chronic condition experience significant limitations in daily activities.

Health Challenges of National Proportions
Both CHF and COPD are significant national health problems and serious issues for older Americans. According to the U.S. Centers for Disease Control and Prevention, diseases of the heart are the leading cause of death in the country, while chronic lower respiratory diseases are ranked fourth. The American Heart Association says that an estimated 5.7 million Americans are living with heart failure and 670,000 new cases are diagnosed each year. In 2004, 1 in 8 death certificates (284,365 deaths) in the United States mentioned heart failure. According to the National Institutes of Health, COPD is a major cause of disability and the fourth leading cause of death in the United States. More than 12 million people are currently diagnosed with COPD, while an additional 12 million likely have the disease and don't even know it.

Quality of Life Issues for the Elderly
Beyond the personal and medical costs, CHF and COPD can also take significant tolls on both patients and their families. Numerous national surveys have shown that most aging Americans prefer to live independently at home for as long as possible. CHF and COPD are both chronic conditions that can go on for an extended period of time. As either condition worsens, patients may find it difficult to perform physical tasks or may have other mobility issues. Those with advanced conditions may need assistance from family caregivers or other care providers to handle even simple tasks of daily living. If these conditions are not properly managed and monitored, they can cause patients to visit emergency rooms or be admitted to the hospital.
A Significant Cost to the Nation

The Medicare Payment Advisory Commission, in its publication, “A Data Book: Healthcare spending and the Medicare program, June 2009,” outlined the following financial impact of CHF and COPD on national health spending, based on the latest available figures (2005)^8:

- CHF ranked second among the 20 clinical episode groups that accounted for the greatest share of total Medicare spending on episodes. According to the report, Medicare covered almost 2.5 million CHF episodes at an average cost per episode of $3,437, or almost $8.6 billion in total. CHF consumed 4.3% of total Medicare spending on episodes.
- COPD ranked fifth among the 20 clinical episode groups. According to the report, Medicare covered more than 2.3 million COPD episodes at an average cost per episode of $2,955, or more than $6.8 billion in total. COPD consumed 3.4% of total Medicare spending on episodes.

Home Health Solutions

Home health programs treating CHF and COPD are becoming even more widely available around the country and they can be very useful adjuncts to the overall management of these conditions.

Doctors count on home health to improve outcomes for CHF because they can rely on nurses to perform the following functions:

- Monitor patient’s symptoms for signs of decompensation (deterioration) and intervene early to prevent full decompensation and hospitalization.
- Monitor and manage comorbid conditions (other health conditions that could have an overall impact on the patient), which are the causes of the majority of hospitalizations in patients with CHF.
- Educate the patient about diet, especially sodium intake, and about medications, their side effects and the importance of compliance.
- Empower patients to self-manage their conditions.

Close observation of weight and the presence of edema or pulmonary crackles (clicking, rattling or crackling noises in the lungs of patients with respiratory conditions) can be key to CHF patient management.

The goals of COPD treatment and management, according to the National Institutes of Health^9, are to:

- Relieve symptoms
- Slow the progress of the disease
- Improve the patient’s exercise tolerance (ability to stay active)
- Prevent and treat complications
- Improve the patient’s overall health.
Home health nurses can provide a host of critical services to COPD patients, including:

- Overall patient assessment, especially pulmonary status
- Patient education on disease process, monitoring, prevention and treatment
- Dietary knowledge and advice
- Use of oxygen in the home
- In-home self-monitoring and, where necessary, telemonitoring
- Assessment and education on performing daily activities in a safe home environment
- Identifying events/stressors that trigger symptoms and how to deal with them
- Teaching proper positioning to aid respiration
- Teaching oral hygiene and infection control
- Teaching medication management
- Teaching pain management measures
- Teaching and coaching on lifestyle changes
- Assessing the ability to follow a regular regimen to manage the disease.

Independent Research Supports Home Treatment and Management
A growing body of independent research continues to emerge on the success of home health in treating the elderly for CHF and COPD.

For example, a U.S. study by Avalere Health concluded that Medicare patients with chronic obstructive pulmonary disease, congestive heart failure or diabetes who used home healthcare within three months of being discharged from a hospital cost the program $1.71 billion less and had 24,000 fewer re-hospitalizations than similar patients that used other forms of post-acute care over a two-year period. The analysis also found that, if cumulated to the full set of Medicare beneficiaries in the study group that utilized other forms of post-acute care, the program would have saved an additional $1.77 billion.  

An Italian study, published in the Journal of the American Geriatrics Society, of more than 100 elderly patients admitted to the hospital with acute exacerbation of COPD showed that home treatment for these patients was more effective than inpatient care. The study concluded that “physician-led substitutive hospital-at-home care as an alternative... is associated with a substantial reduction in the risk of hospital readmission at six months, lower healthcare costs and better quality of life.”

The Conclusion
Home programs to treat, manage and monitor CHF and COPD can be highly effective in improving the patient quality of life, avoiding unnecessary hospitalizations and controlling national health expenditures.

Footnotes
7. http://circ.ahajournals.org/cgi/content/full/117/4/e25